

Advance Praise

For anyone interested in the evolution of our planning ethos – its inception and subsequent evolution – this is an inescapable book. It combines domain understanding, exceptional analytical skills and valuable historical perspective.

N. K. Singh, Chairman, 15th Finance Commission, and
former Member, Planning Commission of India

The book, written after curtains were brought down by a new government on the Planning Commission, is a collection of essays mostly by scholars and policy makers who ably served the erstwhile institution. The most striking contributions of this book are: first, it shows that countries at India's stage of development that abandoned planning paid a price; second, that the Asian countries that sustained economic growth with poverty reduction over several decades maintained their national planning apparatus in place; and third, that strategic and financial resource planning will remain central to India's achieving rapid growth while meeting the climate change challenges. We in India have to seriously pay heed to this important volume by Mehrotra and Guichard.

Vijay Kelkar, former Finance Secretary, Government of India,
and Chairman, Finance Commission

India's experience with economic planning is a vitally important, but frequently misunderstood, issue in development studies. This wide-ranging text sheds new light on India's past experience and argues persuasively for the way in which planning can serve the interests of the mass of the Indian population in the future.

Sir Peter Nolan, Founding Director, Centre of Development
Studies, University of Cambridge

The Indian Planning Commission may have been abolished in name, but the question of how best to guide both private and public sectors remains as important as ever. This book offers a unique blend of insights into past, present, and future options for economic governance in India and beyond. A scholarly review of economic planning – why, what, and how – is especially timely in an era of popular nationalist economic revivalism.

James Copestake, Professor of International
Development, University of Bath

To many in the West, economic planning is a misguided effort of the past, demonstrated by the failures of the Soviet Union. Most do not realize that all the dramatic economic successes of Asian economies owe much to combining planning with a heavy dose of capitalist and market approaches. In this insightful and critical study, the lessons of planning in India are brilliantly analysed, focused also on the challenges of the future. All countries, North and South, have much to learn from this well-documented book as they seek to grapple with the serious challenges of climate change and poverty reduction in the 2020s and beyond.

Sir Richard Jolly, Institute of Development Studies, Sussex

Planning in India is in a state of flux, with the demise of the old Planning Commission and its replacement, the NITI Aayog, still trying to find its feet. This valuable contribution looks back to the lessons that can be learned from the history of the Planning Commission, and looks forward to the challenges faced by NITI Aayog in a world in which the need for planning is itself being debated vigorously. It will prove very useful to both historians of thought and those engaged in current economic policy analysis in India and the world.

Ravi Kanbur, T. H. Lee Professor of World Affairs, International
Professor of Applied Economics and Management, and
Professor of Economics at Cornell University

Planning in the 20th Century and Beyond

The Planning Commission of India was founded in 1950, inspired by the socialist leaning views of Jawaharlal Nehru. Successive governments in the 1960s, 1970s, and 1980s continued working with it. In 1991, when the liberalization of the Indian economy began, the commission was not dissolved. Instead, it adjusted to changes and reinvented itself, moving seemingly from directive to indicative planning. The Planning Commission occupies an important place in the history of India and Indian development. It played a crucial role in the type of development that India observed following Independence. However, even if most economic analyses of India mention the five-year plans, the Planning Commission as an institution remains little studied.

This book looks backward, examining the history of the idea of planning and the history and experience of planning in India. It also looks forward, trying to evaluate, beyond ideologies, what role the practice of planning has, and should have, in contemporary India. It then proposes that the NITI (National Institution for Transforming India) Aayog, the think tank founded on 1 January 2015 after the demise of the Planning Commission, could learn from this experience.

The book addresses three leading questions: Why plan economic development? How to plan? What exactly can/should be planned? These questions are interrelated, and this volume proposes elements of replies. It is structured in three parts – Origins, Changes and Continuity, and Planning beyond the Planning Commission – and includes authors who have worked for the Planning Commission as well as those who hold senior positions in the current NITI Aayog.

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Planning in the 20th Century and Beyond

India's Planning Commission
and the NITI Aayog

Edited by

Santosh Mehrotra

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Abbreviations

AEA	American Economic Association
AEPZs	agro export processing zones
AICs	Atal Incubation Centres
AMRUT	Atal Mission for Rejuvenation and Urban Transformation
APMC	Agricultural Price and Marketing Committee
ASEAN	Association of Southeast Asian Nations
ASI	Annual Survey of Industries
ASSOCHAM	Associated Chambers of Commerce and Industry of India
BCD	basic customs duty
BIDS	Bangladesh Institute of Development Studies
BJP	Bharatiya Janata Party
bop	balance of payments
BPL	below the poverty line
CABE	Central Advisory Board of Education
CBI	Central Bureau of Investigation
CBOs	community-based organizations
CEO	chief executive officer
CGE	computable general equilibrium
CGIAR	Consultative Group on International Agricultural Research
CGST	central GST
CII	Confederation of Indian Industry
CIMMYT	International Maize and Wheat Improvement Centre
CM	chief minister
CNC	computer numerical control
CPIAL	consumer price index–agricultural labour
CPC	Communist Party of China
CSIR	Council of Scientific and Industrial Research
CSO	Central Statistical Organisation

CSS	centrally sponsored scheme
DIPP	Department of Industrial Promotion and Policy
DMEO	Development Monitoring and Evaluation Organization
DPEP	District Primary Education Programme
DPSU	defence public sector unit
DRC	domestic resource cost
DRDO	Defence Research and Development Organization
EC	Education Commission
ECA	Essential Commodities Act
ECD	economic corridor development
ECLA	Economic Commission for Latin America
EDB	ease of doing business
eNAM	Electronic National Agricultural Market
ERP	effective rate of protection
ESI	Employee's State Insurance
EU	European Union
EV	electric vehicle
FC	Finance Commission
FDI	foreign direct investment
FICCI	Federation of Indian Chambers of Commerce and Industry
FPC	farmer producer cooperative
FPO	farmer producer organization
FRBM	Fiscal Responsibility and Budget Management
FTA	free trade agreement
FYP	five-year plan
GCF	gross capital formation
GDP	gross domestic product
GFCF	gross fixed capital formation
GOI	Government of India
GST	goods and services tax
GVC	global value chain
<i>HDR</i>	<i>Human Development Report</i>
HRD	human resource development
HYV	high-yielding variety
IAS	Indian Administrative Service
IbIN	India Backbone Implementation Network
ICDS	Integrated Child Development Services
ICRIER	Indian Council for Research on International Economic Relations
ICRISAT	International Crops Research Institute for the Semi-Arid Tropics
IDA	International Development Agency

IDA	Industrial Disputes Act
IDS	inverted duty structure
IEO	Independent Evaluation Office
IES	Indian Economic Service
IMF	International Monetary Fund
IRRI	International Rice Research Institute
ISI	Indian Statistical Institute
ISI	import substitution industrialization
ISRO	Indian Space Research Organization
IT	information technology
ITC	input tax credit
JP	Jayaprakash Narayan
JRM	Joint Review Mission
KPI	key performance indicator
KVIC	Khadi and Village Industries Commission
LCD	liquid crystal display
LDC	less developed country
LSE	London School of Economics
M&E	monitoring and evaluation
MDGs	Millennium Development Goals
MFN	most favoured nation
MGNREGA	Mahatma Gandhi National Rural Employment Guarantee Act
MGNREGS	Mahatma Gandhi National Rural Employment Guarantee Scheme
MHRD	Ministry of Human Resource Development
MIS	management information system
MMDR	Mining and Minerals Development and Regulation
MMPO	Milk and Milk Product Order
MOF	Ministry of Finance
MoS	Minister of State
MOST	Management of Social Transformation
MP	Member of Parliament
MPCE	monthly per capita expenditure
MPS	multifaceted price system
MSME	micro, small, and medium enterprise
MSP	minimum support price
MTEF	medium-term expenditure framework
MUDRA	Micro Units Development & Refinance Agency Ltd
NABARD	National Bank for Agriculture and Rural Development
NBER	National Bureau of Economic Research
NCERT	National Council for Educational Research and Training

xvi Abbreviations

NCRB	National Crime Research Bureau
NDA	National Democratic Alliance
NDC	National Development Council
NDP	net domestic product
NDRC	National Development and Reforms Commission
NEP	New Economic Policy
NGO	non-governmental organization
NHDP	National Highway Development Programme
NIEPA	National Institute of Educational Planning and Administration
NIMZ	National Investment Manufacturing Zones
NITI	National Institution for Transforming India
NMCC	National Manufacturing Competitiveness Council
NMP	National Mineral Policy
NP	networked product
NPAs	non-performing assets
NSS	National Sample Survey
NSSO	National Sample Survey Organisation
OECD	Organisation for Economic Co-operation and Development
OSD	officer on special duty
PC	Planning Commission
PCR	PC Resolution
PEO	Programme Evaluation Organisation
PIT	personal income tax
PMGSY	Pradhan Mantri Gram Sadak Yojana
PMO	Prime Minister's Office
PPD	Perspective Planning Division
PPP	public-private partnership
PPP	purchasing power parity
PRSP	Poverty Reduction Strategy Paper
PSE	public sector enterprise
PSL	priority sector lending
QRs	quantitative restrictions
R&D	research and development
RBI	Reserve Bank of India
RKVV	Rashtriya Krishi Vikas Yojana
<i>RLER</i>	<i>Rural Labour Enquiry Report</i>
SDGs	Sustainable Development Goals
SEZ	special economic zone
SGST	state GST
SIDBI	Small Industries Development Bank of India

SIDO	Small Industries Development Organisation
SSA	Sarva Shiksha Abhiyan
SSI	small-scale industries/small-scale and cottage industries
SME	small and medium enterprises
STEM	science, technology, engineering and math
STI	science, technology and innovation
TELCO	Tata Engineering and Locomotive Company
TFP	total factor productivity
TNC	transnational corporation
ToT	transfer-of-technology
UDAN	Ude Desh ka Aam Nagrik
UDAY	Ujjwal DISCOM Assurance Yojana
UGC	University Grants Commission
UK	United Kingdom
UNCTAD	United Nations Conference on Trade and Development
UNIDO	United Nations Industrial Development Organization
UPA	United Progressive Alliance
US	United States
USSR	Union of Soviet Socialist Republics
VET	vocational education/training
WG	Working Groups
WIDER	World Institute for Development Economics Research
WPI	wholesale price index
WRIS	web-based information system
WTO	World Trade Organization

Planning for a 21st Century India

Sylvie Guichard and Santosh Mehrotra

In his Independence Day speech on 15 August 2014, Prime Minister Narendra Modi announced the demise of the Planning Commission (PC). A reader unfamiliar with Indian politics could be surprised to learn that the PC still existed rather than that it would be terminated.

Researchers often assume that institutions never die; they find a new mission. This was true for a long time about the PC. Founded in 1950 inspired by the socialist leaning views of Jawaharlal Nehru, the successive governments in the 1960s, 1970s, and 1980s continued working with it. In 1991, when the liberalization of the Indian economy began, the PC was not dissolved. In its own words, it 'respond[ed] and adjust[ed] to the changes quickly and creatively' (PC 1992: 1). Some analysts considered that the commission then moved from directive planning to prescriptive planning. However, criticism was growing. The commission was said, among other things, to be inefficient, to be a vestige of the Soviet style planning, and to propose always another version of the same plan.

The PC represents an interesting case of an institution that has survived radical changes (the liberalization of the economy) and whose end came suddenly, signalled in a few sentences. Shiv Visvanathan remarked in *The Hindu* on 26 August 2014 that

Mr. Modi dismissed and dispensed with the institution without a footnote of thanks. There was a sadness to his rank indifference. But politics cannot dismiss history. Planning was once a great idea, a wonderful fable of the dreams, even the arrogance of knowledge. It was a great experiment which became erratic, but its history, its genius, its innovations need to be told and told fully.

The PC occupies indeed an important place in the history of India and Indian development. Scholars agree that it played a crucial role in the type of development

that India followed after independence. However, even if most economic analyses of India mention the five-year plans (FYPs), the PC as an institution remains little studied.

This is why this book proposes to look backwards, examining the history of the idea of planning and the history and experiences of planning in India. It also looks forward, trying to evaluate, beyond ideologies, what role the practice of planning has and should have in contemporary India. It then proposes that the National Institution for Transforming India (NITI) Aayog, the think tank founded on 1 January 2015 after the demise of the PC, or any other institution charged with the responsibility of planning in any form, could learn from this experience. In fact, while the early part of the book looks back, its later part looks forward to whether India can do without planning, and if planning is necessary for India's development, and what kind. It proposes that the institution will need to reinvent itself. Among other ways, it needs to reinvent itself by supporting 'cooperative federalism', as enjoined by the Indian Constitution, by making grants to reduce the growing imbalances in development achievement of different states in the union, over and above the role of the Finance Commission. It also needs to reinvent itself to become the source of an industrial policy, in the absence of which India has already allowed manufacturing share in gross domestic product (GDP) and employment to stagnate. Such a large and complex economy, already since 2014 the world's third largest (in purchasing power parity terms), but still a developing country in the middle of its demographic dividend, needs a powerful and domain competent PC.

However, to begin with, and before turning to the structure of the book, it seems necessary to problematize the relationship between the PC and planning, development, growth, and democracy.

Planning, Development, Growth, and Democracy

Planning

Planning in a Comparative Perspective

Planning is a universally performed activity. Private sector firms plan for their growth.¹ States or state institutions plan as well. Town planning or planning for infrastructure is notably an expected state activity. States also plan economic development. John Hackett (2011) defines economic planning as 'the process by which key economic decisions are made or influenced by central governments. It contrasts with the laissez faire approach that, in its purest form, eschews any attempt to guide the economy, relying instead on market forces to determine the speed, direction, and nature of economic evolution'.

There are, however, different types of economic planning with varying degrees of government intervention on the economy. Taruna Rajora distinguishes 'planning by direction, planning by inducement, perspective planning, indicative planning, democratic planning, fixed planning, centralized planning and decentralized planning'.² The form of planning will differ if used for a capitalist system, a socialist one, or in a mixed economy.

Since the 1920s, the Soviet Union used economic planning. After the Second World War, most Western countries³ and most developing countries have practised some explicit form of economic planning. By the late 1960s, the majority of the world's countries conducted their economic affairs within the framework of a national economic plan.

In the 1980s, the dominance of neo-liberal thinking (marked notably by the first structural adjustment loans given by the World Bank to developing countries) gave the impression that economic planning as theory and practice was something of the past. The conditions imposed by the World Bank, together with its sister institution, the International Monetary Fund,⁴ resulted in the collapse of planning and planning institutions in many countries. The over-extended states of Latin America and Sub-Saharan Africa, which had over-borrowed either domestically or from international private/official lenders, easily succumbed and reduced the role of state planning in their economies.

Planning fell completely in disregard with the end of the Soviet Union in 1991. Indeed, for many observers, this failure was at least partly due to planning. Kafouros (2009: 527–528) writes:

Together with the collapse of the Union of Soviet Socialist Republics, every discussion and focus on research concerning other viewpoints of economic organisation of the society also collapsed. Capitalism, the dominant paradigm then, and the sole paradigm now, was once again hailed as the superior, or at least the only realistic, way to handle every socio-economic aspect of this planet's continuance. This loss of economic organisation discussion occurred as the administrative methods for running an economy, with foremost among them being economic planning, were inseparably linked to the collapse of the various People's Republics. In essence, they were held responsible for it leaving the theories of economic planning to fall into complete oblivion.⁵

Nevertheless, some Western countries continued to plan to some extent (notably France⁶), even if the impact upon national economic policymaking was much diminished. South Africa in Africa (which created a PC) and most South-East Asian and South Asian countries also pursued the practice of economic planning. In India, the PC devised 12 FYPs between its creation in 1950 and its folding up in 2014 (the 12th FYP was for 2012–2017).⁷

Remarkably, every East Asian miracle economy, since they became independent states after the Second World War, has had an uninterrupted series of FYPs, managed by a planning institution, with a well-defined economy-wide planning process (as Mehrotra argues in Chapter 14). China is a classic case, which despite its market-oriented reforms beginning in 1979, has had a State Planning Commission (renamed in 2003 the National Development and Reforms Commission [NDRC], which formulated its current 13th FYP). To a great extent, the institutional set-up in China for planning is similar to what could be seen in many other countries where government planning still has a significant role in economic affairs. However, there are noted differences. The NDRC is not only the planning agency for national economic and social development, at the core of the planning machinery, but its role also extends beyond the formulation of economic development strategies, FYPs, and annual plans. The NDRC has a central implementation role, in addition to which, as Zhi Liu (2004) notes, it is part of the top policymaking mechanism. It has been the primary think tank on development policy for the Communist Party of China (CPC) and the State Council (that is, its cabinet of ministers).

Similarly, in Japan, South Korea, and Taiwan, the successful examples of East Asian development, the state played a critical role in resolving what institutional economics calls 'coordination failures' by facilitating and complementing private sector coordination. In these cases, the state

intervened in the capital market sometimes in subtle but decisive ways, using regulated credit allocation (sometimes threatening withdrawal of credit in not-so-subtle ways) in promoting and channeling industrial investment, underwriting risks and guaranteeing loans, establishing public development banks and ... nudging existing firms to upgrade their technology and to move into sectors that fall in line with an overall vision of strategic development goals.... The East Asian state created opportunities for rents [for private firms] conditional on performance or outcome (in mobilization of savings, commercialization of inventions, export 'contests', and so on). (Bardhan 2001: 253–254).

How to Plan in a Market-driven Economy?

One concern often expressed about economic planning is: how does one plan in a predominantly market-driven economy? A planned economic development is not opposed to a market economy. Indeed, most modern economies are mixed economies incorporating various degrees of markets and planning. This was true of all the East Asian ones, as well as European ones that have been used to state intervention from the beginning of capitalism itself. As Polanyi says: 'While

the *laissez faire* economy was the product of deliberate state action, subsequent restrictions on *laissez faire* started in a spontaneous way. *Laissez faire* was planned; planning was not' (1944: 141).

The Indian economy after independence was a mixed economy. As Radhakrishna and Panda explain (2006: 4):

Accounting for about half of the capital formation in the economy, the government sector directly played a major role in the production process of the country for several decades. In the agricultural sector, private producers took most production decisions with government's role limited to infrastructure development.... In the manufacturing and service sectors, state played a commanding role by owning and operating many industries on its own and by regulating private investment through the licensing instrument for establishment of new industries.

With this mixed economy model, public and private sectors coexisted in India, but the government assigned to the state's planning machinery a central role for resource allocation across sectors.

The PC was then to design a strategy to attain this aim. However, as Byrd (1990: 716) remarks, 'by the late 1980s the planning process was perceived by many to have become largely irrelevant, with the PC reduced to the role of an allocator of public investment funds and a vetting agency for large investment project.' According to Bird, the strategic thinking function had disappeared. This changed again significantly by the early 2000s, and especially so by the time the 11th Plan (2007) was being formulated. Both the 11th and 12th Plans had already articulated a clear vision again, by focusing on (a) inclusive growth, (b) environmental sustainability, and (c) an industrial policy.

Besides, as several chapters in this volume outline (see Raj, Nayar, Nachane, Alagh, Sen, and Mehrotra), most of those functions still need to be performed and, to begin with, planning itself is needed. Thus, as Pronab Sen remarks (in Chapter 13), even if the government avoided the term 'plan', it nevertheless charged the NITI Aayog with developing a fifteen-year vision, a seven-year strategy and a three-year implementation framework. Of the three, the last was indeed prepared in 2017, but neither of the first two ever saw the light of day. However, as of late 2019 a fifteen-year vision document to 2035 is again under preparation.

Development and Growth

The Indian contribution to 'planning theory and techniques' (in the words of Chakravarty and Bhagwati 1969: 3) was considerable. In fact, Byres (1997: 14) notes that

Indian planning was remarkable in the early use that was made of planning models, the sophisticated development of those models which planning engendered, and in the extensive utilization of such models with respect to plan *formulation*. Previously such models had been employed in the Soviet Union. But India was the first contemporary economy to employ them.

In fact, Rudra (1985: 758) outlines: ‘Planning models constitute an area in economic model making where India has the distinction of having made contributions at par with work done anywhere in the world.’

The objective of planning was economic and social development.⁸ The First FYP stated:

The central objective of planning is to create conditions in which *living standards are reasonably high* and all citizens, men and women, have full and equal opportunity for growth and service. We have not only to *build a productive machine* ... we have at the same time to *improve health, sanitation and education* and create social conditions for vigorous cultural advance. Planning must mean coordinated developments in all fields. (PC 1952: 29; emphasis added)

The broad objective remained the same over the years – economic and social development – but the focus and means changed. Let us evaluate the performances of planning in respect of this ‘central objective’ of ‘living standards’, building the ‘productive machine’, and improving ‘health, sanitation and education’. Living standards had been stagnant for much of the first half of the 20th century; by comparison, the growth rate of GDP that was achieved during the first five FYPs (1951–1952 to 1979–1980, which included three Annual Plans from 1966–1967 to 1968–1969 and 1979–1980) could be seen as reasonably good: 3.5 per cent per annum (famously called the Hindu rate of growth by economist Raj Krishna). This was nevertheless much lower than the GDP growth being achieved in East Asia, though not much different from that of China over the same three decades. However, living standards also imply evaluating the performance on poverty reduction. India inherited a total population of 330 million at independence in 1947. The population growth on the one hand, which was rising at an increasing rate until 1981, and the slow GDP growth on the other hand resulted in a very sharp increase in the absolute number of poor (as defined in the PC itself, by the Lakdawala poverty line).⁹ In other words, there was very little success in poverty reduction in the first 30 years after independence,¹⁰ but much greater success was achieved starting late during the 10th and 11th Plans (Mehrotra 2016). GDP growth soared to an unprecedented 8 per cent per annum (2003–2004 to 2013–2014), and for the first time ever the number of poor fell from 406 million to 268 million over the period from 2004–2005 to 2011–2012 (based on the higher Tendulkar poverty line).

Let us turn to the objective of ‘building the productive machine’ – since the poverty reduction and production spheres are linked. Indeed, success in the latter determines success in the former; if output and incomes grow, it will positively affect poverty. In this domain, there were two main successes. The first was in diversifying the industrial base. As Ahluwalia (1997: 255) notes: ‘In 1956 consumer goods accounted for 50% of industrial production; by 1980–81, their share fell to 30%, and that of capital goods increased from less than 5% in 1956 to 15% in 1980–81. The second success was the “overall resource mobilisation in Indian planning.”’ According to the World Bank’s *World Development Reports*, for low-income countries on which savings data was available for the first half of the 1980s, India was in the top end of range, and only in China and Indonesia was the savings rate higher than in India (though this was largely the contribution of the private sector, while public savings were negligible) (Ahluwalia 1997).

However, there were also multiple failures of planning in the sphere of ‘building a productive machine’. The Mahalanobis model that was the basis of the import substitution industrialization (ISI) strategy adopted in the Second Plan (1956–1961) neglected the role of foreign trade. As Ahluwalia rightly remarks, there was no reference in the ISI strategy to relative cost. In addition, the model assumed that the government would have total control over consumption. Besides, there was the assumption that the capital goods sector will generate surpluses and contribute ‘increasingly towards resource mobilisation for further development in fresh fields’ (as stated in Industrial Policy Resolution, 1956). This was the Indian plan strategy for industrialization.

All these proved costly assumptions in hindsight but the first one was the most costly. The import intensity of industrialization was seriously underestimated, and lack of foreign exchange became an inevitable constraint. Exports remained low and could not finance industrialization on the basis of imported equipment. Just when the East Asians were taking advantage of growing post-war international demand, India’s policymakers’ export pessimism, and over-reliance on import substitution even when relative costs did not justify it, proved the undoing of India’s planning strategy. Export pessimism was the basis of it (under the influence of the Prebisch-Singer thesis on declining terms of trade for developing countries). This strategy of industrialization came with limited absorption of labour and also slow enlargement of consumer goods supply in the short and medium run. Moreover, as Ahluwalia (1997: 260) points out:

In course of time as it became more and more obvious that the premise of export pessimism for the developing economies was proving to be not true, many of the developing economies changed their course early to mid-sixties. India along with Latin America, however, persisted in export pessimism until for India it became a self-fulfilling prophecy.

She rightly notes the disregard of the infant industry argument, which would have allowed setting limits of duration and also rate of protection as instruments. Rather, what happened was that protection was granted to 'whichever industry set up indigenous capacity, without any regard for domestic and foreign production' (Ahluwalia 1997: 270).

To build a productive machine, planning emphasized, since the first FYP, the importance of small-scale industry (SSI) for industrialization. The PC justified this position with three reasons: (a) the cottage and village industries (especially handlooms/handicrafts) would generate employment, (b) it would check concentration of economic power, and (c) it would ensure regional dispersal of industry. The small was to be promoted, and the growth of the large checked through licensing of production. While the first three plans focused on the 'promotion' of SSIs, from 1967 the policy of reservation of products for SSIs was introduced; in other words, the attention shifted from promotion of SSIs to their 'protection' from competition of the large enterprises. The Fourth FYP (1969–1974) emphasized the need for the existing reservations to be continued. The reservation of products increased to 836 products by 1991. The financial incentives to SSIs discouraged them from growing. This resulted in the 'missing middle' in Indian industry (Mehrotra et al. 2014).

This also caused – and the consequences on the economy were serious – a growing informality in both industry and services. Instead of the small becoming medium sized over time, millions of micro-enterprises emerged, and worse still, persisted in informality. They are partly servicing local markets and partly providing inputs and services to small and medium enterprises (SMEs). They are all unregulated and totally outside the tax net. They rely on low-technology, offering low wages, and caught in a low-productivity, low-level equilibrium trap. The correct instrument would have been encouraging an integrated policy to develop the small-scale as well as large-scale industry, as suggested in the Second and Third Plans (1961–1966), which was endorsed in the Sixth (1979–1984) and Seventh Plans (1984–1989). However, this strategic approach (which characterized the Japanese miracle) was never really followed.

The role of planning in the regional dispersal of industry (to reduce relative backwardness of certain regions) was also not very successful, again because the instruments used were inappropriate. Ahluwalia (1997) considers that, in this regard, the approach of the Second and Third Plans was correct in emphasizing the building of infrastructure as a means of dispersal of industry. But that approach gave way to industrial licensing as an instrument of dispersal, and even worse, use of financial incentives in the Fourth Plan (1969–1974) as a means of drawing industries to backward areas. Yet, in the absence of infrastructure in such backward areas, this measure was unlikely to succeed. In fact, what has transpired is the

emergence of considerable divergence in development patterns in India between the southern and western states on the one hand, and the northern and eastern states on the other. We return to this divergence between levels of development of states in Chapter 12, since this is a critical issue that current and future planning must address.

Finally, let us turn to the role of planning in ‘health, sanitation and education’. In this area, the planning strategy was particularly weak. Drèze and Sen (2013) have chronicled these sectors for decades, and their conclusions highlight that another planned economy (China) managed over the first three decades of planning (1949–1979) to ensure social indicators far exceeding those of India. Here again, in India, the strategy was either weak or the instruments misplaced. Sanitation was neglected, despite the fact that India by 2014 had half its population defecating in the open; in fact, 60 per cent of the total population of the world defecating in the open lived in India, although India accounts for only 17 per cent of the world’s population. One outcome of this situation is that oral-faecal contamination is rampant, resulting in the worst child and adult malnutrition rates anywhere in the world, including Sub-Saharan Africa, which has per capita incomes well below those of India. In 2015–2016, the child malnutrition rate was still 36 per cent, stunting was 39 per cent, and India accounted for half of the world’s undernourished children. Similarly, the adult malnutrition rate was 21 per cent. Government expenditure on health still accounted for merely 1.15 per cent of GDP in 2017. How little emphasis has been laid on planning for human capital formation is indicated by the fact that India’s population of illiterates was nearly as large in 2011 (310 million) as the total population of India in 1947 (330 million) (see chapter on educational planning in this volume, by Sudarshan, Chapter 5).

It would be unfair to blame the PC *per se* for these outcomes. The PC became the fulcrum for social policy particularly after 1991, when growth enabled total tax revenues to rise, thus making it possible to ramp up social expenditures. The growth of Plan expenditures on centrally sponsored schemes (CSSs)¹¹ reflects this. In fact, rural development schemes (the National Rural Employment Guarantee, the Tribal Sub-plan, and the Scheduled Caste Sub-plan) and the health/education CSSs became a mainstay of centrally driven social policy across the country. The PC designed these CSSs in discussion with the line ministries. These social schemes, however, had their own problems, given that they were following a ‘one-size fits all’ design for the whole country, despite the fact that over the decades, a divergence in performance in social outcomes grew between the states.

Unfortunately, however, this enhanced role of the PC in the social sphere came only after the 1991 economic reforms, but after the reforms, the more powerful economic ministries (including finance) took centre stage. In fact, this is regrettable, since human development is the outcome of the synergy

between different interventions in health, nutrition, family planning, water and sanitation, and education (Mehrotra and Delamonica 2007; Mehrotra and Jolly 1997; Mehrotra 2016). Coordination failure in social policy undermines human development outcomes and human well-being. This is a role that a revived PC (or NITI 2.0) must be prepared to undertake.

However, the PC cannot be held responsible for the failures of development in India. This is because while planning is performed by the state, to assume that the success or failure of planning can be separated from the nature of the state is to take an overly and narrowly instrumental view of planning. For the state to undertake planning on behalf of the society assumes a degree of relative autonomy; but at the same time, the planning institution is itself part of an institutional ensemble of the state, which was engaged from the beginning in state-driven capitalist transformation of the economy. However, India's planners, and government as a whole, clearly failed to recognize the role that the state had historically played in respect of human capital formation in advanced capitalist economies, as well as in post-1919 Soviet Union and post-1949 China.

Moreover, the PC had limited powers from the beginning. Vivek Chibber (2006: 151–152) writes:

At the end of the day, then, the appointment of the Planning Commission did not signal a restructuring of the state apparatus in order to facilitate economic planning, as originally hoped. To the contrary, the PC had to accommodate itself to the existing structure of the state – the PC was simply added to the existing set-up as another of its component parts.... Meanwhile, the actual centers for administering and implementing industrial projects were left exactly where they were: budgeting remained with finance, trade with commerce, and so forth; what is more, the jurisdiction over industries was even more scattered: for example, power of the textile and jute industries was strongly guarded by the Commerce ministry because of their importance as exports....

Yet, despite its structural or institutional limitations, the PC benefited from two periods of influence: the first was during its first 15 years of existence with its industrialization-led strategy. However, this strategy created imbalances and the seeds of its destruction. Agriculture remained neglected. From the 1970s, through the 1980s and at the beginning of the 1990s, the PC continued to work but it had lost substantial influence and its good reputation (see Guichard, Chapter 2). Somewhat astonishingly, in the 1990s, the PC found a second life as an instrument of social policy (on this second phase of influence during the 1990s, see Sudarshan, Chapter 5). Its role was not industrialization any more – that was handed over to the private sector – but filling the infrastructure and social development gap (this dropping of industrialization from the strategy is strongly criticized by Mehrotra in

Chapter 11 of this volume). In this period, it acquired at least as much significance for social development as it had for industry in the first 15 years after independence. It did this notably through the expansion of the CSSs.

Democracy

In the 1970s, Francine Frankel in her book on India's political economy underlines what she calls the 'paradox of India's political economy'. She describes it in these terms:

India's leaders had committed themselves to carry out basic changes in the pattern of economic and power relations as an integral part of development. At the same time, they were equally determined to avoid the political cost of a direct attack upon the existing social order. The basic question ... was whether there could be any method of transforming the established pattern of wealth, status, and power other than frontal assault on the beliefs and structures that had institutionalized – and sanctified – a rigid social hierarchy. (Frankel 1979: 5)

In other terms, she asks how could there be inclusive development or inclusive growth and democratization of the social structure without a violent revolution.

Partha Chatterjee, in his oft-quoted criticism of the PC published in the 1990s, partially replies to this question. According to him, planning took away economic decisions from public scrutiny:

The very institution of a process of planning became a means for the determination of priorities on behalf of the 'nation'. The debate on the need for industrialization, we may say, was politically resolved by successfully constituting planning as a domain outside 'the squabbles and conflicts of politic'. As early as the 1940s, planning had emerged as a crucial institutional modality by which the state would determine the material allocation of productive resources within the nation: a modality of political power constituted outside the immediate political process itself. (Chatterjee 1998: 275–276)

In line with Chatterjee's argument, observers often point to the status of the PC. It is neither a constitutional body (it was not created by the Constitution) nor a statutory body (it was not created by an act of parliament). It was indeed set up in 1950 through a Cabinet resolution. For some (see Chatterjee 1998 above), this was done purposefully to remove an essential part of the development policy from public scrutiny. For others, the reason was practical, as Paranjape argues (1990: 2479):

The question whether the Planning Commission should be merely a body created by an executive order of the government of India, or it should be established under

a statute making use of the relevant constitutional provision in the concurrent list, was debated even before the initial appointment of the commission. The decision in favour of the former alternative was apparently taken mainly on the ground that it was a new experiment which was being undertaken, and therefore such a course would provide the necessary flexibility to facilitate changes and adjustments suggested by experience. Whatever the reason behind the PC status, the fact remains that critics pointed repeatedly at its ad hoc status that protects it or removes it from democratic control.

It can be interesting to mention here Frank Vibert's argument in *The Rise of the Unelected* (2007). This author begins by observing that, in modern democratic societies, some public policy areas are increasingly and repeatedly transferred to unelected bodies. He then wonders if this 'transfer of public power from elected politicians to unelected officials' represents a danger to democracy. His reply is that they do not as long as the choice of values to be reflected in public policy rests on elected bodies and that unelected bodies deal with the empirical component.¹² Pronab Sen argues in the same direction in this volume, emphasizing that framing the vision is the mission of the government and then only planners determine the strategy to realize this vision. This is a particularly prescient statement, given that the latest *Strategy for New India at 75* (NITI 2018), prepared by NITI as a 'strategy' until 2022, when India celebrates 75 years of independence, seems to lack precisely such a vision.¹³

The Role of the Elite in Planning

In section titled 'Planning, Development, Growth, and Democracy', we had discussed the question of coordination failure that characterizes most developing country states; addressing coordination failure is one of the strategic functions of planning. Some may consider that such coordination may be too difficult for the administrative/institutional capacity of states in Sub-Saharan Africa, Latin America, or South Asia. However, we would argue that institutional economics will be better off if we were to put forward a more sophisticated theory of the state, beyond, as Bardhan (2001: 254) says, 'the oversimplifications of either the Marxist theorists's class-driven state or the public choice theorists's rentier or predatory state'. In the majority of developing countries (including late industrializers like Japan), the elite which drove state-led industrialization was not merely self-interested, but also felt a nation-building mission after the colonial experience.

A more difficult question is whether the Indian elite, especially the technocratic/bureaucratic elite who run policymaking, can be as remarkably insulated as that elite was in successful East Asian states. However, African and Latin American states ran planning institutions and successfully implemented

state-led import substituting industrialization strategies for three decades after the end of the Second World War. Evans (1995) emphasizes that this insulation is possible where the Weberian characteristics of internal organization of the state bureaucracy are met, on account of the very selective merit-based recruitment and long-term permanent nature of their jobs/careers in the bureaucracy. The Indian bureaucracy certainly meets these features: once recruited, an officer of the Indian Administrative Service and other services are regularly promoted (primarily based on seniority rather than performance, an issue to which we return in the last chapter). The democratically elected politicians to whom they report cannot fire them (even though they can make life difficult by frequently transferring officers to less attractive positions or locations). Given the will, the swearing on oath to uphold the values of the Indian Constitution when commencing service has historically been seen as a commitment to the values inherent in the Constitution. In other words, the combination of a nation-building mission and technocratic insulation, along with their permanent character (unlike the political leaders who are elected only for five years), does make for a potentially powerful state apparatus that can implement nation-wide planning even in democracies (not just in authoritarian states like China or erstwhile Japan or South Korea). The political elite may articulate a vision for society, but the implementation is in the hands of technocracy/bureaucracy.

However, we should be realistic and note that planning in socially heterogeneous and culturally diverse societies like India is less likely to succeed than in more culturally homogeneous societies like China, South Korea, Taiwan, or Japan as collective actions in general are more difficult to organize (Olson 1965). Moreover, East Asian states ensured a relatively egalitarian access to land assets and human capital, making it easier to enlist the support of social groups to coordinate growth-promoting policies. The opposite situation prevails in much of South Asia.

Can this problem in more heterogeneous states like India be overcome? The successful outcomes of planning at least in the first 15 years of planned industrialization in India suggest that the difficulties of coordination are not insuperable. In other words, there is demonstrable evidence a nation-building mission in the technocratic elite, as well as the relative insulation of this bureaucratic elite, will continue to ensure that coordination through planning can succeed.

If this is indeed the case, then Indian academics and policymakers need to study technocratic planning methods in the classic case of planning success in the last half century: China. The Chinese way, to put it in the simplest way, is a top-down and bottom-up process. The planning system has developed a long tradition for data collection, cross-country benchmarking, field investigation, expert consultation, and pre-feasibility studies. Technical data on topography, geology, and morphology are readily available. NDRC and other ministries often

carry out fact-finding field investigation and research on a need basis. When issues are emerging, the planners visit the local areas, often for weeks or months, to see with their own eyes what actually is happening. Sometimes, NDRC and several relevant ministries conduct the investigations jointly. The investigation reports are often channelled to the top leaders. Similar fact-finding investigations are fielded regularly as part of the policy implementation monitoring process.

At the core of the planning process is the balancing act to synthesize and prioritize investment plans proposed by line ministries and sub-national governments and to link them with the budgetary process undertaken by the Ministry of Finance (MOF). This is known as the 'synthesis and balance' process. The principle is to treat the process as a chess game in which each move is to serve the ultimate goal of winning the whole game (Zhi Liu, 2004).

The chess game principle, easier to say than to do, is made possible by the clear line of command within the planning machinery. Under the strong leadership of the CPC and State Council, the macro-economic management agencies – NDRC, MOF, and Peoples Bank of China – work closely in the planning and budgeting process. In fact, NDRC has a department in charge of finance matters, and the office buildings of NDRC and MOF are 'strategically' located next to each other, and the People's Bank of China (the central bank) office is only several blocks away. They maintain frequent dialogue and share their understanding of national policies and development priorities. They argue over specific issues, but at the end, compromise is always reached, sometimes through the intervention/guidance of the higher leaders, and sometimes through sheer pragmatism.

There is no reason for Indian policymakers to doubt that India could do the same. We are not saying that there are no issues with the capabilities of the Indian technocratic/bureaucratic elite to deliver on effective implementation of a plan (this is in contrast to China), provided the political leadership is committed to a planning vision at the highest level. Those issues are addressed at the end of this book (Mehrotra, Chapter 14).

Organization of the Book and Chapters

This book addresses three leading questions: 'why planning economic development?', 'how to plan?' (through which institutional settings), and 'what exactly can/should be planned?'. These questions are interrelated and the contributors of this volume, each with their own focus, propose elements of replies.

This book is structured in three parts: the first part addresses the history of planning and of the PC. It shows that the replies to our three questions have a history, linked notably with the history of ideas and more precisely with economic history.

In Chapter 2, Sylvie Guichard explores how scholars from different disciplines have studied the PC from its foundation in 1951 until its dissolution in 2014. She develops two main arguments from the study of the literature: first, scholars have devoted a lot of attention to planning and to the FYPs but the PC *as an institution* has been little studied; second, the PC has been ‘questioned’ and studied in different ways over time by scholars from various disciplines, notably economics, development studies, and history.

In Chapter 3, Niranjan Rajadhyaksha shows that the choice to set up the PC in 1950, far from being a sudden decision, was rather the culmination of a long process of internal debates. His chapter examines the arguments that the Indian Congress Party, pre-independence political economists, and the British developed between 1860 and 1930 concerning the necessity of state-led industrialization. It then analyses why – once the necessity of state-led industrialization was accepted – the way chosen to industrialize was planning.

In Chapter 4, Shruti Rajagopalan explores the various economic ideas in the early 20th century that may have contributed to the formation of the PC of India in the 1950s. This chapter reviews the debates on economic ideas in the early 20th century around the world and connects these ideas and debates to the Indian intellectuals and nationalists during the first several decades of the 20th century.

The second part of the book examines more directly the last two questions (‘how to plan?’ and ‘what exactly can/should be planned?’), but the why always remains in the background). This brings us to the question of changes and continuities. It touches upon an important interrogation (brought about by new institutionalism but not only) on how institutions change (see, for example, Middendorf, Shultz and Unger 2014).

In Chapter 5, Ratna Sudarshan examines which role the PC played in shaping education policy. She shows that the PC played an important role in two periods: first in the 1950s and 1960s in influencing the educational architecture that developed post-independence and then in the 1990s with the strong support it gave to proposals for greater private investment in education. In between these two periods, it is more difficult to find a clear ‘PC’ influence separated from the thinking of education experts and the Ministry (later Department) of Education.

In Chapter 6, Ramesh Chand presents what he sees as the main challenges to planning for agriculture in India: how to sustain agriculture growth without letting food prices rise beyond acceptable limits and how to incentivize farmers to raise production without causing hardship for consumers? He argues for alternatives to the current approach to achieve this twin goal of high growth and low food inflation but it requires a different strategy and new vision for agriculture.

In Chapter 7, Baldev Raj Nayar analyses the major changes in India’s planning process over the years 1991–2015. During these years, the PC sought to adapt itself

to the challenges emergent from economic liberalization. There were therefore elements of discontinuity with the previous regime. However, what Nayar shows is that the central task of the PC remained with the institution after economic liberalization. He argues that the key driver in the change in economic planning has been not any particular deficiency in the PC, which could not be remedied, but the cumulative increase in power of the states.

In Chapter 8, Dilip Nachane outlines the different stands of thought that fed into the Indian experience of planning. He shows that between 1950 and 1990, despite the changes in the emphasis of the planning strategy, the PC was engaged in fulfilling five main functions. This author argues that the fivefold mandate of the PC remains relevant in a market-dominated economy.

In Chapter 9, Yoginder K. Alagh discusses the need of an agency to work on the policy aspects of development issues of a long-term nature. He then examines this in the case of perspectives of demographic and skill formation issues, the long term perspective on water, the long term perspective on energy, and the need to take a holistic view of development policy.

The third part of the book addresses the three questions in their contemporary relevance and significance: why planning in the 21st century, how to plan now that the PC has been dismantled, and what can be planned. The disciplinary background of the contributions in this part is the macro economy.

In Chapter 10, Bibek Debroy and Dhiraj Nayyar focus on manufacturing policies and the PC. The authors first attempt to reiterate the importance of manufacturing for India's future economic trajectory. Then, they seek to place India's experience and future trajectory in the context of the planning process. They argue that while the second FYP plan in 1956 laid down the path for industrialization (and its less than fulsome success), the abolition of the five year planning process (and indeed the PC) and the evolution of a new decentralized and less interventionist governance philosophy circa 2014 may finally create the conditions for a more robust employment-intensive industrialization.

In Chapter 11, Santosh Mehrotra presents the case that manufacturing, backed by an industrial policy, must be the cornerstone of planning for a 21st century India. He first deals with the theoretical and empirical reasons as to why an industrial policy, backed by a strong policy planning framework, is a *sine qua non* for India's economic transformation before its demographic dividend runs out by 2040. He then lays out the specific dimensions of the industrial strategy that can be instrumental in implementing this strategy. He argues that a new, revived, and much stronger PC (or its equivalent institution) is needed to realize the potential of an industrial policy.

In Chapter 12, Santosh Mehrotra reinforces his argument of the previous chapter, by making the case for strengthening planning in the 21st century

because of the need for long-term and medium-term fiscal planning to realize the goal of sustained public investment by the union and state governments. He discusses the adverse consequences of a fiscal deficit that has been characteristic of government budgeting, especially since the early 1980s. He also examines how government consumption has been a major source of persistent deficits. He shows how it is the union government where the problem has been concentrated in the past, and that the states have been much more disciplined, and hence sustained public investment. Finally, he makes the case that the financial allocation function of the PC, which NITI does not have, should be restored if NITI's voice is to be heard by the state governments. He also briefly discusses the issue of the optimal size of the Indian state (defined as the public expenditure/GDP ratio) over the next couple of decades of the 21st century, which should guide the fiscal planning function in the governments of India.

In Chapter 13, Pronab Sen looks back at six decades of planning. He shows – analysing the 12 successive plans, their innovations, successes, and failures – that even if planning can be a technocratic and bureaucratic exercise, it was most successful when it was based on the implementation of a strong political vision. Sen draws lessons for the future and for the NITI Aayog, as even if what this institution does is not called ‘plans’, its fifteen-year vision, seven-year strategy, and three-year implementation framework seem close to it. For Sen, the NITI Aayog should not articulate the vision. A strong *political* vision should be articulated by the highest political level and then only leave the strategic thinking to the technocrats.

In Chapter 14, the concluding chapter, Mehrotra discusses what a new future super NITI 2.0 would look like. He makes theoretical and empirical arguments to show why India still needs planning even more than before. He goes on to discuss the functions that the erstwhile PC performed, what the current NITI does, and what should be the functions in a planning institution in a country of India's size in a changing global economy in the 21st century. Finally, he indicates, based on the experience of being a former insider in the PC, how the new planning function in India should be structured in terms of organization and human resources for it to execute those functions effectively.

Notes

1. John Kenneth Galbraith (1967) describes large private corporate firms as mini-planned corporate economies. J. Bradford DeLong (1997) compares corporations with planned economies.
2. For the description of each type, see Rajora (no date); on indicative planning in France, see (Loriaux 2003: 102–107) and Hall (1986: chs 6 and 7).

3. See Grabas and Nützenadel (2014); see also O'Hara (2007) on 1960s Britain; Denton, Forsyth, and MacLennan ([1968] 2018), on Britain, France, and Germany; De la Torre and García-Zúñiga (2014) on Spain; Loriaux (2003) on France.
4. The International Monetary Fund offered emergency financial assistance under strict macro-economic conditionalities (see Mehrotra and Delamónica 2007; Williamson 1990).
5. Kafourous (2009: 527–528) continues and asks: 'Now that the dust appears to have settled, and the political environment seems not to be so negatively inclined, has the time arrived to re-evaluate some of the administrative methods for running the economy in pursuit of economic growth and sustained development ... ?'
6. On indicative planning in France, see Loriaux (2003: 102–107) and Hall (1986: chs 6 and 7).
7. For a summary of the main characteristics of each plan, see Rajora (n.d.).
8. For a critique of the conception of development linked with planning, see Escobar (2007).
9. D. T. Lakdawala, a distinguished economist, was also a member of the PC.
10. The number of poor was 320 million in 1973–1974, which had been India's total population in 1951. This number of poor remained the same until 1993–1994, and barely declined to 302 million in 2004–2005 (PC 2007). Between 2012 and 2018, on account poor job growth and real wage stagnation, consumption has fallen, and poverty likely to have increased again (Mehrotra and Parida 2019).
11. The PC was responsible for important schemes such as the National Rural Health Mission, the District Primary Education Programme followed by Sarva Shiksha Abhiyaan, the Integrated Child Development Scheme (which saw its coverage expand from a quarter of children aged 0–6 years in 2006 to all the 160 million children by 2013).
12. Vibert addresses the criticism that the decisions on values and empirical implementation cannot be that neatly distinguished; see Vibert (2007: 48–53).
13. Rathin Roy, member of the Prime Minister's Economic Advisory Council, criticized the NITI document in similar ways (Roy 2018).

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PART I

Origins: Ideas and Ideology

From Economists to Historians

Studying the Planning Commission, 1950–2014

Sylvie Guichard

Introduction

How has the Planning Commission (PC) been studied from its foundation in 1951 until its dissolution in 2014? The aim of this chapter is not to be exhaustive but rather to be able to draw some trends in the way researchers have looked at this institution. This travel into the literature led me to four observations that I present as starting point:

1. Researchers have devoted a lot of attention to planning and to the five-year plans (FYPs) but the PC *as an institution* has been little studied (even if this is changing).
2. The PC has been ‘questioned’ differently over time by scholars from various disciplines, notably economics, development studies, and history. Moreover, these scholars followed different theoretical trends, and consequently, they looked in different ways at the PC.
3. Studies on planning often speak about development planning but they consider mainly industrial planning. Some attention is devoted to agriculture but very little is said about most of the other divisions which compose the PC. On its archived version, the website of the PC enumerates the 31 divisions that composed the PC (PC 2014).
4. There have been several recurring criticisms over the 65 years of life of the PC (of course, the liberal critique of planning but also – among others – the necessity to decentralize planning).

This chapter is composed of a shorter section I, which presents my first observation. Section II, the more substantial, develops in five sub-sections, the second

observation through a chronological review of some of the vast literature on planning and the PC. The third observation is deduced from my reading presented in this second part, but it will not be examined on its own. The conclusion briefly sketches the fourth observation.



The PC as an Institution

For me as a political scientist working on contemporary India, the work of the PC was quite mysterious. I was aware that it was ‘out there’, I assumed that it was powerful, but it was unclear how. What did it do exactly? How did it work? When I tried to know more about it, I could find a lot about the first FYPs, frequent mentions of the content of subsequent plans but only very brief mentions of the commission *per se*. Most books are very quick on how the commission was working and often completely mute on who was peopling it. The information on the PC is often variations of the following narrative:

It was created in 1951 under the influence of Nehru. It was an extra constitutional, non-statutory body, which means that it was not founded by an Act of Parliament but by a resolution of the Cabinet. The Prime minister is its Chairman. Then it has a Deputy Chairman and a Secretary. Advisers, principal advisers and other experts worked for it. It is in charge of preparing the five-year plans. The statistician Prasanta Chandra Mahalanobis is its main historical figure, the author of the model used in the second and third plans. From the 1960s onward, the PC faced severe criticism but it continued to produce FYPs.

When you know that, you continue to wonder how the PC was working, what were the people working for it doing, and what was the influence of the plans; and you wonder all the more how it could survive the liberalization of the economy and then last until 2014.

To take only one example, in 1998 Prabhat Patnaik writes an article on Indian debates on planning (in Byres 1998), yet he does not mention even once the PC (but he mentions Mahalanobis). This type of approach to planning without the commission is shared by many studies that look at what planning did or should have done but with little interest and giving no agency to the institution through which the planning was done. There is indeed a lot on ‘planning’ and not much on the commission.

In some studies, the PC is not completely absent, but it is treated briefly to say the least: Gupta’s (1989) book includes a part on ‘organisation and planning process’ in which he describes how the PC works but it is much shorter than the other

parts. It is the same in Bhagwati and Desai's (1970) book. There is a chapter on 'Administration'. However, it is two pages long (1970: 132–134) and is composed nearly exclusively of quotations.

The PC was for long this 'absent present' in studies on planning and Indian economic policies. This has changed a little since more or less a decade as historians began working on the PC. Yet only scarce information remains available on who populated it. An ethnography or sociology of this institution would of course be difficult to realize now that it has been dissolved and that most of its staff was re-sent to the ministries. However, in the mid-1960s, the attention on the PC was high and a few scholars from the field of public administration wrote close studies of how the PC was organized and how it evolved in its first 10 to 15 years of existence. In this regards, A. H. Hanson's 1966 book is remarkable (see also Paranjape 1964, 1970). Hanson was a professor of political science at Leeds University, specializing in public administration. He wrote a truly comprehensive study of the PC's first 15 years. It begins with a discussion on the fashionable but, according to him, unproven virtues of planning, turns to the precursors of planning in India, and describes the machinery of planning and the first three FYPs. It then continues to what he calls 'aspects of planning', that is, the sociopolitical background which should be taken into account for plans to be effective; the administration which is central to devise and then implement the plans; the elements linked with the federal system; and the top-down or bottom-up planning.

Hanson summarizes very efficiently the planning procedures, which he characterizes as 'easy enough to describe but extremely difficult to operate' (1966: 530). It is worth quoting Hanson at length here as his presentation is clear and complete and the process he presents remained mostly the same until the end of the PC (on the process of planning, see also Gupta 1989: 68–70):

First comes the formulation by the government, with the Commission's help, of basic political and social objectives. In the light of these, the Commission, whose thinking goes far beyond the conventional five-year-period, prepares long-term (15–20 years) targets. Having obtained approval for these, it tentatively formulates the objectives for the five years immediately ahead, and submit these to the examination of the interdepartmental working groups. When these have reported and the necessary adjustment in commodity balances and financial provisions have been made, the Commission drafts a Memorandum, indicating the proposed shape of things to come, for the Cabinet and NDC [National Development Council]. Suitably amended, this becomes the basis of the Draft outline of the plan, which is published and circulated for general discussion and criticism. For the states, the Draft Outline, which informs them of the general shape and size of the national plan to which their own plans will have to conform, is a signal to go ahead more

rapidly and purposefully with their own planning processes, through 'working groups' similar to those used at the centre. When the final drafts of the state plans are ready, they are submitted to the Commission, which conducts negotiations of great political delicacy in order to cut them down to appropriate size. Meanwhile, the Draft Outline is also being considered by the various central ministries, by the large collection of advisory boards and committees with which the Commission surrounds itself, and by interest and pressure groups of all kinds. It is also lengthily debated in the Indian Parliament. Finally, after brooding over the results of this formidable amount of discussion and taking further counsel with the Cabinet and NDC, the Commission prepares the final plan report, which it once again submits for approval. Confirmed by Parliament, after another lengthy debate, the plan becomes operational. The Commission then has the task of breaking it down into annual plans, of vetting and approving the annual plans of the states, of watching its progress in every detail, and of proposing, from time to time, such modifications and adjustments as may seem necessary. For these purposes it receives from the various executive authorities and from the state governments a mass of reports, which it supplements by the maintenance of informal contact. These reports, of course, also provide basic raw material for the formulation of the next plan, which begins almost simultaneously with the first steps to implement the existing one.

It is noteworthy that the entire description is in the passive voice. Hanson describes the process but without actors. If we try and look at who was making the commission work, we can turn to the oft-quoted passage of Sunil Khilnani's *Idea of India*. According to Khilnani, during Nehru's time, the PC enjoyed 'an extraordinarily powerful position within the political system': 'Economic development was entrusted by Nehru to a small group: over a decade, the membership of the Planning Commission was drawn from a pool of only around twenty men' (Khilnani 1997: 81–82). A few pages later, he continues his description:

The Planning Commission became the exclusive theatre where economic policy was formulated. The subject was removed from parliament and the cabinet – they were now merely informed of decisions taken by the small cohort of experts. The members of the Planning Commission were by no means all economists, but they were chosen by Nehru for their broad agreement with his political project: committed to 'socialistic' and reformist ideals, in the Indianized version of social democracy, and above all to a scepticism about the market and a belief that the state had to take responsibility for allocating resources in the economy. (Khilnani 1997: 85–86)

The experts were indeed not only economists. In 1950, K. N. Raj, who was 26 at the time and designed the first FYP, was the only professional economist in

the PC (Krishnakumar 2010). But beyond this thin layer of experts at the top of the institution, the PC was growing quickly. In a little more than 10 years, its sanctioned staff strength increased from 244 in 1951–1952 to 1,131 in 1963–1964. The largest single increase was in clerical staff whose strength multiplied by five and a half times. The expenditure also grew considerably in these 15 years: from INR 8.56 lakhs in 1950–1951 to 59.90 lakhs in 1963–1964 (Paranjape 1964: 139, 150).

With more than a thousand members of staff in the 1960s¹ and nearly the same number when it was dissolved in 2015 (Mukherjee 2015), the PC was a heavy administrative machine. However, in 2015, it recruited directly less than half of its staff; the rest were on deputation or transferred from ministries (Mukherjee 2015). The criticism according to which the PC had lost its professional expertise had been there for a long time. At senior levels, it was indeed staffed by generalist Indian Administrative Service and Indian Economic Service officers who stayed in the commission only during a few years and for this reason did not develop a particular expertise regarding planning in a particular sector (on this and the different practice in China, see Mehrotra 2014).

II

Studying the PC Over the Decades

The PC has been ‘questioned’ and studied differently over time by scholars from various disciplines, notably economics, public administration, development studies, and history, following theoretical trends of their time.

1950 to 1965: Questioning Techniques

The PC when founded in 1951 was an idea of its time. There was an international agreement on the need for planning

in tune with the intellectual ambiance of the period which in turn reflected the state of the international economy. The Great Depression of the inter-war period had destroyed any faith in the virtues of the free market, and Keynesianism ... advocated not just state intervention in demand management in capitalist economies, but the necessity of socializing investment decisions. (Patnaik 1998: 159–160)

Moreover, ‘the Soviet Union was not only free from the ravages of the Depression, but was experiencing rates of growth which, until then, were unprecedented in

human history' (ibid.: 160). Adding to the state of the international economy, in India, the climate was all the more favourable to planning as 'laissez faire' was associated with economic imperialism.

Thus, the scholars writing on planning in the 1950s did not, in their vast majority, question the idea or the necessity of planning. Their research was about 'How best to plan?' or 'What sort of planning?' Their writing reflects what Leys (1996: 7) describes as the 'taken for granted presumptions of "development theory" as it evolved from the 1950s onward': 'the goal of development was growth: the agent of development was the state and the means of development were national economic planning in the context of macro-policy instruments established at Bretton Woods.' This conception implied that 'technocrats should analyse the problems of bringing about economic growth, and that good scientific analysis would generate "right answers" to the question of what should be done through planning' (Harriss 2005: 19).

The goal of planning was to promote social equality through an increase in real income per capita and the question was how best to do that: through more or less capital- or labour-intensive methods and by producing which type of goods (see, for example, Gadgil 1952). Looking for the 'right answer', in the first ten years after the creation of the PC, studies on planning in India were on the choices made, and on models and techniques² used and their efficiency (on models, see Komiya 1959; Raj and Sen 1961; Eckaus 1967; Tsuru 1957; on the choice of techniques, see Raj 1956a, 1956b; Sen 1960; Robinson 1956).

The First Plan (1950–1955) was mainly attributed to K. N. Raj and the Second (1955–1960) and Third (1960–1965) to Mahalanobis, 'the statistician turned planner'.³ The Mahalanobis model attracted a lot of interest and provoked scholarly debates (see Chakravarty 1957; Mitra 1957; and Byres 1998 for a summary of the technical debates at that time).⁴ Moreover, during Mahalanobis' years of planning, several well-known foreign scholars wrote studies on planning in India after staying at the Indian Statistical Institute (notably Bettelheim 1960; Frisch 1960; Lange 1960; on these visits, see Schöttli 2009: 248).

1960s and 1970s: Questioning Processes, Actors, and Interests

The 1960s and 1970s are the decades when scholars working on planning were most prolific, which is not astonishing as it was the period when the PC was most powerful and at the end of which it lost its power. Many authors published assessments/reviews of the first 10 or 15 years of planning in India. Much more studies present and analyse the first three plans than the next ones (of course, this is linked with the weakening of the PC after the mid-1960s). Several studies compared various national experiences in planning. For example, a volume

published by Hagen in 1963 compares Burma, Pakistan, India, Japan, Mexico, Yugoslavia, Iran, Nigeria, and England and Millikan's 1967 volume includes studies on India, France, and Yugoslavia.

In the 1960s, many observers in India and abroad were full of praise for the work of the PC. Lewis (1963: 80) wrote that 'Indian economic planning has – and probably deserves – the reputation of being the most experienced, sophisticated, and comprehensive of any in the non-Communist economically underdeveloped world'. However, the praise was not unanimous. Notably, D. R. Gadgil in a lecture in 1958 considers that the PC has failed in every function put forth in the 1950 resolution establishing it, that were 'to assess resources, formulate the plan, define its stages, appraise progress, and make related recommendations on policy and administration' except in theoretic plan formulation (lecture republished in Gadgil 1965: 150–172, 169).

After 10 years of planning, many scholars seemed also disappointed with the results attained and disillusioned with planning. Economists diagnosed a crisis in planning in general (Faber and Seers 1972) and in India in particular (Hanson 1966; Streeten and Lipton 1968; Namboodiripad 1974). From then on, they questioned the usefulness of planning. Seers wrote in 1972: 'A great deal of very high-quality thought has already been spent on the theme of planning and on the plans of many countries. Yet nobody working in this field can fail to be struck by the contrast between this intellectual output and the actual results' (Faber and Seers 1972: 19).

At the end of the 1960s, the specific choices made in India were re-examined as well: why did Indian planning focus on state-owned heavy industry at the expense of other sectors, most importantly agriculture but also education? Some economists argued that economic reasons explained this choice, like export pessimism and the foreign exchange constraint (Raj and Sen 1961; Dhar 1968; Bhagwati and Chakravarty 1969); for others, the reason lied rather in Nehru's fervent commitment and belief in socialism (Frankel 1967, see also Schöttli 2009).

In the 1970s, criticisms came from all sides: it came, as could be expected, from scholars in favour of a liberal economic policy and sceptical about planning from the beginning, but also from scholars who supported planning after independence, people who wanted a socialist economy but observed that planning had not brought the expected results.

B. R. Shenoy was one of the few sceptics from the beginning. The author of the 1955 well-known *Note of Dissent to the Second Five-year Plan*, Shenoy wrote a book in 1963 reiterating his criticism of the economic policy led by the government⁵ and of statist planning in general: 'There is a great need for a basic policy shift from statist planning to policies of economic liberalism, in the British sense of the term....' (Shenoy 1963: vi).

Along the same line, Jagdish Bhagwati, Padma Desai, and T. N. Srinivasan, who at first supported planning after independence, turned against it in the 1970s and advocated a new liberalized economic policy. Leys (1996) summarizes (roughly) the position of this 'small group of economists who opposed the post-war-social-democratic consensus'. He notes that

they argued that development was blocked by inflated public sectors, distorting economic controls and overemphasis on capital formation. Governments were part of the problem, not part of the solution; they were inefficient and often corrupt and hence parasitic, not stimulators of growth. The solution was to privatize the public sector, reduce the scale and scope of government spending and give up all policies, from exchange rate controls to subsidies and redistributive taxation, that altered any prices that would otherwise be set by the impersonal forces of the market. (Leys 1998: 18)

Bhagwati and Desai in 1970, in their book *Planning for Industrialization*, argue that, at least since the beginning of the second plan period in 1956, Indian planning 'fell into the trap of excessively detailed, physical targets oriented planning', although India already had sufficient economic and administrative infrastructure to make a much more efficient planning possible. According to the authors, industrial targets had no economic basis to speak of. In any case, licensing procedures did little to get them implemented, and much to encourage inefficient production. Jagdish Bhagwati pursues the same type of argument in his 1974 book with T. N. Srinivasan. They conclude from their assessment of foreign trade regimes and their interaction with domestic policies that India should adopt a new (liberalized) economic policy.

India's foreign trade regime, in conjunction with domestic licensing policies in the industrial sector, led to economic inefficiencies and impaired her economic performance.... The policy framework was detrimental, on balance, to the growth of the economy by adversely influencing export performance, by wasteful inter-industrial and inter-firm allocation of resources, by permitting and encouraging expansion of excess capacity and by blunting competition and hence the incentives for cost-consciousness and quality-improvement. The effects on savings and research and development expenditures were, at best, ambiguous and cannot plausibly be cited as having offset these inefficiencies. (Bhagwati and Srinivasan 1974: 245)

In the 1970s, criticisms grew as well concerning the place given to agriculture (see, for example, Frankel 1978). Mellor (1976) and Lipton (1977) proposed a new path of growth led by agriculture and based on the improvement of agriculture on the mass of small farms. Mellor (1976) demonstrates how an agriculturally

based economic strategy can lead to growth in industry and trade. The strategy he proposes is sensitive to the interaction of political, social, institutional, and economic forces. He foresees that changes in government policy will be opposed by those who benefit from the capital-intensive growth strategies.

Beyond being in favour of, against, or disappointed by planning, the way to look at planning changed in the mid-1960s. As is the case with Mellor's study, researches on planning and the PC widened their scope. Economists in the 1950s wrote on planning from a technical economic point of view. Ten years later, political scientists and economists argued that to understand how planning works it is necessary to consider political, social, institutional, and economic forces. In consequence, they adopt wider views asking 'Who plays a role, who sets the goals?' They give more attention to actors and thus more attention to the PC as an institution.

This is the case of Hanson's 1966 book (as well as Myrdal's 1968 book). Hanson presents a detailed analysis of India's experience of economic planning over the period of the first three plans. He explains how the pressure of political competition weakened the developmental project of the Nehruvian state. He argues that thanks to Nehru's undisputed authority in the earlier 1950s, the PC functioned rather like a competent and insulated bureaucracy. But given the way the Congress mobilized political support and the rise of new provincial elites, especially after the reorganization of states along linguistic lines in the mid-1950s, power passed from the PC to the frankly political NDC, and the allocation of public sector resources became increasingly dominated by subsidies (Hanson 1966). Hanson thus anticipated Frankel's later argument (1978) concerning the 'inevitable contradictions in a regime which intends to plan economic development in the context of accommodative, formally democratic politics which are dominated by the rural upper class of small landlords and rich peasants' (Harriss 1998: 294 on Frankel).

The aim of planning began to be questioned as well (planning for security, for the economic elite). According to the political scientist Baldev Raj Nayar, the aim of economic planning in the 1950 and 1960 was not to improve the welfare of the people, despite the commonly held discourse, but to assure military power. He writes that 'the basic considerations underlying the economic strategy of the second and third Five-Year Plans have been to ensure increasing national power in general, and military strength in particular' (Nayar 1974: 361; see also Nayar 1972).

1980s: Questioning the State and Planning

The liberalization of the Indian economy began at the same time (but with no correlation) as the Sixth FYP (1980–1985). The 1980s then saw a 'shift from

planning the economy to management of the economy' (Kurien 1996: 10) to 'freeing the economy' as the subtitle of Jagdish Bhagwati's book *India in Transition* (1993) indicates.

During the 1980s, economists continued to assess how successful planning had been in furthering the development of the country (see, for example, Gupta [1989] as well as the now well-known book by Sukhamoy Chakravarty [1987]). However, the neoliberal charge against the interventionist state and planning was becoming hegemonic. Byres (a Marxist economist) considers that the literature 'presented a virulent critique of planning, which was represented as simply the institutionalised means whereby the state pursued its predation, extended and reproduced its massive inefficiencies, and gave rise to growing and deeply entrenched rent seeking' (Byres 1997a: 1).

Moreover, the debate on planning and the PC in the 1980s inscribed itself in the pervasive anti-state discourse adopted at that time as well by (neo)liberal scholars who questioned the role of the state in economic growth as by political scientists and political activists who questioned the class nature of the Indian state (pursuing a critique originating from the Marxist paradigm).⁶ For very different reasons, both 'sides' criticized the engagement of the state and this criticism comprises the work and the role of the PC (Pedersen 1992).

However, as mentioned earlier, even before the liberal resurgence of the 1980s, the Indian experiment was criticized. The discussion among economists on the role played by the Indian state in fostering development has focused on the sluggish growth rate of the economy since the mid-1960s. Political scientists accepted these viewpoints and combined them with considerations on the nature and distribution of power and influence in the Indian society. It is precisely this notion of a powerful and independent bureaucracy that constitutes the starting point for the debate in the 1980s.

1990s: Questioning the Institution, Its Adaptability

The 1990s saw two main types of studies on planning and the PC: (1) One considers how planning and the PC have changed/adapted following the liberalization of the Indian economy; (2) another follows the theme of 'planning and the state', looking either at planning and the bureaucratic state or at planning and nationalism. We will consider both in turn.

1. The changes caused by liberalization have been accompanied by a lively debate in India and have attracted great attention abroad. There was a large amount of literature 'sympathetic to the reforms' (notably Bhagwati 1993, for more references, see Byres 1997a: 11n20), and also some critical treatment of the reforms (Rudra 1992; Byres 1997b; see Byres 1997a: 11n22 for further references).

However, the vast majority of these works (except Rudra's book) was not on the PC and not really on planning; they were on liberalization (and only indirectly on its impacts on planning). Nevertheless, some research considered directly how planning and the PC have changed or adapted following the liberalization of the Indian economy, what were their remaining role and how they should transform themselves (for example, Kabra 1997; Dandekar 1994).

In this context, studies set out to evaluate anew the achievements and limitations of Indian planning between 1950 and the late 1980s (see, for example, Byrd 1990; for a positive evaluation, see Byres 1997a: introduction).

These re-evaluations were often accompanied by interrogations about who won from the choices made; another way to ask the same question was 'who the state chose to favour' or, as Chaudhuri (1998: 110) asks, 'who has benefitted from planning?' His reply is that planning 'was meant to' and benefitted mostly rich farmers through its agricultural policy and industrial capitalists through its industrialization policy (even if he is more uncertain about the second group, see 1998: 111). He concludes that 'the major indictment of planning in India is that it failed to benefit the poor' (Chaudhuri 1998: 111).⁷

The two groups that Chaudhuri singles out (the rich farmers and the industrial capitalist) as beneficiaries of planning are those that studies point at unanimously but with various degrees of gain and responsibilities in the failure of planning (see also Chatterjee 1997; the study of the role of these groups became more detailed when historians began to work on these questions). This brings us to the terrain of the second group of research developed in the 1990s, which is on 'planning and the state', and looks either at planning and the bureaucratic state or at planning and nationalism.

In the 1990s, scholars pursued the analysis of the link between planning and the (bureaucratic) state (for the development of the 1990s, see Bardhan 1998; Chatterjee 1997; Byres 1997a; Kaviraj 1995; Nayar 1997), or the link between planning and nationalism. An important point to clarify here is that this literature developed in the 1990s but it is looking back. Its focus is on the 15 years after independence when the PC was a strong institution. It examines the role of planning in conjunction with the type of state built after independence and emphasizes that planning appeared as a necessity after the promises made during the independence struggle.

Partha Chatterjee in his oft-quoted article addressing the political role of planning in India considers that

the debate on the need for industrialisation ... was politically resolved by successfully constituting planning as a domain outside the 'squabbles and conflicts of politics'. As early as the 1940s, planning had emerged as a crucial institutional

modality by which the state would determine the material allocation of productive resources within the nation: a modality of political power constituted outside the immediate political process itself. (Chatterjee 1997: 275–276)

Chatterjee argues that the developmental ideology was a central component of the self-definition of the postcolonial state. The role of the state was not limited to implement the procedures of a representative government, the state's *raison d'être* rested also on directing a programme of economic development on behalf of the nation. However, according to Chatterjee, this programme failed because it rested on a 'passive revolution' or an incomplete revolution as it sought to promote industrialization without taking the risk of agrarian political mobilization.

Marxist scholars held another explanation of why planning was adopted after independence. According to them, the intent far from building socialism was to build capitalism on behalf of the bourgeoisie or capitalist class. Patnaik (1994) states that 'the class-configuration which prevailed, upon which industrial capitalism was to develop, dictated in broad terms a certain course of action, and the Mahalanobis strategy fitted in with this'.

In the 1990s, studies looking back began to point at the weakness of the Indian state at the time of independence and as a consequence at the mismatch between its objectives and its means (even if this idea was already present in Myrdal's *Asian Drama*). For example, Mohan and Aggarwal (1990: 689) underline that 'although the planners and policy-makers in India understood the need for using a wide variety of instruments and controls to plan a mixed economy, there has always been a mismatch between planning intentions and the instruments available for realizing these intentions'. (Chibber [2006] defends a similar position.)

2000s: Re-questioning the Beginnings

The debates on the obsolescence of planning and the PC went on in the new millennium, based on a continuing review of planning's achievements or failures. The economist Amaresh Bagchi (2007), for example (in one of many articles posing similar questions), asks if there is a role for centralized planning in a market economy such as the one of India after liberalization? Despite his negative judgement of the way the PC worked, he replies in the affirmative. Centralized planning according to him is needed:

The reason is twofold. One, when resources happen to be limited – and that lies at the heart of the economic problem of choice – given the objectives, actions must be guided by a well-designed plan.... Two, it has to be recognised that even in a market economy that state has to play a vital role as a facilitator but also as a provider of basic infrastructure, fiscal, social and financial. (Bagchi 2007: 93)

Bagchi considers that the PC acknowledged the changes and the Eighth Plan stated in its preface that ‘the plan is indicative in nature’. However,

the practice of drawing up ambitious plans on a five-yearly basis ... under the aegis of the agency that was created for the purpose, i.e., the PC ... persists with all its paraphernalia, the collapse of the Soviet system notwithstanding. Also, as before, the PC continues to preside over the allocation of central funds meant for the ‘Plan’ both for the centre and the states. In the case of the states, the practice of requiring them to come to Delhi for their ‘plan approval’ every year also continues even after it has, by all accounts, lost its rational, leaving an inescapable impression of ‘path dependence’. (Bagchi 2007: 92)

Bagchi (2007: 93) underlines the necessity to reform three practices: (a) ‘the practice of classifying expenditures in government budget under “plan and non-plan”’; (b) ‘inadequate fiscal space of the states for fulfilling the objectives of the plans while major responsibilities for plan implementation are devolved on them’; and (c) ‘the system of intergovernmental transfers that is supposed to help address one of the basic objectives of planning, i.e. balanced regional growth’. Many other authors point at these three elements as highly problematic.

While recognizing the failures of planning and the PC, in this first decade of the 21st century, an important group of economists were nevertheless defending the need for planning. They worked on and proposed answers to how and what to plan in a liberalized economy (Mehrotra and Delamonica 2007; Mehrotra 2014, 2016).

Since 2000, historians took a fresh look at the 20 years before and after the founding of the PC to see how the project was formed and then how it crystallized. They enter into a dialogue, one work refining or contesting the reading of previous research. Over the last 10 years, notably Medha Kudaisya wrote a history of planning in India and the PC from the 1944 Bombay plan (Kudaisya 2014; see also Zachariah 2016), to the institutionalization of the idea of planning between 1947 and 1960 (Kudaisya 2009; see also Chibber 2006), the reforms of the Shastri years, 1964–1966 (Kudaisya 2007), to development planning in retreat, 1967–1971 (Kudaisya 2015).

In the last 15 years, important comparative historical work also appeared, notably by Vivek Chibber (2002, 2006, 20014, comparing the development of India and South Korea) and Atul Kohli (2004, comparing India, South Korea, Brazil and Nigeria). Both Chibber and Kohli analyse the role of the state and its political decisions in the economic development. Both arguments point in the same direction: the weak-strong Indian state was strong enough to influence economic development but too weak to resist the internal pressure from the capitalist elite. It thus put in place an import substitution based industrialization instead of export-oriented strategy chosen notably by South Korea. About India, Kohli writes that

the state has intervened heavily in the economy to undertake production directly and to protect its indigenous entrepreneurs from global competition.... However, the Indian state often lacked the political capacity to translate its enormous ambitions into outcomes. Central to this incapacity is its fragmented authority, characterized by both intraelite and elite-mass schisms and ruling coalitions that are generally multiclass. (Kohli 2004: 286)

Conclusion: Recurring Criticisms and Similar Objectives

In the same book, Kohli emphasizes the endurance of the model despite the changes in the economy:

The economic model adopted during the Nehru era was, of course, the well-known model of state-led, import substituting industrialization. Once adopted, it endured, even in the face of significant efforts in recent years toward a different model. *At the end of the twentieth century, India still exhibited some of the core characteristics of its statist model of development – thus underlining the political nature of India's early economic choices.* (Kohli 2004: 263, emphasis added)

Bagchi (2007: 92), in the passage quoted earlier, underlines the same when he writes about path-dependence. Without surprise, this was one of the central criticisms of the PC. For some, it was irrevocable; the PC did not correspond to the functioning of the economy and had thus become useless. For others, it could adapt, notably by working on some of the criticisms that had been there since its foundation, notably the need to 'free' the states.

There were indeed several recurring reproaches over the 65 years of life of the PC. Of course, there was the liberal criticism of planning which was first voiced by Shenoy and became later majoritarian. There was also criticisms which were not against planning in general but who questioned how planning was done and implemented. In the 1960s, many studies appeared describing the status of the commission, its aim, and its organizational arrangements. They often emphasized that planning had to deal with important limitations: the lack of data, the fact that most of India's economy was in private hands (Hanson 1966: 3) or 'controlled by [a] small, group of high capitalists' (Gadgil 1965: 284), that planning was prepared by the centre but had to be implemented by the states (see, for example, Lewis 1963), and that planning was too centralized. These elements greatly diminished the planning grip, the first mainly in the drawing of the plan and the last two in its implementation (on implementation, see Lewis 1963: 108).

Moreover, scholars criticized the PC for withdrawing from the elected ministers an important area of decision-making. Notably, Hanson put forth

early the democratic shortcomings that the PC caused. According to him, the PC had become an 'imperium in imperio', thereby reducing the ministries, the states, and the union cabinet itself to mere 'agency' bodies and undermining the very foundations of parliamentary democracy. Hanson added that the PC was too political and did not have enough technical skills. Therefore, 'its proposals are devoid of any genuinely "scientific" character and are simply the product of a complicated discussion between politicians, administrators, and economist, of which the public is kept in almost complete ignorance' (Hanson 1966: 66; for a later critic along the same lines see Chatterjee 1997).

It is noteworthy that criticisms concerning the PC in the 21st century were very similar to the criticism made of the commission in the 1960s. The most fundamental objectives of planning have also remained largely unchanged since the 1950s, though the emphasis and priorities shifted somewhat over time (Byrd 1990: 721, 722).

Notes

1. Mainly housekeeping staff according to Paranjape's numbers (Paranjape 1964: 139).
2. Amartya Sen's doctorate (and before him K. N. Sen's work) inaugurated a rich literature on 'the choice of techniques' (Sen 1960; see also Sen 1957) that continued for the next 10 years.
3. Several studies on this important and puzzling figure appeared after his death. See, for example, Rudra (1996), as well as an interesting review of Rudra's book by Zachariah (1997).
4. To give a rough idea of the models of these first plans: 'The First Plan – which was written by a young K.N. Raj, ... had a clear analytical base and was underpinned by a variant of the Harrod-Domar growth model.' Mahalanobis 'introduced his celebrated, elegant two-sector model, in which the economy is divided into a basic capital goods sector, the K-sector, and a consumer goods sector, the C-sector (Mahalanobis 1953); and then his four sector model, in which the C-sector is divided into three different sectors (Mahalanobis 1955)' (Byres 1998: 77).
5. Notably that 'we have been building up a topsy-turvy economic structure, developing heavy industries ahead of consumer goods industries and developing both at the expense of agriculture. This development violates the economic truth, ... that lasting and stable economic growth demand priority attention to agriculture and the consumer goods industries, heavy industries taking their due turn thereafter' (Shenoy 1963).
6. The line of debate on the class nature of the Indian state concerns the character of the personnel manning the state apparatus, either the senior administrative cadres or public employees in general.

7. Over the years, the realization that the poor were indeed not sharing the benefit of economic growth has led to the initiation of a number of special programmes, referred to as the Integrated Rural Development Programme.

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The Long Road to Indian Economic Planning (until 1950)

Niranjan Rajadhyaksha

The state of opinion which governs a decision on political issues is always the result of a slow evolution, extending over long periods and proceeding at many different levels. New ideas start among a few and gradually spread until they become the possession of a majority who know little of their origin.

—Friedrich Hayek, *The Constitution of Liberty*

Introduction

The history of ideas has unfortunately been a fading concern among economists. Modern political economy primarily focuses on the role of special interests in determining public policy. These special interest coalitions are seen to have a stranglehold over the policy process. The most pessimistic variants of this view virtually rule out the possibility of policy reforms unless there is an exogenous shock that undermines the dominant coalition of interests. The role of ideas as instruments that loosen such political constraints over the long run is often ignored (Rodrik 2013). Yet policy debates have important effects on the subsequent direction of economic policy.

In a similar vein, the Indian tryst with centralized national planning was preceded by several decades of intense discussions within the Indian nationalist movement about the contours of economic policy. There was a wide agreement among nationalists that the state has to support industrialization in countries such as India that were late entrants in the development process. Their arguments constituted both a critique of colonial economic policy as well as an attempt to learn from the experiences of countries as diverse as Germany, Japan, and the

Soviet Union that depended on institutional innovations to begin the process of capital accumulation. This chapter will show how the economic ideas prevalent in the Indian nationalist mainstream created the intellectual conditions for the eventual establishment of the Planning Commission in 1950.

What began as a sharp critique of British colonial practice, in the early years of modern Indian nationalism after the revolt of 1857, later evolved into a broad consensus among Indian nationalists that the state should assist the industrialization drive that would be necessary to break the iron grip of mass poverty. However, there was also a gradual evolution in the consensus about what would be the principal instrument for such state-led industrialization. The first calls for state support focused on tariff protection for the infant industry as well as policies to promote technical education. The country that often found an important place in the nationalist discourse as a role model at this point of time was Japan after the Meiji Restoration, which became the first Asian nation to industrialize (Buruma 2004).

The planning idea gradually made its way into the nationalist discourse only much later, in the 1930s. Centralized national planning as the primary instrument of state-led industrialization became a dominant theme of debate only after 1930. The global interest in the early Soviet plans as well as milder forms of planning such as the New Deal in the United States inevitably filtered into India. There continued to be debates about the nature of planning but a growing number of Indian political leaders across the political spectrum began to be attracted towards the idea that the state should direct economic activity, even though influential leaders such as Gandhi were sceptical about centralized planning as part of their overall critique of modern industrial society. However, Gandhi himself would later give his blessing to a plan that sought to reinvigorate the traditional rural economy. The rare warnings were born from the fear that comprehensive planning would lead to political despotism, rather than potential economic failures (Gyanchand 1944).

In other words, a closer look at the intellectual climate in the decades before the Planning Commission was actually set up in 1950 shows that the slow evolution of economic opinion in India helps explain the eventual political decision to embrace planning, as Hayek (1960) emphasized in his work on the importance of ideas. The formal choice to set up the Planning Commission in 1950 was thus the culmination of a long process of internal debate rather than a sudden decision.

This chapter traces this process. It is organized around two groups of arguments. The first part examines the arguments which were developed – by the Indian National Congress, by pre-independence political economists, and by the British government – between 1860 and 1930 concerning the necessity of state-led industrialization. The second part analyses why, once the necessity of state-led industrialization was accepted, the way chosen to industrialize was

planning. Two actors or groups played central roles in this decision: Nehru and the National Planning Committee, and India's industrial class, whereas Gandhi and Patel were sceptical about the idea.

Views on State-led Industrialization (1860–1930)

Indian Congress Party's Views on State and Industrialization

The economic regeneration of India through industrialization was one of the central themes of the Indian nationalist project. The Indian National Congress first met in 1885 to demand more political rights for Indians as well as higher local representation in the colonial government. However, the Congress did not restrict itself to such political issues for long. It passed a resolution in its third session in 1887 asking the government to encourage indigenous manufacturing; similar demands were made by the main nationalist organization in subsequent sessions as well. In addition to these pleas, an industrial conference used to be held at the same time as the annual session of the Indian National Congress for many years after 1905 (Malaviya 1918).

Any such normative policy debate necessarily has two parts: an analysis of the underlying problems and the various solutions offered to overcome those problems. The dominant nationalist discourse on economics in the decades before independence was about how colonial policy had harmed the Indian economy and why the state needed to step in to help the growth of modern industry.

While mainstream Indian political thought in colonial times was deeply influenced by British liberalism of the 19th century, there was less agreement on economic principles, especially free trade. In his inquiry into the *Nature and Causes of the Wealth of Nations* first published in 1776, Adam Smith had linked the economic exploitation of India to the monopoly granted to the East India Company, in contravention of the very idea of free trade. Smith argued that the monopoly the East Indian Company enjoyed was neither good for British consumers of goods imported from India nor for the people of Bengal, where the Company held political power when Smith wrote his classic. 'If the trading spirit of the English East India Company renders them very bad sovereigns; the spirit of sovereignty seems to have rendered them equally bad traders,' he wrote (Smith 1937: 711).

Smith seemed to suggest that it was monopoly rather than free trade that was responsible for the misery in areas such as Bengal. The liberal leadership of the Indian nationalist movement did not follow this line of argument when they criticized colonial economic policies, albeit for the period when political power over India had passed from the East India Company to the British Crown. There was a deep suspicion of the free trade that most of the English liberals naturally

supported. There were broad parallels between the Indian nationalist view on economics and the views expressed by members of the German Historical School, which challenged the free trade doctrine of the classical political economists in Britain in the late 19th century. In fact, according to a prominent historian of Indian liberalism, the Indian liberals ‘came to oppose an unbounded faith in laissez faire well before Friedrich List’s arguments for the protection of national industry were diffused in India’ (Bayly 2012: 14).

Pre-independence Political Economists’ Views on State-led Industrialization

There are competing narratives that try to explain why India, as well as other countries such as China, stagnated over several centuries despite initial advantages such as a large market, a pool of skilled labour in traditional handicraft industries, and a rich history of trading.

These narratives can be broadly divided into two categories (Roy 2015). The first set of explanations focus on internal constraints on rapid economic growth such as cultural traditions, institutional structures, and restrictions on labour mobility. One striking example of this is *The Long Divergence: How Islamic Law Held Back the Middle East* by Timur Kuran (2010). The second set of explanations focuses on the external shock emanating from colonization. In the case of India, colonial economic policy was skewed towards making India a source of raw materials for Indian industry. A classic statement of this view is *Colonialism and the Indian Economy* by Amiya Kumar Bagchi (2010). Indian economic history has been dominated by the latter narrative.

The issue is still hotly debated, though recent historical data from the Maddison Project on historical incomes supports the nuanced view that the economic decline of India began well before it became a colony while the East India Company failed to stem the slide after 1757 (A. Bagchi 2013). The reasons for the economic decline of India were thus complicated and difficult to fit exclusively into either of the two competing narrative groups. Figure 3.1 shows how Indian per capita income relative to per capita income in the United Kingdom began to decline well before the British colonial rule was established.

On the other hand, the defence of colonial economic policy was implicitly based on the classical economic doctrine about the benefits from the international division of labour (Ambirajan 1978). India would benefit if it built on its natural advantages as a provider of raw materials for British industry, its natural place in the emerging international division of labour in the 19th century. In a speech given to stockholders of the East India Company, David Ricardo admitted that the export of cheap cotton cloth from England had inflicted ‘great injury’ on

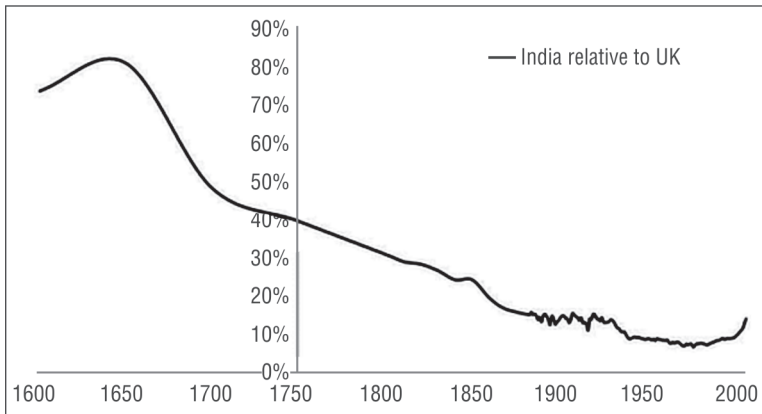


FIGURE 3.1 Per capita income in India relative to the United Kingdom, 1600–2010

Source: A. Bagchi (2013).

traditional Indian manufacturers. But he went on to also argue that these exports must have been paid for with other items that the English bought from India, which meant the establishment of ‘new branches of trade’ (Ambirajan 1978). Such an explanation fitted well with the Ricardian theory that international trade benefits both sides.

The deindustrialization of India under British rule pushed up the number of people dependent on farming for their livelihood, as artisans moved back into agriculture. Agriculture became the employer of last resort. A series of devastating famines after 1860 brought the issue of rural distress into focus. These famines led to the first shift of colonial economic policy away from a traditional *laissez-faire* approach, when the colonial government of the day provided guarantees to investors backing railway projects, or financial aid to indebted farmers in the case of the Deccan Agriculturists Relief Act of 1879, which sought to prevent peasant dissatisfaction from bubbling over into violence. However, the state remained uncommitted to an industrialization policy in the second half of the 19th century despite favourable conditions in India (Charlesworth 1982).

The series of famines in the second half of the 19th century also attracted the attention of Indian political economists. Some of the influential nationalists argued for relief in the form of a lower land tax, more irrigation works, and the reduction in the drain of financial resources from India (Dutt 1900). But there was also a growing recognition that the most effective relief for an overcrowded agricultural sector was the creation of modern industry. The roots of the argument that India needed a rapid expansion of modern industry to draw people out of an overcrowded agricultural sector can be traced back to these events.

In fact, this view anticipated the later insights from the dual economy models in modern development economics, that developing countries with disguised unemployment in agriculture should seek solutions by creating new employment in the industrial sector. One important exposition of this strategy was by B. R. Ambedkar:

A large agricultural population with the lowest proportion of land in actual cultivation means that a large part of the agricultural population is superfluous and idle ... this labour when productively employed will cease to live by predation as it does today, and will not only earn its keep but will give us surplus; and more surplus means more capital. In short, strange as it may seem, industrialization of India is the soundest remedy for the agricultural problems of India. (Ambedkar 1918: 46)

In the aftermath of the series of famines in the second half of the 19th century, there was a growing clamour of opinion that the sort of industrialization that Ambedkar and many others would later argue for would need the active support of the state. A growing number of people began to think that the government should do all it can to encourage the growth of modern industry. Even the Famine Commission, set up by the colonial government in 1880, said in its report that Indian poverty was linked to the lack of a 'variety of occupations' and that the state should undertake the establishment of manufacturing in India (Government of India 1880)

The 19th-century political economist from Pune, G. V. Joshi, called for state guarantees to help Indian enterprises raise loans in London, state subsidies for new native enterprises 'that are infant', and state bounties through which the government would reward successful new enterprises (Joshi 1885: 749). He then added that this would not amount to a policy of protectionism:

It is no more than a scheme of direct pecuniary aid by the State to set the native trader well on his legs, and encourage his struggling enterprise, as a necessary provision for future economic safety, without interfering in the least with the free movement of the foreigner or his business. (Joshi 1885: 750)

The Indian political economists of that era were deeply influenced by the writing of the German Historical School that challenged the dominant classical doctrine of the time. One of the defining beliefs of these economists was that economic laws are not universal but need to be adapted to take into account the historical specifics of a country. So the economic policies that worked in England may not work in India. More specifically, they believed that there was a strong case for protection to infant industries in a country such as India that had yet not built a strong domestic industrial base.

Such a view was clearly reflected in one of the landmark statements of early Indian political economy by M. G. Ranade. In a lecture in 1892, he stated:

If in Politics and Social Science, time and place and circumstances, the endowments and aptitudes of men, their habits and customs, their laws and institutions, and their previous History, have to be taken into account, it must be strange, indeed, that in the economical aspect of our life, one set of general principles should hold good everywhere for all time and place, and for all stages of Civilization. (Ranade 1982: 5)

One stylized depiction of the main nationalist economic position on state-led industrialization delineates five main themes. First, the state should protect Indian industry during its infancy; second, it should encourage the development of banks to consolidate scattered indigenous capital; third, the state should provide subsidized loans to new Indian enterprises as well as provide them subsidies; the state should borrow abroad so that foreign capital is used for Indian industrialization without allowing foreign capitalists to dominate Indian capitalists; the state should directly fund new industries in the public sector when domestic entrepreneurs are either unable or unwilling to invest (Chandra 2013).

Modern industry had struck shallow roots in the second half of the 19th century, but its growth was inadequate. India became a British colony in 1858 after political control of the country passed from the East India Company to the Crown. Industrial development began soon after during the first age of globalization, especially of the textile industry in the new port cities of Calcutta, Bombay, and Madras. The disruption of cotton supplies to British industry during the American civil war followed by the decline in transport costs with the opening of the Suez Canal in 1869 gave a boost to Indian manufacturing. The capital for this industrial expansion came from foreign investment and domestic mercantile expansion. Employment in large factories grew from less than 100,000 in 1860 to 2 million in 1940, at an average annual rate of 4 per cent (Roy 2011).

This nascent industrialization before World War I was welcomed, but the government neither actively encouraged the structural change in the Indian economy nor actively blocked it. The dominant belief in the colonial administration was still that Indian industry should specialize in commodity exports. The dramatic success of Japanese industrialization after the Meiji Restoration of 1868 was used by nationalists as an example of why active state support was needed to provide initial support to Indian industry.

For example, in a speech during the meeting of the Indian National Congress in Calcutta in 1901, G. Subramanian Iyer argued that India needs to go down

the Japanese path when it came to government support of domestic industrial expansion:

In our opinion, the only secret of India's industrial salvation is that which other countries, more especially Japan, have discovered and employed with marvellous success.... In Japan itself, education institutions were established by the State, and the Government established various factories without scruples as to financing and managing them, with a view to the manufacture of costly articles required for its own use. (Iyer 1901: 537)

There were also growing demands for protection to Indian industry in the early decades of the 20th century. Most nationalists agreed with some variant of the argument that infant industries needed protection against foreign competition in the early stages of growth. In a speech in the Imperial Legislative Council in 1911, while commenting on a resolution moved by Madan Mohan Malaviya for an increase in the import duty on sugar, the liberal politician Gopal Krishna Gokhale said that India needed to heed the message of the German economist Friedrich List to protect domestic industry when it is not ready to compete with more developed economies. 'If we had a potent voice in the administration of this country, I certainly would strongly advocate that the government of India should follow this advice of List,' Gokhale said (Gokhale 1982: 438).

The British Government's Response to Demands for Indian Industrialization

One indication of the strong support for protection as a necessity for early industrialization is found in an influential committee report. The 1919 report on constitutional reforms by a committee appointed by the British government mentions debates in the March 1913 meeting of the Indian Legislative Council as proof of how 'the theoretical free trader ... hardly exists in India ... [and] educated Indian opinion ardently desires a tariff' (Government of India 1922: 2).

It was partly in response to such pressures, as well as the strategic need to build industrial capacity in its largest colony during World War I, that the colonial government set up an Indian industrial commission to examine the reasons why India was inadequately industrialized given its size, population, and natural resources. While the main report published in 1918 argued that India needs to industrialize, it steered clear of recommending any tariff protection for Indian industry because fiscal autonomy of a colony such as India, including the freedom to set tax rates, was a tricky constitutional issue that would not be settled for a few more years. The Indian Industrial Commission also said in places that Indians were not a naturally industrious people or known to take the risks needed to set up new enterprises.

Yet a cogent argument for government support to Indian industry was made in a detailed 64-page dissent note written by Malaviya (1918). He marshalled evidence from the industrial development after 1870 in countries such as Germany, Austria, Japan, and the United States to argue that most had 'built up their industries by some form of State aid or protection' (Malaviya 1918: 810). Malaviya added that the growth of Indian industry would benefit other countries such as Britain because India would be able to absorb far more imports than it then did.

The moment when protective tariffs to encourage Indian industry became part of policy was not far away. The Government of India Act passed by British parliament in 1919 sought to respond to growing political discontent in India by offering greater, yet limited, political participation to Indians in their country. One part of the new constitutional pact between Britain and its colony was on a Fiscal Autonomy Convention that essentially said that London would avoid interfering with Indian tariff policy as far as possible if the government of India and the legislature were in agreement on protective tariffs (Government of India 1922).

A Fiscal Commission was set up in 1921 to take the possibility of protective tariffs forward. It said in its report: 'We recommend in the best interests of India the adoption of a policy of protection applied with discrimination' (Government of India 1922: 31). The commission laid down three clear principles to decide whether a particular industry deserved protection for a limited period of time. First, the industry to be protected had natural advantages in India. Second, this industry would either not develop rapidly enough or even not at all in the absence of protection. Third, the protected industry would be eventually able to face global competition once its protection was removed.

Tariff protection became official policy after many decades of nationalist campaigns. However, it is worth mentioning here that the sort of protection being offered by the Fiscal Commission was temporary to select industries rather than general tariff barriers which emerged later in India after independence. The Fiscal Commission also suggested that raw materials and machinery should be imported free of duty while semi-manufactured goods used by Indian industry should be taxed only lightly, which entailed a tariff structure that encouraged value addition. The Tariff Board that was set up a few years later following the recommendations of the Indian Fiscal Commission recommended protection to nine industries: steel, cotton textiles, sericulture, paper, sugar, silver thread and wire, magnesium chloride, heavy chemicals, and matches.

Most of the early arguments in favour of the state aiding Indian industrialization focused on policies such as protective tariffs for infant industries, the spread of technical education, new institutions of industrial finance to pool domestic capital, and better infrastructure.

Views on Industrialization through State-led Planning (1920–1950)

The nationalist argument that what a country such as India needed was tariff protection for rapid industrialization had won the day by the mid-1920s. The next couple of decades would see enthusiasm for a new type of instrument for helping the state push rapid industrialization in a backward country: planning. There was no mention of national planning as a solution until the late 1920s. But that would soon change as the Soviet five-year plans and, to a lesser extent, the New Deal in the United States drew attention. The last two decades before India finally gained independence saw growing demands for national planning, not just from left-wing politicians but also, importantly, from Indian industry.

One of the first arguments in favour of national planning for industrialization was written in 1934 by M. Visvesvaraya, the former Dewan of Mysore state. In tune with the main nationalist discourse until then, and in stark opposition to the Gandhian critique of industrialism, Visvesvaraya said: ‘... while every self-governing country is developing its industries and encouraging the growth of urban life, India has been steadily drifting towards increasing dependence on land and progressive ruralization’ (Visvesvaraya 1934: 204).

Visvesvaraya was deeply impressed by the growing role of governments in the economic life of such diverse countries as Japan, the United States, and the Soviet Union. His technocratic plan aimed to double Indian national income in 10 years. The economic expansion would be led by a five-fold increase in industrial production, especially capital goods. The Visvesvaraya plan also had ambitious targets to increase infrastructure capacities in areas such as roads, railways, electricity generation, and shipping. Some 50 million people were to be shifted from agriculture to industry over the decade.

‘India cannot prosper except through rapid industrialisation, and rapid industrialisation is not possible with the sort of organisation and policies adopted in this country. *Industrialisation has to be organised, planned and worked for*’ (Visvesvaraya 1934: 353, italics added). Visvesvaraya wrote at a time when trade barriers were rising across the world in the early years of the Great Depression. He argued for similar trade barriers, though his broader belief was that economic nationalism was just a necessary step in the passage towards eventual internationalism.

Three years before Visvesvaraya published his book on planning, the Karachi session of the Indian National Congress held in 1931 passed a resolution on Fundamental Rights and Economic Programme, which called for giving a strong role to the state in the economic structure of an independent India. Two items in this resolution are important: First: ‘The State shall protect indigenous cloth; and for this purpose pursue the policy of exclusion of foreign cloth and foreign

yarn from the country and adopt such other measures as many be found necessary. The State shall also protect other indigenous industries, when necessary, against foreign competition.' Second: '... the state shall own or control key industries and services, mineral resources, railways, waterways, shipping and other means of public transport' (Chapalgaonker 2016: 122–123). A year before the Karachi resolution, M. K. Gandhi put forward an 11-point charter of demands in a letter to Lord Irwin, the viceroy. One of them was the protection of the Indian textile industry from foreign competition.

The Karachi resolution should in hindsight be seen as an advance indication that the economic policy of independent India would be highly interventionist. Granville Austin, one of the foremost scholars of the Indian constitution, described the Karachi resolution as 'both a declaration of rights and a humanitarian socialist manifesto' (Austin 1999: 56). It is clear that the state would be expected to play an important role in the economy, and the early tentative calls for some form of government aid to infant Indian industries was replaced by a more comprehensive scheme of government intervention in the economy.

Nehru and the National Planning Committee

The most well-known arguments for national planning were to be made in the coming years by the left wing of the Indian National Congress. Jawaharlal Nehru had been impressed with what he saw during his visit to Soviet Russia in 1927. He became one of the strongest votaries of planning. Nehru wrote in a letter to his daughter that the planning idea was becoming more popular as 'the Soviets had put magic in the word'. He later also said in *The Discovery of India*: 'The idea of planning and a planned society is accepted now in varying degrees by almost everyone' (Nehru 1946: 501).

Subhash Chandra Bose asked Nehru to head the National Planning Committee he set up in 1938, after he was elected president of the Indian National Congress. The economist K. T. Shah was appointed secretary of the National Planning Committee. Bose underlined his enthusiasm for planning in the course of his presidential speech:

To solve the economic problem ... (a) comprehensive scheme of industrial development with state ownership and state control will be inevitable.... The state, on the advice of a Planning Commission, will have to adopt a comprehensive scheme for gradually socialising our entire agricultural and industrial system in the spheres of both production and appropriation. Extra capital will have to be procured for this, whether through internal or external loans, or through inflation. (Bose 1938: 409–410)

The actual composition of the planning body that Nehru headed had experts drawn from various walks of life; it was not packed with doctrinaire socialists. The committee struggled with several internal debates: whether planning could exist with the profit motive or whether a focus on heavy industry would lead to the neglect of cottage enterprises and agriculture that employed millions. And while there were very specific targets to improve nutrition, clothing, housing, literacy, and life expectancy, the thrust of the plan would be to increase average incomes through the rapid growth of industry. 'The problems of poverty and unemployment, of national defence and of economic regeneration in general, cannot be solved without industrialisation. As a step towards such industrialisation, a comprehensive scheme of national planning should be formulated' (Nehru 1946: 396).

The main policy thrusts of the National Planning Committee that were identified by Nehru in his autobiography anticipate several major themes of the actual planning experience in India after 1950: a deep suspicion of foreign trade, severe restrictions on the private sector, comprehensive intervention in the economy, state ownership of key industries, collective ownership of farming land, and a socialized system of credit. The broad goals that were laid out in the resolution on Fundamental Rights and Economic Programme at Karachi in 1931 were filled with specifics through the work of the National Planning Committee.

India's Industrial Class and Its Support for Planning

However, it is not the work done by the National Planning Committee but the gradual acceptance of the need for national planning by the Indian industrial class that truly marks the wide acceptance of the planning principle in India. In the same year that Visvesvaraya published his book putting out the case for a planned economy for India, a plea for national planning was made in the annual meeting of the main organization to represent the interests of the Indian business class, the Federation of Indian Chambers of Commerce and Industry (FICCI). The presidential address by Nalini Ranjan Sarkar is worth quoting in detail:

The work which faces us requires a regulating or planning body in possession of all relevant and accurate statistical materials for a correct assessment of economic and social happenings. The central idea is to set up a Supreme Economic Council or National Planning Commission which will in no sense supersede the executive or legislative limit of the government.... The basic necessity of our plan is for developmental purposes. And India should be developed mainly in the interests of Indians. (Sarkar 1934)

Sarkar did not make an argument for the sort of comprehensive national planning that would later emerge in independent India. The organization he was

asking for was more of an advisory body. There was a latent fear that India would see a political revolution unless the economic problems of the poor are solved. Later in his speech, Sarkar specifically states that there is no need for either a 'radical reconstruction of the economic structure' or to eliminate 'from business the motive of personal award' (Sarkar 1934: 566).

However, it was only in 1944 that a few stalwarts of the Indian business community such as J. R. D. Tata, G. D. Birla, Kasturbhai Lalbhai, and Sir Shri Ram came together to create a national plan for post-war economic development in India (Thakurdas et al. 1944). It was later endorsed by FICCI. The Bombay Plan aimed to double per capita income by increasing national income by a factor of three over a period of 15 years.

The authors of the plan said that the success of such a plan depended on the formation of a national government that was responsible to the Indian people, so that there was popular support for some of the sacrifices that lay ahead. The tripling of the size of the national economy was based on the hope that industrial output would grow by 500 per cent, agricultural output by 130 per cent, and the services sector by 200 per cent. The growth push would thus come from industry. It is then no surprise that the \$13.3 billion of the \$30 billion investment plan was to go to creating new industrial capacity, led by what the Bombay plan described as basic industries, though it also took care to say that consumer goods output could not be ignored either.

The funding of the plan was constrained by the low savings rate in India, around 6 per cent of total income. The Bombay Plan pinned its hope of a whole range of other sources of funding, including hoarded wealth in the form of gold, the sterling assets held in London, foreign borrowing, and trade surpluses. But perhaps the most controversial part of the funding plan was the proposed heavy dependence on money creation by the Reserve Bank of India.

The money stock growth that such a strategy entailed would inevitably have led to inflation. It is in this part of the discussion that the acceptance of a growing role of the state is clearest in a plan that was supposed to represent the interests of Indian big business houses. 'In order to prevent the inequitable distribution of burden between different classes which this method of financing will involve, practically every aspect of economic life will have to be so rigorously controlled by government that individual liberty and freedom of enterprise will suffer a temporary decline.' (Thakurdas et al. 1944: 55)

The Bombay Plan not only said that the role of the state would almost inevitably grow in the planned economy, it also gave a detailed analysis of three specific forms of state intervention: the ownership, control, and management of economic enterprises. 'A widening of the economic functions of the state in these directions is advocated on the ground that unrestricted private enterprise under the capitalistic system of production has not served the interests of consumers

and of the community generally as satisfactorily as it should have' (Thakurdas et al. 1944: 94).

There were other attempts at drawing up plans for economic development at broadly the same time. The former international communist M. N. Roy had instructed the Indian Federation of Labour to prepare a People's Plan that would be based on the interests of the labouring class. In a resolution adopted in December 1943, the Indian Federation of Labour called for an economic plan that would create a society where production would not take place for profit. It also made the political demand that the plan could not be successful unless labour had an effective voice in the government of Free India (Karnik 1978).

The Muslim League too decided in its session at Karachi in 1943 to set up a Planning Committee that would create a comprehensive five-year programme for the economic and social uplift of Muslims 'as well as state industrialisation of the Pakistan zones' (Talha 2007). There were two broad reasons why the Muslim League did so. First, it wanted to address the problems that had come in the way of the economic advancement of Muslims in undivided India. Second, it wanted to tackle the criticism that the independent nation state it was asking for could not be a viable economic unit.

Gandhi's and Patel's Challenge to Planning

But perhaps the most interesting plan to challenge the common thrust of the Congress and Bombay Plans was written by a Gandhian economist, Shriman Narayan Agarwal (1994). Gandhi himself signalled his agreement with the document by writing a foreword. The Gandhian Plan was based on the premise that merely copying Western planning – be it of a capitalist or socialist variety – would be inadequate since it would not have its roots in traditional Indian economic arrangements. Its broad economic vision was centred around rejuvenated villages, investment in agriculture, cottage industries, and regional autarky. Agarwal identified six basic industries that would eventually be either owned by the government or be under tight state control, though the investment allocation for these basic industries in the Gandhian Plan were only slightly lower than the allocation for agriculture.

The Gandhian Plan had several elements that were at odds with the subsequent economic policy in independent India – primacy to agriculture, state ownership of all land, minimal domestic trade between self-sufficient village units, the reintroduction of barter in the rural economy, international trade that would be reduced to a minimum and controlled by the government, and liquidation of rural debts. It was a curious blend of local initiative and tight state control over the economy.

India moved towards political independence with a broad consensus cutting across political boundaries that it had to plan for its future economic development. The Advisory Planning Board of the interim government headed by Jawaharlal Nehru called in 1946 for the establishment of a national planning agency 'responsible to the cabinet ... which would devote its attention continuously to the whole field of development' (Chowdhary 1991: 45). The Industrial Policy Resolution of 1948 said that the government proposed to establish a National Planning Commission to formulate programmes for economic development. But the fact that it took Nehru a few more years to eventually set up the Planning Commission, a project dear to him, suggests that there was political opposition from some of his cabinet colleagues.

The opposition to the more radical forms of planning was led by Vallabhbhai Patel, who was the second most important man in the cabinet after Nehru. So it was only in 1950 that the Congress Working Committee resolved after a long debate that the government should establish a Planning Commission. But Patel convinced the party to delete one part of the original resolution, which said the purpose of planning was 'the progressive elimination of social, political and economic exploitation and inequality, the motive of private gain in economic activity or organisation of society, and the anti-social concentration of wealth and means of production' (Chowdhary 1991: 45).

The grand compromise between different factions of the Congress party was also evident in the first industrial policy of the newly independent country. The policy statement underlined the fact that a poor country such as India needs to focus on increasing production rather than on distribution of existing incomes while also adding that the private sector will have an important role to play even as state participation in industry increases in the future.

The practical result of this compromise was that only three areas – arms manufacture, railways, and atomic energy – were reserved exclusively for the state. There were six more areas where most of the industrial expansion was expected to be through the public sector: coal, iron and steel, aircraft manufacture, ship building, telecommunications equipment, and mineral oil. This was a far cry from the more radical demands that planning should be used to change the very structure of India's economy and society. It was only in the 1956 Industrial Policy Resolution that the scope of state participation in industry was widened, around the time when the Congress party was explicitly committing itself to the socialist pattern of society. The 1956 policy makes it clear that it is guided by the principles of socialism.

The die had been cast. In his budget speech on 28 February 1950, finance minister John Mathai, one of the authors of the Bombay Plan, told parliament that the government had decided to set up a Planning Commission to be headed

by Nehru. The Planning Commission was eventually set up through a government resolution on 15 March 1950. It would become the main instrument of state-led industrialization until the liberal economic reforms of 1991 helped India shift to a policy regime that gave greater weight to the market.

Conclusion

The Planning Commission was set up in March 1950. It would play a central role in the subsequent attempt to engineer a structural transformation in the Indian economy through capital accumulation led by the state. This chapter shows that the decision to set it up came at the end of several decades of intellectual arguments by the Indian nationalist elite about how India did not have the conditions to build a large industrial base without state support. The initial calls for a weak form of state support were followed first by demands for protective tariffs and then by arguments in favour of centralized national planning.

The Russian economic historian Alexander Gerschenkron showed in his study of economic development in Europe, particularly the differences between the early industrializers such as the United Kingdom and the late industrializers such as Germany, that countries overcome economic backwardness in a variety of ways (Gerschenkron 1962). One stylized way of presenting his analysis is to ask which agency is dominant in capital accumulation: private enterprise, the banks, or the state? There is no single path out of economic backwardness of the sort posited in the modernization theory of W. W. Rostow. The Indian trust with planning led by the Planning Commission also reflected the same belief in the fundamental heterogeneity of development experiences.

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Ideas and Origins of the Planning Commission in India

*Shruti Rajagopalan**

The ideas of economists and political philosophers, both when they are right and when they are wrong are more powerful than is commonly understood. Indeed, the world is ruled by little else. Practical men, who believe themselves to be quite exempt from any intellectual influences, are usually slaves of some defunct economist.

—John Maynard Keynes

Introduction

Economic science, economic planning, and politics are deeply entwined while tracing the origins of planning in India. The purpose of this chapter is to survey the prominent ideas in the early 20th century that influenced Indian academics, intellectuals, and political leaders when the postcolonial Indian planning state began to take shape.

I discuss the central ideas in economics that gained prominence following the waning of *laissez-faire* economics, like Soviet-style central planning, fascism, American progressivism and institutionalism, and Fabian socialism. Related

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to these ideas is the changing toolkit of economists with the increasing use of mathematics and statistics. This chapter tracks these ideas and their influence on Indian intellectuals to understand the path that led to planning in India.

The Indian experience with planning in the early 20th century involves scientists, politicians, mathematicians, economics professors, theosophists, and leaders of the nationalist movement against the colonial government. I argue that the planning exercise in India can be attributed to two distinct factors. The first is the role of economic ideas in the sociopolitical movement for Indian freedom. These ideas were largely socialist leaning and created the foundation on which the economic policy of India was to be based. The second is the role of scientists and technicians who created the planning apparatus through which socialist ideas could be executed.

Laissez-faire Abandoned

Adam Smith and the 19th-century classical economists viewed the system of natural liberty as one that harmonized self-interest and social interest. Consequently, they believed in allowing the market to function with minimum control by the state. Laissez-faire economics, after the publication of *The Wealth of Nations* in 1776, dominated the economics profession for the next 100 years.

However, in the late 19th and early 20th centuries, faith in markets began to wane. Marx's ideas, as outlined in *Das Kapital*, gained popularity in Europe and ultimate recognition with the birth of the Soviet Union. Simultaneously, in the late 19th century, the United States witnessed an ideological change towards progressivism. Unlike Marx's ideas, progressivism largely supported markets but with emphasis on greater state intervention. Examples of this change are the Sherman Antitrust Act of 1890 and interventions in other areas such as food and drug safety, agriculture, and monetary policy.

By 1924, John Maynard Keynes had written an obituary titled 'The End of Laissez-Faire'. The first criticism was that decentralized market activity does not lead to optimal economic allocation, especially savings and investment. This critique was more generally developed initially by utilitarians such as John Stuart Mill and Henry Sidgwick. Later, neoclassical welfare economists like Alfred Marshall and A. C. Pigou developed a literature on externalities, commons, and market failures (Medema 2007). The second criticism was that individuals acting in their self-interest may not know what they are doing, leading to poor individual and social outcomes. Irving Fisher (1907: 20) argued, 'We cannot let any dogma of *laissez-faire* prevent us from checking suicidal ignorance.' Keynes's work on allocation of savings and investments in an economy also echoed this sentiment (Keynes 1926: 318–319).

A different criticism came from Marxists, who were not concerned with allocative efficiency, but distributive outcomes. Marxists thought the natural operation of decentralized markets will inevitably lead to a concentration of capital and wealth, thereby leaving the capitalist system fundamentally unstable and unjust. The only solution was to abolish private property (Marx and Engels 2011).

Between the concerns over allocation and distribution, society moved away from *laissez-faire* towards more government intervention (White 2012: 12–31). However, experts reached no widespread agreement on the kind of necessary or sufficient intervention in the economy. Different economists advocated different levels of intervention, and the early 20th century witnessed economies led by socialists, progressives, Fabians, and fascists.

Although both the Cambridge school and the Fabians called for a greater role for government in the economy, the Cambridge school was sceptical of collectivism. Alfred Marshall said that ‘economists generally desire increased intensity of State activities for social amelioration, that are not fully within the range of private effort: but they are opposed to that vast extension of State activities which is desired by Collectivists’ (Marshall 1907). Like Marshall, Fisher argued, ‘We are doubtless today in danger of too much socialistic experimentation; but nothing can be gained and much may be lost by ignoring or condoning the opposite evils of individualism’ (Fisher 1907: 20). The Fabians, on the other hand, admired the complete collectivization of the Soviet as the end goal to be reached using democratic social reforms as a means instead of a revolution (Webb 1920).

This trend away from the *laissez-faire* system can also be seen in the Indian freedom movement. Indian intellectuals of the 20th century, such as Ram Mohun Roy, Dadabhai Naoroji, and Gopal Krishna Gokhale, were influenced by British and Continental liberal philosophers. Roy was an advocate of ‘a limited government presenting a variety of checks on any abuse of its powers’ (Roy 1834). He argued for constitutional limitations constraining the British East India Company, and believed a strong free press and independent judiciary along with a voting citizenry were the future of India (Bayly 2007).

Nineteenth-century Indian liberals believed in British values and wanted to make these available to Indian citizens of the Crown. They founded the Indian National Congress, which went on to play a leading role in the independence movement. Dadabhai Naoroji, an Indian liberal intellectual, argued that British economic policy impoverished Indians and drained wealth from India to Britain through high taxation. He also said that the economic policy pursued in India was very ‘un-British’ and that policies that integrated Indian citizens into the empire and lowered taxes would benefit both Britain and India (Naoroji 1901). In his 1886 presidential address to the Indian National Congress, he emphasized the advantages of British rule in India and declared the loyalty of Indian citizens to the Indian government and the Crown. His main message was to improve the state of

impoverished Indians through representation. He called for the Congress to gain better representation in the British parliament, and in the Indian Civil Service, mainly to rewrite the taxation policies of the colonial government.¹ Naoroji was also a liberal thinker and ‘first and foremost a constitutionalist’ (Doctor 1997: 28).

Gopal Krishna Gokhale² was inspired by liberal thinkers like Edmund Burke and John Stuart Mill and believed in a free society with a limited role for the state in provisioning public goods and free education (Guha 2010: 99). Though both Naoroji and Gokhale wrote extensively against the British Empire and supported self-rule in India, their demand was for a liberal, not socialist, society.

In the 1920s, the movement for some form of home rule or *swaraj* gained momentum. At the All Parties Conference in 1928, Motilal Nehru wrote a draft constitution calling for a democratic republic, the first constitution written exclusively by Indians. It conceived of Dominion Status for India within the empire and outlined a bill of rights similar to the American Constitution. But with time, and with the passing of leaders like Gokhale and Naoroji, the strong liberal fervour within the Congress faded.

As intellectuals moved away from *laissez-faire* in Europe and the United States, Indian leaders educated in England in the early 1900s who grew to prominence the 1920s onwards grew more inspired by socialist ideas. In the large-scale exercise of the freedom movement and nation building in the 1930s, socialism was a foregone conclusion. The type of socialism and the precise development plan were yet to be worked out.

The ideology of planning gradually found its way into the heart of the burgeoning independence movement, the Indian National Congress. The Congress Socialist Party, spearheaded by Nehru and full of planning enthusiasts, was formed within the broader fold of the Congress in 1934. Congress also organized the National Planning Commission in 1938 to detail the role that state planning could play in the growth of the nation. The commission met through the late 1930s and early 1940s, developing proposals that greatly influenced the goals and the institutional structure of planning in independent India.

In addition to the National Planning Commission’s report, intellectuals, activists, and technocrats also worked on economic plans for India. By the end of World War II, socialism was the new orthodoxy in Indian politics. This led to the adoption of economic planning when India became independent in 1947.

Soviet Socialism

Lenin led the Bolsheviks to form a new government based on the ideas of Karl Marx. But Marx’s ideas never delineated *how* the economic system would be organized under socialism (White 2012: 28–31).

When the time came to execute Marxist ideas, planners were faced with an intellectual vacuum. Nobel laureate Leonid Kantorovich observed that

the economic theory of Karl Marx became the methodological background of the new created Soviet economic science and of the new control system. Some of its important and fundamental statements on general economical situations turned out to be applicable immediately to a socialist economy. However, a practical use of Marx' ideas needed serious theoretical research. (Kantorovich 1989)

Lenin's government ran with two basic ideas – nationalization of property and central planning. The Bolsheviks established a central planning agency known as the Supreme Economic Council. The council nationalized the banking system, controlled foreign trade, nationalized large industrial enterprises with labour committees in control of factories, nationalized small businesses, outlawed private trade, private hiring, and private leasing of land, and even tried to eliminate the use of money.³

The result of the policies of the Supreme Economic Council was calamitous, and far from what Marxists had envisioned. Industrial output plummeted, food shortages were widespread, and fear of starvation consumed the countryside. Lenin introduced the New Economic Policy (NEP) in 1921, which readmitted market exchange, allowing peasants to sell their produce and substituting a lower percentage tax for the previous confiscations. Small businesses and services were denationalized, and private trading was once again allowed. The economy improved under Lenin's NEP.

Meanwhile, Marxist–Leninist ideas went well beyond Russia and influenced governments in central Europe, such as Hungary and Bavaria. Their influence in Vienna affected the broader discussion of economic ideas. With the political victory of the social democrats, socialist planning was inevitable. E. H. Carr (1985) has chronicled the impact of the revolution on Europe and Asia and described it as the coming of a new 'true democracy'.

The Soviet system was a huge inspiration to Indian students in England and continental Europe. Several student groups had deep communist connections or communist sympathies – including the Federation of Indian Students' Societies in Great Britain and Ireland, the League Against Colonial Oppression, India League, Hindustan Community House, Cambridge Majlis, Oxford Majlis, and the Committee of Indian Congressmen. Special groups, such as the Progressive Writers' Association, the Left Book Club, and the Oriental Printing Press, supported socialist and communist writers.⁴ These organizations, though in England, were quite influential in India. Because of a strong connection between the Indian student nationalist movement and communist and socialist ideas, several

young Indians like Jawaharlal Nehru and Minoo Masani visited the USSR in 1927 for the tenth anniversary of the Bolshevik revolution.

Describing this visit, Nehru wrote, 'The contrast between extreme luxury and poverty are not visible, nor does one notice the hierarchy of class.' He concluded that the 'Soviet Union treated its workers and peasants better, its women and children better, even its prisoners better' (Guha 2007: 161–162).

In a syllabus of academic and intellectual readings publicized in the 1930s by the socialist wing of the Congress party, the author writes:

It will be noticed that this syllabus contains only books in favour of socialism. It may be asked why no books have been included which argue against it, for are there not two sides to every question? We emphatically deny the validity of the later proposition. For a man of action, and every socialist is a man of action, there is only one side to the question. No action is otherwise possible.⁵

This reading list was one of the hundreds of pamphlets distributed in the 1930s and 1940s to educate people on the nature of development problems and solutions in India.

But many in the Indian nationalist movement could not reconcile themselves with certain aspects of the Soviet system, most specifically the restrictions on speech and press. Nehru, after he became prime minister, in a letter to state chief ministers in 1953, wrote: 'Thus far we see a full-blooded socialism, if that is the right term, working in Communist countries, together with the accompaniment of authoritarian control and an absence of the democratic approach.... Certain economic results are undoubtedly obtained that way, but the price paid is heavy.'⁶

The Indian freedom movement can be characterized as Gandhian – nonviolent, non-cooperative, and involving civil disobedience by large masses of people making it difficult for the British to govern India. The centralized dictatorial control of the Soviet system did not receive acceptance in the Congress Party or among the people at large. The Congress Socialists urged the Congress to be more sensitive to the rights of workers and peasants and detested the coercive politics of the Soviet Union.

Minoo Masani was quite enamoured with the Soviet system during his time at the London School of Economics (LSE). He later changed his position, mainly in response to the coercion involved in the Soviet system – an idea at odds with his Gandhian values. By 1940, Masani was very critical of socialism, communism, and Marxism and wrote a detailed critique, *Socialism Reconsidered* (Masani 1944). He attacked the methods used by communists and socialists, such as abolition of private property, as never leading to an equal society.

While intellectuals across the world debated the desirability of socialism, economists debated the feasibility of socialist calculation. The socialist calculation

debate was kicked off by Ludwig von Mises in his paper in 1920 followed by the 1922 book *Socialism*, which explained why the socialist system of planning cannot be executed. Socialism required social ownership of the means of production and the abolition of private property. Mises argued that without the private ownership of the means of production, there would be no exchange of these means of production, and therefore no exchange ratios. Without market prices emerging from exchange, the planners cannot calculate profit and loss, and therefore cannot rationally allocate these goods (Mises 1922).

This critique questioned the core of the socialist system, which had not resolved how to allocate production. A second issue was that without prices reflecting the scarcity of each good, it was impossible to determine the appropriate production process. Given the impossibility of rational economic calculation in socialist planning, F. A. Hayek demonstrated that the emergent institutional structure would require planners with unlimited discretion to execute the plan (Hayek 1944).

While the Misesian critique made a big impact, it did not make socialist planners deviate from planning. Oskar Lange provided one answer to the Misesian critique (Lange, Taylor, and Lippincott 1938), which involved consumer goods being sold privately in the market, with the means of production under central planners' control. Lange proposed that the central planners would set initial prices and have state firms minimize costs subject to the preset prices. Any resultant surpluses or shortages would be communicated back to the planners, who would adjust prices and quantities in the future. Lange's error was in assuming that once the set of equilibrium prices was reached, this state of equilibrium would remain stable. The Lange solution, lauded at the time, ignored the role of incentives of individual decision-makers within the economy, and the process by which information emerged and was communicated in a market economy. But mainstream economists largely accepted the market-socialist solution to the calculation problem.

Based on the ideas of Oskar Lange and Abba Lerner, and the plans created by GOSPLAN, Indian economists set to work. During the 1930s and 1940s, many plans were created for the specific needs of India's development problems. The first emerged in 1934 – by the engineer M. Visvesvarayya. The essence of his *Income Plan* was to industrialize India and double national income every 10 years. In the 1940s came the *Bombay Plan* – chaired by Ardeshir Dalal and drawn up by a group of industrialists – outlining various sectors of the mixed economy. The *People's Plan*, crafted by Marxist M. N. Roy, which encapsulated the position of the more radical communist left, perhaps embodied the ideas of Lange–Lerner most closely. The *Gandhian Plan* of S. N. Agarwal, which emphasized a self-sufficient closed economy, preserved the village as the unit of economic activity.⁷

In an academic culture in India dominated by support for socialist policies, B. R. Shenoy was the only one aligned with the ideas of Mises and Hayek. Shenoy's criticism of Indian planning began in the 1950s with his famous 'Note of Dissent' on a draft of the second five-year plan (B. R. Shenoy 1955). Among the 20 economists on the government advisory panel, he was the sole dissenter (Bauer 1998: 2). Other Indian economists either took the Lange–Lerner position as a given, and worked on other aspects of the planning problem, or made minor changes to the Lange–Lerner position to adapt it to the Indian economy.

Shenoy's views opposed those of international luminaries such as Lange, Nicholas Kaldor, Joan Robinson, Gunnar Myrdal, and Ragnar Frisch, who were all enthusiastic supporters of the Indian experiment with planning. Shenoy was ignored and these luminary economists captured the imagination of P. C. Mahalanobis, a much more powerful intellectual within the political planning movement.

Fascism/Nazism

Departing from the Soviet model, fascist economics attempted to reconcile totalitarianism with individualism. Middle-course fascism steered between a competitive and a collectivist economy led, in practice, to a heavily monopolistic-interventionist society, with extensive governmental control of prices and capital investments and large 'socialization of losses'.

It is difficult to identify any fundamental theoretical or analytical framework of fascist economics. Wilhelm Röpke argued that, at best, one can develop a set of themes or ideas, without theoretical underpinnings, to understand fascist economics, like illiberalism, totalitarian control in economic choices, economic nationalism, and militarism (Röpke 1935: 85).

Fascism retains nominal private ownership of business but puts government in close control of major investment and production decisions. The best-known version of fascist economics in action comes from Italy, led by Mussolini from 1922 to 1943. Fascism took the form of a system of cartelization and planning by 'corporatives' – government–business–labour boards with government as the controlling partner. Cartels or guilds essentially controlled output and kept prices high and competition at bay. In return, producer guilds catered to the resource needs of the fascist government and fuelled its militarist ambitions.

In Hitler's Germany, the ruling party that imposed fascist economic policies called itself the National Socialist German Workers' Party. Under Hitler, the German economy was increasingly controlled by the government. Each policy led to the next policy intervention, and soon Nazi policies were eerily similar to totalitarian planning in the Soviet Union. German economist Walter Eucken

details the consequences of the New Plan in 1934 leading to greater levels of economic control by the Nazi Government. The important distinction, as pointed out by Eucken, is that the German control of the economy was accidental, with each intervention creating subsequent need for more intervention. This was unlike central planning, where the intention was to control allocation of resources across all sectors and industries (Eucken and Hutchison 1948: 79).

While fascist economics had the rhetoric of class theory, unlike Marxist economics it had no fundamental principles of economic interests and class. It differed from communism because it required no revolutionary changes to the economic and social structure of society to support the classes that helped it into power (Röpke 1935).

Fascist economics was known to Indian intellectuals in the 1920s and 1930s. Gandhi had interacted with Mussolini and seemed quite impressed with his plans in general. However, in 1931, Gandhi expressed his mixed opinion of fascism as he wrote to Romain Rolland:

Mussolini is a riddle to me. Many of his reforms attract me. He seems to have done much for the peasant class. I admit an iron hand is there. But as violence is the basis of Western society, Mussolini's reforms deserve an impartial study. His care of the poor, his opposition to super-urbanization, his efforts to bring about co-ordination between capital and labour, seem to me to demand special attention. (Zachariah 2014: n. 73)

After the events of Kristallnacht on November 1938, the Indian National Congress made a declaration against Hitler's Germany (Hauner 1983: 67). In the *Jewish Tribune*, Nehru called Hitler's government an 'amazing tyranny' that had no human standards.⁸ Gandhi was similarly sharp in his criticism of Hitler's regime, and provided the main impetus to support the British in World War II against Hitler, despite seeing the British colonial government as an oppressor.

The main support for fascist ideas in India came from Subhash Chandra Bose – the president of the Indian National Congress in 1938. While Bose condemned the events of Kristallnacht and was critical of the racist policies of the Nazi government against Jews, blacks, and other people of colour, he saw an Indo-Germanic alliance as valuable in overthrowing the British government in India. Bose also had strong communist and fascist leanings in his economic views and saw the state as a valuable player in economic planning. In *The Indian Struggle*, Bose called for a synthesis between communism and fascism and started the planning wing within the Congress party to create an economic plan for liberated India (Bose 1934).

Sareen (1996: 44–45) argues that Bose was not interested in the ideology of Nazi Germany but was collaborating with it to liberate India. However, Zachariah

(2014) documents how Bose alienated himself from Nehru over the Nazis because he wanted to maintain Indo-Nazi relations while Nehru wanted to give asylum to the Jews.

Despite some support for the Nazi government and some relations formed in the 1920s through student exchange programmes between India and Germany, after 1938 Indian support for the Nazis declined markedly. Due to the Gandhian and nonviolent nature of the Indian nationalist movement, Indian political elites had a conflicted view of fascist economics, but they eventually condemned fascism and Nazism for their military agenda and repression of minorities. As in the rest of the world, in India fascist and Nazi economics was now inseparable from the pogrom. The rejection of political oppression also meant a decline in support for the economic ideas. By the end of the war and at the birth of the Indian republic, there was no support for fascist or Nazi economic ideas.

American Institutionalism and Progressivism

While ideas of state planning were taking root in Europe, Americans were not completely insulated from it. The historical school politically opposed classical liberalism and methodologically opposed the abstract theorizing of the older, classical and the newer (post-1871) neoclassical economics. Many American economists were trained in Europe and were exposed to the historical school of economics.

An important economist in this era was Thorstein Veblen. In his book *The Engineers and the Price System* (1921), Veblen characterized businessmen as monopolists seeking to restrict output, raise prices, and increase profits. He advocated state intervention where engineers could run the modern economy better and more efficiently than the decentralized price system. Some of Veblen's policies were so similar to socialist planning that many debate whether Veblen was an institutionalist or a socialist (White 2012: 117).

Other important economists publishing in the American institutionalist tradition at this time were Simon Patten, Richard T. Ely (the founder of the American Economic Association), and John R. Commons. But institutionalists' ideas did not persist because of the Great Depression and the Keynesian revolution.

In the United States, the analogous event to the October Revolution in Europe was the Great Depression. Ideas of interventionism and planning were taking root even in the early 1920s, but the Depression hastened these policies. Two very influential economists in the Depression and post-Depression years were Tugwell and Keynes.

Rexford Tugwell was a student of Simon Patten (of the German historical school) and later became an important economic advisor to F. D. Roosevelt.

Tugwell was attracted to Italian fascism and wrote that Mussolini's regime was 'doing many of the things which seem to me necessary' and was 'the cleanest, neatest [*sic*], most efficiently operating piece of social machinery I've ever seen'.⁹ Tugwell wrote: 'I have said plainly, that there is much to be said for economic isolation, that it is here to stay, and that therefore laissez-faire is dead.' In an earlier speech, Tugwell was equally blunt: 'There is no invisible hand. There never was' (White 2012: 120). Before 1935, many progressives could and did admire aspects of fascism's economic system, despite their distaste for its repression of civil liberties. American expressions of admiration for Mussolini's economic policies stopped as he allied with Hitler.

During the 1930s, two of the most important questions faced by economists were the reasons for the Depression and its prolonged nature.

To explain the Depression, John Maynard Keynes argued that the market economy had collapsed on its own and had become trapped in a vicious cycle from which it could not free itself. This cycle starts with the public saving its income by hoarding money, rather than spending it on consumption goods or financing capital investment. This saving is a leakage from the economy, reducing expenditure and therefore reducing output, that is, the 'paradox of thrift'. In this event, consumer- and capital-goods industries face losses. With the piling up of these losses, individuals and banks invest and lend still less to business, and further hoard their income. The inability to exit this cycle causes a prolonged depression, and the economy needs help from the state.

Keynes's suggestion was to change monetary policy to break out of this cycle. And that government spending and/or an increase in spending on public works could lead to greater employment and therefore greater demand for goods, boosting aggregate demand.

In sharp contrast, F. A. Hayek's theory of the Depression stated that the crisis was the result of credit expansion having allowed investment to outrun voluntary saving. So, the expansion was the error, and the contraction is the correction. Government policies to augment consumption demand would only worsen the crisis. Hayek's policy prescription was to do nothing and let the market naturally adjust and recover from the effects of the credit expansion.

Although Keynes's critique of markets and his prescriptions for state intervention were radically different from the orthodoxy, he fundamentally believed in markets and explicitly rejected socialism. He suggested that the capitalist economy was having 'magneto' (alternator) trouble, as against the socialist idea that the entire automobile should be replaced. He explicitly rejected Russian communism for three reasons: (a) it 'destroys the liberty and security of daily life'; (b) its Marxian economic theory is 'not only scientifically erroneous but without interest or application for the modern world', and its Marxist literature more generally is

‘turgid rubbish’; and (c) it ‘exalts the boorish proletariat above the bourgeois and the intelligentsia’ (White 2012: 130).

Though competing explanations were offered by Keynes and Hayek at the time, Keynes’s analysis and policy prescription caught on remarkably fast and within a decade became part of the mainstream economic explanation of and solution for the Great Depression.

Keynes and Hayek had different connections to Indian intellectuals. While many Indians studied at the LSE, Hayek’s ideas on business cycles did not capture the imagination of Indian students. B. K. Nehru recalls that Indian students were much more influenced by the political science department than the economics department. About Hayek in particular, he wrote, ‘Professor Hayek from Vienna who was so much beyond me that I had to give him up fairly early’ (B. K. Nehru 1977). B. R. Shenoy was the only major Indian intellectual connection with Hayek at the time. Shenoy was a graduate student at the LSE when Hayek delivered the lectures that formed the basis of *Prices and Production*. Shenoy was so smitten with the Austrian tradition that, according to his daughter, ‘after studying Austrian theory, he said he was immunized against every other framework’ (S. Shenoy 2003: 2). He later became famous as the only dissenter to planning.

Keynes had worked in the India Office for a few years,¹⁰ and had contact with Indian students at Cambridge as an undergraduate and Fellow of King’s, President of the Cambridge Union, Secretary of the Cambridge University Free Trade Association, a frequent guest speaker at the Cambridge Majlis (the Indian students’ society), founder of the Political Economy Club, and university lecturer in economics. He came to the defence of Indian students amidst great controversy over an article advocating limiting the number of Indians at Cambridge (Chandavarkar 1990: 153–160). Through the Political Economy Club, he influenced students like V. K. R. V. Rao (who later set up the Delhi School of Economics, and was the Planning Advisor for the Food Department in India), L. K. Jha (who became the Governor of the Reserve Bank of India), and I. G. Patel, who served as the Chief Economic Advisor in India.

In all his writings on India, Keynes only limited himself to very specific policy questions on the Indian monetary system and did not concern himself with the larger questions of the welfare of the Indian citizens under colonialism, imperial economic policy, or high taxation and wealth extraction – which were burning questions among Indian nationalists (Chandavarkar 1990: 134–139).

The Keynes–Hayek debate on business cycles was against the backdrop of the Great Depression but was taking place in England. During the Depression, in the United States, Tugwell had the most influence over policy. Tugwell believed that the Great Depression had been caused by industrial overproduction that had clogged markets, driven by myopic profit seeking and abetted by the absence

of any top-down oversight of the economy. He was named assistant secretary of agriculture in 1933, the position he held while helping to devise the economic centrepieces of the early New Deal, the National Industrial Recovery Act and the Agricultural Adjustment Act.

Just as competition among nations leads to war, Tugwell suggested, the Great Depression shows us that competition among business firms is similarly destructive and wasteful: 'War in industry is just as ruinous as war among nations', while 'order and reason are superior to adventurous competition'. The alternative was central economic planning (White 2012: 120).

American institutionalism and progressivism did not have a major influence on Indian academics and activists at their peak in the United States. Not many Indian students travelled to the United States for education, mainly due to hostile immigration policies, distance, and a lack of awareness of employment opportunities awaiting those with an American degree. A British education could be used to gain entrance to the civil services, legal profession, and so on, in India.

Two notable members of the Indian nationalist movement went to the United States. The first was B. R. Ambedkar, an Indian intellectual from the untouchable caste. Ambedkar received a PhD in economics at Columbia University, and then went to England to the LSE for a DSc. Ambedkar's exposure to economic ideas was at Columbia University, a stronghold of the institutionalists. He took various economics courses both in specific subjects such as monetary policy and public finance, and also in the history of ideas.

Ambedkar's economics mentor was Edwin Seligman, best known for his work on the progressive income tax and for being one of the founding members and early presidents of the American Economic Association (AEA). Ambedkar's PhD dissertation, titled *The Evolution of Provincial Finance in British India*,¹¹ was critical of the imperial British system and its harmful effect on Indian development.

Ambedkar was also inspired by various progressive and socialist reformers at Columbia such as John Dewey and James Harvey Robinson. His other major publication was a paper called 'Castes in India, Their Mechanism, Genesis and Development', given first in a seminar with Alexander Goldenweiser in the anthropology department (Ambedkar 1917). Ambedkar, however, did not spend the Depression years in the United States and left to pursue his legal studies at the LSE.

The second was Jayaprakash Narayan who went to Berkeley and worked in the fields, service jobs in hotels, restaurants, and so on, to pay for his tuition and living expenses. Due to increases in tuition, he was forced to transfer among the Universities of California, Iowa, Wisconsin, and Ohio. During his years as a student, Narayan experienced the difficulties of the working classes at first-hand; it was difficult to get an education while making ends meet even in a sophisticated

economy such as the United States. While in Wisconsin, he was introduced to Marx's ideas, which made a big impression on him. Though Narayan studied sociology and not economics, he had strong views on the working of the economic system and was not an institutionalist or a progressive, but a radical Marxist when he left the United States and returned to India in 1929.

Fabian Socialism

A fourth strand of non-laissez-faire economics emerged from the Fabian Society. Founded in 1884 in London, it was a group that left the radical socialists and utopian socialists to create a society that focused on evolutionary socialism. The society took a gradualist approach to changing the economic system with the end goal of creating a democratic-socialist state in Britain.

The general Fabian view was that the wages and position of labour had improved through the 19th century in part because of various social-reform legislation. The idea was to continue this trend and create a political framework to gradually move towards more equitable distribution of wealth and eventually the public ownership of capital and property in society. This social-reform programme was not to be conducted by the masses or the proletariat, but was to be brought about through legislation by experts.

George Bernard Shaw and Sidney Webb were the movement's intellectual leaders, writing short tracts and publicizing them to mobilize a new kind of socialist thought. Other early members were Annie Besant and Graham Wallace. From the 1880s to the 1930s, the society turned out more than 200 'Fabian Tracts' advocating social democracy.

Fabians also founded and built up the Labour Party. Sidney Webb helped with its founding in 1900 and served in important executive positions and as a Member of Parliament (MP). He coauthored election manifestos and the Labour Party constitution that was adopted in 1918 (Webb 1918). In the interwar period, the Fabians grew in prominence and essentially shaped socialist legislation and policy in British politics through the Labour Party.

In 1891, another important member, Beatrice Webb, wife of Sidney Webb, joined the Fabian Society. Together, the Webbs founded the LSE in 1895. Another influential Fabian, William Beveridge, served as the university director of the LSE from 1919 to 1937. The interwar years were extremely important for the LSE as an international and cosmopolitan institution. The Fabians had a clear position against the imperialist and colonial policies of Britain and attracted a lot of interest from international students from various colonies, especially in South Asia and Africa.

One of the most influential Fabians at the LSE was Harold Laski, professor of political science. Laski's *A Grammar of Politics* (1925) detailed the case for Fabian socialism. In the 1930s, Laski drifted from Fabianism to a more Marxist socialism, and published a number of books including *Democracy in Crisis*, outlining Marxist ideas. Laski was the most beloved teacher and had an immense following of British and international students, whom he and his wife welcomed beyond the classroom into their home.

No narrative of socialism in India can be written without talking about the role of the LSE. Indian ideas of socialism were essentially a variant of Fabianism. The LSE represented a reaction 'against individualism and *laissez-faire*, cosmopolitanism and free trade and against the rule of intelligent amateurs who had emerged from real and would-be upper-class families, from the public schools, from Oxford and Cambridge' (Dahrendorf 1995: 28).

Unlike the conservatives or liberals at the time, the Fabians were particularly interested in the treatment of citizens in British colonies. The society organized lectures to introduce new scholars and ideas of socialism. The early members of the Fabian Society are immensely important: Dadabhai Naoroji and Annie Besant.

Naoroji was a member of the Fabian Society and lectured for at various Fabian events on the plight of Indians under the imperial rule between 1880 and 1890. Naoroji, a member of the Liberal Party, was elected to the House of Commons from Central Finsbury in 1892 by a margin of three votes. His victory was due to his involvement with the Fabian Society in London, which supported the candidacy of an Indian facing racism in London (Shaw 1892).

Annie Besant was involved with the Fabian Society from the beginning through her close association with G. B. Shaw. She attended the first conference in 1886 and gave a presentation on socialization of capital. She then joined the Theosophical Society and moved to its headquarters in India. This group was extremely instrumental in the Indian nationalist movement, and many more Indians became exposed to Fabian ideas through Besant's presence in India. Besant also campaigned for the rights of Indians and launched the Home Rule League in 1916. In 1917, she became the first woman president of the Indian National Congress at the Calcutta session.

One of Besant's protégés was V. K. Krishna Menon. Menon then studied at the LSE under Laski, gaining a BSc and an MSc in politics as well as a teaching diploma. He was one of Laski's most successful Indian students. They also developed a close personal friendship over the years, and he led the Laski Society after Laski's death.¹²

Menon was the link in the next generation (after Naoroji and Besant) between the Indian nationalist movement and the Fabians in London. He transformed Annie Besant's Home Rule League for India into the India League in 1928, a

Britain-based organization whose aim was to campaign for full independence and self-government for India. Menon became joint secretary of the organization in 1928 and radicalized it, rejecting its objective of Dominion Status for the greater goal of full independence.

Menon was extremely close to key members in the Fabian Society and the Labour Party, and relentlessly lobbied for the Indian cause through Labour MPs in the British Parliament. He also became the focal point of the Indian nationalist movement in London from the 1920s onwards. He mobilized British and Indian students towards the cause of Indian independence and was personally responsible for the careers of many Indian students studying in Britain.

In addition to Menon, two important leaders of modern India had their intellectual roots at the LSE. The first, and perhaps the best known, is Jawaharlal Nehru, who went on to become the first prime minister of India. Nehru went to Harrow and Cambridge and was 'hovering about' London studying for his Bar examinations (J. Nehru 2004 [1936]: 25), before being called to the Bar in 1912. During his time in London, he heard Shaw at a lecture in London and was introduced to other Fabians by Menon, including Laski, with whom Nehru formed a close relationship.

The second was B. R. Ambedkar, who studied at the LSE after receiving his PhD in economics at Columbia University. Ambedkar was the architect of the Indian constitution as the chairman of the Drafting Committee, and a member of Nehru's cabinet in the 1950s. Ambedkar was a member of the Fabian Society, and Laski's ideas come alive in Part IV, that is, the Directive Principles chapter of the Indian Constitution.

Ambedkar and Nehru were not the exceptions but the norm. Students interested in the nationalist movement gravitated to the Fabians because they were the only group interested in the Indian cause since the 1880s. Laski was an important influence for Indian students in this regard. B. K. Nehru, cousin of Jawaharlal Nehru and another Indian student at the LSE in the late 1920s, was 'received with the utmost courtesy' by Laski, 'who gave me then, and throughout my stay, more personal attention and more affection than my academic or other achievements ever deserved' (B. K. Nehru 1977: 25). Laski took such a personal interest in both the Indian nationalist cause and the welfare of Indian students at the LSE that he became the intellectual focal point for Indian students at the LSE. Dahrendorf writes:

Tributes written in India, at the Laski Institute in Ahmadabad, betray the lasting gratitude of Indians to the man who stood up for their independence early, who propounded a view of the modern state which seemed relevant, and who taught many of those who led the new country in its early stages. (Dahrendorf 1995: 229)

B. K. Nehru astutely observed that

Indian students in particular were all Left-wing; the more extreme they were the more patriotic they were considered to be. The explanation was simple: the burning issue for us [Indian students] was Indian independence; the socialists and communists supported it; the capitalists and Conservatives opposed it. Ergo, socialism (or communism) was good; capitalism bad. (B. K. Nehru 1977: 20)

Eventually these Indian students were involved in the nationalist movement, mainly through the Indian National Congress. This group successfully won freedom and transitioned from the colonial government to form India's own government. And the socialist members of the nationalist movement were in key government positions.

B. K. Nehru also observed that 'the students of the LSE were then extremely left wing- the large majority were socialists or communists; so was the thinking in the Political Science Department, which dominated our thinking, rather than the Economics Department which was always more conservative'.

The one exception was B. R. Shenoy, who was influenced by Hayek, not Laski. Shenoy was not very involved in the Indian political movement and had little to no influence in policy for most of his life.

Laski's students went on to become future presidents, prime ministers, cabinet ministers, senior civil servants, and important members of the Planning Commission in India, and through them his ideas persisted. Guha recollects the remarks of an unnamed wit in the 1950s that 'in every meeting of the Indian Cabinet there is a chair reserved for the ghost of Professor Harold Laski' (Guha 2003).

The Apparatus of Planning

Parallel to, and not unrelated to, the new ideas in political economy, was a much greater use of mathematics and statistics in economics. This major change percolated to Indian economists, most notably through P. C. Mahalanobis.

Koopmans (1977) distinguished the classical models of general equilibrium from the optimization models of central planners. From the perspective of economists working on the planning of the economy as a whole, the old tools of classical economists were not useful. Now a new vocabulary and toolkit were required to optimize at the economy-wide level.

Kantorovich observed:

There appeared a necessity to shift from study and observation of economic processes and from isolated policy measures to systematic control of the economy,

to the common and united planning being based on the common aims and covering a long time horizon. This planning must be so detailed as to include specific tasks to individual enterprises for specific periods and to that common consistency of the whole this giant set of decisions was guaranteed. It is clear that a planning problem of such scale did appear for the first time, so its solution could not be based on the existing experience and economic theory.... The treatment of the economy as a single system, to be controlled toward a consistent goal, allowed the efficient systematization of enormous information material, its deep analysis for valid decision-making. (Kantorovich 1989: 18)

The use of mathematics in economics started well before economists began using optimization models for policy purposes. In the 19th century, Alfred Marshall recommended the use of mathematics as a shorthand language rather than as an engine of inquiry, and after providing 'real life examples' culminated his discussion with the fiery slogan 'Burn the Mathematics' (Kantorovich 1989: 22).

However, in addition to a language, mathematics developed into a means to achieve specific ends. This may be related to the use of optimization models for policy purposes. Koopmans perhaps best described this view: 'While "problems" are to some extent posed by conditions and needs of society, "tools" and states of training in the use of tools are part of the personal acquaintance of the investigator' (Koopmans 1957: 170).

While Kantorovich and Koopmans represented one branch of mathematics, using optimization models to fine-tune the running of the economy, another branch of mathematics, using data and statistics, was gaining momentum.

Ragnar Frisch was interested in economics questions but trained in mathematics and received his doctorate in mathematical statistics in Oslo. In the 1930s, Frisch did pioneering work in econometric modelling and measurement, including inventing the word 'econometrics' to refer to the use of mathematical and statistical techniques to test economic hypotheses.

Jan Tinbergen, who held a PhD in physics, had become interested in economics while working on his dissertation, 'Minimum Problems in Physics and Economics' (1929). Tinbergen was one of the first economists to create multi-equation models of economies. He began to apply mathematical tools to economics, which at the time was a relatively verbal and nonmathematical discipline. Along with Frisch and others, Tinbergen carved out the field of econometrics.

While the tools used by economists differed based on the training and acquaintance of the individual investigator, different types of tools were indeed required for different ends. Economists conducting any type of planning exercise required a model of inputs and outputs, and data on prices and quantities, to optimize production. This type of investigation required the use of economics

and statistics to solve the problem at hand, irrespective of the personal preference or the skill of the investigator.

Paul Samuelson, in his Nobel Prize lecture, observed that economists had essentially evolved and adapted ideas from other sciences to enable them to perform the tasks of optimization, whatever the scale.

This leads to the idea that the normative implications of economic science changed the toolkit used by economists and therefore the practice of economics. Not only may economics have an influence on policy, but policy implications may drive economics – not simply the questions asked by economists, but the tools used by economics. P. C. Mahalanobis astutely observed the connection between the changing ideas within economics – the goals of government policy – and the use of statistics. He argued that ‘statistics is not only an applied science but also a public science’.

Mahalanobis (1986: 45–46) saw a strong connection between state planning and statistics and gave three examples: (a) During the New Deal, when unified governmental policy became indispensable in the economic field, effective action was taken for the central coordination of the statistical activities of the federal government. (b) In the United Kingdom under *laissez-faire*, statistics had been developing in a haphazard manner without any focal centre within the governmental machinery. After the war, the importance of the Central Statistical Organization had continued to increase with the growth of social and economic planning. (c) In the USSR, centralization in the statistical field had gone much further and from the beginning a Central Statistical Bureau had been an integral part of the GOSPLAN. No plan can be put into operation until it was cleared by the statistical bureau.

Mahalanobis’s observation holds particularly true for the Indian experience, where the political movement, the call for economic development, and the pursuit of economic ideas were all deeply entwined with the development of policy tools. In the Indian experience, government policies affected the tools used in economics. But scientists and mathematicians called to help with developmental planning also changed government policy because they viewed the economy as a technical or engineering problem to be solved and believed the problem *could* be solved.

Mahalanobis was neither an economist nor very actively involved with the Indian freedom movement. He was a professor of physics and statistics and founded the Indian Statistical Institute (ISI). Yet he is synonymous with planning and economic development in India.

Mahalanobis studied physics at Presidency College, Calcutta¹³ and, in 1914, he completed his Tripos in mathematics, and in 1915 his Tripos in physics at King’s College, Cambridge.¹⁴ On his return to India, he worked in the physics department at Presidency College. But his main passion at the time was statistics. He was

mostly self-taught, and assisted various bodies, like the University of Calcutta, Meteorological Department, and anthropological society in statistical analysis.¹⁵ His interest in statistics sparked at Cambridge, where, just before he left for India, his tutor, W. H. Macaulay, drew his attention to the journal *Biometrika*.

The most important influence on Mahalanobis was Karl Pearson, the founder and editor of *Biometrika*. In 1926, Mahalanobis got a chance to work in Pearson's statistical laboratory in University College, London. This experience was seminal in Mahalanobis's forming ideas to set up a statistical institute in India and eventually a statistical journal – *Sankhya*. In a letter to Karl Pearson's son, Mahalanobis wrote, 'I came in touch with him [Karl Pearson] only for a few months, but I have always looked upon him as my master and myself as one of his humble disciples.'¹⁶

A sample of his correspondence in the 1920s and 1930s reflects that he was mainly discussing his research interests,¹⁷ connecting with academics abroad,¹⁸ and attempting to set up a new research centre for statistical studies.¹⁹ He did not discuss socialist ideas in depth, though he was in communication with scholars interested in socialism such as J. B. S. Haldane, Bertrand Russell, and E. J. Thompson.²⁰

This differentiated the early career of Mahalanobis from some other prominent physicists and mathematicians who had an impact on development planning. Karl Pearson, though known for his pioneering work in statistics, was a socialist and very influenced by Marx. He avowed his 'firm belief in the soundness of the fundamental doctrines of Socialism' (Porter 2010). Throughout the 1880s, he was an advocate of Marx's theory of surplus value. Pearson wrote papers in the field of economics and communicated with other economists.²¹ He was also a supporter of the Fabian Society, and his works *The Ethical Basis for Socialism* and *Socialism in Theory and Practice* were publicized and distributed by the Fabian Society.

In the 1920s and 1930s, Mahalanobis was interested in developing statistical techniques applied to explore questions of caste, anthropology, agriculture, and meteorology in India. Even as late as 1954, Mahalanobis confessed to Pitambar Pant, 'To be quite frank I am so ignorant about academic economics and my Indian colleagues are so cock-sure about their own infallibility that I had a little bit of inferiority complex about economic matters.'²²

Mahalanobis immersed himself in two important projects in the 1930s. The first was the establishment of the ISI for developing and using statistical techniques in India.²³

The second was Mahalanobis's work on sample surveys. Mahalanobis developed techniques in sampling to create surveys that would approximate the accuracy of census data. In a series of papers, lectures, and seminars, he defended the sample survey method as a substitute to the census-data method (P. C. Mahalanobis 1937,

1938, 1940). Mahalanobis's position was that sample surveys were as reliable as census data, though at a fraction of the cost.²⁴ Further, given a tradeoff between accuracy and economy (P. C. Mahalanobis 1986: 85–86), sample surveys would be designed based on the specific end goals and the budgets of the surveyor. This made sample surveys particularly appropriate as a policy tool. Both in India and globally, this was a relatively new technique. Professor Harold Hotelling at Columbia University wrote in his report in 1930–1940 that no techniques of random samples so far had been developed in the United States or elsewhere that would compare to the accuracy or the cost of Mahalanobis's technique.

Mahalanobis's pioneering work in statistical techniques was taking place against the background of some major political changes. Socialist members within the Indian National Congress were gaining prominence and Jayaprakash Narayan founded the Congress Socialist Party in 1934. These leaders' attribution of equality to socialism was so powerful that within a few years the Congress Socialist Party was more than one-third of the strength of the All India Congress Committee. In December 1938, Congress president Subhash Chandra Bose created the National Planning Committee, tasked with the job of forming an 'economic plan' for the country.

The National Planning Committee met frequently and its secretary, K. T. Shah, produced 20 volumes of papers. Nehru raised the importance of statistics to the planning endeavour in May 1940. One of the main tasks was collection of data to formulate rational, nationwide economic plans. The committee requested survey data from provincial governments²⁵ and decided to collect new data.²⁶ The task at hand was to get reliable data, at a low cost, using sample surveys.

It is in these circumstances that Nehru found an advisor and partner in Mahalanobis. They had met many times prior to 1939 through Rabindranath Tagore (Rudra 1996) but it was only in 1940 that they discussed their interest in statistics, talking till after two in the morning post dinner one night (P. C. Mahalanobis 1961). The National Planning Committee asked Mahalanobis to write a statistical supplement to the report by the Planning Committee.

It appears the discussions even in the 1940s were entirely about Mahalanobis's expertise in statistics. He wrote to Nehru in 1940 suggesting that he examine all the reports of the National Planning Committee from a 'purely statistical point of view'.²⁷

Mahalanobis was still not very interested in or knowledgeable about the exercise of economic planning. In 1954, Mahalanobis confessed to Pitambar Pant, 'I had only very vague ideas of planning when I first came to Delhi. From January 1950, when I first started handling national income data, I began to learn.'²⁸

After being entrusted with the monumental task of formulating the plan for India, Mahalanobis went abroad on a study visit to meet with the leading

economists and statisticians in the world and reflected on what he had learned. 'I know that economists from the west cannot solve our problems. But I also know that we can use some western economists to great advantage. On the purely technical side it would be of help if we can get someone with actual experience of inter-industry analysis or linear programming.'²⁹

Mahalanobis clearly had socialist leanings and was on board with the broad message of socialism. However, his scholarship suggests that Mahalanobis's allegiance was to the scientific technique. His letters make it clear that Mahalanobis was more interested in the technical expertise – in particular, the mathematical and statistical methods to calculate plan allocations – of the economists and statisticians met rather than their economic approach (P. C. Mahalanobis 1986: 105–106).

The partnership that emerged between Nehru and Mahalanobis in the 1940s (which would eventually lead to the team writing the second five-year plan) had quite a clear division of labour. Nehru determined the ideological vision and the main goals for economic policy, while Mahalanobis was to provide the apparatus (mainly mathematical and statistical services) to operationalize the vision. This is unsurprising given Nehru's view on the exercise of planning, which he only considered a part of the socialist vision: 'Planning and development have become sort of mathematical problem which may be worked out scientifically.'³⁰

It seemed to Mahalanobis as if the exercise of planning meant simply an economy-wide problem had to be solved, where policymakers would provide the goals and the mathematicians simply had to find the most efficient way of reaching that goal with a given set of resources. Therefore, the person at the helm of the planning exercise need not know much about economics, simply about the tools required to allocate the resources centrally. It was only policymakers who needed an understanding of economics to determine the policy goals or appropriately formulate the questions and problems faced by society.

Conclusion

The ideas and events that led up to the formation of the Planning Commission of India in 1950 were in the making for about 70 years. The commission can be traced back to both (a) the very general change in ideas away from *laissez-faire* across the world in the late 19th and early 20th centuries, and (b) the very specific events and individuals in the Indian nationalist movement in India and Britain in the late 19th and early 20th centuries.

The general change in both ideology and the tools used by economists led to a very different approach involving economists' attempts to solve economy-wide problems by treating the economy as a single optimization problem. This appeared

in the adoption of planning in India, where the ideas came from Fabian socialism, but the implementation of those ideas was left to mathematicians and statisticians who had little background in economics. This led to a peculiar division of labour among policymakers and planners in India.

Finally, it is clear from tracking these ideas that it is not the case that Indian planners in 1950 sought different economic ideas in the world and adopted the best set of ideas. Instead, a series of events, some planned and some accidental, led the Fabian model to become closely associated with the Indian national leaders and eventually adopted by Prime Minister Nehru and implemented by technocrats like Mahalanobis.

Notes

1. Second Congress, Naoroji Address 1886, Calcutta.
2. Mohandas Gandhi considered Gokhale his teacher and mentor. However, Gandhi felt Gokhale was too liberal in his ideas and faith in Western institutions.
3. For a detailed analysis, see Boettke (1990) and White (2012: 32–67).
4. There are details on these organizations in the Making Britain Database – an online database providing information about South Asians in Britain from 1870 to 1950. Available at http://www.open.ac.uk/researchprojects/makingbritain/Organisation_v
5. Socialist syllabus foreword by S. P. Sinha of the Patna branch of Congress Socialist Party. Note edited by Nehru. See JN Papers, NMML.
6. Guha (2010), where Nehru's 1953 letter is quoted on p. 339.
7. For a systematic comparison of the four plans, see Nag (1949).
8. January 1939, p. 9.
9. Tugwell (1992: 138–139, entry dates: 20 and 22 October 1934).
10. For a detailed discussion of Keynes's connection to India, see Chandavarkar (1990).
11. Published in 1923 by P.S. King and Company, London.
12. Minutes to the Meeting of the Executive Committee of Laski Society 17 December 1951 (LSE Archives)
13. Mahalanobis actually went to study at the University of London. He visited Cambridge for a day and got offered a spot at King's College, Cambridge (A. Mahalanobis, 1983).
14. Roy Weintraub (2002) attributes these exams as one of the reasons for the increasing influence of mathematics and physics in economics.
15. See correspondence between Gilbert Walker and Mahalanobis between 1922 and 1927, Mahalanobis papers NMML.
16. Letter dated 14 June 1936, see Mahalanobis Papers, NMML.
17. Mahalanobis correspondence with, P. M. S. Blackett, P. O. Boddington, R. A. Fisher, G. M. Morant, Karl Pearson, L. C. Thoburn, Edward Dennig, E. J. Thompson, Arthur Linder, Sten Konow, W. Krauss. See Mahalanobis Papers, NMML.

18. Mahalanobis connected with a number of mathematicians and statisticians in the 1920s, especially during his visit to England to Pearson's laboratory and his travels to Europe with Rabindranath Tagore. As an example, see correspondence with W. Krauss in the 1920s. In 1927 H. H. King proposed and Dr M. Greenwood seconded Mahalanobis to the Royal Statistical Society. See letter from Thoburn to Mahalanobis dated 19 May 1926.
19. See correspondence with C. D. Deshmukh, Mahalanobis Papers, NMML.
20. See correspondence with J. B. S. Haldane, Bertrand Russell, and E. J. Thompson, Mahalanobis Papers, NMML.
21. In 1883, he proposed a radical economic paper for the British Association meetings, but withdrew when the Association offered him only half an hour to present what was intended as a withering critique of the English school. 'I am very sorry,' wrote John Neville Keynes, 'that we shall not have your paper on Socialism at the British Association. I should have been particularly interested in hearing you demolish us poor economists' (Porter 2010, 78).
22. Mahalanobis to Pant, dated June 1954, Pitambar Pant Papers, NMML.
23. See correspondence with C. D. Deshmukh, Mahalanobis Papers, NMML.
24. This was an important contribution to planning. In his travels to the USSR in 1954, he was advising members in Czechoslovakia and USSR on the benefits of sample surveys.
25. Questionnaire on National Planning for India: Explanatory Memorandum. 130 questions mainly for state and provincial governments to collect data to begin planning exercise (National Planning Committee 1938 JN Papers). In a meeting on 17 December 1938, Nehru calls for circulation of the questionnaire.
26. In a meeting on 17 December 1938, Subhash Chandra Bose calls for research and data collection. Specifically, he discusses how existing institutes and survey departments can be used towards the national-planning exercise.
27. Quoted in Chattopadhyay (1985: 118).
28. Mahalanobis to Pant, letter dated June 1954, Mahalanobis Papers, NMML.
29. Mahalanobis to Pant in a letter dated 24 June 1954, Pant Papers, NMML.
30. Nehru in conversation with R. K. Karanjia. Cited in Rosen (1967: 105–106).

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PART II

Changes and Continuity: Development and Adaptation of Planning and the Planning Commission

The Planning Commission and Education

*Ratna M. Sudarshan**

The question examined here is whether the Planning Commission (PC) played any role in shaping education policy, and if so what and in what ways. It is suggested that the PC did indeed play an important role in two periods: first in the 1950s and 1960s in influencing the educational architecture that developed post-Independence and then in the 1990s with the strong support it gave to proposals for greater private investment in education. In between these two periods, it is more difficult to find a clear 'PC' influence separate from the thinking of education experts and the Ministry, later Department, of Education.

The PC had an Education Division to co-ordinate consultations on education and develop the relevant plan chapter. According to the PC itself, the Education Division had to perform the following functions:

- i. Formation of long-term, medium-term and annual plans for the Central and the State/Union Territories levels, defining the phases in which they should be implemented, assigning their inter-se priorities and resource allocation;
- ii. Coordination of the education plans of the States/Union Territories and the central agencies including the University Grants Commission and the National Council of Education Research and Training as well as of the national-educational plan with the development plans in other sectors, assessing and indicating adjustments needed in the plan policies, programmes and priorities so as to achieve national goals and objectives;

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- iii. In support of the above functions, maintain educational statistics and undertake/promote/support research studies and surveys covering –
 - (a) Generation, collection, compilation and analysis of data and relevant information
 - (b) Programme evaluation and prognosis and
 - (c) Alternative and/or supplementary measures and new policy initiatives in the field of education;
- iv. Collaborate with and/or advise/assist the concerned Government Departments, international organizations and other agencies like NIEPA [National Institute of Educational Planning and Development], NCERT [National Council for Educational Research and Training], UGC [University Grants Commission][...]; and
- v. Examine resource mobilization and low cost strategies/alternatives and make recommendations in this regard;
- vi. Review of Committees and Commissions, Central Advisory Boards and Annual/five-year plan;
- vii. The technical staff of the Division is also working on the Educational Statistics received from the MHRD [Ministry of Human Resource Development], and the Department of Statistics and other agencies.¹

Experts participated in the formulation of education plan through membership of the working and steering groups relating to the education sector. At times, one or more Members of the PC had special expertise in education.² Especially in the early years after Independence, foreign experts, advisors to the PC, influenced education policy and planning.³ The views of state governments and their advisors would also have fed into discussions. These expert perspectives got mediated by political considerations: although the National Development Council explicitly applied a political lens, the PC too acted as a political filter.

The PC used formal modelling techniques to check consistency and feasibility of the various sub-plans, and this technocratic exercise uniquely positioned it to influence priorities. The strength of the PC position was partly due to the fact that there was little capacity for technical policy analysis in the country and it was concentrated in the Indian Statistical Institute and the PC. Moreover it was the sole coordinating body mediating between the different departments and states. In addition to planning the resource allocations, the PC also provided feedback on policy implementation and outcomes, through evaluations conducted by the Programme Evaluation Organisation (PEO) and the Mid Term Appraisals of the five-year plans (FYPs).⁴ A third, less visible role it has played has been in the development of education statistics.

The life of the PC can be periodized in three phases that also correspond to different phases in the engagement of the PC with education. The first is the

period just after Independence, from 1950 when the PC was set up to the mid-1960s, or broadly speaking, the first three FYP periods. This is the era when ideas of perspective planning and planned growth were strongest. The second phase is from the mid-1960s to the mid-1980s covering the fourth, fifth, and sixth plan periods, an interim period where economic growth was slow and both education policy and planning processes struggled to find solutions to various crises. The third phase from the mid-1980s to 2016/17, or the seventh to twelfth plan periods, is the post-liberalization phase which saw a number of changes in the economic policy framework as well as efforts at educational reform.

Economic growth and poverty alleviation have always been the dual focus of Indian planning, growth being the strategy for overall development.⁵ The initial challenge was whether the growth process, driven by a narrow base of educated persons, could succeed in meeting both goals. Thus, this chapter focuses on two questions that were continuously debated in relation to education: first, did the choice of heavy industry driven economic growth, itself influenced by the PC, result in too high a priority for higher education, and too low a priority for elementary⁶ education?⁷ And second, did the PC approach influence the changing attitudes towards the size of private investments in education, with possible adverse equity implications?

The chapter discusses these two questions within the three historical phases outlined earlier. The first section looks at the period 1951–mid1960s and argues that while the focus on heavy industry as the basis of India's planned development and the consequent demand for trained technical personnel led to an emphasis on higher education, the need to ensure universal elementary education was never disputed; slow expansion can be attributed to lack of teachers and administrative bottlenecks, as well as social attitudes constraining girls' education. The PC did indeed influence the development of the education system in this period. The second section considers the second phase, from the mid-1960s to the mid-1980s. By this time a more vocal education community had emerged and different views on education were debated, as evidenced in the Education Commission (EC) of 1964 and the first National Policy on Education 1968. Members of the PC contributed to these debates perhaps with special attention to the employability of those being educated. No major changes in direction took place, however, and no particular PC influence is seen. The third section discusses the role of the PC in the third phase, the mid-1980s to 2016/17. The PC at this time advocated greater private investment, including foreign investment, in education as in other sectors. It favoured encouraging the private sector in higher and later in secondary education as well, while focusing government resources on elementary education. Educationists, largely, were concerned about the equity implications of privately funded education.

Phase I (1951–Mid-1960s)

The PC was set up in 1951 with Prime Minister Jawaharlal Nehru as chairman. These were years of political stability, with the Congress party strong both at the centre and in the states. The ideas on planning held by Nehru and his key advisors, in particular Mahalanobis and Pitamber Pant of the Perspective Planning Division (PPD), lay at the heart of the envisioned national reconstruction.⁸ The Soviet Union's success in transforming an underdeveloped economy into a major industrial power over a couple of decades through comprehensive economic planning was an inspiration to Jawaharlal Nehru and many others in India and other countries (see Nayar 2012).

The first plan was relatively unambitious, and the second plan, known as the Mahalanobis plan, better captured the national ambitions post-Independence. The PPD led by P.C. Mahalanobis was set up in 1958. This division undertook analysis of the interdependence between different components of the economy and concrete guidelines for the present based on long-term projections. For building up the base of heavy industry and setting targets 20 years into the future, education was extremely important. This is what Mahalanobis emphasized at the beginning of the perspective planning process:

To achieve the targets of production, it would be necessary rapidly to increase the technical staff to prepare and implement an increasing number of projects.... It is necessary to establish and broaden the base of primary and secondary education and to establish technical and scientific institutions and increase their number rapidly. (Mahalanobis n.d.)

Or, as Pitambar Pant, then chief of the PPD, put it in a talk given at the Organisation for Economic Co-operation and Development in 1961: 'It is inconceivable to have planned social and economic development without assigning a key role to planning for education' (P. Pant 1961). He then mentioned the role of science and technology in economic development, and as a consequence the need for skilled and trained technical and scientific personnel; he also emphasized that education was a tool for social transformation, equality of opportunity, and enabling all citizens to realize their full potential. Pulling together these various strands, centralized planning drawing on the Soviet model was the PC's favoured choice; it linked educational investments made by the government to the requirements of development as planned. Given the poverty of the country, public investment in education had to bring public good first and could not be left to individual choice alone.

The experience of the Soviet Union is that in the case of about 80 percent of the people, it is possible to adjust their own choice of work and the requirements of the

plan so that the two are not in conflict. With the remaining 20 percent, bottom quintile by merit, it is difficult to permit free exercise of choice. (P. Pant 1961)

Although Pant in his talk acknowledges the influence of Soviet planning, the approach to education in India was rather different to that taken by the Soviet Union as Drèze and Sen (2013) point out. The USSR and other communist countries gave high priority to free and universal elementary education. This did not happen in India until much later, and in any case education was a state subject until 1976 which limited the central government's intervention.

As far as plan allocations are concerned, in the initial years, education at all levels was expanded but slowly. Whether elementary education could have expanded faster is a moot point, given that there were human resource constraints, a shortage of teachers and especially women teachers, insufficient administrative and pedagogical support for schooling, and social resistance to girls' education, all of which required concerted effort to understand and address (GOI 1965). Mahatma Gandhi's idea of providing 'basic education' to all children might have been doable, as it would have been constructed within local realities (Bureau of Education 1948). However, it was an unpopular view which was resisted.⁹ Nonetheless, as argued in an NCERT Position Paper, this was a viable approach, as has been demonstrated by a small number of pilot projects. However, neither educationists nor politicians have been in favour of work-based pedagogy, which is considered unsuitable for a modernizing economy based on technocratic knowledge acquired through formal education (see NCERT 2007).

The First FYP (1951–1956) had to contend with the recognition that the educational system was top-heavy, while also needing to expand the provision of certain technical fields such as agricultural and technical high schools at the secondary stage and public administration, social service administration, and business and industrial administration at the university stage, where the existing provision was inadequate. The plan document echoed the thinking of perspective planning that 'at the post-secondary stage there should be greater adjustment between the needs of the country and the output of educational institutions'. It was expected that there would be points of entry into the labour force after classes 7, 10, 12, and 15.

In an address to the Panel on Education in 1957, J. C. Ghosh, Member, PC, pointed out that the Second Plan had given high priority to the development of industry, mining, power, and transport. It was felt that the shortage of technical manpower might prove a real bottleneck. An Engineering Personnel Committee was appointed in 1956 to investigate this and concluded that demand for engineering personnel was much greater than supply. On the basis of their proposals the Second Plan provided for expansion of technical education. The PPD, making

certain assumptions including that the rate of growth of national income would be 5 per cent per annum, and that the ratio of additional engineering personnel would be about 1 per cent of additional total employment to be generated during the Third Plan, estimated that to meet the requirements the intake capacity in degree and diploma courses in 1961 should be 13,500 and 25,000 respectively against 6,000 and 9,400 in 1955–1956. To make this possible, various steps were taken, including the establishment of 9 regional engineering colleges and 27 polytechnics (PC 1957, 1960).

The focus on heavy industry as the basis of India's planned development and the need for adequate numbers of trained technical and scientific personnel led to an emphasis on higher education. While the need to ensure universal elementary education was never disputed, this was not to be at the cost of building up the required higher education infrastructure, especially that relating to engineering and other technical personnel. This is reflected in the plan allocations. The share of higher education in total plan expenditure increased from 0.7 per cent in the First Plan period to 1.2 per cent in the Fourth Plan (CABE 2005).¹⁰

Resources were put into setting up a range of educational institutions, including the Indian Institutes of Technology (IITs), that directly contributed to building up the manpower needed for a stronger industrial and scientific base.

A number of research organizations/think tanks were also set up at this time, with a mandate to contribute to the information and knowledge base needed for planning and national development. These included the Indian Institute of Public Administration in 1954, the National Council of Applied Economic Research in 1956, the Institute of Economic Growth in 1958, the Centre for the Study of Developing Societies in 1963, and the Indian Council of Social Science Research in 1969. Others with a sectoral focus included the National Institute for Rural Development in 1958, the Indian Institute of Foreign Trade in 1963, and the Institute for Defence Studies and Analysis in 1965. Most, though not all, of these consisted dominantly of economists and statisticians.

At this time, there was no ambiguity in the role that higher education had to play in nation building. While committed to democracy and the uplift and education of all citizens in the country (calling for large scale expansion of primary and adult education), it was felt that it was equally important to demonstrate excellence in higher education, and prove that the educated Indian could hold his/her own with the best in the world.¹¹ Expansion of elementary education was politically essential; investment in higher education was politically possible. It was intended that a virtuous cycle would be established with graduates of the higher education system strengthening the industrial as well as academic base of the country.

In retrospect, it is clear that this approach to education, given the narrow educational base, led to the reproduction of inequalities and the entrenching of the

educational elite in secure employment. The education system generated aspirations for regular, formal employment that could not be fulfilled in a slowly growing economy; those able to access the best educational institutions could also access these jobs. The vision of the planners, that higher education would be used for national development in a spirit of patriotic duty (P. Pant 1961), was not, perhaps, fulfilled in the smooth manner that was initially anticipated.¹² This had as much to do with the lack of growth of a diverse range of economic opportunities across the country as the fact that the education process did not adequately encourage hands-on learning and entrepreneurship.¹³

Phase II (Mid-1960s–Mid-1980s)

To understand the changing approach towards education after the mid-1960s, the crisis of planning needs to be foregrounded. The Third FYP (1961–1966) ran into trouble. It had prioritized heavy industry, but agricultural crisis, inflation, and limited resources put targets out of reach. During the years 1966–1969, known as a ‘plan holiday’, only annual plans were developed. On the eve of the Fourth Plan there was a concerted effort to revive planning although the status of the PC never returned to what it had been in the 1950s.

In the mid-1960s the landmark report of the EC came out and led to the formulation of the National Policy on Education 1968. According to Naik (1965, 1968) the principal debate in educational planning at this time was whether the government should adopt a comprehensive approach and invest accordingly in all aspects of education, or whether it should follow a more selective approach and develop large programmes in selected sectors of education. Examples of successful ‘selective’ efforts mentioned by Naik include ‘science education and in-service education of teachers made by the University Grants Commission (UGC); the establishment of the five IITs which maintain peaks of excellence and the University Centres of Advanced Study which attempt a symbiotic combination of research and teaching to attain excellence at the post-graduate stage’ (Naik 1968: 105). In 1976, after the 42nd Amendment to the Constitution, education became a joint responsibility of the centre and states, opening the way for more centrally sponsored programmes. The District Primary Education Programme (DPEP) was launched in 1994, and the share of the centre (85 per cent of total) was resourced through external assistance.

Among the main issues arising in relation to education from the mid-1960s onwards were, first, the low employability and the emergence of educated unemployment and, second, the debate on the elitism of the system (through the emphasis on higher education). Neither of these issues could be resolved then or indeed have been resolved even now. The publication of *The Asian Drama* by

Gunnar Myrdal in 1968, calling for a radical change in the educational system, was deeply influential in raising concerns about possible exclusions. D. R. Gadgil, Member, PC, speaking at the Asian Institute of Educational Planning and Administration (now the National Institute of Educational Planning and Administration, NIEPA) in 1969, suggested that resources had been a constraint on the achievement of universal literacy and general education (Sharma 2015: 16–18).

The PC faced a difficult situation concerning education and employment. Its careful projections notwithstanding, there was a surplus of engineering graduates and unrest because of educated unemployment. The main reasons for educated unemployment were: First, a slower growth of the economy than the one upon which the planned expansion of graduates had been calculated. Second, the unemployed were not graduates of the elite institutions, and were indicative of the fact that many newly set up technical training institutions could not maintain quality, leading to ‘degree devaluation’ – an erosion in the credibility of the credentials (Singh 2006). Third, the persistent preference of graduates for secure and lifelong (preferably government) employment: as Maulana Abul Kalam Azad put it, ‘Unfortunately, the one goal of those who seek higher education in our country seems to be to secure Government service’ (GOI 1954). Graduates were unwilling to branch out into non-traditional channels (such as developing intermediate technologies, sales, marketing, management, and so on), a change in attitude that would have helped improve productivity, as one of the education advisors to the PC, Professor Blackett, pointed out (PC 1968). A fourth reason lies in the lower mobility of some groups, and especially of women. The Mid Term Appraisal of the Fourth Plan pointed out that little had been done to give an employment orientation to the education system and suggested this be done in the Fifth Plan (PC 1971). The Steering Group on Education for the Fifth Plan (1974–1979), chaired by Professor S. Chakravarty, Member, PC, noted that the major challenge in regard to education is the emergence of the educated unemployed. Low employability was also noted by a PEO evaluation of community polytechnics in 1983, which found that only a little over 11 per cent of those trained had found work – of whom 60 per cent were in different trades and 40 per cent were self-employed (PEO 1983).

The second major issue was a growing concern that the education system was fostering elitism and that it needed a different orientation focused around universal primary education and adult education. In 1965, an evaluation by the PEO on ‘Problems of Extension of Primary Education in Rural Areas’ came out in favour of ‘basic’ education in rural areas; while more expensive, it was found to be better suited to these areas than the syllabus of other government primary schools (PEO 1965). The EC spoke of social transformation. Although the EC placed the highest priority on ‘transformation’, this was never really attempted. By ‘transformation’

many things were intended, including universal elementary education and adult education; work experience within schooling; relating education to productivity; character formation; decentralization and dynamism; opening three channels of education with equal status, full time, part time, and own time; and so on. Together this would have meant that the benefit of education would have gone to the masses, and education would have been linked to development as well as social transformation. It can be argued and with some validity that 'transformation' was a nebulous notion and none of the educationists recommending it provided a clear enough guide map for implementation; it also shows that Gandhian influence was still present, although declining.

The PC invested effort in trying to bring about a consonance of views within the education 'policy community'; in 1965, Professor V. K. R. V. Rao, Member, PC, convened a meeting of state education ministers in Srinagar. He presented the views of the PC on several aspects of education, and there were experts present to support him. In his inaugural address, he emphasized that a new orientation and fresh purpose to the educational system was required to establish a clear link between education and economic development. It was important, he said, to treat education as an investment in human resources, which meant in turn that returns were required in the form of skilled labour geared to specific development needs (PC 1965).

Among the recommended programmes was giving a strong push to adult literacy, with functional literacy seen as a tool for all development and especially rural development. The example of Gram Shikshan Mohim, which started in Satara district in Maharashtra in 1959, was recommended as a model. Because it was desirable to have persons join the labour force at the various possible terminal points, systems of part time and correspondence education were strongly recommended, so that no desiring person was denied education, even if this were not in regular courses. Dr H. L. Elwin, Member, EC, strongly supported this point at the state education ministers' conference and did so with reference to the experience in other countries (PC 1965).

During the Fourth Plan preparation process, a Steering Committee on Education was constituted, which singled out problems of regional imbalance, lagging behind of girls, inadequate attention to adult illiterates, lack of trained teachers as well as buildings and textbooks, too little emphasis on science, imbalance between general and vocational education, and wastage. It suggested that the main direction of educational development in the Fourth Plan will be to promote social justice, link education effectively with economic development, increase returns from investment by reducing wastage and improving quality of education. The Steering Committee suggested an allocation of 25.4 per cent of total education expenditure to elementary education, and the Planning Group

revised this upwards to 39.8 per cent, noting that 'providing for expansion on the basis of the past trend of increase in enrolment which was a measure of social demand for education might be regarded as a priority in the sense that it might be difficult to resist it even if it might be desirable on other considerations' (PC 1968). Elementary education was to have highest priority for public expenditure; should more resources become available, vocational education and literacy could benefit. The proposed allocations for elementary, secondary, and university education were all enhanced from the Steering Committee proposals (PC 1968). However, the final allocations given in the Fourth Plan were closer to the Steering Committee proposals, with elementary education getting 28.5 per cent of the total outlay. The idea that government support be focused on elementary education, and that at higher stages since there is more individual benefit there is also more possibility of shifting the burden of education to the beneficiary, was mentioned in the Planning Group report (PC 1968).¹⁴

This view, of too much being invested in higher education at the cost of primary education, has been often repeated, and in a Note on Education, written for the Janata Party that came to power in 1977, Jayaprakash Narayan (JP)¹⁵ wrote:

I am told that nearly one-third of the outlay on education in India is spent on higher education, which reaches 10 % of the appropriate age group. This means that it is mostly the children of the middle and upper classes who benefit at the cost of 90 % of the people of this country. This is not only unjust, it also helps perpetuate gross inequalities in income and social status which are directly related to levels of education. I would, therefore, suggest that all higher education should be made self-financing through fees and private donations. Students coming from economically backward families but having an aptitude for higher education should be given adequate loan scholarship which may be recovered in easy instalments after they begin to earn. (JP, quoted in Joshi 1978: 69)

According to Naik (1982) the educational policies and programmes of the Fourth (1968–1973), Fifth (1973–1978), and Sixth (1978–1983) Plans were broadly based on the EC report, modified by the National Policy on Education 1968, reflecting the thinking of a wider education 'policy community'. The government share of total expenditure on education steadily went up over this period. In 1951–1952, it was 56 per cent, in 1961–1962 68 per cent, and 1968–1969 estimated at 75 per cent.

Education discourse might have gained in depth, but education policy showed no major changes over this period. Its goal was mainly to respond to the political necessity of making education available to match demand. The effort was consequently on expansion of educational facilities. This is reflected in the focus of plan documents on achievements of enrolment targets corresponding to each stage of education. It is difficult to find any specific PC influence at this time.

To the extent that a 'PC view' can be identified, it continued to emphasize the need for matching better education with the needs of the labour market. The PC continued to emphasize that this could be achieved with a diversity of possible routes (notably vocational education) and time frames (by enabling full-time, part-time, as well as correspondence courses).

Phase III (Mid-1980s–2016/17)

Although some economic reforms were undertaken in the 1980s, it is from 1991 that economic liberalization, making the economy more market oriented and expanding the role of private and foreign investment, began to shape a new policy framework. The first *Human Development Report (HDR)* was brought out by the United Nations Development Programme in 1990. In India, the PC housed the work on national *HDRs* although this process was parallel to, and did not displace the central position of economic development as a goal. The Education For All movement was launched in 1990.¹⁶ The early 1990s also saw the passing of the 73rd and 74th Constitutional Amendments which gave authority to rural and urban local bodies and thus created a third tier of governance.

The above-mentioned changes had several consequences on education policies: a stronger push for economic liberalization and private sector growth including in education; decentralization and educational reform; higher growth rates; and higher allocations for education and other social sectors. From the mid-1980s onwards, the language of rights and entitlements begins to shape education discourse. All citizens have a fundamental right to education, and the duty of the state is to fulfil this. The Right of Children to Free and Compulsory Education Act was finally passed in 2009. Over this period, there has been substantial expansion of the elementary school system, reflected in almost universal enrolment by 2014.

The third phase singled out in the development of the PC comprises the last five plans – Seventh to Twelfth. Subsequent to the National Policy on Education 1986, foreign funding for education helped support a range of innovative programmes for primary education. For example, foreign funds covered 85 per cent of the DPEP's cost (the programme started in 1994). This was followed by the Sarva Shiksha Abhiyan (SSA) in 2000 which became the umbrella programme for elementary education and also received substantial foreign funding. The presence of foreign donors, especially the World Bank, modified the system of evaluation of education programmes, in which the Joint Review Missions (JRM)s became central.¹⁷

In this last of the three phases, the PC leadership has strongly supported greater privatization in both secondary and higher education. Among foreign donors, the World Bank is the largest player in the education sector, and it has played a major part in shaping the thinking on education policy and programmes

(see, for example, Priyam 2015: 10–14). In India, the nexus between World Bank thinking on education and that of the PC became strong from the 1990s onwards. The shift in thinking that has taken place is that the state should focus its resources on ensuring universal elementary education of good quality; in secondary and higher education, private (domestic and foreign) funding should be encouraged, and a system of bank loans, subsidized as necessary to ensure equity, should be developed to enhance access.¹⁸

With higher growth rates (8.5 per cent over the period 2003–2010), higher tax revenues made greater spending on the social sectors possible. From 16 per cent in the seventh plan (1985–1990), the share of social services went up to 30.2 per cent in the eleventh plan (2007–2012). ‘The Eleventh Plan was a plan for the social sectors, energy and transport’ (Nayar 2012: 238).¹⁹ This represented a conscious policy that government presence and investments needed to shift away from areas where competitive markets worked well and towards those which could not be left to the market such as the social sectors.

The problem of educated unemployment on the one hand and the concern that skilled and trained labour might become a bottleneck in growth on the other hand have contributed to the skills development programmes.

The Steering Committee on elementary and adult education for the ninth plan (1997–2002), chaired by Chitra Naik, Member, PC, gave to primary education an over-riding priority. It anticipated enhanced partnerships between private and public sectors, as well as an increased role of nongovernmental organizations (PC 1998). At this time, the Government of India share of important central schemes, such as DPEP and Mahila Samakhya, was resourced by external funding. The Report of Experts Committee on Educational Expenditure (1999) recommended a 60 per cent allocation to elementary education. The plan allocation accepted this suggested ratio. At that time (1999), the ratio of private to public expenditure on education was an estimated 40: 60 (PC 1999).

Possibilities of opening up the education sector for corporate investment began to be discussed. In 2000, Mukesh Ambani and K. Birla presented a report on a Policy Framework for Reforms in Education and suggested that on the basis of their study of several countries including Sweden, Singapore, South Korea, Thailand, and China, two clear messages emerge. First, that government support must be provided to primary education and this should be universal, compulsory, and free. Second, there should be a mix of government and private initiatives. The National Policy on Education 1992 (Revised 1986 Policy) had stated that setting up vocational courses or institutions will be the responsibility of the government as well as employers in the public and private sector.

The changing attitude of politicians towards the private sector was shared across parties. Prime Minister Vajpayee’s agenda included ‘vibrant government-

industry-academia interaction in policy making and implementation' (K. C. Pant 2000). In 2006, the National Knowledge Commission (set up by Prime Minister Manmohan Singh in 2005) in a Note on Education pointed out:

In three professions – engineering, medicine and management – there has been a *de facto* privatization of education so that two-thirds to three-fourths of the seats are in private institutions. But private investment in university education, where more than 70 per cent of our students study, is almost negligible. It is essential to stimulate private investment in higher education as a means of extending educational opportunities.

During this phase, the expansion of higher education has been largely driven by the private sector, and approximately 65 per cent of higher education enrolment in 2015 was in private universities. Voices in favour of more privatization of education came from political leaders, along with the corporate sector, and were supported by the PC. The choice of Education Advisers at the PC reflects this. Furqan Qamar (Adviser, PC, 2007–2009) had already expressed his views in favour of foreign direct investment (FDI) in education before becoming an advisor to the PC. At a conference organized at NIEPA in 2004, he laid out the pros and cons to suggest: 'While the debate is not settled as yet, most economies of the world seem to be of the view that the FDI does more good than harm to them and have been forthcoming with policies that seek to make their home environment more and more attractive for the foreign investors' (Qamar 2004). The Department of Commerce *Report on Trade in Education Services* (2006) prepared for the World Trade Organization (WTO) consultations drew heavily on research by Pawan Agarwal, who was brought into the PC as Advisor, Higher Education, in February 2011. The report recommended:

The services negotiations could be used as an opportunity to invite foreign Universities to set up campuses in India, thereby saving billions of dollars for the students traveling abroad. In fact, this would be a win-win situation for both sides since foreign Universities would get a chance to expand their markets and Indian students would get world class higher education at a fraction of the cost in foreign Universities located abroad. A balance would however have to be struck between domestic regulation and providing adequate flexibility to such Universities in setting syllabus, hiring Teachers, screening students and setting fee levels.²⁰

Educationists, in contrast, have been less persuaded, and questioned the implications of private funding for secondary and higher education (for example, CABE 2005). For example, Tilak argued that state funding of higher education ensures that higher education is democratized. The 'marketisation' of higher

education is not unique to India, but '[t]he conflicting interests of the state and the markets in education are so serious, that any attempt to forge a partnership between the two may be counter-productive' (Tilak 2004: 17).

Montek Singh Ahluwalia, Member, PC, from 1998 to 2001, and Deputy Chairman, PC, from 2004 to 2014, strongly advocated reforms favouring a greater role for the private sector. While releasing a report on corporate funding of higher education, he was quoted as saying: 'Stop funding the universities and just fund the students ... then they go to universities that are worth paying for' (*Economic Times*, 2012). In 2012, as part of the Twelfth Plan preparation process, the PC had appointed Narayan Murthy to develop a framework for engagement and to bring in private funding into the domestic higher education sector. At this time, higher education absorbed roughly 19 per cent of total government expenditure on education. The Twelfth FYP (2012–2017) – the last of the FYPs – anticipated a greater role of the private sector also in secondary schooling with an easing of entry barriers and effective regulation. It also suggested re-examining the required 'not for profit' status, and that for-profit institutions could be allowed in areas where there are acute shortages.²¹

Inclusion remained a simultaneous objective, and the thinking of how to ensure inclusion is indicated in the remark of Furqan Qamar on the needed four-tier structure of higher education: A four-tiered structure is recommended with vocational training at the bottom of the pyramid, where a large number of private colleges and state-run colleges can focus on turning out employable graduates, and central universities at the top focusing on research. 'While central universities can focus on research, well established state-run universities can combine research and teaching, good colleges can focus primarily on quality teaching and the rest can aim at vocational training to develop skills' (Qamar, quoted in Singh and Singh 2008).

To conclude, the two questions posed at the outset concerned the role of the PC in regard to relative priorities of elementary and higher levels of education, and the role of the private sector in education. The merits and demerits of these choices require a deeper analysis. The economists at the PC, given its dominant position in the economy in the 1950s and 1960s, were largely responsible for the analysis on the basis of which the basic architecture of the education system was put in place. While it would be true to say that the PC influenced the growth of scientific and technical tertiary education, there is little evidence to suggest that it underplayed the significance of elementary education. Investments in the latter reflected not only resource constraints but also constraints in administrative capacity and resistance to girls' education. In the second phase, mid-1960s to mid-1980s, and subsequently, the thinking on education has been much more influenced by education experts located in the Ministry of Education and elsewhere, including within the PC. Despite considerable deepening of the education discourse, no

major changes in the system took place and a path dependence is apparent through the 1970s and 1980s. From the 1990s, with liberalization and higher growth rates on one hand and foreign funding being used to support education programmes with a renewed focus on the need for universal elementary education for equity on the other, plan investments in elementary education have greatly increased. At the same time, enhancing the role of private and foreign funding in secondary and higher education is a shift that has been strongly supported by the PC while not being so wholeheartedly embraced by educationists. The contentious issues of possible adverse equity implications of public–private partnerships and persisting problems such as low employability remain concerns to be addressed, as the think tank NITI Aayog takes over from the PC. In terms of its influence on the education sector, it can be concluded that the thinking of the PC team had a perceptible impact in the first and third phases – in the one case ensuring that the country developed indigenous capacity for higher education along with expanding the base for primary education, and in the other, that the private sector in education be strongly encouraged within a liberalizing economy despite the considerable opposition of the education lobby.

Notes

1. Planning Commission, Education Division, available at <http://planningcommission.nic.in/sectors/index.php?sectors=edu> (accessed on 10 July 2016).
2. Among eminent educationist-members of the PC were Dr V. K. R. V. Rao, Member PC 1963–1966, Dr Chitra Naik, Member PC 1991–1998, and Dr Bhalchandra Mungekar, Member 2004–2009. The member in charge of Education in the last PC team (2010–2015) was Dr Narendra Jadhav. The first two plans brought in external education experts, including, for example, John Vaizey, a British economist specializing in education, and other educationists such as H. L. Elwin and Blackett.
3. Foreign economists from different countries were welcomed in an advisory capacity by the PC of the 1950s and 1960s. This included education economists. Naik (1965: 16), deploring the fact that no revolutionary changes had been introduced in the education system after Independence, gave as one reason for this ‘the tendency to avoid original thinking and to depend too greatly upon foreign consultants who were available in plenty and with comparative ease’.
4. PEO evaluations in education are available at <http://planningcommission.nic.in/reports/peoreport/cmpdmpeo/index.php?repts=peoedu.htm> (accessed on 8 September 2015).
5. For a discussion of this point, see Bhagwati and Panagariya (2012: 8–31).
6. Elementary education (classes 1–8) includes primary (1–5) and upper primary (6–8) grades; secondary education refers to classes 9 and 10, and upper secondary to 11 and 12. Higher education refers to education courses beyond class 12.

7. The Central Advisory Board of Education (CABE) Committee (2005) on Financing of Higher and Technical Education argued that this question was a meaningless one as all levels of education deserve investment. 'All levels of education are important, and they are inter-dependent. All levels of education need sustained funding from the government' (p. 51). However, in public discourse, this has been a much-debated issue.
8. As Nayar (2012: 243) points out, 'If the center was headed by a charismatic political hero from 1947 to 1964, the chief ministers of the states were also highly-respected stalwarts of the nationalist movement': intense debates on plan strategy took place at this time between political leaders at the centre and in the states.
9. The Panel on Education (1957) recommended that all primary schools be converted to the 'basic education' pattern, which used a work-based pedagogy. The basic education system was based on Gandhi's Wardha Scheme of Education, approved by the Congress in 1938 (Ministry of Education, Government of India 1948). This recommendation was only partially implemented. J. P. Naik, educationist, wrote in 1965 that post-Independence, there was expansion of the existing system with only marginal changes in content and technique (Naik 1965).
10. The percentage of plan expenditures in education is small compared to the size of non-plan expenditures, but significant in what they signal. Percentages allocated to higher education fell after the fourth plan period.
11. Of course not all the institutions set up were able to maintain high standards of quality. But the responsibility for this failure lies in the education sector, and does not detract from the intent of the PC. To argue that the PC direction was wrong, we should be able to demonstrate that higher resource allocations to elementary education (and not bottlenecks of teacher availability, or systemic administrative matters) would have changed outcomes.
12. For a strong critique of the basic approach to planning that was adopted with the First and Second Plans and had been maintained thereafter, see Kabra (2009). There are further debates on whether labour-intensive manufacturing could have been encouraged with different policies (for example, Bhagwati and Panagariya 2012).
13. For more discussion of this point, see Sudarshan (2015).
14. Despite reaffirming the importance of universal elementary education, the proportionate expenditure on this segment had been falling. The outlay for elementary education as a proportion of the total plan outlay for education was 56 per cent in the First Plan, 35 per cent in the Second, 30 per cent in the Third, and 29 per cent in the Fourth (PC 1973). By 1991, the allocation for elementary and adult education was at 40 per cent; the proposed outlay for the Eighth Plan was 37 per cent.
15. Jayaprakash Narayan, or JP as he was known, was a freedom fighter and politician, a follower of Mahatma Gandhi, and mentor of the Janata Party that came to power in 1977.

16. The Delhi Declaration of Education for All Summit, December 1993, reaffirmed the resolve of nine countries to educate all, and also sought international support for meeting these goals.
17. For a discussion of JRMs, see Packer (2006).
18. The Government of India launched in 2009 a scheme to provide full interest subsidy during the course period plus one year or six months after getting job, whichever is earlier, on loans taken by students belonging to economically weaker sections (EWS) from scheduled banks under the Educational Loan Scheme of the Indian Banks' Association, for pursuing any of the approved courses of studies in technical and professional streams, from recognized institutions in India. Tilak (2004) strongly argues against such privatization.
19. The Eleventh Plan is also one that was formulated when Mungekar was Member; his commitment to equity issues might also have been bolstered with the presence of a larger network of persons in positions of authority and equally concerned with equity, such as S. Thorat, then Chairperson, UGC.
20. Available at http://commerce.nic.in/publications/india_wto_newsletter.asp?link=newsletter_augoct06.htm&id=#b9 (accessed on 8 September 2015).
21. Currently, only registered societies or trusts and, in certain cases, not-for-profit companies registered under section 25 of the Indian Companies Act (not permitted to distribute dividends) are allowed to establish formal educational institutes.

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Addressing Agrarian Distress

Sops versus Development

*Ramesh Chand**

In the post-independence period, India is facing its second major challenge in agriculture. The first major challenge was experienced during mid-1960s when, prior to the green revolution, output was rising slowly, the per capita foodgrain production dropped to a very low level (150 kilograms), while population growth was on a rising trajectory, and the country faced serious shortage of staple food. This had left the country hugely dependent on food imports and food aid. The shortage of food was so severe that the then prime minister Lal Bahadur Shastri had to appeal to the countrymen to observe fast and miss one meal once a week to cope with the shortage of food. The country then decided to adopt and promote new high-yielding varieties (HYVs) of wheat and paddy, known as green revolution technology, which were much more responsive to fertilizers and other inputs as compared to the traditional varieties. The adoption of green revolution technology produced quick results. Despite its adoption in a limited area, India was able to emerge out of the crisis situation of shortage of staple food in less than a decade. Since the green revolution, the growth rate in production of all types of food groups except pulses remained higher than the population growth in most of the period. During the last half century (1965 to 2015), the total food production, including cereals, pulses, oilseeds, vegetable, fruits, and livestock products, rose 3.7 times while population rose 2.55 times. The net result has been a 45 per cent increase in per person food production, which has made India not only food self-sufficient

* A slightly different version of this chapter was used for 23rd Dr B. P. Pal Memorial Lecture, Indian Agricultural Research Institute, on 26 May 2016, New Delhi. Views expressed in the chapter are personal.

at an aggregate level but a net food exporting country. This increase in per capita food production is clearly visible in per capita intake of fruits, vegetables, meat, eggs, milk, fish, and sugar. However, per capita intake of cereals showed a decline because of dietary preferences, not because of availability. The effect of this change in consumption basket on dietary energy intake is not significant.

While India was improving food security and leaving behind the era of food shortage, another crisis started building gradually in the form of agrarian dissatisfaction. Some scholars term it as agrarian distress. Farmers' dissatisfaction turned serious during the early 1990s, though it started developing a few years ago. Initially, farmers' dissatisfaction was confined to some pockets with poor resource endowments but it gradually spread to many parts of the country. Incidents of farmers' dissatisfaction/distress are reported from even agriculturally developed states like Punjab, Haryana, and Kerala. The situation became particularly bad in the years and in the areas which suffered floods, droughts, and other natural disasters.. These types of sufferings do not bode well for the country whose economy is growing at a rate of more than 7 per cent a year.

Farm-related problems combined with other aggravating factors push some farmers to take the extreme step of committing suicides, which worsens the suffering of such agricultural households. This chapter is an attempt to understand the genesis, causes, nature, and severity of agrarian dissatisfaction and distress and to propose a strategy to address agrarian challenge in the country.

Genesis and Symptoms

It is important to discuss what agrarian distress is. Agrarian distress manifests at two levels: (a) sectoral or macro level and (b) household or farm level. Further, the distress could be absolute or relative. The absolute agrarian distress is characterized by a situation wherein agriculture production becomes economically unviable or highly vulnerable. Relative agrarian distress implies widening of the gap in performance of agriculture relative to the rest of the economy. Agrarian distress at the household level refers to a situation when the income of an agricultural household is not adequate to meet family and business obligations. Agrarian distress may be characterized by any one or more of the following:

- Rising debt in relation to net worth
- Net worth turning negative
- Forced migration
- Rise in the instance of hunger
- Sale of productive assets like land, bullock, tractor, and machinery to meet family expenditure

- Sale of family assets to meet family expenditure
- Adoption of untested and risky ventures
- Dissatisfaction with the profession
- Rise in tragedies like suicides

The genesis of agrarian distress, at the aggregate level, lies in the structural imbalance of the Indian economy, reflected in two important indicators. The first is the mismatch in the share of agriculture in national income vis-à-vis its share in workforce and the second is the ratio of per worker income in agriculture vis-à-vis non-agriculture. At the time of the onset of the green revolution (1970–1971), agriculture employed 69 per cent of the workforce and contributed about 42 per cent of national income (Table 6.1). As the green revolution progressed and spread, a sizeable proportion of the labour force shifted from agriculture to non-agriculture sectors. Consequently, the agriculture growth created backward and forward linkages leading to growth in employment in the non-farm sector both in rural and urban areas (Mellor and Lele 1973; Chadha 1986). However, the shift in labour force almost stopped somewhere between 1980–1981 and 1990–1991. During 1980–1981 to 2000–2001, there was negligible shift in labour force from agriculture to non-agriculture whereas the share of agriculture in national income reduced by one-third.

TABLE 6.1 Share of agriculture and non-agricultural sectors in national income and workforce (%)

Year	Share in national income		Share in workforce	
	Agriculture	Non-agriculture	Agriculture	Non-agriculture
1950–51	51.81	48.19	68.85	31.15
1960–61	42.56	57.44	69.41	30.59
1970–71	41.95	58.05	69.36	30.64
1980–81	35.39	64.61	59.02	40.98
1990–91	29.02	70.98	58.38	41.62
2000–01	23.02	76.98	58.20	41.80
2010–11	18.21	81.79	54.59	45.41

Sources: Author's estimates derived from data available in (a) National Accounts Statistics, Central Statistical Organisation (CSO), GOI, various issues and (b) *Agricultural Statistics at a Glance*, Directorate of Economics and Statistics, Ministry of Agriculture and Farmers Welfare, GOI, various issues.

The decline in the share of agriculture in national income resulted from a faster rate of growth witnessed in the non-agriculture sector, which is considered natural in the development process. However, this growth did not translate into creation of jobs in the non-agriculture sector to pull the workforce away from the agriculture

sector after 1980–1981. The situation started worsening with the beginning of economic reforms in 1991. The economic reforms resulted in acceleration in the growth rate of the non-agriculture sector but the growth rate in the agriculture sector did not follow a secular trend (Figure 6.1). Only for a brief spell did the growth rate rise, which was soon followed by a spell of low growth.

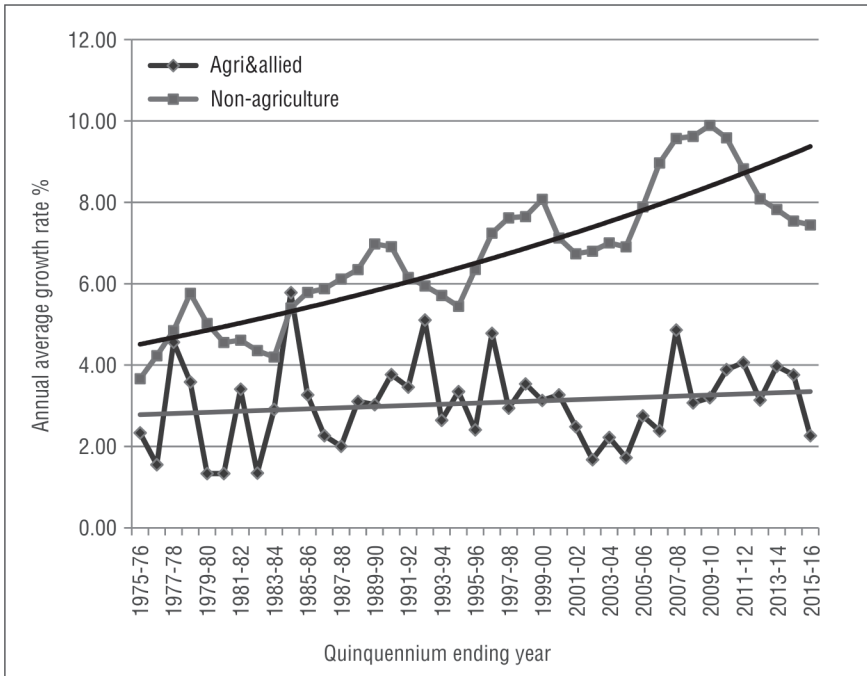


FIGURE 6.1 Average annual growth rate in five year period in agriculture and non-agriculture sectors at constant prices

Disparities in Agricultural and Non-agricultural Incomes

A worker in the agriculture sector earned one-third the income of a worker in the non-agriculture sector at the time of the onset of green revolution. The ratio increased to 38 per cent in the initial phase of green revolution. However, this trend of decline in disparity in sectoral income reversed somewhere during the 1980s and the income earned by an agriculture worker fell to just 29 per cent of the non-agriculture worker by 1990–1991. This can be considered as the beginning of agrarian distress in the country. The disparity between agriculture and non-agriculture income further worsened during the 1990s (Figure 6.2).

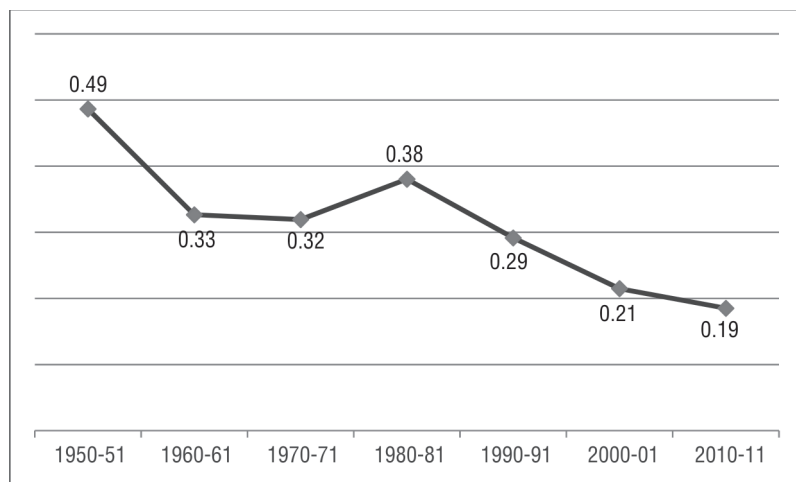


FIGURE 6.2 Ratio of income per worker in agriculture and non-agriculture sectors at current prices

The rise in income of non-agriculture workers put strong pressure on those working in the agriculture sector to catch up with the standard of living of the former. This put pressure on agriculture workers to raise consumption expenditure without commensurate increase in income. However, in the non-agriculture sector, the number and scale of production units have risen sharply but the plot size of agriculture production units has only become smaller.

The terms of trade between sectors is another important factor affecting welfare of farmers. Liberalization and globalization that started during the 1990s led to an increase in the integration of domestic prices with global prices, which contributed strongly to a decline in terms of trade for agriculture during the late 1990s and early 2000s.

Phases in Agriculture Growth and Role of Planning Institutions

It is pertinent to discuss the role of public institutions and their response to address the situation of agrarian distress in particular and the agriculture sector in general. The major responsibility for this is vested with the Planning Commission of India, which was replaced by the National Institution for Transforming India (NITI Aayog) in the year 2015.

The Planning Commission has been preparing five-year plans, development strategies, and policy initiatives for agriculture and other sectors of the economy since its creation in the year 1950. The Planning Commission played a vital

but different role in different phases of agriculture development in the country. Accordingly, Indian agricultural policy can be broadly distinguished into three phases. A detailed description of the policy followed in each phase (found in a study by Rao [1996]) mentions the following sequences.

The period from 1950/51 to mid-1960s, which is also called the pre-green revolution period, witnessed tremendous agrarian reforms, institutional changes, and the development of major irrigation projects. Intermediary landlordism was abolished, and tenant operators were given security of farming and ownership of land. Land ceiling acts were imposed by all the states to eliminate large-sized holdings, and cooperative credit institutions were strengthened to minimize the exploitation of cultivators by private moneylenders and traders. Land consolidation was also effected to reduce the number of land fragments.

Expansion of area was the main source of growth in the pre-green revolution period. The scope for area expansion diminished considerably in the green revolution period when the growth rate in area was less than half the growth rate in the first period. Increase in productivity became the main source of growth in crop output, and there was a significant acceleration in yield growth in the green revolution period. The main source of productivity increase was technological breakthrough in wheat and rice. Further, the country faced a severe food shortage crisis in the early 1960s for which large imports of wheat had to be made. This forced the policymakers to realize that in future continuous reliance on food imports and aid would impose heavy costs in terms of political pressure and economic instability (Rao 1996). There was a desperate search for a quick breakthrough in agricultural production. One choice before the country was to introduce into cultivation new HYV seeds of wheat and rice which were available with the Consultative Group on International Agricultural Research (CGIAR) institutes like the International Maize and Wheat Improvement Centre (CIMMYT) and the International Rice Research Institute (IRRI). Amidst a serious debate, the government took a bold decision then to import and spread the HYV seeds of wheat and rice which required the use of fertilizers and irrigation. This marked the second phase in the agriculture policy of the country. The strategy produced quick results as there was a quantum leap in yield. Consequently, wheat and rice production in a short span of 6 years between 1965/66 and 1971/72 witnessed an increase of 30 million tonnes, which is 168 per cent higher than the total achievement in the 15 years following 1950/51.

The new agricultural strategy, also known as the green revolution technology, had its greatest success in the attainment of self-sufficiency in foodgrains. As the green revolution technology involved the use of modern farm inputs, its spread led to a fast growth in the agro-input industry. Agrarian reforms during this period took a back seat while research, extension, input supply, credit, marketing, price

support, and spread of technology were the prime concerns of policymakers (Rao 1996).

Two very important institutions, namely the Food Corporation of India and the Agricultural Prices Commission (subsequently renamed as the Commission for Agricultural Costs and Prices), were created at the beginning of the green revolution period to ensure remunerative prices to producers, to maintain reasonable prices for consumers, and to maintain a buffer stock to guard against the adverse impact of year-to-year fluctuations in output on price stability. These two institutions have mainly benefited rice and wheat crops, which are the major cereals and staple food of the country.

The next phase in Indian agriculture began in the early 1980s. While there was a clear change in economic policy towards delicensing and deregulation in the industry sector, agriculture policy by contrast lacked direction and was marked by confusion. Agricultural growth accompanied by increase in real farm incomes led to the emergence of interest groups and lobbies which started influencing the farm policy in the country. There was a considerable increase in subsidies and support to the agriculture sector during this period while public sector spending in agriculture for infrastructure development started showing a decline in real terms, though investments by farmers kept rising (Mishra and Chand 1995; Chand 2001). The output growth, which was concentrated in very narrow pockets, became broad-based and gathered momentum. The rural economy started witnessing a process of diversification which led to a growth in non-foodgrain output like milk, fishery, poultry, vegetables, and fruits. This accelerated a largely market-driven growth in agricultural gross domestic product (GDP) during the 1980s.

The decade of the 1980s did not see any major policy initiative for agriculture; wider spread of improved technology was the main factor for output growth. Towards the late 1980s, some adverse consequences of the new technology started emerging. Some pockets of the green revolution areas started showing signs of strain on natural resources like land and water. The mounting burden of subsidies put a pressure on the fiscal resources, and after 1980–1981, public investments in agriculture started declining. Some researchers think that the rising bill on farm subsidies was the main cause for the decline in public sector investments in agriculture, which are very important for long-term output growth.

Though the green revolution has been widely diffused in irrigated areas throughout the country, the dryland areas have yet not benefited from the technological breakthrough as witnessed through the green revolution technology. Of late, improved varieties of oilseeds and coarse cereals have provided some opportunities for productivity growth in dryland areas. A new phase was started in India's economic policy in 1991 that marked a significant departure from the past. The government initiated a process of economic reforms which

involved deregulation, reduced government participation in economic activities, and liberalization measures. Though these reforms were not directed at the agriculture sector, the sector was affected indirectly by a devaluation of the exchange rate, liberalization of external trade, and reduced protection to industry. At the international level, there was a new trade accord and the World Trade Organization (WTO) required the opening up of the domestic market. Initially, there were strong apprehensions about the impact of trade liberalization on Indian agriculture which turned out to be a real threat for several commodities produced in the country later on.

All these changes raised new challenges and provided new opportunities that required an appropriate policy response. The price intervention of the last two decades had a very limited coverage, and there was a sort of policy vacuum. There was strong pressure on the government to make a formal statement regarding its agriculture policy so as to provide new direction to agriculture in the new and emerging scenario. In response to this, the Government of India announced a new agricultural policy in July 2000, which is known as the National Agriculture Policy 2000.

The Planning Commission has been the top-level policy think tank of the Government of India equipped with expertise at all levels. In addition, the commission took inputs from outside experts by preparing working group reports and steering committee reports before finalization of five-year plans. It also constituted expert groups and task forces to get recommendations on any emerging issue.

The Planning Commission, based on recommendation of working groups, started recommending a set of reforms in agriculture as early as the 10th Five-Year Plan, which covered the period from 2002 to 2007. The need to implement the reform was further emphasized in the 11th as well as the 12th Five-Year Plans.

Reforms and Sectoral Growth

One would like to understand the reasons for acceleration in the growth rate of the non-agriculture sector and the cyclical growth trajectory noticed in the agriculture sector. The key reason for this is that a series of economic reforms were undertaken beginning in 1991 to remove various types of controls, liberalize the economy, attract private investments, and promote globalization. Some of these reforms, particularly globalization and liberalization of external trade, subjected agriculture to international competition but the domestic reforms in agriculture remained patchy and piecemeal. After a lot of pressure from researchers and thinkers, a few reforms were undertaken during the years 2002 to 2004, which imparted some strength to Indian agriculture. These include:

1. Removal of Licensing Requirements, Stock Limits, and Movement Restrictions on Specified Foodstuffs Order, 2002 and 2003. As per this order, wheat, paddy/rice, coarse grains, sugar, edible oilseeds and edible oils, pulses, *gur*, wheat products, and hydrogenated vegetable oil or *vanaspathi* were removed from the list of Essential Commodities Act (ECA), 1955, and a permit or licence was thereafter not required for their trading, storage, and movement.
2. Milk and Milk product Order (MMPO) of 2002 modified the MMPO of 1992 and removed restrictions on setting up of new capacity in milk processing and did away with the concept of milkshed.
3. Removal of prohibition on futures trading in any commodity, in year 2003.

These reforms attracted much-needed investments by the private sector in the dairy sector and in agricultural marketing. By the year 2005, 10 big corporate players entered the arena of agricultural marketing. This resulted in considerable increase in competition in agricultural markets, and farmers were able to get higher market price than the minimum support price (MSP) for wheat and paddy in some states where farm harvest prices often remained lower than MSP. This competition in the primary market raised wholesale and retail prices of wheat followed by rice in the country. Increase in global prices and a sharp shortfall in wheat output in the country in two successive years (2004–2005 and 2005–2006) also pulled domestic prices up. It was then argued by officials in Ministry of Food that the entry of private corporate players in grain marketing was the cause for surge in wheat prices and their activities should be curbed. On this ground, reforms in ECA to liberalize agriculture marketing were rolled back during 2006–2008 leading to the exit of most of the big players from the grain market. So, the situation of agriculture marketing was back to the 2002 level and prices received by farmers in the grain markets were left to be determined by the limited competition among the traditional traders.

While some reforms were attempted in agricultural trade, they did not include reforms in agricultural marketing or transactions of farmers' produce. One reason for this was that agricultural marketing is a state subject – it required reforms by the respective states. However, measures were initiated by the central government to bring reforms in the system of agricultural markets in the states. A Model Act called the State Agricultural Produce Marketing (Development & Regulation) Act, 2003, was prepared and shared with all the states for implementation. Some incentives were also offered to states to adopt the Model Act to improve competitiveness of primary markets. The ground reality has been that various reforms have been considerably diluted and only partly implemented at the state level. In some cases, new conditions were attached to reforms which defeated the

very goal of reforms. Thus, while the non-agriculture sector was getting more and more competitive and availing the benefits of new innovations in trade and commerce, agricultural marketing remained stuck in the old mould with farmers getting depressed prices in the harvest season. The effect of this discriminatory approach of reforms towards agriculture became visible towards the late 1990s, which saw an increase in the number of farmers' suicides and it further worsened thereafter.

Another often less talked of reason for the build-up of agrarian distress is the ecological degradation and unsustainable use of water resources. To cope with these stresses, farmers have been adopting more resource- and capital-intensive production. As the ecological limits cannot be stretched too far, the unsustainable use of natural resources has manifested in various forms, becoming more serious over time. Drying of water bodies, reduced flow of water in streams and rivers, declining groundwater level, and frequent failure of bore wells in some parts of the country are forcing more investment in irrigation, changes in crop pattern, and affecting yield. These changes ultimately affect farm income; in some cases, the shrinking natural resources eventually destroy livelihood options.

As mentioned earlier, the Planning Commission was replaced by the NITI Aayog on 1 January 2015. Soon after its creation, a task force chaired by the vice chairman of NITI Aayog was constituted to look into issues of the agriculture sector (NITI Aayog 2015). After this report, the NITI Aayog published a three-year action agenda which also spelt out the need and type of reforms needed in agriculture (NITI Aayog 2017). However, agriculture being a state subject, reforms in the area of market, land, tenancy, and internal trade are in the state list as per the Constitution of India. The central government can only advise the states to undertake reforms in those areas.

To further address the issue of increase in farmers' income, the NITI Aayog prepared a comprehensive plan for doubling farmers' income by year 2022–2023 (Chand 2017). This includes policy reforms and other initiatives germane to transforming India's agriculture sector and secure farmers' prosperity.

Indicators of Agrarian Distress

It looks strange that despite so much discussion on agrarian distress, quantitative indicators to assess the distress have not been developed. In a pioneering work on agrarian distress, P. Sainath used the information on farmer suicides to draw the country's attention to the plight of farmers and farming. The data on suicides by various socio-economic groups and by gender are published regularly by the National Crime Record Bureau since 1995. In the absence of any other indicator

on distress, we have used farmer suicides to represent the extent, severity, and trend in farmers' distress. This data shows that the number of farmer suicides followed a rising trend during 1995 to 2004. In these nine years, suicides committed by farmers (cultivators and agricultural labourers) increased by 70 per cent, from 10,720 to 18,241 (Figure 6.3). After peaking in 2004, the number of farmer suicides started declining. The declining trend continued until 2013 and shows a small increase during 2014, and again in 2015 which was a drought year. In most years, the incidence of suicides among the farming population was much lower than that among the non-farming population. It will be interesting to find out how the trend in farmer suicides is associated with the performance of the agriculture sector.

Based on information available in various studies and anecdotal evidence, it is observed that agrarian distress is closely associated with the level and growth of farm income. Further, the level and growth of farm income are determined by growth in value added in agriculture at real prices, terms of trade for agriculture, and workforce in agriculture. The growth and changes in these three variables during the last two decades for which farmer suicide data is available are presented in Figures 6.4 to 6.6.

It comes out clearly from Figures 6.3–6.6 that (a) farmer suicides increased when agriculture growth slowed down and declined when the growth rate went up, (b) suicides increased when terms of trade for agriculture deteriorated (1994–1995 to 2004–2005) and declined with the increase in relative prices of agricultural produce (2004–2005 to 2013–2014), and (c) farmers suicides increased when there was increase in workforce in agriculture and declined with the decrease in workforce. These three factors, which are closely associated with rise and fall

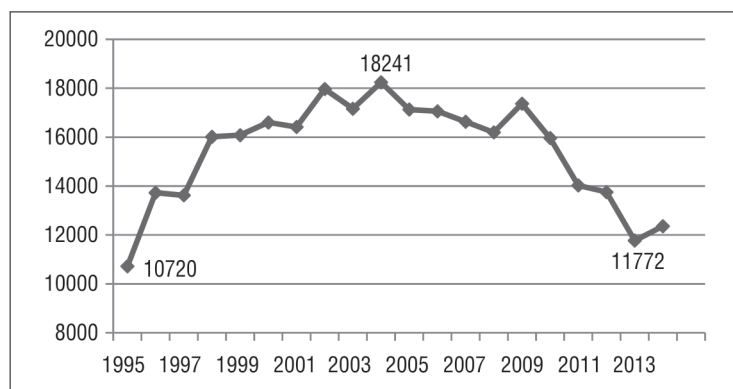


FIGURE 6.3 Number of farmer (cultivators and agricultural labourers) suicides according to the National Crime Research Bureau (NCRB) data

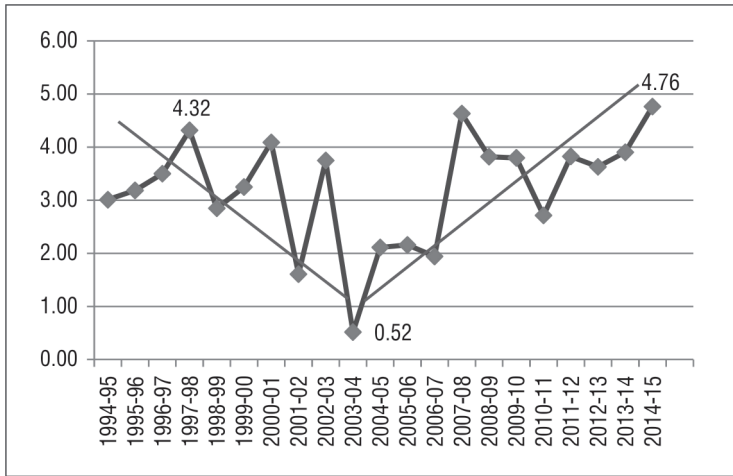


FIGURE 6.4 Five yearly moving average of annual growth rate in GDP agriculture at constant prices of year 2004–2005

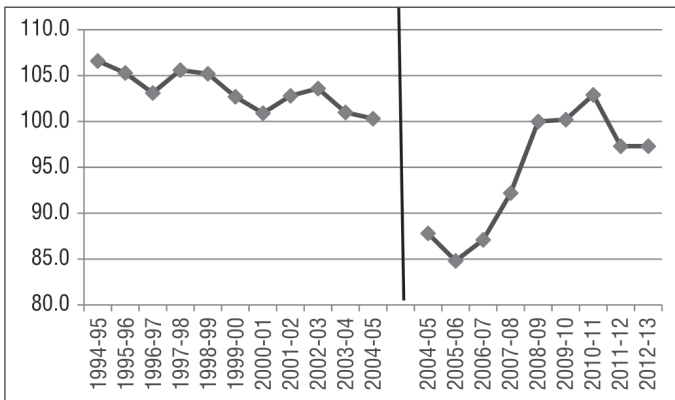


FIGURE 6.5 Terms of trade: prices paid and received by agriculture – old and new series

in farmer suicides, are the three components of agricultural income (Chand, Saxena, and Simmi 2015). The net effect of changes in agriculture growth, terms of trade for agriculture and workers dependent on agriculture, and on income from agriculture is presented in Table 6.2. Income of agricultural labourers and farmers at current prices, deflated by the consumer price index–agricultural labour (CPIAL), increased at the rate of 2.76 per cent per year during 1994–1995 to 2004–2005 and then accelerated to 4.74 per cent per year during 2004–2005 to

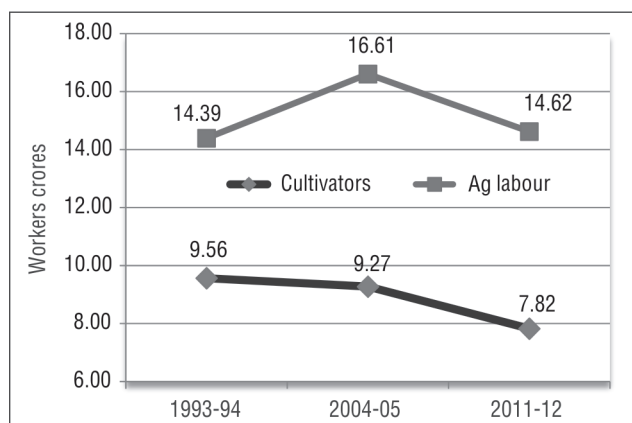


FIGURE 6.6 Workforce in agriculture (numbers in crores)

Source: National Sample Survey Organisation (NSSO, *Employment and Unemployment Situation in India*, National Sample Survey (NSS), various rounds.

Note: 1 crore = 10 million.

2013–2014. The income shrunk by 1.68 per cent in the drought year 2014–2015. The analysis presented in the preceding section confirms that income is crucial to alleviate agrarian distress. Therefore, all factors which contribute to rise in income should be rigorously followed.

TABLE 6.2 Growth rate in real agriculture income during the rising and falling phase of agrarian distress (%/year)

Period	Total Sectoral Income	Income per Worker
1993–1994 to 2004–2005	2.76	2.24
2004–2005 to 2013–2014	4.74	7.25
2014–2015	–1.68	–

Sources: Author's estimate derived by subtracting wage bill paid for hired labour from net value added in agriculture from following sources: (a) data on net value added in agriculture taken from National Accounts Statistics, CSO, various issues and (b) data on wage bill computed by multiplying wage rates with days of employment in agriculture taken from *Rural Labour Enquiry Reports (RLERs)* and NSS rounds on employment and unemployment.

Distress at Household Level

At the household level, the agrarian distress develops and worsens under two types of circumstances. The first situation arises when the income of a farmer is

chronically lower than his family expenditure and a farmer borrows money from some other source to meet the gap. Expenditure on social ceremonies and illness of family members, which is not part of regular household expenditure, are also important reasons to borrow money, particularly from non-institutional sources, and to fall under debt. The accumulated debt in such situations most often becomes so large that it becomes impossible to repay it from the household income. Some farmers are forced to sell a part or the whole of their farmland and other household assets to repay the loan and to meet the expenditure on social ceremonies. Some of the farmers, who do not find any way to get out of this situation, are forced to undergo humiliation as a defaulter and are unable to face their family and society. The loss of honour due to default in loan repayment and sensitivity towards the ensuing humiliation pushes some farmers to the extreme step of ending their life.

The second situation involves a sudden loss in income due to failure of crop or price crash for the major income earning crops grown by a farmer, making it difficult to run the household. In the absence of crop insurance or adequate relief, crop failure can have a devastating effect on farm income. Further, there is no mechanism except MSP to escape the effect of price crash. Any loss of income of severe nature on account of crop failure or market failure becomes a source of distress and frustration, and in some cases leads to the extreme step. This is more pertinent in the case of high value commercial crops. A year or two of high prices induce many farmers to invest excessive resources in risky commercial crops. The sudden increase in supply is often met with a violent price crash. Without risk coverage, which is unknown to most Indian farmers, the price volatility can have a devastating effect on farm income and farmers' well-being.

Another factor that leads to household level distress is consumption expenditure. As it is well known, the consumption basket is expanding and expenditure on items such as social ceremonies, education, and health is rising. Some farmers spend beyond their means on social ceremonies. A culture of profligate expenditure on social ceremonies and conspicuous consumption is growing in rural areas. As agriculture income often falls short of meeting such expenditures, farmers borrow money from private sources at exorbitant interest rates.

Strategy

The demands as well as responses to address agrarian distress focus mainly on treating the symptoms and not doing much for treating the causes. Most efforts take the easier options of relief, compensation, and social safety measures. Voices are also raised to increase farm subsidies, offer higher prices for farm produce, and ensure minimum income to the farmers. The fact is that the Planning Commission over the 11th and 12th plan periods was arguing consistently in the plan documents

to contain subsidies while raising public investment. Providing relief to the sector or households that suffer erosion in their income due to events like crop failure, market failure, and tragedy like suicides, is an important short-term measure, but it does not offer a solution for the problem. It is also noted that despite increase in safety net and relief measures in recent years, agrarian dissatisfaction has been spreading and becoming more severe. Therefore, there is a need to do a rethink on the responses to the agrarian challenge and follow a development strategy that can address the root causes and prevent agrarian distress in the country.

Raising Farm Income

It is evident that the level of agrarian distress is closely linked to two factors – the level of farmers' income and the level of household consumption expenditure. The level of farm income is determined by the scale of farm, productivity, input–output relationship (technology), price of input and output, and external shocks. Prices of farm commodities relative to prices of other commodities also matter in affecting real income of farmers. Income per farmer can be raised by shifting agriculture workers to non-farm occupations.

In order to make farming economically viable, some minimum scale is a must. A handkerchief size of landholding can never generate adequate income for the operator howsoever efficient it may be. Further, fresh evidence from cost of cultivation data shows that long-held inverse relation between farm size and productivity is changing.

A comparison of income of a farmer with the poverty line for rural India for the year 2011–2012 shows that average income of a farmer household dependent on agriculture is only 58 per cent above the poverty line based on Tendulkar methodology¹ (PC 2013). The average farm income per farm household was estimated to be INR 77,230 while the poverty line for a family of five members in rural area is INR 48,960. This also implies that a farmer having landholding below 0.63 hectare will not earn enough income from agriculture even to keep his family out of poverty. In other words, about 53 per cent of farm households in India will be living under poverty if they do not have earnings from non-farm sources.

Thus, to save them from distress, they need to have either income from non-farm sources or a larger size of land holding. Even if the suggestion of Dr M. S. Swaminathan to keep MSP 50 per cent higher than the sum of paid out and imputed cost (including land rent and wage bill for farmer's own labour and family) is accepted, and agriculture prices are jagged up by 50 per cent, still 39 per cent of farmers will continue to remain under poverty if they do not have non-farm income. In fact, the level of income to keep a family out of distress is much higher than the given poverty line.

Other measures needed to improve farm income include increase in productivity, improved technology, increase in crop intensity, shift of resources towards high value enterprises, better prices for farm produce, and shift from farm to non-farm jobs. They require a strong and well-thought development strategy. But even if all plans have suggested the right measures, they were ignored mainly at the level of states and also sometimes at the level of the centre.

Sops versus Development

A feeling is developing in the country that agrarian distress can be addressed by providing compensation, relief, free or subsidized inputs, or liberal financial support to farmers. These measures are important to provide succour and immediate help to those severely affected by distress, like farmer suicides and crop damage. Such help must be provided quickly, but it cannot make the agriculture sector distress free. Unfortunately, the quick fix and populist measures are being emphasized more than the development strategy. The reason is that competitive populism prevailing in the country has created a strong 'sops psyche' and weakened the 'development psyche'. This is evident from the resources we allocate to subsidies and investment in agriculture (Table 6.3). The amount spent on subsidies for the agriculture sector excluding power subsidies is 2.4 times the amount spent on development of infrastructure by the central government and all the states taken together for creating a base for long-run growth. According to some estimates, state-level subsidies on power used in agriculture and other small heads add up to more than INR 1 lakh crore. When these state-level subsidies are added to fertilizer and other agricultural subsidies, their level becomes more than five times the resources allocated for infrastructure development in agriculture. These issues were addressed by the plans but never implemented.

TABLE 6.3 Public sector capital formation and central subsidies for agriculture and allied sectors at current prices

Year	Public sector investment		Subsidies by central government	
	INR (Crore)	% of GDP Agr	INR (Crore)	% of GDP Agr
2011–2012	36,712	2.44	90,130	5.99
2012–2013	40,425	2.42	106,923	6.41
2013–2014	48,963	2.60	111,758	5.94

Source: National Accounts Statistics, CSO, GOI, various issues.

An illustration of sops versus development to raise income and address agrarian distress is presented in Table 6.4. Raising farm income through an increase in

TABLE 6.4 Sops and development options to raise income of farmers

<i>Factors affecting income</i>	<i>Sops: effect</i>	<i>Development: effect</i>
1. Use of modern inputs	Subsidy: low quality input, spurious inputs, leakages	Competitive market: quality input
2. Irrigation	Free power and water, subsidy on diesel: poor supply, excessive use and over-exploitation of water	Regular and reliable supply: efficient use. Adoption of modern irrigation technology.
3. Resources to invest	Interest subsidy, loan waiving: corruption, reluctance to lend	Easy and ready access to institutional credit, Kisan Credit Card: less cost and time, smooth flow
4. Farm-level prices	MSP 5% higher than open market price: only some commodities in some states benefit, increase in food subsidy, suppress market development	Agricultural Price and Marketing Committee (APMC) reform, Electronic National Agricultural Market (eNAM), modern infrastructure, value chain: competitive prices, break traders' cartels, integration between surplus and deficit regions, value addition, higher share of producers in consumer rupee, benefit of exports
5. Price crash	Public procurement: cost to exchequer, compound price volatility	Responsive trade policy, market intelligence, deficiency price payment, price insurance, futures: check glut, reach global market, hedging
6. Low scale – farm size	Raise prices to raise income: price distortions, promotion of inefficiency	a. Diversification, intensive and precision farming, give knowledge and skill: high return, low cost. b. Liberalize land-lease market: raise farm size, facilitate exit c. Impart skill: non-farm employment d. FPO
7. Crop loss	Pay relief to family: short-term relief	Crop insurance: payment of claims, entitlement
8. Degradation of land and over exploitation of water	Fertilizer subsidy, subsidy on water pumps: further degradation and over-exploitation	Check ecological degradation, community participation, resource conservation technologies: sustainable resource use

Source: Author.

productivity requires an increase in the use of modern inputs and irrigation. There is a sop route, and there is a development route to raise the use of modern inputs and irrigation. The sop route is to provide subsidy to farmers on seed, fertilizer,

chemicals, growth hormone, and such inputs. Any intervention leading to sales at a price below the market price has a hazard of rent seeking and is prone to dilution in quality, as seen recently in the case of subsidy on seed and chemicals in cotton in Punjab, where the white fly had caused widespread damage to the cotton crop. Anecdotal and oral evidence indicates that a large chunk of subsidies on seed, equipment, and chemicals is siphoned off by dealers and department officials, and farmers get a smaller share and an inferior product. In contrast, the development approach is focussed on promoting a competitive market and on monitoring and regulating quality. Similarly, for irrigation, the populist approach is providing free power, leading to over-exploitation of water, and the higher investment in submersible pump going beyond the reach of small farmers. In contrast, reliable and assured power supply and use of modern irrigation technologies lead to sustainable use of water.

Given that there are trade-offs built into the sops versus investment debate there is a need for consensus among political parties to put agriculture on the development path as per the roadmap for doubling farmers' income suggested by the NITI Aayog.

On the output side, demand is rising for effective and higher MSP for more crops in all states. The common perception is that the MSP is higher than market price. This is true in some cases. In some cases, farmers get prices higher than MSP even under existing market imperfections. Enforcing MSP in such cases will not only distort market, it will also pull down prices. The alternative option of raising price realization by farmers is to raise their share in the price paid by consumers as is envisaged under the Electronic National Agricultural Market (eNAM). The electronic platform and unified NAM and some other market reforms can fetch much higher prices to the farmers than MSP by increased competition, better spatial integration of prices, reduced number of intermediaries, and development of value chain.

Recent Government Initiatives

During 2017 and 2018, the government has announced a number of initiatives for the development of agriculture for improving agriculture production, efficiency, and market; addressing risk and shocks, saving cost, and raising scale; and non-farming employment. These are listed below:

1. Prioritization of incomplete major irrigation projects, command area development, more crop per drop, restoration, rehabilitation and revival of traditional water bodies, watershed development, and convergence with MGNREG²

2. Revamped and enlarged crop insurance scheme
3. Soil health card
4. Direct benefit transfer to replace input subsidies: pilot on reforms
5. Investments
6. eNAM for better prices and fair deal for farmers in market
7. Sharing of Model Agricultural Produce and Livestock Marketing Act (2017)
8. Sharing of Model Contract farming Act (2018).
9. 100 per cent foreign investment in processed food retailing provided they are manufactured in India
10. Rurban mission
11. Model land lease law prepared by NITI Aayog
12. Skill India Mission
13. Start-ups in agriculture

These are not sops but development initiatives to strengthen agriculture and to put it on a sound growth path, making it attractive to farmers. The initiatives also include measures to shift the workforce from the farm sector to the non-farm sector.

The big question is to make these initiatives deliver, and this requires strong collaboration and cooperation from the states for these initiatives. The central government can achieve some milestones in manufacturing services on its own but any major success in agriculture requires ideas, initiatives, and resources from the centre and their implementation by the states along with contribution from the states. One area where major difference to agrarian distress can be made is through the creation of jobs for rural youth, which will reduce agrarian distress in two ways: first, by raising per worker income in agriculture and, second, by contribution of farm family members working outside the farm. Realization of this will also require making rural youth employable by equipping them with the required skill. The Skill India Mission must focus on this. There is considerable scope to raise agricultural income through post-harvest value addition.

Doubling Farm Income to Address Agrarian Distress

In 2015, Prime Minister Narendra Modi has given a clarion call for doubling farmers' income. This is a development initiative and not a sop. Achieving this goal has been challenged by many experts, and some of them have dubbed it as a 'miracle of miracle or a mere dream' (Gulati and Saini 2016). Some experts are optimistic about this and feel it is doable (Chand 2016). However, if it cannot be done, then agrarian dissatisfaction also cannot be addressed. It needs to be noted that doubling of farmers' income does not require doubling of production.

A three-pronged strategy focussed on (a) development initiatives, (b) technology, and (c) policy reforms in agriculture is needed to double farmers' income. The country needs to increase use of quality seed, increase power supply to agriculture, and improve efficiency in use of inputs like fertilizer, water, and labour. The area under irrigation has to be expanded by 1.78 million hectares, and area under double cropping should be increased by 1.85 million hectares every year. Besides, the area under fruit and vegetables is required to be increased by 5 per cent each year. In the case of livestock, improvement in herd quality, better feed, increase in artificial insemination, reduction in calving interval, and lowering age of first calving are the potential sources of growth.

Sustainable growth in productivity and farmers' income requires a paradigm shift from input-intensive technologies, which have dominated Indian agriculture since the onset of green revolution. Emphasis is also laid on transformative rather than incremental gain from agricultural research and innovation. Breakthroughs in basic and other modern sciences offer voluminous opportunities for developing transformative technologies for agriculture. However, this has not been happening for a variety of reasons. An important reason for this is that public policy on agricultural research and development (R&D) has relied heavily on genetic manipulation of plant traits and on plant breeding for raising productivity and to some extent imparting resistance to diseases and pests. This approach has delivered rich dividends in terms of growth in output, which has been driven by intensive use of input and which ignored sustainability aspects and input management. There is a feeling that natural resources management and agronomic aspects have remained under-exploited in the country.

Breakthroughs in basic and other modern sciences offer many opportunities for developing transformative technologies for agriculture outside the discipline of plant breeding. These include new methods of raising plants, precision farming, application of advance sensors, use of drones, use of bio-fertilizers, biological nitrogen fixation, crop modelling, weather tracking, and vertical farming. Accordingly, the world is moving towards application of new scientific tools in agriculture. Many of these tools are being popularized by start-ups in the private sector. The public sector R&D system should pro-actively promote science-based techniques and farming systems.

There can be two approaches to double farming income – first, the exploitative approach involving over-exploitation of land and water, biodiversity, and environment degradation and, second, a sustainable intensification approach that follows boundary-breaking innovations in which multiple research areas are brought together to design new innovative farming systems.

About one-third of the increase in farmers' income is easily attainable through better price realization, efficient post-harvest management, competitive value

chains, and adoption of allied activities. This requires comprehensive reforms in market, land lease, and raising of trees on private land. Agriculture has suffered due to the absence of modern capital and modern knowledge. There is a need to liberalize agriculture to attract responsible private investments in production and market. Similarly, farmer producer organizations (FPOs) and farmer producer cooperatives (FPCs) can play a big role in promoting small farm business. Ensuring MSP alone for farm produce through competitive market or government intervention will result in sizeable increase in farmers' income in many states.

Most of the development initiatives and policies for agriculture are implemented by the states. States invest much more than the outlay by the centre on many development activities, such as irrigation. The progress of various reforms related to market and land lease are also state subjects. Therefore, it is essential to mobilize states to own and achieve the goal of doubling farmers' income. If concerted and well-coordinated planning is undertaken by the centre and all the states and union territories, the country can achieve the goal of doubling farmers' income by the year 2022.

Conclusion

The solution to the problem of agrarian distress lies in growth and development, and not in sops. Agrarian distress cannot be removed by doubling farm subsidies, MSP, NREGA, or food subsidies. The only way to address this is to undertake development measures which can lead to fast growth in income per farmer. This strategy should also involve increase in income within the agriculture sector and shift of a sizeable workforce from agriculture to non-farm occupations.

Notes

1. As per the Tendulkar methodology, the poverty line has been expressed in terms of average monthly per capita expenditure (MPCE) based on mixed Reference Period for rural and urban areas. The poverty line for 2011–2012 for rural and urban areas based on MPCE is estimated at INR 816 and INR 1,000 respectively. Thus, for a family of five, the poverty line in rural areas in terms of annual consumption expenditure turns out to be INR 48,960.
2. These are initiatives under the Prime Minister's Krishi Sinchai Yojana (or Agricultural Irrigation Programme).

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Economic Planning after Economic Liberalization

Between Planning Commission and Think Tank NITI, 1991–2015

Baldev Raj Nayar

As is well known, the Planning Commission (PC) was a venerable institution of the state that was initially envisioned and established in 1950 by India's first prime minister, Jawaharlal Nehru of the Congress Party, an iconic political hero of the nationalist movement. Sixty-five years later, on 1 January 2015, it stood officially abolished by another iconic leader, Prime Minister Narendra Modi, belonging to the Bharatiya Janata Party (BJP) – the avowedly Hindu-nationalist political adversary of the Congress Party, opposed to the economic philosophy and strategy of the Congress Party, indeed to much of the Nehruvian economic and political legacy. The formal ending of PC's reign had been preceded by an announcement by Prime Minister Modi from the ramparts of Delhi's historic Red Fort on India's 67th independence anniversary on 15 August 2014 about his government's intention to abolish the PC and replace it with another institution more in consonance with the changed economic and social environment.

It is understandable that a successor government with a historic mandate would want to put its own stamp on the institutional framework for economic policymaking. However, this chapter will attempt to demonstrate that, while the switch from the PC to the NITI Aayog ('Policy Commission', but more elaborately National Institution for Transforming India) clearly marks a rupture with the past institutionally, it also manifests the culmination of the evolutionary change that had been under way for some time in precisely that direction. It is true that some had seen the PC as a rigid, closed-minded, oversized bureaucratic organization with

a set formulaic approach to economic planning. Indeed, an eminent PC member at the time of the abortive Sixth Five-Year Plan (FYP) (1978–1983), the late Raj Krishna, reportedly commented, when asked about the specific approach in that plan: ‘This is not the approach to the Sixth Plan. This is the sixth approach to the same plan’ (Goyal and Misra 2010). He thus alluded to the alleged lack of change in the PC’s basic economic strategy. Notwithstanding that pronouncement of a highly perspicacious and esteemed economist, there is nonetheless a history of change in the PC’s strategic thrust in response to contemporaneous challenges, starting with the switch to the heavy industry strategy in the second FYP (1956–1961) and the subsequent adoption of the Green Revolution agricultural strategy in the mid-1960s, both with enormous economic consequences.

The most dramatic challenge to the regime of economic planning occurred, however, with the paradigm shift in economic policy through economic liberalization in 1991, supplemented by smaller installments of economic reform in subsequent years. That paradigm shift was a momentous event, celebrated by some and viewed with great concern by others, even as its consequences reverberated in many areas of the economy and polity. Some predicted the immediate demise of economic planning as an inherent consequence of this policy shift, since economic planning as practised under the former economically hegemonic state was believed to be incompatible with the opening of a wider economic arena to the private sector following the substantial dismantling of the system of licencing and controls. It is remarkable, however, that it took a quarter century to result in this denouement. The present chapter aims to limit itself to analysing the major changes in India’s planning process over this long period as the PC sought to adapt itself to the challenges emerging from economic liberalization, as also to examining the continued dissatisfaction with the planning apparatus which laid the groundwork for more radical reform, either by modifying the same administrative structure or by installing an altogether new one.

The Impact of Economic Liberalization on Economic Planning

Economic liberalization marked a serious rupture with the earlier regime of economic planning since the hallmark of that regime had been the subordination of the market to the state whereas the intent of this economic reform was to liberate the market from the control of the state. In most eyes, economic planning was precisely the target of economic liberalization – that is, reform aimed to release the market from the grip of economic planning, from the hegemony of the public sector, and from the system of discretionary controls.

Actually, despite the appearance of a sudden rupture, considerable ambivalence and ambiguity surrounded the official turn to liberalization. For, the then

prime minister, P. V. Narasimha Rao, favoured both economic liberalization *and* economic planning. Rao, undoubtedly, wanted the removal of unnecessary controls and regulations for the sake of national advance, but he also believed that 'the growth and development of the country cannot be left entirely to the market mechanism', since the market basically responded to existing purchasing power, and not need. He therefore opted for both the market mechanism *and* planning, asking in effect that the two be dovetailed.¹ The intended break with the previous economic regime was therefore not as comprehensive and thoroughgoing as it appeared at the time or as its opponents painted it to be.

The state, with its specific leadership, was thus critical to the kind of economic liberalization that was acceptable. There were therefore elements of both continuity and discontinuity with the previous regime after economic liberalization. Indeed, the entire apparatus of planning that had existed before liberalization continued to be an essential part of government operations, even though much reduced in importance. The quarter-century after liberalization saw the launching and completion of four FYPs (Eighth, Ninth, Tenth, and Eleventh), and the start of the Twelfth Plan (2012–2017). The fact that economic planning persisted as an essential feature of government functioning suggests that there is no inevitability about the consequences attributed to liberalization; instead, public policy is key.

India's economy had earlier been proclaimed to be a 'mixed economy', and it remained so after liberalization. For, there occurred little privatization, while the vast public sector continued to exist. India's economy thus remained a mixed one. At that level of generality, then, not much appeared to have changed. Continuity with the past is therefore one aspect that is apparent in respect of the impact of liberalization. At the same time, there can be no denying that economic liberalization did mark a sharp shift in the relations between state and market, and it thus could not leave planning unaffected. The pertinent issue, then, is: what and how much changed in respect of economic planning? At base, economic planning is a political and administrative mechanism of the nation-state to develop a consensus over the essential economic tasks for the centre, the states, and the market for a finite period (say, five or fifteen years), and it is equally also a site where these three forces intersect and interact. Four changes are strikingly apparent in planning as regards the relationship between the centre, the states, and the market between the launching of economic liberalization and PC's abolition.

From Comprehensive Planning to Indicative Planning

While not as thoroughgoing as it was in the Soviet Union, planning in India had been comprehensive insofar as it covered the entire economy and its various sectors (Nove 1987; Klaus 2008). It was detailed, with meticulous multi-sector

models employed to work out input–output balances with some degree of internal consistency for a largely closed economy. It was prescriptive also, particularly for the public sector, with the plans serving as an allocation mechanism. In great measure, it was prescriptive for the private sector, too, with the state using policy instruments like licensing and controls to implement plans. Occupying ‘the commanding heights’ of the economy, the state was able to exert control over the entire economy through its vast and far-flung public sector, its regulatory framework for the private sector, and its dominant hold over private sector savings in the nationalized banking and insurance industry.

Obviously, with the dismantling of a substantial part of the licensing and controls system as also the opening of vast areas of the economy to the private sector after economic liberalization, economic planning could no longer be comprehensive. Nor, with the opening of the economy internationally, were input–output balances of much relevance any more, since foreign trade could now serve as a balancing mechanism. Detailed planning could, however, continue for the non-tradable sector, primarily in the area of infrastructure, largely the responsibility of the public sector (GOI 2008: I, para 2.6). On the other hand, with the increased empowerment of the private sector, planning could no longer be prescriptive for much of that sector. In this fashion, comprehensive planning was transformed into *indicative* planning, particularly in relation to the private sector.

However, economic planning as a focused activity of the state continued into the post-liberalization period, and it was not limited to the public sector alone, contrary to popular perception. Planning encompassed, as it did earlier, the entire economy within its scope, determining the overall strategy, the desired or acceptable rate of growth, and the thrust areas and priorities. The PC established and approved *allocations* for the public sector, while it expected *policy* to provide the enabling environment or incentives to accomplish what was desired in the private sector. But that was precisely what it had done before liberalization (GOI 1985: I, paras 6.1, 6.2). The decisive difference with the period prior to economic liberalization was that the state no longer wielded discretionary controls in most areas of concern to the private sector. Rather, the state was now conceptualized, ideally at least, as a *facilitator*, while the market was the arena where the private sector competed and carried the national economy forward. In practice, however, besides its influence through the regulatory agencies headed by bureaucrats or former bureaucrats, the state continued to exercise considerable discretionary controls over the private sector in important areas, such as telecommunications licences, space allocations in special export zones, land acquisition for entrepreneurs, mining licences, and, especially, environmental clearances. Not surprisingly, in all these areas there was an abundance of rent-seeking behaviour, leading in subsequent years to widespread corruption and multiple and massive scams amidst charges of crony capitalism.

The change from comprehensive planning to indicative planning was heralded by the Eighth Plan (1992–1997), which marked and facilitated the transition from the former to the latter. Declaring that it had redefined PC's role, the plan announced, 'From a highly centralized planning system, we are gradually moving towards indicative planning' (GOI 1992: I, 'Preface', para. 5). This shift did not, though, mean an end to the use of formal economic modelling for planning, which the PC continued to employ. While economic planning no longer established sector-wise targets as in the past, modelling was perceived as useful since it provided a broad-stroke view of the economy and its future direction, which would be useful to both the public and private sectors. More broadly, economic planning was considered to have a continuing importance.

In sum, then, the PC continued to perform its role of articulating an economic vision for the country, developing the overall economic strategy for a period of five years at a time, charting out the thrust areas over that period, laying out the roles of the public sector and private sector, and specifying the policy instruments to accomplish the goals of a given FYP. The future role of planning, however, undoubtedly remained a strongly contested terrain.

From Planning for State Hegemony to Adapting to Private Sector Expansion

India had a mixed economy before economic liberalization, and it continued to have one after liberalization, but the balance between the public sector and the private sector in the mixed economy changed decisively. With economic liberalization, the public sector saw a relative decline in the pace of its expansion and, therefore, in its presence in economic planning, which was precisely the intent of the shift. But the halt to the relentless expansion of the public sector was profoundly consequential for the PC, since the latter had derived its drive and energy earlier from planning for the public sector.

The decline of the public sector as an arena of investment is reflected in the comparative data on public investment as a share of gross domestic product (GDP) (see Table 7.1). Two things are noteworthy. First, *total investment* as a percentage of GDP saw a major expansion in the post-liberalization period, marking a significant structural change in the economy. Total investment was 24.4 per cent during the Eighth Plan (1992–1997), but it rose dramatically to 32.1 per cent during the Tenth Plan (2002–2007) and was projected to go up to 36.7 per cent during the Eleventh Plan (2007–2012). What is especially significant is that this steep rise took place on an expanded GDP base because of the post-liberalization acceleration in economic growth, particularly during the first decade of the 21st century.

Second, another 'important structural change' was the shift in the share of *public investment* in total investment (GOI 2008: 28). During the Fifth, Sixth and

Seventh Plans – all of which were prior to liberalization – actual public investment was around 45 per cent. Subsequently, such investment saw a precipitous fall; it came down to around 22 per cent in the Eleventh Plan. Thus, with the Eleventh Plan, most of the investment, amounting to nearly 80 per cent, came from the private sector, indicating a remarkable change from the pre-liberalization period.

Despite the reduction in the extent of public investment *relative* to private investment, there was no significant diminution in the role of the *existing* public sector as such in India's economy. That role continued to be immense; indeed, it was overwhelming and, paradoxically, it had expanded in *absolute* terms in the post-liberalization period. First, there had been little privatization of the public sector after liberalization. Only a handful of public sector enterprises (PSEs) were sold off to the private sector, chief among them Indian Petrochemicals Corporation, Bharat Aluminium, and Maruti Udyog. There was, thus, no hollowing out of the public sector as had been feared by the critics of liberalization. Some disinvestment took place through the listing of several PSEs on the stock exchanges and selling of part of their equity to the public, in large part because of the government's need to cover budget deficits. The government, however, steadfastly retained management control.

TABLE 7.1 Share of public sector in total investment (%)

	<i>Planned %</i>	<i>Realized %</i>	<i>Total Investment as % of GDP</i>	<i>Public Investment as % of Total Investment</i>
Fifth Five-Year Plan (1974–1979)	57.6	43.3	–	–
Sixth Five-Year Plan (1980–1985)	52.9	47.8	–	–
Seventh Five-Year Plan (1985–1990)	47.8	45.7	–	–
Eighth Five-Year Plan (1992–1997)	45.2	34.3	24.4	34.7
Ninth Five-Year Plan (1997–2002)	–	–	24.3	29.0
Tenth Five-Year Plan (2002–2007)	–	–	32.1	22.0
Eleventh Five-Year Plan (2007–2012)	–	–	36.7	21.9

Source: GOI (1997: Table 2.2); GOI (2008: 28).

Note: Figures for the Eleventh Plan are projections.

Second, the public sector saw, counter-intuitively, a huge expansion after liberalization. Taking into account only the national level, the departmental enterprises, such as railways, banking and insurance, and nuclear energy, consistently saw expansion; so did the non-departmental PSEs, comprising about 250 firms. In the 18 years after liberalization, the PSEs saw their turnover multiply

8.39 times and their profits multiply about 15 times even as the wholesale price index (WPI) increased only 2.64 times. Economic liberalization seemingly had a reinvigorating impact on the public sector – known earlier for its inefficiency and unprofitability – because it provided the sector with a far more expanded and expanding market as also the stimulus of greater competition.

The impact of liberalization becomes particularly visible with the sharper acceleration of economic growth after 2001–2002. Turnover and profits climbed higher by 258 per cent and 298 per cent, respectively, in the subsequent eight years up to 2009–2010; WPI was, meanwhile, higher by 151 per cent. Note also that the number of profit-making PSEs jumped dramatically from about 120 in 2002–2003 to about 160 in 2009–2010 while that of loss-making PSEs fell correspondingly from 105 to 59.²

The continued importance of the public sector in India's economy can also be seen in its monopoly of railway transportation and nuclear energy and its oligopolistic dominance of banking and insurance and some other areas of the economy. The PSEs have a predominant share in domestic output of some important sectors, such as coal (about 80 per cent), thermal power (38 per cent), telephone landlines (85 per cent) and refineries throughput (70 per cent) (GOI 2011a: 11). Indicative of the persistent heft of the public sector is the fact that five of the top six listed companies in India are state-owned.³

In summary, it is patent that there was a substantial decline in the share of public investment in India's total investment after economic liberalization. That said, however, the continued massive presence of the public sector as an inheritance from the past and, especially, its reinvigoration and expansion after liberalization suggest that India remained a mixed economy in which the state was not only a major economic actor but also a dominant one.

From Planning for a Producer State to Planning for a Quasi-welfare State

Prior to 1991, economic planning was largely geared towards building a self-reliant (read autarkic) socialist economy. As part of that aim, the planners had focused on promoting the role of the state as an entrepreneur and producer. Economic liberalization certainly interrupted the ever-expanding role of the state as producer by removing most constraints on private producers to install and expand capacity. Since the state now relied on the private sector for economic growth, there was thus a decline in the role of the public sector as a producer, though only relatively and not absolutely. Supporters of the socialist regime had feared the shrinking of the state's role as producer – and thus as economic planner – and had therefore opposed liberalization.

Despite the relative diminution of the role of the state as *producer*, there was really no shrinking of the *overall* economic role of the state. Indeed, the post-liberalization period saw an expansion of that role. That fact is manifest in the data on total government (centre and states) expenditure.⁴ At first sight, total expenditure as a share of GDP seems relatively stable at around a quarter of GDP. However, this apparent stability is deceptive; it masks the consistently higher rise in expenditures in absolute terms since these were expanding on the average at a rate much greater (14.2 per cent) than that of inflation (5.1 per cent). The explanation for the paradox of stability in expenditure as a share of GDP and yet a rapid rise in absolute terms lies in the growth acceleration in the post-liberalization period, particularly during much of the first decade of the 21st century. Rapid growth allowed the absolute expansion of government expenditures even as their proportion in the GDP remained stable.

There was thus no shrinking or erosion of the state in the economy and society. But it is equally manifest that there had occurred at the same time a decline in the relative role of the state as a producer of private goods. What this indicates is that there was a shift in the concerns of the state. Most notably, there was a tilt away from the producer state to a quasi-welfare state, where the resources at the command of the state had been increasingly directed towards the social sectors, particularly for programmes that provided some minimum recompense for economic deprivation. This trend is made abundantly obvious by the data on plan outlays, where the expenditures on social services went up from 16 per cent in the Seventh Plan (prior to liberalization) to 30.2 per cent in the Eleventh Plan (2007–2012) (Nayar 2012: Table 4). Indeed, social services attracted by far the highest allocation in the Eleventh Plan. To get a truer reflection of the provision for social services, one would perhaps need to augment it with the allocations for rural development and for special areas programmes.

The shift to welfare in state expenditures was not the result of happenstance but of consciously thought-out state policy, and it became more pronounced with time. The conceptual change in the role of the state was best expressed by the PC in its Approach Paper for the Eleventh Plan, which focused on socially inclusive growth. Of course, as with most things regarding planning in India, the concern for inclusive growth, and thus for the welfare state, was not entirely new but the post-liberalization period did represent its intensification.

What, however, transformed the change in the balance into a more qualitative change in respect of the welfare state was the impact of a significant consequence of economic liberalization – growth acceleration. India saw significant growth acceleration following liberalization, particularly after 2002. Post-independence India had not earlier witnessed as long a period as the one stretching for 17 years from 1992 to 2010 with as high a growth rate as 6.92 per cent on the average despite

the several crises both India and the world economy had to endure. Particularly striking is the growth rate of 8.5 per cent over the eight-year period from 2003 to 2010.⁵

The significance of the outlays for the welfare state is therefore not fully conveyed by the change in the relative ratios of outlays for social services and rural development. India's GDP expanded rapidly from less than half a trillion US dollars (current) in 2001 to almost two trillion dollars a decade later in 2011. It is this growth acceleration on an expanded GDP base that generated the revenues that allowed the state to spend more liberally on the social sectors and welfare programmes. Given the expanded GDP base, the scale of effort for social services really went far beyond the changes in the relative ratios in outlays.

To enhance inclusiveness and reduce poverty, the economic planners instituted a plethora of programmes. The Eleventh Plan highlighted 13 'flagship programs' in a variety of social arenas (Nayar 2012: Table 5). Clearly, the Mahatma Gandhi National Rural Employment Guarantee Act scheme (MGNREGA), the first on that list, was the showpiece among the programmes for inclusive growth since it provided some measure of employment security to rural households 'below the poverty line' (BPL) by assuring each such household 100 days of employment at minimum wages as a matter of right. Besides, the National Social Assistance Programme provided a pension to BPL individuals aged 60 and over. Other significant programmes included mid-day meals for children in schools and health insurance for workers in the unorganized sector.

There were two major issues relating to the impact of economic planning after liberalization that gave rise to a virtual growth industry in scholarship. One pertained to the issue of poverty, and the other to the matter of inter-state disparities. Briefly, as regards poverty, if the same criteria are used for measuring it over time, then it can be asserted with some certainty that, in the quarter-century following economic liberalization, poverty saw a considerable decline – certainly in percentage terms but not consistently in absolute terms – even though neither the pace of poverty reduction nor the absolute level at which poverty is defined may be acceptable to most. In terms of the earlier poverty criteria, the percentage of the BPL population came down from 36.0 per cent in 1993–1994 to 27.5 per cent in 2004–2005. The poverty level was then officially reworked upwards with the new Tendulkar methodology, and the percentages were revised to 45.3 and 37.2 per cent, respectively. By 2011–2012, however, the BPL population saw a dramatic decline to 21.9 per cent (GOI 2013).

Inter-state disparities had existed before economic planning. For a considerable period, the economic planners did not attack the problem with any seriousness or consistency, as they were more focused on growth. Not surprisingly, 'over time, the poor states became poorer and the rich richer' (Gupta 1989: 247–248).

After liberalization, the disparities increased during the 1990s as the states with better infrastructure pulled further ahead while the poor states continued to lag. However, the earlier laggard states, too, participated in the post-liberalization growth acceleration during the first decade of the 21st century, with some of them displaying a strong performance. Despite the surge in their growth, however, some hold that the advance was not sufficient enough to generate convergence among the states, and ‘divergence in the growth performance across states continues’ (Kumar and Subramanian 2012). Others, however, demurred and advanced evidence to demonstrate that there had indeed been convergence over the period 2001–2010 (Swati 2012). Elsewhere, I have shown that there is considerable evidence in favour of a broad pattern of diffusion of growth and convergence among the states, to which there are some exceptions (Nayar 2014).

There is a considerable consensus among scholars that social inequality has increased sharply with the greater concentration of wealth at the upper end of income distribution. Therefore, despite the reduction in poverty and the advance towards the welfare state through planning, there is serious concern among many that the rise in such inequality may threaten both India’s higher growth rate of recent years and its social and economic integration (ADB 2009).

From Centralization to Coordination in Planning

Economic liberalization resulted in significant and substantial change in economic planning in respect of the relationship between state and market. But it resulted in change in planning also in terms of the relationship between the centre and the states. If there had prevailed, prior to liberalization, a command and control relationship between the state and market, shades of a somewhat similar relationship can be said to have existed between the centre and the states in India’s polity. This relationship was not entirely a function of the centralized nature of India’s federal structure, but in considerable part was a consequence of the specific configuration of the party system at the time.

Economic planning in India began in the context of the ‘single party dominant system’ in which the Congress Party was in power at the centre and in almost all the states. Despite the powerful position of that party, the extent of the centre’s influence in the states need not be exaggerated. If the centre was headed by a charismatic political hero from 1947 to 1964, the chief ministers of the states were also highly respected stalwarts of the nationalist movement. Significantly, the most intense debates on plan strategy in the history of India’s economic planning took place in the mid-1950s during the Second Plan’s formulation, and the state chief ministers took an active part in that debate, quite a few times in opposition to the official line at the centre (Nayar 1972: ch. 2). Moreover, even then the chief ministers would often agree with the centre in New Delhi on policy matters and

then did pretty much what they wanted to after getting back to their state capitals, particularly in regard to land reform and rural cooperatives.

After Nehru's death in 1964, the single party dominant system began to decay, and it suffered a major blow in the 1967 elections, as a result of which most of north India came under the rule of non-Congress governments. Thereafter, even when the Congress Party recovered its strength at the centre during the 1971–1977 and 1980–1989 periods, it had to contend with a considerable number of states that were from time to time under non-Congress parties. The trend towards fragmentation of the national party system and regionalization of politics had already become consolidated before economic liberalization emerged in 1991.

Subsequent to liberalization, the political pattern that developed at the centre – until suddenly and unexpectedly reversed by the unusual victory of the BJP in the 16th national elections in 2014 – was one of coalition governments, with regional parties playing an influential, at times critical, role in them. Indeed, governments at the centre became in some sense simply shifting 'coalitions of the regions', after the rise of regional parties reduced the political space open to national parties. Further, since the stability of coalition governments often crucially depended on the support of regional parties, the latter could exercise a veto over national policy and bend the centre to the interests of one or more states. However, the flow of political influence was not entirely one way from the states to the centre since the core of coalition governments at the centre was mostly constituted by one or another national party. As such, the political system manifested considerable complexity compared to the simplicity of the single party dominant system. It is in this more complex situation that economic planning had to take place after economic liberalization.

The states, especially the better endowed among them, were the principal beneficiaries of the dismantling of many of the controls following liberalization since the authority to attract private industry and investment now vested in them. In this sense, liberalization can be said to have reinforced the greater devolution of power to the states that had ensued from the regionalization of politics. On the other hand, liberalization's impact has been double-edged, and not one-dimensional. Economic liberalization has two aspects – an internal one and an external one. The former revolves around the relaxation or removal of controls by the state over the market. The latter, involving the integration of the national economy with the international economy, carries benefits but it also confronts the nation-state with new challenges by increasing the exposure to external shocks; in this situation, individual regions of the nation-state do not remain immune from their destabilizing effects.

At the same time, external shocks necessitate national action by the centre, both remedial and preventive, to cope with them. Such action, however, has implications

for the states, particularly in the area of fiscal discipline, just as the conduct of fiscal affairs in the states has implications for the centre's macroeconomic management. In the circumstance, there can be no escape under globalization from cooperation between the centre and the states in coping with such challenges. 'Cooperative federalism' is therefore not a choice but a necessity for both centre and states; the centre needs the cooperation of the states in order to cope with challenges from the world economy, and the states need the support of the centre to mitigate their malign aspects.

The PC served as a key agency, among several at the centre, which had responsibility for managing economic affairs between the centre and the states. Although it formulated a FYP on the basis of economic parameters for the nation as a whole, it also scrutinized similar plans of the states, discussed them with the states' representatives, determined in consultation with each state the size of its plan in the light of the state's available and potential resources, tentatively agreed to the level of support it could provide to each state, and integrated the various states' plans within the overall national plan. Since the flow of funds to any state from the centre for implementing its plan programmes depended on the size of its plan, the state had an incentive to aim for a large plan, and it usually pleaded with the commission to approve it. At the same time, the commission's role in the allocation of funds for the states' plans provided it leverage with the states in the integration or accommodation of their state plans into the overall national plan. That leverage was critical to national planning.

As an economic agency at the centre, the PC interacted extensively with the states and was in continual contact with them on issues of development. The attitude of the states towards the PC in this relationship was marked by some ambivalence. On the one hand, the PC was a source of additional funds for development programmes and projects, and the states invariably pressed it for higher and higher allocations. Interestingly, the states regarded the PC, relative to other agencies at the centre, as an agency that was more fair and independent-minded, not necessarily a subordinate wing of the central government, insofar as the developmental interests of the states were concerned. On the other hand, as a custodian of public funds, the PC exercised its professional judgement and fiduciary responsibility on the feasibility of what could be conceded to the states. That was important since the primary aim of all sub-national governments was to extract the maximum possible from the centre without being subject to discipline about programme performance or matching requirements from their own resources. Some tension between the centre and the states was therefore inherent in the situation, and thus unavoidable; its extent may have varied among the states.

By and large, the PC was a reasonably self-reflective and adaptive organization. As such, it was responsive to shifts in the balance of power between the centre

and states and to changes in the economic regime. In the changed environment after liberalization and the regionalization of politics, it placed greater emphasis on coordination, rather than on command, in which reliance on persuasion occupied centre stage. In a sense, it had to do so because of the devolution of power to the states and the greater role accorded to the private sector as also the absence of a towering leadership at the centre. Interestingly, in 2009, the PC inducted a new member from the private sector, Arun Maira, with presumably the qualities to help it navigate the rough waters of planning in the new context and to recommend ways and means to reform it. The very induction of such a member was an indication of PC's flexibility and openness to new ideas. But there were limits to the extent to which the PC could, within its existing mandate, accommodate state demands in the disposition of funds and maintaining common standards across India's many states.

In summary, through the various policy modifications reviewed above, India's economic planners endeavoured to keep pace with key concerns arising from the ongoing economic and political transformation after economic liberalization. However, they continued to face pressures for further, indeed more radical, change.

Towards Radical Restructuring of India's Economic Planning

The changes at the PC, in adapting to the new challenges following economic liberalization, failed to satisfy the critics. Of course, criticism of the PC had been of long standing. Indeed, there had been objection to its very birth and that, too, at the highest levels of government. Its establishment in 1950 provoked the then finance minister, John Matthai, to resign on the ground that the commission would become a rival cabinet. Subsequently, important economists, such as Dr D. R. Gadgil, attacked the PC for having gone beyond formulating an overall FYP and rendering policy advice. He charged it with having assumed an active role in scrutinizing specific programmes and projects and, more importantly, in determining the annual allocation of funds to the various ministries and states, with the Ministry of Finance then being asked to simply incorporate it in the annual budget. In the eyes of the critics, the commission seemed to be on a relentless expansion, in the process turning itself into a replica of the national government, staffed by a huge and stodgy bureaucracy that encroached on the legitimate jurisdiction of other agencies.

Mounting Dissatisfaction with the Planning Commission

The assumption by the PC of the role of allocating funds for development programmes at the centre and to the states became a source of considerable heartburn with several successive Finance Commissions, since it adversely

impacted the constitutional mandate accorded to the latter for recommending the division of national revenues between the centre and the states at five-year intervals. Such role-assumption by the PC seemingly thwarted the Finance Commission from adequately discharging its function of effectively adjudicating on the funding needs of the centre and states since it prevented the Finance Commission, by excluding plan expenditures from its jurisdiction, from taking a holistic view of India's public finances and recommending a comprehensive division of national revenues in the federation. The Ninth Finance Commission, the last one prior to liberalization, pointedly questioned the rationale of a non-statutory body like the PC allocating public funds. Later, the Eleventh Finance Commission regarded the PC's role in funds disbursement as a key institutional infirmity in financial management in the federation (GOI 2000: 13–14).

Perhaps, such a position had the tacit support of the Ministry of Finance since, after all, the PC had begun its life in the shadow of the resignation of Finance Minister Matthai in protest. In the eyes of the supporters of the Finance Commission, the PC as a result of being an additional channel of funds to the states undercut the Finance Commission in adequately performing its constitutionally mandated task to assess the state of public finances and assign revenues to the centre and states. Besides, the changed political economy of power in the larger polity, in which the states had emerged as increasingly more powerful by the late 1980s, also added to resentment against the PC, particularly among the more economically advanced states. Many of these latter states saw the PC as intrusive in respect of the conditionalities or guidelines it laid down for programmes funded by it. Instead, they preferred that the Finance Commission simply devolve revenues more generously to the states, since such devolution was not accompanied by conditionalities. The states also found it irritating that their elected chief ministers had to annually meet with non-elected PC bureaucrats to plead for adequate allocation of funds for their development programmes.

In this atmosphere, there emerged periodic voices for the abolition of the PC. To others, such abolition seemed too radical a solution, for some form of economic planning that develops a national vision and strategic thrust for the economy as a whole, sets the goals to be accomplished over a defined period of time, and lays down the policy paths to be followed for the national economy seemed essential for any contemporary economy, particularly a less-developed one. A less radical solution proffered therefore was to convert the existing PC into a 'think-tank' that would offer alternative economic scenarios and policy options to the government.

It should be acknowledged right away that dissatisfaction with the working of the PC was not confined to outside critics alone or to the states; indeed, it existed not only within the government but also within the PC. It was precisely such dissatisfaction that had persuaded the United Progressive Alliance (UPA)

government, after it was re-elected to power in 2009, to induct into PC's membership a management authority from the private sector (Arun Maira) with the specific mandate to suggest lines along which the commission ought to be reformed. Interestingly, the deputy PC chairman, Montek Singh Ahluwalia, reportedly warned Maira on his appointment: 'You will be highly frustrated in this place. Here nothing works. It is so hidebound. It is a challenge to get things done' (Goyal and Misra 2010). Over the following year, hectic discussions took place at the PC about reforming the PC but, while some new approaches were attempted in formulating the Twelfth FYP at Maira's initiative, not much changed structurally at the PC. At the last meeting of the PC under the UPA government in April 2014, Prime Minister Manmohan Singh once again brought up some of the same concerns that he had raised five years earlier about a relevant role for the PC in the changed economic and political context; he expressed his own preference for it being converted into a Systems Reform Commission.

For his part, Maira favoured a think-tank role for the PC and pressed the government to move in that direction. In a lecture in 2011 on 'A Vision for Planning', he seemingly agreed with the view that, hardwired as it was to function according to the requirements of a different era, the PC was unable to contribute significantly to national advance in the new context in which 'the country had changed' and 'was more decentralized politically and administratively'. His own preference was for the South African think-tank model for planning that, with little or no bureaucracy, offered alternative scenarios to the leadership. He endorsed transforming the PC 'to lift itself out of the rut of allocating funds and approving proposals and play a much more strategic role in helping to shape the future' (Maira 2011). In the absence of funds to allocate and the power to approve projects, the new PC, and the larger leadership as well, would apparently then depend on its powers of persuasion to coordinate planning with the private sector and the states.

Although the government made no decisive move on reforming the PC until the very end of the UPA regime, a major blow was struck against the PC by the recommendations of a high-powered committee headed by Dr C. Rangarajan. Mandated to improve public expenditure management, particularly to enable linking of expenditures to outputs and outcomes rather than merely inputs, the committee recommended that the distinction between plan and non-plan *should be* dispensed with in favour of taking 'a holistic view' of budget-making and public expenditure (GOI 2011b: iii, xv, xxiv, 7). Although seemingly bland, the recommendation would have had the enormous consequence of taking away the function of plan funds disbursal away from the PC and vesting it entirely in the Ministry of Finance, in effect transforming the PC into essentially a think-tank body without any say in the allocation of funds. Importantly, the committee also seemed to weaken more directly the role of the PC in plan coordination within

the federal framework. No doubt, the committee asked that the states 'assist Planning Commission in preparing overall FYP and plans for various Sectors and Services in accordance with priorities approved by Planning Commission' and to 'prepare respective State Plans in accordance with national and State priorities' as also to provide information to PC on various budgetary and planning matters. Crucially, however, the committee no longer saw the need for the PC to *approve* state plans as was the current practice (GOI 2011b: 11, 13), thus eliminating a key link between the PC and the states.

It is apparent that, while the UPA regime took no decisive step to actually reform the PC – perhaps because of a generalized policy paralysis – there was already a considerable build-up of opinion at very high levels in the government, prior to the end of its term in office, in favour of structural change, more or less in the direction of a think-tank role. Interestingly, on the eve of imminent radical political change at the centre, PC member Arun Maira averred in March 2014: 'The Planning Commission, according to its critics and according to its chairman, the Prime Minister himself, has been rusting for too long. It has to reform itself and reform systems around it as well' (Maira 2014).

The 2014 Elections and After

In the 2014 elections, for the first time since 1984, a single party (the BJP) won a majority in the Lok Sabha on its own with 282 members; together with its allies in the National Democratic Alliance (NDA), its tally was 336 seats in a house of 543. In the normal course of affairs, such an achievement ought to have inaugurated a centralizing trend at the centre. But, significantly, the event also marked for the first time the accession to power by a national party in the form of the BJP that favoured federalism (that is, stronger states) as well as the installation of a *ruling* chief minister at the state level, Narendra Modi from the state of Gujarat, as the prime minister of India. Prior to that event, Modi had managed a forceful political breakthrough to get himself nominated to lead the BJP in the election, outwitting all other rivals within his party at the national level, and had then gone on to mobilize behind him a substantial part of a vast electorate to become the prime minister.

It is pertinent here to underline the specific political baggage that Modi brought with him to the centre, stemming from his experience as the chief minister of Gujarat. A critical component of that experience was the treatment meted out to him over a dozen years by the central government, which had during that period seemingly tried every means possible to put him behind bars or at least to effectively end his political career (Marino 2014; Mukhopadhyay 2013). Understandably, that experience fostered in Modi a preference for strong states within the federation.

Besides, that experience also included a specific element relating to economic planning. As one of the economically more advanced states, Gujarat had by and large little on offer from the PC by way of resources; yet it had to work within the framework of the PC's conditionalities or guidelines. It was particularly irksome to Modi that he had to appear before unelected PC bureaucrats to justify the state's economic programmes.

After the change of government in May 2014, the omens were therefore propitious for structural change as regards economic planning at the national level, and Modi needed to take a decision early on. Within a month of the new BJP government assuming power at the centre, there came from within the PC – as if to force the government to move quickly – a forceful endorsement for radical change in economic planning. The director-general of the PC's Independent Evaluation Office (IEO), Ajay Chhibber, decisively recommended to the new government that, in view of the fact that the commission acted more as a 'control commission' – especially in relation to the allocation of funds to the states – it would be best to abolish it and replace it with a think tank. He did not believe that it was worth the bother to attempt reforming it: 'Since the Planning Commission has defied attempts to reform it and bring it in line with the needs of a modern economy and the trend of empowering states, it is proposed the commission be replaced.' He further specified that the commission's present role in allocating funds to the states ought to be handed over to the Finance Commission while the Ministry of Finance should be given the responsibility for allocating resources to the ministries. Chhibber further personally reinforced the conclusion on PC abolition when releasing the official assessment:

It is clear the Planning Commission, in its current form and function, is a hindrance, not a help to India's development. In my experience, it is not easy to reform such a large and ossified body; it will be better to replace it with a new body that is needed to assist states with ideas, provide long-term thinking and bring about reforms. (*Business Standard* 2014).

The coup de grace to the PC was delivered by Prime Minister Modi himself on 15 August 2014 when he announced that the agency stood abolished.

Subsequently, on 1 January 2015, the new government established NITI Aayog as a much-reduced, more streamlined, and less bureaucratic think tank with no role in the allocation of funds. Among the key functions of the new body were 'to evolve a shared vision of national development priorities, sectors and strategies with the active involvement of states in the light of national objectives', 'to foster cooperative federalism through structured support initiatives and mechanisms with the States on a continuous basis, recognizing that strong States make a strong

nation', and 'to design strategic and long term policy and program frameworks and initiatives and monitor their progress and efficacy' (Cabinet Secretariat 2015). Only experience over time will tell how successful NITI is in the performance of its assigned functions. One possible handicap in its potential influence is that India's administrative culture accords less value to advice when it is unaccompanied by leverage that comes with the power to allocate funds. Regardless, the Ministry of Finance will emerge as the locus of even greater power since it will have sole responsibility for disbursement of funds for development. However, in the absence of the erstwhile PC, it is an unsettled – and perhaps unsettling – question as to who will be the voice for development before the Ministry of Finance, which is more focused on urgent issues of balancing the books. This voice is particularly important in relation to the concerns over interstate disparities, poverty removal, and rising inequality. Besides, there is the important issue of the unequal capacities of the different states to responsibly manage the vast additional resources that have been devolved to them.

Conclusion

The PC had been a venerable and grand presence on India's economic and political scene for over six decades, owing in large measure to its having been founded and nurtured in its first decade and a half by the nationalist hero, Jawaharlal Nehru. Its early importance lay in the specific circumstances of the time, when the state was in command over the economy and a single political party exercised hegemony over the land, encompassing both the centre and the states.

Over time, both these advantages faded. Even as it played a key role in 'the big push' for industrialization, its strategy of excessive and continued focus on heavy industry under state ownership, following the Soviet model, made for slow economic and industrial growth, particularly in comparison with the countries of East Asia. Consequently, the clamour for an increased role for the market and the private sector grew, and it finally led to the policy shift to economic liberalization in 1991. This shift devalued the role of the public sector and public investment and, consequently, also that of the PC. Meanwhile, the increasing power of the states led them to be more assertive towards the centre.

The PC made a valiant effort to adapt itself to the changed economic and political circumstances. The resulting change was evident in four aspects of the planning process, which saw a shift over the quarter century after economic liberalization: (a) from comprehensive planning to indicative planning; (b) from planning for state hegemony over the economy to adapting to private sector expansion; (c) from planning for a hegemonic producer state to planning for a quasi-welfare state, with the latter becoming as it were the centerpiece of planning; and

(d) from centralization in planning to coordination in planning within a system of cooperative federalism.

However, these modifications failed to satisfy the critics, who pressed for more radical change. Ultimately, the PC was abolished in 2014 and replaced in 2015 by the NITI Aayog in basically a think-tank role after a historic election that brought into power at the centre a new leadership that was more favourably oriented towards a federal structure with enhanced powers and resources for the states. In truth, the key driver in the change in economic planning has been, not any unique deficiency in the PC that could not be remedied, but the cumulative increase in the power of the states. Besides the replacement of the erstwhile PC by NITI, the strengthened position of the states is manifest in the radical enhancement in the share of the states from 32 to 42 per cent in national tax revenues at the instance of the Fourteenth Finance Commission.⁶ This devolution of resources to the states and the abolition of the PC radically augment the power of the states. Although it is politically correct to favour state autonomy, it is noteworthy that the states, many of them often run by corrupt governments under the aegis of political dynasties, are perversely averse to decentralization and devolution below their own level. Hopefully, the goods and services tax (GST) will aid in strengthening unifying tendencies in the federation through fostering a common market.

Notes

1. See the foreword to GOI (1992).
2. The loss-making enterprises are a considerable drain on India's treasury, the most egregious cases being the public sector airlines and fertilizer companies. For detailed data on central PSEs, see Nayar (2012: Table 2).
3. *Economic Times*, ET 500, October 2010.
4. For the data, see Nayar (2012: Table 3).
5. Growth rates tabulated from data in *World Bank Indicators 2011*, accessed on 16 September 2011.
6. See the *Report of the Fourteenth Finance Commission*, Chapter 18, 'Summary of Recommendations', particularly the first recommendation, at <http://finmin.nic.in/14fincomm/14fcengVol1.pdf>.

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Planning Commission

Obiter Dictum

Dilip M. Nachane

Introduction

While the death knell had been tolling for the 64-year-old Planning Commission well before the resounding electoral victory of the current government, the administration of *extreme unction* had to await the prime minister's Independence Day address to the nation from the ramparts of the Red Fort. In the wake of the historic announcement, the jubilant cries of triumph of corporate India, reminded one of the Biblical blasts of Joshua's trumpets at the crashing walls of Jericho.

In the popular imagination, national planning is strongly associated with the names of Jawaharlal Nehru and P.C. Mahalanobis, with a strong connotation of Soviet-style centralization. However, from a historical perspective, the idea of planning (in India) has strong indigenous elements and seems to go back to the 19th-century writings of nationalists like Dadabhai Naoroji, R. C. Dutt, and Mahadeo Govind Ranade, with their emphasis on the importance of state-led industrialization for the removal of national poverty. They strongly felt that private initiative would not suffice to provide a stimulus of the required magnitude and stressed the promotional role of the state not only in the mobilization of savings and finance, but also in the development of banking and in promoting higher education. Socialist ideas started creeping into Congress party circles in the wake of the Russian revolution. At the 1931 Karachi session of the Indian National Congress, a 'socialist pattern of development' was set as the goal for India. The young Congress leadership of Nehru and Netaji Subhas Chandra Bose were deeply committed to this idea. After being elected the president of the Indian National Congress at its Haripura session in 1938, Bose constituted the Planning Committee on 17 December 1938 and invited Nehru to chair this committee.¹

As leader of independent India, with a clean slate to chart out its economic future and with the vision of making India prosperous, internally stable, and externally (militarily) secure, to Nehru the Soviet's high growth phase of 1928–1952² seemed a far more attractive alternative than the much slower (and deeper) Industrial Revolution of western Europe. Thus, undeniably, the inception of planning in India in the 1950s was inspired and influenced by the Soviet central planning experiment. But while this was the major influence, it was not the only one.

Any attempt to systematize the various influences that shaped Indian planning in the early phases can be a daunting task, since with the liberal and free thinking prime minister always keeping the doors of his mind open, these influences differed widely in their sources and seemed to span the whole ideological spectrum. First, as already indicated, there was the influence of the Soviet planning experiment (beginning formally with the Soviet first five-year plan 1928–1933). But the 1950s was also the decade which saw the rise of the new discipline of 'development economics' in the West, focussed on the specific problems of the Third World. Most of these writings emphasized the dimensions of increasing returns, lumpy fixed investments, surplus labour, externalities, and many other market imperfections (all of which traditional classical economists were of course aware of, but which they tended to neglect).³ These ideas too left an imprint on Nehru's thinking. But it was not only foreign ideas of which Nehru was enamoured (in this he marks an important and very refreshing contrast with his party thinking as it stands today) ; he had a reverential admiration for the Mahatma (whom many to this day consider a great economist in his own right),⁴ and even though he strongly disagreed with a great deal of what the sage said, on the general issue of national welfare they had far more in common than is usually thought.

Thus, four major influences on Nehruvian thinking may be discerned, namely (a) the Soviet planning experiment, (b) the writings of a prominent group of Western development economists, (c) a few select elements of Gandhian thought, and (d) the writings of other Indian economists. A detailed account of each of these influences would make a fascinating story but is not attempted here, though in all fairness a summary description is definitely called for.

Soviet Planning Experiment

It is a cliché among the newly sprung-up generation of Nehruvian critics (or more accurately detractors) to see a close parallel between the Planning Commission of the Nehru years and the overarching influence of Gosplan in the Stalinist era of Soviet planning. The most accurate description of the latter occurs in the typically brusque and direct style of Stalin in his address to the 15th Congress of the Communist Party of the Soviet Union (December 1927): 'The plans are

not forecast plans, conjuncture plans, but directive plans which are binding upon the managing organs and determine the direction of economic development in the future and on an all-Union scale.' As Bettelheim (1959: 9) in his classic work has noted, centralized planning implied a strict government control over (a) the total investment in the national economy as well as its sectoral allocation, (b) production techniques to be deployed, (c) quantum of employment and its industry-wise distribution, (d) aggregate price level and the relative price structure, and (e) the living standard and real wages for different skill grades and types of labour. I now leave it to our Indian critics to judge whether, even in its heydays, Indian planning ever remotely approached such a description.

Actually, the influence of Soviet planning on its Indian counterpart was quite indirect and was reflected in the three planning controversies that strongly exercised Soviet economists of the 1920s (with often tragic personal consequences for the individual protagonists),⁵ namely:

1. Genetic versus teleological mode of planning
2. The dis-proportionality thesis
3. Role of material balances

All these controversies had very strong political connotations reflecting the complex post-Lenin triangularization of Soviet leadership as between the Trotskyites, the neo-Narodniks, and the triumvirate of Stalin, Zinoviev, and Kamenev.⁶ But we will try to present the main economic arguments in their bare outline, shorn of the political rhetoric as well as the dialectical overhang. The first of these controversies was really about the inter-generational distribution of the costs of development with the genetic viewpoint (associated primarily with Rykov and Kamenev) arguing for a moderate pace of investment and growth, whereas the teleological point of view (Pyatakov, Kuibyshev, Strumilin, and so on) strongly urged higher current accumulation rates for accelerated growth, to put the Soviet economy on a self-sustaining higher growth strategy. The dis-proportionality thesis was essentially associated with Preobrazhensky, the brilliant Trotskyite economist who argued for artificially turning the terms of trade against the agricultural sector to extract what was termed as 'primitive socialist surplus' for investing in the modern industrial sector. The neo-Narodniks led by Bukharin strongly opposed this position and instead wanted to see a more balanced development of agriculture vis-à-vis industry. The final controversy related to the 'material balances tables' developed by Groman and Bazarov around the early 1920s. These tables became the rallying point for those who believed that growth should occur within the overall constraints set by material balances, while equally ferociously the tables were attacked by those (most prominently Strumilin and Narkomzem) who regarded them as strait-jacketing the growth impulse and who believed that planning should *strain at the leash* of the available resources.

Western Development Economics

As mentioned earlier, the 1950s saw the emergence of the new discipline of development economics in the West. Three ideas in particular seemed to have engaged this group of economists, namely (a) the ‘take-off stage of growth’ (Rostow), (b) the existence of surplus labour in the primary sector of a less developed country (LDC) and its absorption in the modern industrial sector (Lewis and Nurkse), and (c) the trinity comprising the theses of critical minimum effort (Leibenstein), unbalanced growth (Hirschman), and growth centres/poles (Kuklinski). In retrospect what is astonishing is that these Western ideas developed independently of the Soviet planning debates of three decades earlier nevertheless suggested a planning strategy (based on high savings, steep taxation, and a strong bias in favour of heavy industry vis-à-vis agriculture) which was precisely the one strongly insisted upon by the more radical factions in the Soviet debates, namely those favouring a teleological approach and the disproportionality thesis. Two essential differences need to be highlighted – that the Western group of economists maintained a strong commitment to free markets and a democratic polity.

Gandhian Economic Thought

As Myrdal (1968: vol. 2, 1215,) has pointed out, two distinct strands of Gandhian economics seem to have emerged in the immediate post-Independence decades – a rigid version maintaining Gandhi’s original opposition to modern forms of industry and a more moderate version (see Gandhi 1941, 1952). The rigid version is best exemplified in the writings of Kumarappa (1984) who characterized a money-based capitalist economy as a ‘parasitic’ economy and wanted the principle of ‘service (to others)’ as the basis for a non-violent economy. The moderate view, by contrast, was not opposed to industrialization per se as long as it did not interfere adversely with the village economy (see Narayana 1970; Pani 2002). Nehru’s economic ideas had always been in sharp conflict with those of Gandhi, and as early as 1945, we find him writing to Gandhi ‘I do not think it possible for India to be really independent, unless she is a technically advanced country’ (Tendulkar 1962: vol. 7, 15–16). Nehru sought to assuage Gandhi’s reservations about industrialization by emphasizing that many of its alleged evils (such as concentration of economic power and conspicuous consumption of the wealthy) would be kept in check by the principle of democratic socialism, which he (Nehru) proposed as the central guiding political philosophy in independent India.⁷

But however different the outlooks of Gandhi and Nehru on the issue of industrialization, the latter had too much respect for his mentor’s views to ignore them altogether. An acceptance of the basic tenets of the *moderate* Gandhian

strand of thought (see earlier) seemed to provide an ideal compromise – a rapid industrialization programme but one which protected the village handicrafts, especially *khadi*. This compromise also had an economic rationale – modernization with its emphasis on capital-intensive heavy industry just could not provide the increases in employment needed to absorb the rapidly growing labour force; the role of a reservoir for the unemployed could be played by the village industries. This rationale is succinctly expressed by Mahalanobis, the architect of India's Second Plan as follows:

In view of the meagreness of capital resources there is no possibility in the short run for creating much employment through the factory industries. Now consider the household or cottage industries. They require very little capital. About six or seven hundred rupees would get an artisan family started. With any given investment, employment possibilities would be ten or fifteen or even twenty times greater in comparison with corresponding factory industries. (Mahalanobis 1955)

Thus, by paying a measure of respect to Gandhian concepts, the Indian planning process simultaneously became politically palatable to a wide spectrum of contemporary influential opinion as well as to the masses at large. The Gandhian influence is most evident in the government's attitude to small-scale industry. In this connection, it is interesting to observe that Gandhiji's original concerns for the village crafts were conveniently broadened by Indian planners to include not only urban crafts but also small-scale units as a whole.

There were other features of the Gandhian system which found expression in the economic policies of the early plan period. The Gandhian emphasis on austerity was reflected in the import restrictions on several items of luxury consumption (which continued well into the 1980s), the curbs on production of goods in the so-called U-sector (upper sector), and high marginal rates of personal income taxation. The heavy corporate taxation (especially over the first three decades of planning) was also partly an operationalization of Gandhiji's trusteeship concept. The 1970s witnessed India under Mrs Gandhi espousing three of Gandhiji's cherished ideals, namely poverty alleviation, redistribution, and *swadeshi* (though arguably largely driven by her political ambitions).

Other Indian Economic Thinking

Apart from Gandhian thinking, several other indigenous influences were strongly at work in the formative two decades of Indian planning. While these influences were multifarious, we will confine our discussion to the three major ones. First, a strong streak of egalitarianism had always been an essential feature of Indian

writings on political economy. This was most visible naturally in the writings of Marxist economists like Ashok Mitra (1977), Gyan Chand (1965), and K. Panikkar (1963) but is also a frequent theme among liberal economists most notably V. K. R. V. Rao (1964), Tarlok Singh (1974), C. N. Vakil (1974), P. R. Brahmananda (see Vakil and Brahmananda 1956), and D. R. Gadgil (1961). Closely allied to the issue of inequality is the issue of poverty alleviation. It was, of course, a complicating feature of the socio-political history of the country that poverty was not only endemic but also that its incidence was unevenly distributed across regions, communities, and castes. Awareness of the caste dimension of poverty was brought to the national consciousness by Gandhi and many other nationalist leaders (once again across a wide political spectrum) and B. R. Ambedkar through his ceaseless struggles succeeded in insisting on the eradication of caste-based discrimination and overall poverty as an explicit component of the planning strategy. Other underprivileged groups (such as landless labourers, marginal farmers, and minorities) were also successively sought to be included within the ambit of official targeted poverty eradication programmes.⁸

Another major influence on Indian planning in the early years was the cooperative movement, which had its beginning in the introduction of the Cooperative Credit Societies Act of 1904. Cooperative societies grew gradually in British India but the cooperation movement received a fillip in the First Five-Year Plan, which saw it as an indispensable instrument of planning. As a matter of fact, Nehru (1959: 8) emphasized the role of the cooperatives as filling the gap 'between small units and modern technology'. This emphasis on cooperation seems to have continued well into the 1970s when it seems to have been realized that the movement had been largely subverted to political interests and money power. Other important influence in the 1950s and 1960s were the doctrines of Ram Manohar Lohia's *Gandhian Socialism* and Vinoba Bhave's *Sarvodaya* and *Bhoodan*. However, these influences, at the best of times, were limited in impact and proved transitory, but served to focus official and public attention on wealth inequality, land reforms, and rural credit infrastructure.

Planning Commission: The Halcyon Decades (1950–1990)

It is a testimony to the genius of Nehru's vision and the operational flexibility of the early planning strategists that out of the above various disparate (and often contrarian) streams of thought, a coherent and consistent planning framework could emerge which stood the test of time for well-nigh six decades. However, such a consociational approach (to use Arend Lijphart's fashionable term) inevitably implied a persistent shifting of emphasis in the planning strategy (as one or the other trend became dominant in the ruling party's agenda). Thus (at a slightly rough

reckoning), we have witnessed a strong shift in favour of heavy industrialization in the Second Five-Year Plan, an attempt to redress the balance in favour of agriculture in the second half of the 1960s with the Green Revolution thrust, a strong shift in favour of centralization, industrial control, import substitution, egalitarianism, and poverty alleviation in the Mrs Gandhi regime (1969–1977), a move towards more operational flexibility and regional decentralization in the brief Janata interlude, a retreat from industrial licensing and import controls in the latter half of the 1980s, and finally the massive swing from state intervention to market autonomy on the one hand and from a closed economy to an open one beginning 1991.

The objectives of the Indian Planning Commission were clearly enunciated in the 1950s government resolution of its (the commission's) establishment. Apart from the original seven functions, there was also a growing list of 'evolving functions'. Broadly speaking, over the four decades 1950–1990, the Planning Commission engaged in the following five main functions:

1. Drawing out a road map for the long-term vision of the economy (perspective planning).
2. Ensuring the maintenance of inter-sectoral balances via the use of input–output tables (in many respects, an intellectual descendant of the Soviet 'material balances' of the 1920s constructed by Groman and Bozarov). As discussed later, there was a marked retreat from the idea of balances beginning the eleventh five-year plan. In the manner of its actual operation, in contrast to the Gosplan approach of striving for 'material balance' at the most detailed micro level, the Indian Planning Commission confined itself to a broad macro-balance sheet of sources and uses of physical capital and intermediate goods. There was also a (most rudimentary) exercise to match the demand and supply of financial capital.
3. Determining (in consultation with the states through the forum of the National Development Council) and overseeing the inter-state disbursal of public investment with a view to reconciling conflicting demands naturally arising in a federation.
4. Acting as an informal forum for inter-ministerial coordination over contentious issues (especially in the defence, environment, and external sectors).
5. Informally, the Planning Commission has also acted as a consultancy wing for various government ministries.

A detailed evaluation of the success (or otherwise) of the planning experiment during these four decades cannot be attempted here. Broadly speaking, the major areas of failure were (a) a national growth rate much lower than achieved

in the South East region generally and China in particular, *(b)* failure to make a significant dent on poverty, *(c)* growing inequalities (interpersonal, inter-state, and even inter-community) in spite of a serious commitment to socialist ideals, *(d)* an over-protected and uncompetitive industrial sector, *(e)* a burgeoning parallel economy, and *(f)* successive episodes of balance of payments difficulties. While these negative aspects are all too well known, the positive aspects should not altogether be lost sight of, namely *(a)* self-sufficiency in the agriculture (especially food) sector, *(b)* the building up of a successful and diversified industrial structure, *(c)* the absorption of considerable amount of modern technology, *(d)* the build-up of one of the best pools of scientific skills in the region, and *(e)* the erection of a strong defence edifice which could successfully withstand at least three major military confrontations. Above all, it should not be forgotten that the planning strategy helped preserve the basic democratic and secular framework of the nation in contrast to several of our neighbours in South Asia and South-East Asia.

Planning in a Liberalized Environment

Things changed dramatically in the 1990s. The most noteworthy changes were a virtual abandonment of the first two of the above functions. Inter-sectoral balances, in the new philosophy of globalization, were perceived as non-binding constraints as any imbalances, could always be restored via imports. This is fallacious reasoning, for imbalances can involve non-tradables such as land, infrastructure, or skilled services. Besides, if Indian manufacturing is to participate in global supply chains, then special sectors or clusters (involving select commodities) have to be developed, for which an assured broad base of domestic auxiliaries is vital. The second dimension to be sacrificed was the long-term perspective. The intellectual common denominator for this neglect of long-run issues may be located in the post-liberalization policy mood of an overzealous and universal faith in the dynamic efficiency of markets in the inter-temporal allocation of resources (a faith totally unfounded in economic theory).⁹ On the issue of inter-state disbursement of public investments, the commission has increasingly proceeded on a purely ad hoc and opaque basis with no clearly laid down guiding principles (in contrast to the Finance Commissions where the funds are laid out in terms of well-defined criteria) (see Rajaraman 2014). In recent years, the Planning Commission has often tended to tread on the toes of several ministries by trespassing on what they have traditionally regarded as their turf.

However, neither the fact that the Planning Commission is not a constitutional body nor the fact that its functioning in the last 10 years has been extremely ad hoc and in many respects unsatisfactory constitutes a valid case for its abandonment.

The public debate on the future of the body has been dominated by three alternative viewpoints :

1. Some (for example, Pronab Sen [2014]) feel that the institution could continue in its present form since the situation remains basically the same as in the 1950s.
2. A section of opinion feels that the Commission should retain its present structure but adapt itself in line with the changed business environment and policy context. In other words, it should mark an effective transition from a mixed economy to a market economy (see, for example, Ahluwalia 2008 and Nachane 2014).
3. Finally, there is the view most visible in the daily press, that the Planning Commission should be laid to eternal rest. And, of course, it is common knowledge that this view derives some kind of force of official sanctity from its originating in the Chibber report of the Independent Evaluation Office (IEO).¹⁰ Some thought has also been given to what sort of alternative arrangement should replace the Planning Commission. Perhaps, the most systematic exposition of this view comes from Rangarajan (2014). In his view, the commission had been engaged in three major tasks: (a) Formulating ideas regarding the future economic profile of the economy (this could now be replaced by a think-tank on the lines of the National Bureau of Economic Research [NBER], and so on). His preferred nomenclature for such an organization would be a National Development Commission or Growth Commission. (b) The inter-state allocation of funds could go to the Finance Commission (which should be given an added mandate of allocating funds for development needs of the states). (c) The task of project evaluation could be entrusted to the respective ministries. The National Development Council would continue to play its current role in the envisaged scenario.

Role of Planning in the Future: Three Alternatives

The first of the above views is not exactly as arcane as some of the more vocal critics of the planning concept are likely to make out. Even in the kind of market economy that we seem to be hurtling towards, the role of the state would continue to be important and perhaps increasingly so.

1. First, as pointed out by Groenewegen (1994), government intervention in markets can promote innovation, market competition, cooperation, and contestability (the theory of 'doubly organized markets').
2. Second, industrialization implies a growing importance of public goods and (even more important) public services (see Lewbel 2006). In view of the

pronounced externalities associated with such goods, their *distribution* cannot be left to market forces but has to be taken over by the state (irrespective of whether such goods and services are actually *produced* in the public or private sphere).

3. The increasing importance of projects spanning multiple states (such as power grids or national waterways) necessitates a mechanism for inter-state operational co-ordination of investments. Since such projects also involve inter-ministerial issues, they cannot be left to individual ministries. Nor is it feasible to burden the Finance Commission with this task, unless its current structure is made much more elaborate (in which case, it would simply be the old Planning Commission under a new appellation).
4. Finally, issues like poverty alleviation, income inequality, welfare of deprived sections, positive discrimination, and general social welfare cannot be left to purely private initiatives or civil society organizations.
5. Finally, it may surprise many to find out that general government expenditure as a percentage of GDP (average for the five years 2006–2011) is far higher in many developed countries (France 52 per cent, Sweden 55 percent, UK 45 per cent, Germany 47 per cent, US 37 per cent, Japan 36per cent, and so on) as compared to India (26 per cent).¹¹

If public expenditure is to continue to be significant for social welfare (even if our economy continues its march towards free markets), then we need an efficient institution for the disbursal of public funds and the Planning Commission is much better suited in this role than either the Finance Commission or the separate ministries. However, the fact remains that we are now in a market-dominated economy (whether such an economy is inherently superior to a state-guided one is still an undecided open question and one that I do not enter into here) and whatever be the role that the Planning Commission is assigned, it cannot function in the *dirigiste* fashion of the earlier years. In my opinion, the five-fold mandate I have outlined in the section titled ‘Planning Commission: The Halcyon Decades (1950–1990)’ could still serve as a useful guideline for a revamped Planning Commission. As mentioned earlier, inter-sectoral balances continue to be as important in a market-dominated economy as in a semi-planned one, but the attainment of these balances in the latter has to proceed in a totally different manner. Specifically, the attainment of macro growth targets (as well as detailed sectoral targets) has to be via successive rounds of detailed iterative dialogues with industry, labour representatives, consumer organizations, and macroeconomists, whereby imbalances and bottlenecks associated with various growth trajectories can be worked out in the manner of the French indicative plans (1954–1978).¹² But going beyond indicative planning, I feel that such dialogues would be far more

productive if they were informed with detailed input–output and social accounting matrices. Another issue where a reformulated Planning Commission can play a vital role is in devising a long-term perspective on sustainable development, with special emphasis on a national natural resources usage policy and schemata for internalizing various environmental externalities. A research division in the Planning Commission would be necessary to bring out very detailed and authentic forecasts of important macroeconomic parameters for various forecast horizons, with a view to providing guidelines for public and private investment. It is of the essence that this research arm should involve a broad pluralistic approach, with affiliating scholars selected on the basis of their expertise rather than their loyalty to the ruling party or on sectarian considerations.

The Chibber proposal espoused by the current government to transform the Planning Commission into a think tank on the contrary is defeatist in spirit. Such a think tank is likely to fall an easy prey to the predatory instincts of the corporate sector as a whole or even worse, to a group of multinational industrial giants. Equally, it is likely to be staffed with the blue-eyed boys (and increasingly now, girls) of the International Monetary Fund (IMF) and other multilateral bodies. Or it would simply become a basis for awarding patronage to those advisers who will supply the government exactly with the arguments that it needs to buttress whatever policies it has already made up its mind on, or to dispense the advice that it wants to hear.

Thus, overall, the government seems to have betrayed an unpardonable haste in putting to sleep an institution which had contributed substantially to the build-up of the nation and which had the potential to still play a useful role and to function effectively (with a certain amount of restructuring and reorientation in the manner outlined).

Notes

1. The 1955 Avadi Resolution of the Indian National Congress adopted a socialistic pattern of development as the goal of the party which was adopted a year later by the Indian parliament as official policy. The word 'socialist' was added to the Preamble of the Indian Constitution by the 42nd Amendment Act of 1976, during the Emergency.
2. According to Bergson (1956), based on official estimates, the USSR's industrial output rose by 650 per cent over this 25-year period. Even allowing for exaggeration, in the Soviet statistics, there seems to be no doubt that industrial output has grown at rates exceeding 15 per cent.
3. Among the main members of this group may be counted W. A. Lewis (1954), P. Rosenstein-Rodan (1943), R. Nurkse (1953), W. Rostow (1960), A. Hirschman

- (1958), H. Leibenstein (1957), C. Bettelhei (1959), and G. Myrdal (1968). Some of the ideas stemming from this group sometimes showed a paradoxical similarity with the Soviet ideas (see later).
4. 'Gandhi enunciated his economic position in the language of the people, rather than that of academic economists. And so the economists never noticed that he was, in fact, a very great economist in his own right....' Schumacher (1978).
 5. The controversies occurred through the various issues of the official journal *Planovoe Khozyaistvo* over the years 1921–1927. Unfortunately, these rich controversies have not been translated into English or French and are not easily accessible even in the original Russian. Most of what is known to Western scholars about these controversies is second-hand though from extremely authentic sources such as Carr (1978) and Jasny (1972) and some of the writings of Dobb (1960), Sweezy (1960), and Robinson (1942).
 6. The triumvirate was short-lived (May 1924 to November 1925), and by 1926, Stalin had clearly emerged as the longest side of the political triangle.
 7. Interestingly, even though Gandhi was opposed to a highly centralized system of economic planning led by heavy industry, he was never an opponent of the capitalist order. He, as a matter of fact, favoured capitalist ownership and operations but not an exclusive concern with profits.
 8. A full bibliography of all the writings mentioned in this section would fill several pages. I would therefore confine myself to the following excellent references which discuss the various viewpoints in greater detail: Mason (1958), Myrdal (1968, especially ch. 18), Ambirajan (1959), Datta (1989), and Bettelheim (1959).
 9. The intellectual basis for this supposition is located in mainstream neoclassical economics or more precisely in an unjustified and illegitimate extrapolation of one of its central propositions. The central proposition in question refers to the Arrow–Debreu theorem, which is a mathematical demonstration that free and competitive markets lead to an optimal static allocation of resources. As shown in the formal demonstrations by Debreu (1974), Sonnenschein (1972), and Mantel (1974), a dynamic generalization of the Arrow–Debreu result is ruled out even for competitive markets. Given the kind of market imperfections that actually prevail in LDCs, the much vaunted theoretical link between unregulated markets and dynamic efficiency is extremely tenuous – a result which neo-classical development economists have fought shy of confronting.
 10. Chibber's views are clear-cut: '... the Planning Commission in its current form and function is a hindrance and not a help to India's development. In my experience it is not easy to reform such a large ossified body and it would be better to replace it with anew body that is needed to assist states in ideas, to provide long-term thinking and to help cross-cutting reforms' (*Economic Times*, 2 September 2014, p. 19).
 11. Figures for the Organisation for Economic Co-operation and Development (OECD) countries is from OECD (2011) while the figure for India is from Indian Monetary Fund (IMF) (2011). Even allowing for the slight non-comparability arising from different data sources, the difference is significant.

12. Ahluwalia (2008) defines indicative planning thus: 'By indicative planning I mean defining broad objectives and presenting an internally consistent picture of the evolution of the economy in a manner which achieves these national objectives over a defined time horizon.' This definition of indicative planning misses out the heart of the matter, namely the consultation with the important stakeholders in the economy. There is a very detailed literature on indicative planning – its mechanics, its shortcomings, and achievements (see, for example, Black 1968; Hansen 1969; and Lutz 1965) while Monnet (2013) provides a contemporary perspective.

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On a Revived Planning Commission

Yoginder Alagh

Introduction

Indian planning never was the caricature that corporate types and their journalist and political hangers on make it to be – of a Soviet centralized Gosplan – and there was always a Gandhian leg of decentralized development, in addition to the Nehruvian one of technological modernization (see Alagh 1991a, 1998). But the introduction of markets systematically into decision making of governments at different levels in a Federal setup goes back to the reforms initiated by Rajiv Gandhi in his altogether brief stint as a national leader. In fact, in terms of ideas little happened after that. India then developed the structure of an economic policy apparatus of a strategically driven system with long-term objectives. This was in 2014 dismantled by the National Democratic Alliance (NDA) government. However, given the compulsions of the system and political developments already under way, strategic planning in a market economy will revive.

In its present avatar, the National Institution for Transforming India, or NITI Aayog, is meant to do studies and arrange discussions on policy issues (according to the government's notification establishing NITI in early 2015). As a number of commentators have pointed out, there is no need to have a government organization for this purpose, and there is no special reason to do studies in a government organization. India has a set of excellent institutions working on development issues. Studies can be better done there rather than in a bureaucratic set-up. The Chinese National Development and Reform Commission does studies, it is pointed out, and it is the successor to the State Planning Committee, but the Chinese body also has a resource allocation role. At present, the Indian federal polity is under strain with the abolition of rule-based allocation systems although it is working in the context of the rump of the Twelfth Five-Year Plan. What is

it argued will happen since? I believe that the planning function will have to be revived. Planning reform has in fact been an issue earlier.

The predecessor Planning Commission was charged by the then Prime Minister Dr Manmohan Singh to examine the reform of the planning process. In fact, the process was an ongoing one. From the Eighth Plan onwards, as also in the Review documents of the Tenth and Eleventh Plans, there was considerable discussion on the reform of the planning process. The resource allocation formulas between both the centre and the states, and between states as also centrally sponsored schemes, both in number and implementation strategies, were changed. It is therefore appropriate for academic efforts like the present one to anticipate the nature of the revival of the planning process in India.

In this chapter, we discuss the need for an agency to work on the policy aspects of development issues of a long-term nature. The chapter is organized as follows. The first section traces the intellectual evolution of planning in the pre-1991 period (that is, before India's economic reforms were introduced). The second section makes the case for strategic policymaking as we move forward. In the final section, we pick up three cases of sectoral policies of a strategic nature that the NITI work on: the long-term perspective on gender, demographics, and skill formation for a youthful workforce; the long-term perspective on water; and the long-term perspective on energy and the need to take a holistic view of development policy.

The Characterization of India's Planning in International Literature

In 1991, Mohsin Khan, the chief economist of the International Monetary Fund (IMF), had given a presentation of the early versions of what was called Structural Reform by the Bretton Woods System, a set of ideas that was severely criticized later by Jeffrey Sachs as leading to a retarded generation in Latin America (but in those days Sachs was a supporter of these ideas and their application in countries like Allende's Chile). Khan presented these ideas of removing all physical and quantitative controls, replacing with tariffs and then removing tariffs, as well as exchange rate reform and removing government's intervening in employment and regional development policies (Khan 1990). Khan made a case that such reform had succeeded. In India, similar arguments were made by Montek Ahluwalia after Rajiv Gandhi lost the elections in 1989. Ahluwalia as finance secretary in July 1990, soon after the resignation of the Rajiv Gandhi ministry was reported by the *Financial Express* (Ahluwalia 1990) to have written a policy note which paraphrased the World Bank's analysis of policies for Indian industrialization (World Bank 1989). Getting back to the IMF, given the large number of countries listed in Mohsin Khan's paper which had accepted the IMF/World Bank Structural Adjustment Program, the reasoning was obviously influential. This was so even in countries

which had not accepted the Program like India, as Ahluwalia's quote shows. But apart from the fact that countries like India held out, there was a contrary intellectual tradition, which was later to resurrect itself after the East Asian crisis when the Bretton Woods institutions were also to change their stance to a great extent, as also the later financial institutions crisis of 2008. The dominant view in India was a part of this latter tradition, although there was always debate around it.

The original version of Khan's paper was presented at a seminar organized by the Bangladesh Institute of Development Studies (BIDS) at Dhaka in 1991 and I was asked to write the story of Indian reform there, I understand, as a counterfactual. The Sri Lankan economist and policymaker, Lal Jayawardene, a few months later, was to describe my paper at this meeting as follows:

At a Conference on Structural Adjustment Policies organized by WIDER, jointly with the UNDP and the World Bank, earlier this year at the Bangla Desh Institute of Development Studies in Dhaka, Dr. Yoginder K. Alagh presented a paper and a framework of ideas which carried forward a view that a number of WIDER studies had proposed, namely that markets and policies have to be integrated into a plan incorporating social priorities. Dr. Alagh had argued at Dhaka that concepts like domestic and resource costs, effective rates of protection, and long range marginal cost could all be used to develop tariff, tax and dual pricing policies for priority sectors as a concomitant to a plan. He argued that it would not be necessary to implement plans through quantitative allocation mechanisms.¹

India was obviously a case of strategic policymaking to these scholars and not a centrally planned economy. India since the mid-1970s did not have a mercantilist or fixed exchange rate policy, with the rupee pegged to a basket of currencies. The notion that the Indian Planning Commission was a parody of the Gosplan was a vastly exaggerated idea. The floating of the Indian rupee by linking it with a basket of currencies goes back to the mid-1970s, when controls on industry were relaxed, but such reform excluded monopoly and foreign companies, and small firms were protected. In fact, some commentators think of the mid-1970s as the break with earlier economic stagnation. Kaushik Basu argues this on the basis of an analysis of savings rates, as also the Canadian political economy commentator (Nayar 2007). Y. K. Alagh argued this on the basis of savings rate, a break in public investment stagnation from the mid-1960s, and the beginning of monetary and industrial reform.²

Structural Reform Policies in India

In India, the mid-1980s, therefore, saw the first transition from a regime with output, investment, technology, and import control at the commodity level to a

regime which would use fiscal and not quantitative controls. In 1985, India designed an extensive programme of reform emphasizing initially internal competition. In the mid-1980s around two-thirds of organized Indian industry was removed from price and quantitative controls to tax and tariff rate interventions. From firm-level controls the economy moved to industry-level interventions with strong schemes of incentives and disincentives. These would discriminate between industries, but not between firms. It is here that Indians developed an alternative pattern. The policy framework was seen as a transitional regime, leading later in the early 1990s to uniform and low tariff rates and freely convertible exchange rates. The role of planning changed and also the work of the Planning Commission. Firm-level price and output controls were abolished, and there was a policy of relaxing investment and foreign exchange controls. These were replaced by tariff and tax policies. The road map was outlined by the Committee on Replacing Quantitative Controls by Fiscal Methods or the Narasimham Committee, in which I worked. The emphasis was on domestic reforms and preparing Indian industry for global competition. Tariff reform was harmonized so that in a partially liberalizing global economy efficient Indian industries did not suffer from 'negative protection' on account of their 'inefficient suppliers' as the economy was increasingly subjected to competition. Interrelated clusters of industries were freed from controls and subjected to competition in a harmonized manner (Alagh 1988). Cement, aluminium, steel, and a number of other industries were decontrolled and import licensing relaxed. Tariffs were, however, high and discriminatory, and there was the so-called savage policy of taxation of luxuries. These policies were integrated with a plan which delineated priorities.

The transition described in the last paragraph had a knowledge base. As a part of the Indian reform process, an extensive set of studies (see Alagh 1991a) documented interesting problems, with serious consequences on output and employment in efficient industries and some important theoretical policy issues. A group that was set up under my supervision to work out a strategy of phasing out import substituting industries in the critical machinery and intermediates sectors went about it conventionally by estimating the domestic resource cost (DRC) of these industries and effective protection and argued that more than half of Indian industry was globally efficient in the sense that at international prices of outputs and inputs, they would make profits ($DRCs < 1$), but at market prices they suffered losses. More intense work showed that in a partially reforming economy, if your input supplier has not been subjected to competition, even if you are efficient, you will make losses, because your global competitor gets components and equipment at cheaper prices, or his interest costs are lower. The idea was that short-run market prices may not always capture transitional adjustment costs.

In addition to the phasing problem, there was a harmonization problem in the sense that in a liberalizing economy an efficient processor with DRCs less than one could be financially unprofitable with respect to a competitor abroad if his domestic input suppliers get higher protection. *This was the negative protection case as measured, for example, for the Indian machine tool industry at that stage.*³ This was a powerful argument for sequencing reform.

Clusters of interrelated industries would need to be reformed together, and tariff policies would need to be determined in an optimal manner taking these configurations into account. Indians were seen in some of the literature as following this path, sequencing and phasing their reform. The task was seen as the harmonization of economic policies with markets in a manner such that enterprises followed policy goals. The planning process was seen as driving the system in this context.

The interesting point was that this kind of policy regime received considerable attention in the policy debates of the early 1990s at the global level. Interestingly, even the World Bank discussed them positively in their more empirical kind of work, although the stylized policy literature from the Bank was generally critical of India.⁴

Policies that reward cost reduction and technical change and place pressures on domestic manufacturing to bring about such change would have to be implemented. Protected markets make enterprises soft and encourage obsolete technologies. Y. K. Alagh refers to a study of the Indian tire industry for the 1981–84 period where price increases were higher than increases in material costs, and the top four companies consistently maintained their share of production, while the technology used was obsolete. (World Bank 1992: 22)

By this time, the growth debilitating aspect of a Bretton Woods structural reform was documented showing negative growth for over a decade and alternative models of globalization were being discussed. The Bretton Woods policies led to abortion of growth processes in many countries. Studies after the East Asian crisis; (Jomo 2000) reinforced the somewhat stark manner in which Gert Rosenthal described the lost decades of growth in Latin America and the Caribbean in his by now famous Economic Commission for Latin America (ECLA) Reports (as a sample see ECLA 1991). Similar experiences were recorded, for example, for Africa (see Helleiner 1986). These studies and the more dramatic UNICEF descriptions of stunted generations did not lead to dramatic questioning of the underlying paradigms. But there developed considerable interest in alternative ways of integration with the global economy. It is here that there was interest in India's experience.

The Indian example was seen as a counterfactual. Lance Taylor in a widely quoted paper described an MPS (multifaceted price system) as a 'transition from

an administered towards a market regime' (Taylor 1991: 7). He gave the Polish and Indian examples and said that 'it's homely virtues are perhaps becoming more evident' (ibid.: 7). He also credited Indians for transitional regimes 'developing effective multi-tiered pricing systems for their nationalised firms and even in agriculture' (Alagh 1991b).⁵ Taylor in his review of the post-socialist transition from a global development economics point of view was basically arguing that Indians had switched industry successfully from firm-level controls to an industry-level efficiency policy, linked with economy-level strategic objectives. 'The Theory of a Multi-Faceted Price System' advocated the Indian and the present author's perception that in the transitional stage, dual pricing, threat of imports and set-off could all be used, for limited periods of time, in such a policy regime. Policy then has the objective of levelling the playing field so that the transition to a global economy is knowledge based and without avoidable human costs. This is obviously a planning role.

Later, Robert Wade in his well-known *World Politics* paper on East Asia's economic success was to quote Indian perspectives on South Korea in his famous justification of 'strategic trade theory'. Wade begins and ends his paper with a reference to an Indian description of South Korea's policy perspectives in the early phases of industrialization (see Wade 1992: 270, 320). The reference by Wade to a South Korean perspective from Y. K. Alagh's 'A View from South Asia'⁶ became a widely cited part of the strategic trade theory literature. For example, John Stopford was to place this experience in a larger strategic global political economy perspective and draw management implications for the global firm from it (Stopford 1994: 5). This was reported in a Working Paper of UNESCO's International Social Science Program called MOST (Management of Social Transformation), which got a certain amount of attention (Alagh 2000).

This debate on the possibility of adopting a strategic approach to economic policies in a market economy undergoing reform as an approach of policy planning is infructuous since the NDA government in August 2015 abolished the Planning Commission. We have argued that this need not be so and that the Chinese experiment which is being quoted as a precursor was in a strategic policymaking framework. We believe this argument is important. This chapter reinforces this argument.

Need for a Macro-Planning Model: Three Gap Models and Flexi Prices Options

Before we discuss sectoral long-term strategic planning, we believe that a macro-planning strategy is important as a backdrop to sectoral plans.⁷ These aspects are discussed below.

As we saw earlier, there were in the 1990s two kinds of views on economic policy being advocated on a global plane for poor countries. One view, attributed to international financial institutions (the Washington Consensus), was that the economies of the poor countries should follow orthodox fiscal and monetary policies – high interest rates, balanced budgets with reliance on markets, and the integration of domestic economies with world markets and international prices. In an alternative view, markets and price policies were to be used as part of a development policy.

The alternative view argued that structuralist approaches give a reasonably good explanation of adjustments to shocks and policy changes at the macro level (Taylor 1988: 2). The World Institute for Development Economics Research (WIDER), Helsinki, country authors emphasized demand-led output determination, income distribution processes in adjustment taking place through Kaldorian saving propensities and leakages, stickiness in prices arising from mark-up pricing, internal terms of trade effects in two-sector models, and a whole host of alternative plausible factors which combined to lead to macroeconomic adjustment processes, different from monetarist explanations. The role of external shocks and of interdependencies between different components of final demand was also brought out. For example, domestic savings as also public investment in non-tradeables and infrastructure became constraints to absorption of trade-related commodity and technology potential gains in some of the WIDER country studies.

Indian planning will obviously have to be set in the global debates of the period rather than fixed quantitative target setting alone. It is interesting that when Stiglitz now talks of counterfactuals that have succeeded, and the theories that go with them, he discusses Poland and China, while in the early 1990s, the references as we have shown, were also to India. The somewhat laboured examples from Lance Taylor, Robert Wade, and John Stopford were only to argue for an Indian perspective on the country's positioning in the reform process. In the second half of the 1990s and the early part of the Noughties, Indian economists were well represented in global journals, but there is no perspective on India's experience from an analytical point of view. This is definitely unfortunate from a knowledge point of view, since knowledge we know is a source of growth and has practical planning consequences.

The world gets to interesting turning points at the time of global meltdowns, as in 1997–1999 or 2008–2009. The East Asian melt down and the more recent financial crises led to an atmosphere of expectation from ideas. Why do such periods emerge? The work of earlier scholars on the uneven nature of development in the 1980s and early 1990s did not lead to many questions. The East Asian meltdown did. This by itself is a phenomenon which needs some exploration, as a manifestation of power and global discourse. It is not human misery but a

disruption of global processes which leads to demands for change, even though an understanding of underdevelopment may be a requirement. The Indian Planning Commission will have to monitor on a real-time basis trends in the global economy if any strategic approaches are to be followed in planning policies. It was not accidental that Montek Ahluwalia, heading the Indian Planning Commission, was the Sherpa to Prime Minister Manmohan Singh.

The Sectoral Strategic Priorities for NITI Aayog

If the NITI Aayog is to be taken seriously, its agenda should in my opinion concern, amongst others, demographics, energy, and water, and like in China, it should also allocate resources for the long-term plan, which it is not mandated to.⁸ A functioning Planning Commission in this and the next decade will have to advise on the resource allocation process.

The Demographic Dividend

The IMF and Bank Indonesia had asked me a few years ago to speak on the Demographic Dividend in India in the long run at their Annual Conference for Central Bank Governors at Bali. Working on the algebra of projection models, it was clear that they derived demographic dividends from 'inevitable' consequences of fertility patterns, age structure of populations and labour force, and savings consequences. Structural differences were high but economic consequences were not so striking. For example, in India four workers supported one retiree, but in Japan only one worker supported one retiree (see Alagh 2006a).

But which of the results are robust and why? Some consequences may turn out correct, but for wrong reasons. The future is not inevitable, even though the perception of population and human resource development (HRD) issues as central is correct. I argued at Bali that dividends will be garnered by the brave who have an operating strategic vision of HRD parameters (Alagh 2006a). If you do not have a good nutrition, health, or education profile, demographic consequences could be a nightmare.

But during demographic transition, another kind of bonus, normally ignored, can happen. That is that women would add to the growth rate in a higher manner if we have sound policies. This works as follows: the time spent by women in bearing and raising children falls while mortality decline lengthens the life span remaining after the cessation of childbearing. Mari Bhat estimates that when the demographic transition nears completion, in India the age at the first birth would be 21–22 years (less than 20 now) and the age at last birth would be around 28 years (38 now). Women could then be expected to enter the labour force in large

numbers. Consequently, the growth rate of labour force would remain higher than the growth rate of total population for an extended period of time. The significance of this 'deferred bonus' of the demographic transition could be higher than the immediate bonus resulting from the dividend from age structure changes.

An employment guarantee was close to Mari Bhat's heart. It was to be integrated with a minimum needs (now basic needs) strategy. There is, for example, the argument that employment guarantees should be there only in poor districts and not in agriculturally developed districts. This is wrong. A wage floor in rural areas acts as an incentive for widespread technological modernization and better land use in rural areas. It is not accidental that the agricultural revolution in Europe took place only as real wages started rising in the 19th century. A recent example in our Punjab is a small machine which removes the chaff and prepares the soil for the next crop in a matter of days. It has become necessary after the decline in the number of migrants coming from Uttar Pradesh and Bihar. These are planning issues.

More widespread and compelling evidence is found in recent studies done in India. In fact, a lot of the recent discussion on the Mahatma Gandhi National Rural Employment Guarantee Act (MGNREGA) is misplaced. A recent fairly large field survey by International Crops Research Institute for the Semi-Arid Tropics (ICRISAT) shows that in developed districts successful MGNREGA programmes have led to a flurry of investment in the farm (Bhattarai, Padmaja, and Bantilan 2014). Food security and employment strategies are an integral part of a development strategy and need planning coordination.

Energy

The larger point I am making is that investment planning has to be integrated with economic reform. This is the reason to have an economy-level view on critical sectors like energy. When the Chinese abolished the State Planning Committee and set up the more focused National Economic Reform and Development Commission, they also gave it fund allocation powers in sectors like energy and infrastructure. The role of the Planning Commission when reformed is obvious. The energy issue is related with the environment issue and its global aspect is climate change.

A model outcome if we grow at 6 to 8 per cent annually and have a consumerist ethos is that our low demand for coal is around 0.8 million tonnes and the high version is 2 billion tonnes. The projections we had made in 2000 (Alagh 2000) have been reiterated in a later Planning Commission report (of 2006). The base had slipped but the increments were as earlier and so now the range is 0.6 million tonnes to a billion tonnes.

We have almost unlimited reserves of power grade coal and so mining and transporting it is not impossible if the corporate and public sectors are transparent and reasonably efficient and the politicians and the Central Bureau of Investigation (CBI) leave them alone. But our lungs will not be able to take it. Long before it reaches billion tonnes, the Supreme Court and non-governmental organizations (NGOs) will stop it. So either lower growth or different life styles or different forms of energy use will be the options – all easily said but difficult to practise.

In the energy sector there is also the problem of slow reform and foreign direct investment (FDI) in transmission and distribution. Suresh Prabhu (first minister for railways/then power/then commerce and industry), in a report submitted before he joined the Cabinet (in late 2014), correctly reiterated the need for reform in the power sector and the structures of transmission and distribution designed two decades ago, which was before he was power minister. What we now need to address is the question as to why these reforms have failed and how does one remedy that. As regards transmission and distribution, India has the largest capacity in high voltage DC lines in the world as also very large capacities in conventional lines. The question is whether such best practices can be replicated on a large scale.

In 2009, the Planning Commission said: 'Although the power transmission segment has been opened to private investment in 1998 there has been only a limited success in attracting private investment. The only public-private partnership project – the Tala transmission system – has been operational since May, 2007.' In 1998, I was the power minister. I got the contentious Transmission Bill finally approved through a parliamentary committee (under Jagmohan) unanimously. In 1998, the draft legislation on the Central Regulatory Authority was also introduced in the Lok Sabha. These pieces of legislation clearly laid down the structure of smart grids and alternative distribution channels. This must be done, the Prabhu Committee (of 2014) correctly says two decades later. The question is how.

The major cities where distribution has been privatized are Kolkata, Mumbai, Delhi, Greater Noida (Uttar Pradesh), Ahmedabad, Surat, and Bhubaneswar. By now, there are more than 20 such cases. Transmission and distribution losses in the cities managed by private companies are noticeably lower than the publicly managed utilities. But these are cases that require study, and the role of NITI in strategic planning in this area cannot be underestimated.

Similarly, despite many rubbishing nuclear generation projects and nuclear power including the fast breeder based on thorium, it is the only way of ensuring energy security for India in the long run. My views on nuclear power are straightforward and as follows: nuclear is a genuine economic option in terms of long range marginal cost advantages for power supply at locations far remote from coal reserves, particularly if hydel sources are not available in these areas.

A Diversion on Climate Change

The issue of climate change will land up in the NITI Aayog's lap in many ways and India, which is now marginal in the global debates, will again be in the centre as earlier. Game theory is all about reactions of different players to assumed actions by other 'players'. To simulate the 'game' is an interesting way of analysing the 'futures' or possibilities in an uncertain field. Conventionally, this would be done in voluminous academic tomes, at the end of which the uncertainty remains. A game on the other hand forces the analysts to be specific to the extent possible in an uncertain world.

The context was set up by large countries, India, China, Brazil, big blocs, the USA and the European Union, Continental Africa, the multilaterals, and other groups, including business investors and the media. They were stimulated to play their role in the unfolding food security policies in the context of the global trade regime. The first recognition was that the food security problem was not just in grains but in commodities like sugar, oil, animal husbandry products, vegetables, and fruits, and in a sense the problem was more complex than foreseen in the last three decades of the last century. The switch away from grain took place at around \$3,000 per capita in 1990 purchasing power parity prices. The question really was the derivation of policy such that distortion in agricultural trade regimes could be removed and incentives for the producers established such that a farmer would then take the maximum advantage of his resource endowments of land, water, and soil, and access to technology and produce the agricultural commodity which goes into the food security in a globally efficient manner. This was then seen as generating sufficient income including for very small peasants and the wages of landless labourers. The obstruction in achieving these goals were listed and different exercises were stimulated to play their role in removing such obstruction in other ways and through policies. This would obviously involve collaborative games between countries. If crops cultivated were globally competitive, this exercise would very soon develop an exciting realistic paradigm and, given the professional commitment of the groups involved, almost realistic processes of communication and trade-offs.

The question really then can be seen as showing a positive outcome that emerges from such cooperation of different actors facing a complex problem and, in that context, pushes them out of short-term zero-sum policy stances. The organizers of the game would come out with their detailed profile of the exercise and its outcomes. The mechanism itself should be of interest as a planning tool in the strategic policy context defined in this chapter in a country where shortages of irrigated land and water are increasingly anticipated.

Water

Shortage of water is 10 to 2 per cent of the projections of demand with high growth as we saw earlier with economy-level projections. Extrapolations of demand from different sectors show that if business as usual continues, quantitative shortages of water are likely to emerge. Declining water use efficiency in agriculture, increasing urbanization, and unregulated industrialization pose significant challenges for the water sector in the future. Shortages, either of ground or surface water or both, are likely to be pronounced in the states of Andhra Pradesh, Gujarat, Haryana, Punjab, Tamil Nadu, and Maharashtra. This just makes the business as usual stuff impossible, for water is literally life.

Arable area has stopped growing and so the land constraint is far more severe. Growth will now have to be sourced from double cropping and yields. To avoid the unfeasibility problem, most projections assume a vastly improved performance on the land and water management frontiers. It needs to be remembered that the balance ground water reserves are now more limited. Tushar Shah has shown that groundwater use in 100 districts is the problem and needs a special programme of replenishment and I would suggest linking it with surface water use. Interesting works include sensitivity of estimated resource flows of water available with integration of surface flows with local small storage projects.

Another way of looking at the severe land constraint is to see that the net area sown per person will go down from around 0.17 hectare to around 0.10 hectares. Gross area sown per person, currently around 0.2 hectares, too will, even if cropping intensity increases very rapidly, go down to around 0.15–0.18 hectares.

The minister of water resources has recently placed emphasis on solving river water disputes between states. At the beginning of the century, I was asked by UNESCO to study water as an interdisciplinary problem. The paper I wrote had a section on solving river valley disputes (Alagh 2001). Earlier asked to arbitrate in a season's dispute on water sharing in the Cauvery river basin, following the Supreme Court's directive, I had also suggested that a three-layer system (implemented in the Mekong Basin amongst nations which had actually gone to war with each other) be designed.⁹ This system, at the highest level political, at the second level coordinative, and at the third level a delivery apparatus, was implemented and has worked reasonably well. These problems need constant attention. I find that this work has applications all over the world. For example, that 2001 paper was used recently as a reference paper in solving a dispute between the USA and Mexico (in the solution to the water dispute in the border city of Nigales Sonora). But in India problems endure, I believe, partly because we leave them to lawyers rather than solve them in the Mekong sense.¹⁰

Getting back to the basic problems of the water sector they lie in great vagueness on rights to water, responsibilities and powers of different actors, and a lack of a structure for planning, and as we saw dispute resolution. In view of this, when the Ministry of Water Resources asked me to chair a committee to develop a Draft Framework Law for the Water Sector, which became not only the National Water Framework Law of the Government of India, but it was also meant to provide the larger structure for organizing the support mechanisms to states and communities in their governing institutions at the levels that matter, the local government, community-based organizations (CBOs), the management of ponds, water bodies, watersheds, aquifers, and river basins. To the best of my understanding, the only aspect in which the Draft Framework was prescriptive at the national level was its requirement that a minimum amount of life-giving water must be the right of every Indian. For the rest, it only designed a structure to empower in detail and support the state governments, local governments, and governing institutions of the water sector to play their ordained role. I am confident that once it is understood, it will get a good hearing.

Action on solving water problems will be at the local, watershed, aquifer, state, and river basin levels. This was the guiding mantra of the Draft National Water Framework Law. But it was not allowed to remain just a mantra. The draft suggested the mechanisms to give strength to the local and state, watershed, and river basin levels.¹¹

Once these mechanisms are fully in place, as appropriate structures, the national role is largely that of support. But these support mechanisms can be critical for the appropriate government. Cutting edge frontier technology in water delivery and development projects has to be developed at home and accessed in the world and made available. Working best practices must be known and diffused. Development and applications of success stories will require data and information support. The framework attempts to set up the systems to aid the state governments, local bodies, and the appropriate government in these support mechanisms. These are planning issues, and the expertise must exist in NITI, so that the institutional memory is available to the relevant line ministry.

The Framework provides for a web-based information system (WRIS). It will be state of art, comprehensive, and user friendly. Geographic mapping systems and satellite-based technologies (all aspects in which India is good but has not used for decentralized systems like water) will be developed at the national level. These kinds of systems are interdisciplinary, farmer- and user-friendly, and well honed to solve problems. In the 100 distressed ground water districts, information through real time to each farmer on water levels can be a major instrument for evolving better systems. For example, if you and I know how each of us is impacting exactly on the common aquifer, we can better evolve working systems. Similar

examples abound of technology-based solution systems in ground water, river basins, watersheds, and other water bodies recognized in the framework. These are planning functions.¹²

In the framework, it is provided that a minimum of 25 litres per capita per day can be provided free of cost, but after meeting this pre-emptive need, available water will be subjected to allocation and pricing on economic principles to avoid waste and ensure supplies. As regards demand for water, therefore, policy will need to be concerned with both the basic needs of water for poor people and the need for informed directions of water systems as markets play a larger role. As we implement these, the role of hybrid systems (dual pricing) which can illuminate transitional paths will be particularly rewarding.

The implications of these trends are not being realized with the urgency they deserve, since at a basic level resource constraints of a more severe kind faced by certain East Asian economies are now being approached in India. Organizations, communities, households, and individuals will have to grasp this fact and live with it. The severity of the blow will take time to sink in. But time is one thing India does not have. A few years ago, I had warned that we were getting closer to the kind of land and water shortage East Asian societies like China, Japan, and Korea have grappled with, but have built up institutions through the centuries to cope. I had argued that we needed to hasten. We would (we hoped) harvest water and improve irrigation deliveries.

Conclusion

The planning function cannot be eliminated, and for a country at India's stage of development in a world economy that is rapidly changing, the planning function will only grow in importance. Quantum jumps must be faced. Avoiding severe water shortages, improvements in irrigation efficiency, and cropping intensity will have to be much faster. Bad coal of over a billion tonnes will not need to be burnt if alternative energy life and management styles are implemented and hydel and nuclear plants completed, in addition to a major focus on renewables. Keeping reasonable limits on slums growth will need a strategy of decentralized urbanization. Modern technology will have to be integrated with artisan and rural populations so that the benefits of national and global markets can percolate to the work force. Trade and globalization will have to grapple with these questions. If these kinds of links cannot be established in concrete terms, the concept of an enduring future will remain an empty box. If communities are out of balance with their resource endowments, there can be no question of significant advance in the areas of global concern like climate change, carbon sequestration, or biodiversity. As India takes its place in the sun in this century as a major global entity, it does

so with a high rate of growth and a young restless population on the move. Very little can hold it back. But water, energy, and other non-renewable resources like land will set the eventual limits of high growth. In spite of all the hiccups and the fact that in some regions we are already very stressed, I believe we have the civilizational and, given our federal democracy, our institutional strength to use water well. A group I chaired underlined the need to give our people a legal right to drinking water, create a legal structure for water accounting and planning, beginning with local aquifers going into river basins, and integrate with agro-climatic plans. The centre has the major role of preparing a WRIS for this, and frame legislation for supporting the states and local bodies in state-of-the-art project and planning techniques. It is not enough to talk of interlinking. We must start local and go up to the river basin in a practical manner.

Notice all the arguments we are making in this chapter are based on many activities outside the sector. At least I hope I have made you think afresh on the subject of reviving the Planning Commission.

Notes

1. Professor Lance Taylor of MIT who functioned as the Research Adviser for the WIDER Project on Stabilization Experience and Medium Term Development Strategies, and was present at Dhaka, described Dr Alagh's approach as leading to the construction of a socially relevant plan and prescription of policies for it. (Jayawardene 1991).
2. Alagh (1987); also see discussion of Alagh's paper in Joshi and Little (1996).
3. For an econometric and analytical work in relation to this kind of policy mind set, see Alagh (1991a).
4. For negative protection and the efficiency of import substituting industrialization in India, see World Bank (1987) and again for tariffs to control monopolies and price fixing, see World Bank (1992).
5. Taylor 1991: 38; the reference in Taylor here is to Alagh (1991a).
6. This appeared in the Asian Development Bank's journal, the *Asian Development Review* (Alagh 1989)
7. A paper I had written on Development Modelling in India was published in *Sankhya* Series A, the theoretical journal of the Indian Statistical Institute.
8. The Chinese National Development Reforms Commission (NDRC) was referred to by the NDA government when the Planning Commission was abolished but since it has no allocation role when Dr Panagariya went to Beijing in November 2015, the Chinese, sticklers for protocol, arranged for him to meet not the Chairman of NDRC, but of the Development Research Center of the NDRC, which does studies, the main role of the NITI Aayog.
9. We devised a three-tier system which was earlier tried in the Mekong where countries which had gone to war with each other cooperated in a plan providing the

minimum flow of water to the downstream Tonle Sap in the monsoon where the requirements of half a million persons had to be protected and this required changes going upstream all the way. The Asian peasant is the product of a millennium of history and if policy is honest then s(h)e will respond.

10. Regarding interlinking of rivers, I planned the Sardar Sarovar, which linked the Narmada with the Mahi and Sabarmati and the rivers of Saurashtra. Gujarat has finally tendered the computerized canal systems we planned.
11. Chapters I, II, and IV dealt with these aspects. It is these that need dissection, scrutiny, and strengthening.
12. The Framework has been criticized as leading to centralization. The only point where it is so is the requirement that every Indian must have access by law to a minimum amount of water. Para 4 in Chapter III states: '(1) Every individual has a right to a minimum quantity of potable water for essential health and hygiene and within easy reach of the household. (2) The minimum quantity of potable water shall be prescribed by the appropriate Government after expert examination and public consultation. Provided that the minimum quantity of potable water shall not be less than 25 litres per capita per day.'

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PART III

Planning Beyond the Planning Commission

Make in India

Bibek Debroy and Dhiraj Nayyar

Introduction

The manufacturing sector has been the relentless focus of India's policymakers, since Independence and the first Industrial Policy Resolution of 1948, right up to 2019 as the Government of India attempts to execute successfully the 'Make in India'¹ strategy. In 1948, the share of manufacturing in India's gross domestic product (GDP) was nearly 10 per cent. In 2015–16, it stands at a mere 15 per cent. At its peak, the share of manufacturing approached 20 per cent of GDP in the heyday of the thrust for capital intensive manufacturing in the 1960s and 1970s, but as the economy began to liberalize from the early 1980s, it is the share of services which grew steadily. The share of manufacturing in GDP has remained largely stagnant since 1980 at around 15–16 per cent of GDP.

What is remarkable about the trajectory of manufacturing in India is how little it has changed despite changes in policy over the decades. The 1948 Industrial Policy Resolution based on the 'Bombay Plan' stressed a continuous increase in production and an equitable distribution of wealth. The 1956 Industrial Policy Resolution decisively shifted focus to a public sector led basic goods first industrial strategy in order to achieve the goal of a socialist pattern of society. The first baby steps towards liberalization began in 1973, when the Industrial Policy Statement identified industries in which large private sector industrial houses and foreign investors could invest. In 1977, The Janata Party government's Industrial Policy statement emphasized small scale industry and village enterprises. In 1980, at the time of Indira Gandhi's comeback, the Industrial Policy Statement laid the foundation for competition and export orientation for the first time. Finally, in 1991, the Industrial Policy Resolution took a giant step towards liberalization by dismantling industrial licensing for a large number of industries, by permitting 51 per cent foreign direct investment (FDI) in several sectors and by forming a more

liberal regime for technology acquisition. Despite all of those twists and turn in India's policies towards manufacturing, the most recent 'National Manufacturing Policy' of 2011 laments 'the share of manufacturing in India's GDP has stagnated at 15–16 percent since 1980 while the share in comparable economies in Asia is much higher at 25–34 percent'.

The fact is that several Asian economies that had a smaller manufacturing base than India in 1948, whether Korea, Taiwan, Singapore, or China, raced ahead, generating jobs and prosperity for their people while India has failed despite a range of policy mixes adopted.

Where India has been hugely successful is the rapid growth of the services sector, particularly since 1991, and the rise of a limited formal manufacturing sector (in capital and knowledge intensive sectors like automobiles, engineering goods, and pharmaceuticals) and the proliferation of a small scale unorganized sector which together have buoyed growth. However, the burgeoning services sector (in which productivity improvement is limited) and an elite manufacturing sector have not generated enough jobs particularly for those with limited skills. Almost 44 per cent of the Indian workforce is still employed in agriculture producing just 15 per cent of the GDP. The fate of manufacturing is critically important if this workforce is to find gainful employment.

The purpose of this chapter is several-fold. First, it attempts to reiterate the importance of manufacturing for India's future economic trajectory. Second, it seeks to place India's past experience and future trajectory in the context of the planning process. It will argue that while the Second Five-Year Plan in 1956 laid down the path for industrialization (and its less than fulsome success), the abolition of the five-year planning process (and indeed the Planning Commission) and the evolution of a new decentralized and less interventionist governance philosophy circa 2014 may finally create the conditions for a more robust employment intensive industrialization. We will begin with a sketch of India's policies towards manufacturing.

A Short History of India's Policies towards Manufacturing

The first policy document on manufacturing of the government of independent India was the Industrial Policy Resolution of 1948.² There was, however, an unofficial policy document which was published in 1944 which had an enormous influence on the 1948 policy and subsequent policies. This was the 'Bombay Plan' formulated by a group of Indian capitalists and thinkers, including J. R. D. Tata, G. D. Birla, and John Mathai. Among the salient features of the Bombay Plan was the proposal to limit foreign investment and to acknowledge that the Indian private sector did not have the capacity to carry the burden of industrialization

and therefore a strong role of the government was necessary. The document also acknowledged the need for a fair distribution of income and was surprisingly left-leaning even though a majority of those drafting it were private sector industrialists. The 'Bombay Plan' was never adopted by the Congress Party of the Government of India but its basic philosophy was clearly incorporated into later official policy resolutions and five-year plans.

The Industrial Policy Resolution of 1948 laid the foundations for a mixed economy and was arguably less in favour of overarching state control than subsequent documents, particularly the 1956 Industrial Policy Resolution. It classified industries into four categories. (A) Defence and Strategic Industries (including arms, ammunition, and railways) which were to be a monopoly of the government. (B) Basic industries like coal, steel, and fertilizers where all new units would be set up by the government but old units owned by the private sector would be allowed to continue for 10 years when a call on nationalization would be taken. (C) Industries which would be run by the private sector but where the government would exercise close control, like automobiles, sugar, and cement. (D) Industries where the private sector would operate with the government exercising only general control. There was plenty of room for the private sector in manufacturing despite the visible hand of government.

That room for investment by the private sector was reduced in the Industrial Policy Resolution of 1956, arguably the most influential (in terms of its long-term impact) document on manufacturing/industrial policy in the post-independence period to date. It was the document which formed the basis for the Second Five-Year Plan (1956–1961) which directed the allocation of resources towards the public sector and basic industries. The Industrial Policy Resolution and the Second Five-Year Plan laid the foundations for manufacturing/industry between 1956 and 1991, the formative years of independent India. But more interestingly, even after 1991 when a new Industrial Policy Resolution was drafted for a liberalizing India, the influence of the 1956 resolution and the Second Five-Year Plan had not gone away. The goal of the 1956 resolution and the Second Five-Year Plan was to move India towards a socialistic pattern of society, a deviation from the 1948 document which favoured a mixed economy. The foundations of the 1956 Industrial Policy Resolution lay on four pillars: the development of heavy (basic) industry, a primary (and almost exclusive) role for the public sector, a very heavily regulated (based on licencing) existence of a private sector, and reservation of sectors (over 100) for only small scale industries. It would be obvious to any observer of Indian industry how the foundation has survived liberalization. India has a relatively strong capital-intensive capital goods sector. The public sector has continued to grow after 1991 with only limited privatization between 1999 and 2003. The private sector has been freed from several of the constraints that it faced before

1991 (including an abolition of industrial licensing). However, the state has found newer ways to impose its regulatory might on manufacturing, disrupting the ease of doing business. It is only since 2014 that serious steps have been taken to ease many of these constraints. Regarding small scale industries, while reservations have been removed, the fact remains that small-scale industries continue to dominate the manufacturing space, producing 70 per cent of output, contributing 42 per cent of exports, and employing 80 million people. While doing all of that, India has missed an opportunity to grow large scale firms in labour intensive industries which can compete effectively in global markets.

There were changes in emphasis over the decades. 'Garibi Hatao' and the Fifth Five-Year Plan tilted further towards socialism, and there was a spate of nationalizations. In 1977, during the rolling plans, heavy industry was de-emphasized and small scale and village industry were brought to the forefront. When Indira Gandhi made a comeback in 1980, the first signs of delicensing and introducing competition appeared. In Rajiv Gandhi's time (Seventh Five-Year Plan), there was a new focus on technology. But most of these changes were incremental rather than transformational. The shadow of the 1956 Industrial Policy Resolution and the Second Five-Year Plan loomed large.

The first radical attempt to abandon the old legacy came in the Industrial Policy Resolution of 1991 which accompanied liberalization. The 1991 Resolution abolished industrial licensing for a majority of industries, permitted FDI up to 51 per cent in a slew of sectors, and liberalized the regime governing the acquisition of foreign technology. It was India's most decisive move towards an open market economy. In theory, it should have built the competitive pressures necessary for a robust manufacturing sector – the lack of competition was one of the leading reasons for a terribly inefficient manufacturing sector prior to 1991. But in the end, liberalization failed to boost manufacturing to East Asian levels even though some firms (particularly in automobiles and pharmaceuticals) became more efficient and globally competitive and the services sector began to lead India's impressive growth. What could explain this failure of manufacturing to take off? Some of it could be explained by the lingering of many aspects of the licence raj. While licencing may have been abolished, the ease of doing business did not improve sufficiently and the interface with the state for business remained complicated and high on transaction costs. But perhaps the more crucial explanation for the failure of industry to rise to East Asian levels was because the first decade after liberalization failed to give any real emphasis to the basic conditions for manufacturing. In fact, as India tried to stabilize its macroeconomy, government spending in critical infrastructure sectors (both physical and social) was cut down.

The government of Prime Minister Atal Behari Vajpayee tried to respond to the twin problems of the lingering licence raj and the lack of infrastructure

by announcing a policy on special economic zones (SEZs) in 2000.³ This was a belated attempt to emulate the Chinese model of huge coastal economic zones which would have more liberal policies compared to the rest of the country and a focused attempt at building world class infrastructure, primarily with the objective of attracting foreign investment in export intensive sectors. Although more than 500 approvals for SEZs have been granted since the policy was first introduced, the SEZs failed to become hubs of manufacturing activity. A 2013 study by Indian Council for Research on International Economic Relations (ICRIER) blamed policy missteps for the failure of SEZs, including the government's decisions to grant concessions on exports to those operating outside SEZs. The study also found that the tax concessions given to firms in SEZs were in violation of World Trade Organization (WTO) rules, and a number of countervailing duties had been imposed on exports from such zones by importing countries.

The SEZs may not have achieved the desired outcome in manufacturing but successive governments have stuck to the idea of creating 'zones' for manufacturing. The United Progressive Alliance (UPA) government launched the big ticket \$100 billion Delhi–Mumbai Industrial Corridor,⁴ a comprehensive infrastructure project that not only aimed to boost manufacturing by creating world class infrastructure including a dedicated freight corridor but to also create new townships and smart cities. The project continues to be in the development stage as various hurdles including problems in land acquisition have led to several delays.

In terms of overarching policy change, the first major shift after 1991 came via the National Manufacturing Policy in 2011.⁵ At the core of the National Manufacturing Policy is the concept of national investment manufacturing zones (NIMZ) which stress the importance of agglomeration and economies of scale. These are different from SEZs in the sense that no specific concessions (other than some related to green technologies) would be given to firms. Significantly, for the first time in the context of industrial policies, a considerable amount of the onus for developing a manufacturing base has been shifted to states. The development of the infrastructure of NIMZs is the responsibility of state governments. Twenty-two NIMZs have been approved⁶ to date but are yet to take off as real manufacturing hubs. One of the reasons for the failure of the policy to make a major impact during the government of UPA-2 (until 2014) was the widespread policy paralysis at different layers of decision-making which followed multiple corruption scandals. To make matters more complicated, the UPA government, in its dying months, passed a draconian land acquisition legislation which made it practically impossible to acquire land from agriculture for industry.

However, the 2011 policy laid the foundation for the change that was to come in 2014, and the broad contours of the 2011 policy were largely incorporated into the Make in India initiative.

The East Asian Experience

At the time that India was formulating its policies for the rapid growth of manufacturing in the 1950s, so too were a set of other countries in Asia that were later termed the East Asian Tigers for their historically unprecedented rise to prosperity in a short span of three decades – South Korea, Taiwan, Hong Kong, and Singapore (in the 1960s). Unlike the city states of Hong Kong and Singapore, South Korea and Taiwan were largely agricultural economies with a limited industrial base. By most indicators, India had a head start on these countries circa 1950. The success stories of the East Asian Tiger economies are well documented.⁷ Their stories of success had some common policy threads but there were also differences. Let's consider the differences first. South Korea eschewed foreign investment while Singapore and Hong Kong welcomed it without restriction. South Korea focused on building large firms while Taiwan focused on mid-sized firms (in clusters or agglomerations that helped achieve scale economies) as the foundation of the manufacturing sector. Hong Kong adopted free trade policies while others used varying degrees of trade protection.

However, what is arguably more important than highlighting the differences in the nuances of policy is to decipher what was common to their success. First, all the East Asian tiger economies were relentlessly export focused. Their manufacturing sectors may have received protection in different forms (or may not have) but they were constantly exposed to the competitive pressures of the international market. Second, there was no preference for capital intensive capital goods industries. Labour intensive manufacturing, which is a comparative advantage in countries with cheap and abundant labour thus emerged strong while generating employment for the masses, drawing out excess labour from agriculture. Labour laws encouraged formal employment rather than acting as a disincentive. In South Korea, the proportion of the workforce engaged in agriculture in 1963 was close to 65 per cent. By 1988, within a generation, the proportion of the workforce engaged in agriculture had dropped to 20 per cent.⁸ Third, there was a clear emphasis on building the enabling conditions for successful manufacturing. The development of quality physical and social infrastructure was a standout feature of all the tiger economies.

Even the less successful emerging economies of East Asia like Thailand, Malaysia, and Indonesia emulated the basic focus on labour intensive manufacturing with a strong export orientation to register impressive growth rates in the 1970s and 1980s.

China, which had emulated India in its insular economic policies and import substitution industrialization until 1978, quickly adopted the lessons from the successful economies of East Asia. Under Deng Xiaoping's leadership, the policy

focus shifted to export oriented manufacturing, labour intensive industries (via large firms, flexible labour laws, and low wages), and the building of a world class infrastructure.

India's singular failure before 1991 and after 1991 has been its inability to adopt any of the key mantras of success of East Asia: it has failed to build the physical and social infrastructure necessary for a strong manufacturing base. Its poor infrastructure, particularly connectivity like roads and ports, have hampered any real chance of becoming a merchandise export driven economy. Its archaic and inflexible labour laws have made every Indian entrepreneur reluctant to hire labour. The labour intensive industries which do exist do so at a very small scale or operate in the informal sector to avoid the draconian labour laws. Unsurprisingly, the percentage of India's workforce in the formal sector is only just above 10 per cent of the total.

If India is to become a manufacturing powerhouse, it needs less of the overarching National Manufacturing Policy Frameworks and more of change on the ground. It needs to lay down the basic conditions which make it attractive to manufacture in India. It needs a system of governance which delivers world class physical infrastructure (power, roads, ports) and social infrastructure (education, skills), which delivers flexible factor product markets in labour but also in land and capital.

There is now a probability that a radically different narrative of governance that emerged after 2014 could finally help create the conditions for robust manufacturing. The weight of evidence in economic history suggests that almost every nation and every large economy (Europe, the US, Japan) that has risen to prosperity has done so by developing a strong manufacturing sector.

It could be argued that India has proved to be an exceptional case registering high rates of annual GDP growth – close to double digits in fact between 2003 and 2008 – without the kind of manufacturing sector that the western European/American or the East Asian economies developed. So, perhaps, India need not tread the same economic trajectory as other successful nations before it. The argument has some merit if the rate of growth of GDP is the only parameter for measuring economic success. However, in other parameters, particularly in terms of the generation of jobs for the excess labour in agriculture, India has had considerably less success. One of the shortcomings of a services led growth is that the economy simply does not generate enough jobs to absorb the excess workforce in agriculture. In 2011, 49 per cent of India's workforce was engaged in agriculture producing only 15 per cent of GDP. This is a decline from around 65 per cent in the early 1990s but most of the absorption has happened in low value added services, not manufacturing. India could possibly become an upper-middle income country if it grows at 8 per cent per annum for 10 to 15 years. But the distribution

of that income and the quality of jobs will remain a concern in the absence of a relatively robust manufacturing sector.

Reforms – First and Second Generations and Some Data Issues

India's present cycle of economic reforms were triggered in 1991 by an external sector balance of payments (bop) crisis. There were earlier reforms (late 1970s and 1980s) described as reforms by stealth.⁹ However, this first cycle was more piecemeal and ad hoc and was not comprehensive as the ones after 1991.

Expressions like first generation and second generation are used, the first in the post-1991 period and the second generation is what awaits us now. However, two overlapping interpretations are possible. First, first generation refers to reforms that concern the external sector – elimination of quantitative restrictions (QRs) on exports, rationalization and elimination of export subsidies and their replacement by a system of export incentives, reduction in import duties, a market-determined exchange rate with a convertible rupee, a liberal policy on foreign institutional investments, and opening up to FDIs. In contrast, second generation reforms concern the domestic economy, although a neat watertight compartmentalization between the domestic and the external is not always possible. Understandably, political economy considerations and vested interests are stronger in domestic economic reforms, compared to the external. Second, one can also interpret the first generation as reforms that concerned and were under the purview primarily of the union government. In contrast, in a federal set-up, second generation concerns reforms that have to be introduced at the state-government level. So the focus of policy change has thus shifted from the centre to the states. Different states have reacted differently to liberalization. Most product market policies are with the centre, while most factor market (labour, land) policies are with the states.

India possesses, or should possess, a comparative advantage in labour. Therefore, India should be in a position to exploit its cost advantage in labour, and in natural resources, to push manufacturing growth. Nor should one forget India's strengths in science and technology and in education. These reinforce the labour cost advantage.

That the demographic dividend argument works is known.¹⁰ For East Asia, several studies suggest that between 25 and 40 per cent of the East Asian miracle was due to the demographic dividend (Bloom, Canning, and Sevilla 2001). Other than East Asia, it has worked in Japan in the 1950s, China in the 1980s, and Ireland in the 1980s and the 1990s. Several factors explain the demographic dividend.¹¹ First, there is the obvious increase in working-age populations, with a reduction in dependency ratios, and the direct impact of a larger quantity of labour input. To take but one dramatic number, between 2001 and 2026, India's total population

is estimated to increase by 371 million and 83 per cent of the increase will occur in the age group of 15–59 years (Office of the Registrar General and Census Commissioner 2006). Second, the quality of the labour input can increase, and this is reflected in what economists call total factor productivity (TFP) growth, measured after netting out the contribution of increased labour and capital inputs.¹² Third, when dependency ratios decline, savings rates increase, leading to increases in investment rates and higher rates of GDP growth. Fourth, if the decline in dependency ratios is at the lower end of the age spectrum as a result of fertility declines, female work participation rates increase.

There are serious issues with data collection exercises of the Central Statistical Organisation (CSO).

The entire manufacturing activities are classified into two broad sectors, viz., manufacturing – ‘registered’ and ‘unregistered’. The registered manufacturing sector covers all factories covered under sections 2m (i) and 2m (ii) of the Indian Factories Act (IFA), 1948 which respectively refers to the factories employing 10 or more workers and using power or those employing 20 or more workers but not using power on any day of the preceding 12 months and bidi and cigar establishments registered under Bidi and Cigar Workers (Condition of Employment) Act, 1966 and employing 10 or more workers using power or 20 or more workers and not using power.

There is thus a dichotomy between registered manufacturing and unregistered manufacturing. For registered manufacturing, data are collected annually through the Annual Survey of Industries (ASI). This is part survey (sample) and part census. Unregistered manufacturing, which also includes own account enterprises, is covered much less frequently, typically once every five years. This is compounded by lack of adequate data on SSI (small-scale industries) and unorganized traditional industries (village and small industries). The discrepancies are remarkable. As a generalization, manufacturing data are therefore somewhat satisfactory for registered manufacturing and extremely unsatisfactory for everything else. There are thus problems in national accounts. Unregistered manufacturing often tends to be clubbed with services, blowing up the service sector contribution and reducing that of manufacturing. One should not drive the point too hard though. The fact remains that the manufacturing share in GDP is fairly low at 16 per cent.

While the shares vary across East Asian countries, and China at 45 per cent is a bit of an outlier, between 25 and 30 per cent is a rough benchmark for East Asia, and the South Asian contribution of manufacturing falls far short. One is arguing that there should be a game plan to take manufacturing’s share to 30 per cent. Manufacturing’s share is a function not only of manufacturing growth, but also of growths in other sectors. For instance, there is no reason why service sector growth

should slow down. And non-manufacturing industry will continue to account for at least 10 per cent of GDP. While agriculture's share in GDP ought to progressively decline, no reasonable projection will assume an agricultural contribution of less than 10 per cent in the next 10 years. That leaves a manufacturing contribution to GDP of 20 per cent and no more, with services contributing around 60 per cent. Anything more than a 25 per cent contribution of manufacturing to GDP is extremely implausible.

Nevertheless, what are the constraints to increasing manufacturing's share to around 20 per cent of GDP? Let us list out the generic problems. These have been discussed several times.¹³ A National Manufacturing Competitiveness Council (NMCC) was set up in 2005. In 2006, this led to a National Strategy for Manufacturing. These generic problems are the following.

Taxation

This has both a direct and an indirect tax angle and the directions for reform are known, involving standardization, harmonization, and removal of exemptions, with reduction in compliance costs.¹⁴

Labour Laws

Labour law reform is usually equated with Chapter V-B of the Industrial Disputes Act (IDA), but the issues are more complicated. Subject to the caveat that labour is on the concurrent list of the Constitution, there are around 45 central Acts (repealing many led to a reduction to 35) and 16 associated rules that deal directly with labour. There are others that indirectly deal with labour, like the Boilers Act (1923), the Collection of Statistics Act (1953), the Dangerous Machines (Regulations) Act (1983), and the Emigration Act (1983). There is thus an issue of unification and harmonization, the lack of which contributes to the inspector raj. Over a period of time, concepts and definitions have changed. So has the case law, contributing to further confusion. After unification and harmonization, one should mention reductions in state intervention, in areas other than industrial relations. The Factories Act is a good example of unnecessary government stipulations, sometimes through resultant rules. The Shops and Establishments Act of 1954 is yet another example.

It is no one's case that welfare provisions should not exist. But are welfare provisions enacted in 1948 or 1954 still relevant? Assuming that they are, is the present government-mandated system with a regime of inspectors the best way to achieve the objective?¹⁵ Each labour legislation has a separate inspector and visits of inspectors are not synchronized across all labour enactments. Barring the

Payment of Wages Act, where a maximum period of three years is stipulated, no other labour statute prescribes a maximum period for which records and registers must be maintained. Compliance is thus impossible and visits of inspectors result in bribery and rent-seeking. This system is not distributionally neutral as it tends to hurt the small scale sector much more than it hurts large scale industry. That apart, returns under various labour laws are not standardized and inspectors insist on maintenance of manual records and registers.

Finally, there is the matter of industrial relations. The three statutes that impinge on industrial relations are the Contract Labour (Regulation and Abolition) Act, the Trade Unions Act, and the IDA. The Contract Labour (Regulation and Abolition) Act was never meant to prohibit contract labour. Section 10 provided the appropriate government the discretion of prohibiting contract labour in selected areas. In fact, in the title of the Act, regulation comes before abolition. Contract labour allows flexibility and permits outsourcing. However, a few court judgements have affected this flexibility. (National Manufacturing Competitiveness Council, 2006).

Next one should mention the Trade Unions Act and its provisions that lead to multiplicity of trade unions. The multiplicity problem impinges on collective bargaining because an agreement with one union is not necessarily binding on others. Finally, there is the IDA and the following is a list of sections where there are problems: Section 9-A, Section 11, Section 11-A, Section 17-B, Sections 22/23, and Chapter V-B/Sections 25-K, 25-L, 25-M, 25-N and 25-O. The argument about Chapter V-B of IDA is indeed a valid one. Labour markets become artificially rigid, employers adopt artificially high capital intensity, and circumvent the legislation. An employer–employee relationship ought to be in the nature of a personal contract, with an optional provision of resorting to the government in case of exploitation. However, the provisions of the IDA make recourse to the government, and thus to Labour Commissioners, mandatory. Unless this rigidity in labour markets is removed, higher growth will not necessarily translate into greater employment. What is involved is not primarily an exit policy for labour. The statute makes it impossible for companies to exit. It is not surprising that organized sector Indian manufacturing should be capital intensive rather than labour intensive (see Kocchar et al. 2006).

Entry and Exit Problems and Administrative Law

Ostensibly, there are no licensing requirements any more. However, this needs to be qualified. For some sectors, licensing still exists. There are limited reservations for the public sector. While FDI caps don't exist in manufacturing, they do exist in several services, including retail. Nor do satisfactory exit procedures exist for the

non-corporate sector. But both on entry and exit, the more important problem is about procedures, not about law, legislation or policy *per se*. This is the broad area of administrative law reform, and if India doesn't perform well on doing Business-type indicators, that is because of these procedural problems, also important for labour law. Administrative law means the subordinate legislation in the form of rules, regulations, orders and instructions from ministries and government departments and these can be at State-level, as well as Central. (National Manufacturing Competitiveness Council, 2006)

Often, constraints to efficient decision-making come about through administrative law rather than through statutory law, and discretion, bribery, and rent-seeking are fallouts. Unfortunately, administrative law is not readily available, and this is especially true at the state level. Administrative law refers to three phases of an enterprise's existence – entry, functioning, and exit. These have been highlighted in reports of the larger chambers of commerce and industry like the Federation of Indian Chambers of Commerce and Industry (FICCI), the Confederation of Indian Industry (CII), and the Associated Chambers of Commerce and Industry of India (ASSOCHAM).¹⁶ But one should not form the impression that big business alone is the issue.

Since transaction costs have economies of scale and scope, they have a distributional angle and hurt the small entrepreneur more. In 2000, the Prime Minister's Council on Trade and Industry also submitted a report on administrative and legal simplifications.¹⁷ Understandably, this had an industry focus and listed the following as industry concerns.

Large number of clearances / permissions required; Complex regulation governing day to day functioning; Multiple agencies regulating operations functioning independently; Lack of co-ordination between various governing agencies; Frequent changes in policies / procedures / tariff structures; Unpredictability of changes; Lack of clarity on issues between Centre and States; Transaction oriented approach of the system instead of a corporate approach, leading to increased costs and delays; Lack of openness and transparency in communication and providing information.

It is not that procedures have not improved anywhere, but the success greatly varies from state to state.

Credit Problems

High interest rates and availability of credit are often cited as problems, as indeed they are. But one must be careful to separate out the price effect from a non-

availability of credit problem. If combined central and state level deficits are high, and there are artificially high guaranteed rates of return on small savings, there will be upward pressures on interest rates. In a capital scarce country, real interest rates will never be as low as global interest rates, although this is qualified by the harmonization that has taken place between global and domestic interest rates. Some parts of the Indian corporate sector are now allowed to borrow globally, though not all.

Why are real interest rates still so high? Other than deficits, small savings, and cross-subsidization to priority sectors at administered rates of interest, one needs to highlight the interest spreads of banks. This masks inefficiencies in the banking system and significant non-performing assets (NPAs). On the latter, it is necessary to recognize that competition means free entry as well as exit. However, that has been addressed in 2016 through the Insolvency and Bankruptcy Code. Nevertheless, as a general proposition, too much capital flows to relatively larger units. There are collateral problems in the SSI sector.

Policy Constraints that Prevent Urbanization and Formalization

For instance, state government policies prevent creation of rural land markets and work against acquisition of agricultural land and its conversion to non-agricultural usage. Understandably, this is linked to issues of compensation, resettlement and rehabilitation, and devising alternative rural or urban livelihoods, a controversy witnessed in recent SEZ and non-SEZ debates. States are reluctant to notify rural settlements as towns, because many subsidies and grants from the centre are geared towards retaining rural status. Urban land markets are also distorted through state intervention. Most land is publicly owned and does not come on to the market. This creates artificial shortages and housing and real estate shortages are compounded by dysfunctional building (and tenancy) laws. For instance, even for the slums, it is possible to un-bundle ownership and create rights for the poor, so that incentives are created for improvement, including loans and the offering of collateral. Urbanization should also lead to formalization and employment in the organized sector.

The Infrastructure Deficit

As a generalization, the infrastructure area where there have been visible improvements is telecom, with roads perhaps following as a somewhat distant second. Some areas of physical infrastructure are state subjects. From the manufacturing perspective, perhaps the most important infrastructure areas are

power, ports, and railways, followed by roads. Two issues remain. First, given scarce government resources, where are these best deployed? Second, again given scarce government resources, what is the scope for private sector involvement? NMCC's aforementioned Strategy document states:

Power supply remains the main physical infrastructure bottleneck to industrial growth on account of chronic shortages, high cost and unreliability. The average manufacturer in India loses 8.4 per cent a year in sales on account of power outages as opposed to less than 2 per cent in China and Brazil. The adverse impact on similar units in the unorganized sector could be higher. It is estimated that power shortage alone contributed to a production loss of at least one per cent of GDP.¹⁸

Clusters and Inter-state Issues

Small firms also suffer from disadvantages. There are asymmetries in the capital market, imperfect knowledge about demand conditions, lack of marketing information and marketing resources, and inadequate access to technology and skills. All these involve fixed costs that are difficult for a small firm to bear alone. But when clusters or hubs develop, there are external economies of both scale and scope, and both fixed and variable costs can be spread over a broader base. Small firm flexibilities are thus best exploited when such clusters and hubs develop. However, rural employment generation has been unsatisfactory in India since the 1991 reforms started.

Ever since the Industrial Policy Resolution of 1948, successive five-year plans and promotional schemes have tried to push growth poles. Before undertaking a fresh cluster development exercise, one therefore needs to ask, why have earlier attempts not succeeded? There are two possible reasons for earlier failures. First, at a conceptual level, there are three kinds of clusters one can visualize – relatively modern, small-firm dominated industrial clusters that often tend to be located in relatively urban areas; artisan and rural industry based clusters; and clusters that are based on the agro-economy. Arguably, most policy interventions have focused on the first of the three, rather than the last two. Second, policy interventions and developmental programmes have tended to be ad hoc, rather than taking a holistic view of what is necessary. For instance, if infrastructure is not developed and development of skills remains a question mark, it is doubtful that marketing interventions alone will suffice. Stated differently, policy interventions alone will not be sufficient to ensure that clusters develop. Nor should one forget that industrial clusters often tend to be located in the relatively more advanced parts of the country. In contrast, artisan-based or agro-based clusters are more evenly distributed spatially.

There are already some policy initiatives directed towards identifying and promoting cluster development. First, there are the industry clusters proper. The United Nations Industrial Development Organization (UNIDO) has identified around 300 industrial clusters across India and is in the process of developing 200 more.

Second, UNIDO and the government have also identified 1,600 artisan clusters that are not quite the relatively modern industrial clusters. These are spatially distributed much more evenly throughout the country and can also feed into the 15,000 retail outlets that the Khadi and Village Industries Commission (KVIC) possesses. If one tracks the 100 clusters already identified by the Industry Ministry, one finds that only woodcraft (Jagdalpur (Chhattisgarh), wood packaging (Srinagar), woodcraft (Madhya Pradesh), handlooms (Shillong), handlooms (Aizwal, Mizoram), and cane and bamboo (Dimapur, Nagaland) fit the artisan cluster category. One should not forget that the employment potential of the artisan sector is considerable.

Third, one should mention the relatively ignored angle of agro-based clusters – ignored except when there is an attempt to push agro export processing zones (AEPZs), such as pineapples (Jalpaiguri, West Bengal), Gujarat, Chittoor (Andhra Pradesh), Karnataka, Tamil Nadu, Udham Singh Nagar (Uttarakhand), and Nagpur, Amaravati, Ratnagiri, Sindhudurg, and Aurangabad (all Maharashtra). But one should also mention the estimated 47,000 *haats* in the country and the estimated 7161 regulated *mandis*. Most of these suffer from inadequate infrastructure and are also characterized by scope of dis-intermediation, which an experiment like ITC's *e-choupal* attempts to tap.

Inter-state disparities have increased post-1991. The use of state boundaries to facilitate our understanding is itself somewhat flawed, since development and deprivation do not follow such administrative distinctions. But there is an in-built bias in favour of using states, since data problems are easier to handle then.

Let us now turn specifically to what has been attempted since May 2014.

A New Paradigm

The government that took office in May 2014 has a fundamentally different economic governance philosophy than any previous Indian government. The core of the new governance manta is captured in the two maxims 'Minimum Government, Maximum Governance'¹⁹ and 'Cooperative and Competitive Federalism'. It is easy to misinterpret 'minimum government' to mean only a radical downsizing of the government. But when combined with maximum governance what it really means is a decisive reduction in the role of the state in areas where its influence is counter-productive and a refocus to areas where its interventions

are required and more likely to be productive. This is of great significance in the context of manufacturing.

The heavy hangover from the Industrial Policy Resolution of 1956 has meant that the state, directly or indirectly, is heavily engaged in the business of doing business. Obviously, this points to the more than 200 functional central public sector enterprises, many of which are engaged in manufacturing (from foods, to textiles, to scooters, to heavy engineering goods) and which by their state-supported (often subsidized) presence drag down the efficiencies and competitiveness of the sectors they operate in. Perhaps more importantly the legacy of the 1956 resolution in terms of the government's licence-inspector raj lives on. Industrial licensing that determined the quantum of supply and prices of commodities for the economy as a whole may have been dismantled in 1991 but other elements of the inspector raj, including prolonged procedures for registering a business, environment laws, labour laws, safety regulation, and intrusive tax bureaucracy, made it very difficult to do business in India.

On the other hand, the inability of the government to create the basic conditions for a successful manufacturing industry continued after liberalization just as it was before liberalization. The fact is that the development of a world-class infrastructure, whether roads, ports, or power infrastructure, is predominantly the role of the government. When, in the early 2000s, it was felt that the government had inadequate capacity to build the infrastructure required, policy turned towards public-private partnerships (PPPs). However, in the short 10 years between 2004 and 2014, PPPs in infrastructure became dens of corruption, rent-seeking, and incomplete projects. It was widely perceived that PPPs meant privatization of profits and a socialization of losses. Certainly, there were some successes like in the building of new airports and the construction of some highways, but the bad eggs outnumbered the successes. In the end, the infrastructure created was insufficient to draw significant investment into manufacturing, a sector that requires first rate power supply at reasonable prices, good roads, and efficient railways and ports.

A similar story of government failure played out in the domain of social infrastructure, particularly education, skills, and healthcare so critical to build the human capital required for a successful industrialization process. The abysmal quality of government provided services in education, health, and skills has resulted in a de-facto privatization of the systems of provision. Unfortunately, the quality of output from both the government and private delivery systems is far from world class, even if the private sector performed better than government in terms of outcomes on the whole.

The mantra of minimum government, maximum governance aims to reverse this perversity in the functioning of government. In the years in office, it has lent unprecedented focus and funds for the infrastructure sector (roads, railways,

and power in particular) and worked on revisiting the failed PPP frameworks of the previous decade. By putting a new focus on implementation and execution, the government is making its agencies accountable for the delivery of top class infrastructure.

The government is also drafting a new education policy and has already launched a massive skilling effort to shore up India's human capital capacity. There is a clear recognition that the delivery systems that worked or failed to work in the past need a revamp. On the other side, it was Prime Minister Modi's stated goal to sharply increase the ease of doing business in India and to eliminate the vestiges of the inspector raj. In the government's first year in office, India's rank improved from 142 to 130 and further to 77 by 2018.²⁰ It is the prime minister's stated aim to take the ranking to 50 in three years.

If the government is able to reorient its role away from unnecessary regulation to the building of a physical and social infrastructure, then minimum government, maximum governance can create the conditions for the rapid growth of manufacturing. The second element of the new approach to governance is embedded in a new federalism where states are treated as equal partners with the union in India's future (cooperative federalism) and where a demonstration effect among states would lead to a race to the top (competitive federalism).

The importance of cooperative federalism was established early on in the first term of Modi's government when the Planning Commission was abolished in August 2014 and replaced with the National Institution for Transforming India, or the NITI Aayog,²¹ in January 2015. The Planning Commission had historically presided over plan' allocations to the states which were symbolic of the states' secondary status in what was constitutionally a federal polity. In addition to the replacement of the Planning Commission, the government also accepted the recommendations of the 14th Finance Commission²² which suggested a much greater devolution of funds to the states from 68 per cent centre–32 per cent states to 58 per cent centre–42 per cent states. The states would now have a much greater financial autonomy to pursue their priorities along with the functional autonomy already granted constitutionally.

Why is a move to cooperative federalism important for manufacturing? For two reasons. First, there are some policy challenges related to manufacturing which are unlikely to be resolved at the level of the union government in any hurry. The two most obvious relate to land and labour laws. The Modi government tried to amend the draconian land acquisition law legislated by the predecessor government in 2013, but the lack of political consensus and the absence of a majority in the Upper House brought the efforts to nought. However, land is a subject on which states can also legislate except that if there is a clash between a state and union legislation, the latter prevails. That is unless the union chooses to give approval to the state for its legislation. On the subject of land, the union government has

encouraged state governments to legislate on their own with the tacit assurance that the centre will not insist on its law prevailing. That is an excellent example of how cooperative federalism can work to solve a vexed problem.

Similarly, on the subject of labour laws, where there are central and state legislations, it makes perfect sense for the union to allow states to experiment with liberalization in their own ways rather than impose a one-size-fits-all labour policy for New Delhi. Some states have already started the experiment – Gujarat, Rajasthan, Madhya Pradesh, Maharashtra, and Haryana have tried different ways to ease labour laws and attract manufacturing.

Of course, since this exercise is voluntary for the states, it is entirely possible that some states will act while others will not. This is why the philosophy of competitive federalism becomes important. There is bound to be a demonstration effect – if some states start to acquire manufacturing and greater prosperity for their workforce by enacting some policy changes, other states will be under pressure from their citizens to do the same. The union government can play a facilitating role in this competition. The launch of an Ease of Doing Business Rankings for states by the Department of Industrial Policy and Promotion in collaboration with the World Bank in which states are ranked just as countries are ranked on the global ranks is an example of a light intervention by the union to nudge the states to act.

A competitive federalism can also help states improve the delivery of social infrastructure like education and health which cannot be delivered successfully in a centralized fashion from New Delhi. The publicizing of best practices, a role to be played by the NITI Aayog, can help improve delivery systems in all states.

It is sometimes easy to forget that India is a sum of its 29 states and 7 Union territories. The traditional Government of India view, both before and after liberalization, favoured a centralized approach for policymaking and programme implementation. And that had only limited success. A complete overhaul of that approach could finally help create the basic conditions for a manufacturing sector to grow. It is important to note that some of India's states have, for some periods of time, grown in double digits, much faster than the India average. It is a fact that some states, like Gujarat and Maharashtra, have developed impressive manufacturing capabilities within the same all India policy framework that other states have failed to exploit. There have to be lessons and learning from the varied experience of states. And these need implementation without any straitjacketing from the union government.

Conclusion

If there is one thing that has never been lacking in the Government of India's policy towards manufacturing since 1948, it is intent. But good intentions have

not translated into good enough outcomes. There have been successes at each stage. During the heydays of socialism, India did develop a strong base in capital goods manufacturing. Later, in liberalized India, the country developed a good base in sectors like automobiles and pharmaceuticals. However, the kind of labour intensive manufacturing which is necessary to employ India's excess workforce currently underemployed in agriculture has never really taken off. Perverse policy that has lingered on after liberalization has certainly played a major role but equally poor implementation capacity in improving infrastructure has dampened the environment for manufacturing. India has planned aplenty but never got policies and implementation quite right.

Now, in the regime of Prime Minister Narendra Modi, there is an opportunity to decisively rid India of the legacy of poor policy and the legacy of poor implementation. A new governance philosophy based on 'Minimum Government, maximum Governance' and 'Cooperative and Competitive Federalism' can be a game changer for manufacturing. It could also finally put India on a fast track to growth with the aspiration of catching up with its peers in East Asia.

The views expressed in this chapter are of the authors and not necessarily of the organization they work for.

Notes

1. For full details of the Make in India programme, see www.makeinindia.com/home.
2. A summary of all the Industrial Policy Resolutions until 1991 can be found at <http://eaindustry.nic.in/handbk/chap001.pdf> (accessed on 30 May 2016).
3. Details of India's SEZ policy can be found at www.sezindia.nic.in (accessed on 29 May 2016).
4. Full details of the project can be accessed at www.dmicdc.com (accessed on 30 May 2016).
5. Full text available at http://dipp.nic.in/english/policies/national_manufacturing_policy_25october2011.pdf (accessed on 1 June 2016).
6. See <http://pib.nic.in/newsite/printrelease.aspx?relid=137814> (accessed on 1 June 2016).
7. For example, see World Bank (1993).
8. See <http://www.country-data.com/cgi-bin/query/r-12318.html> (accessed on 1 June 2016).
9. See, for example, Panagariya (2011).
10. Kelkar (2004), Das (2006), and *Deutsche Bank Research* (2005) are some instances.
11. The empirical and theoretical literature is reviewed in IMF (2004).
12. Some scepticism of TFP estimation is warranted. However, one study that contrasted India and China in two sub-periods, 1989–1995 and 1995–2003, is worth mentioning, since it found that the labour contribution to India's growth was driven more by quantity than quality. See Jorgenson and Vu (2005).

13. Panagariya (2008), Planning Commission (2008: vol. III), and CII-McKinsey (2004) are examples.
14. *Implementation of the Fiscal Responsibility and Budget Management Act, 2003, Report of the Task Force*, July 2004, summarizes both direct and indirect tax reform intentions succinctly.
15. An undated FICCI survey (*Inspector Raj and Administrative Reforms Required for Indian Manufacturing*) mentions an average of 37 annual inspections, with 67 inspections in some cases. In decreasing order of importance, these inspections concern environment, labour, sales tax, excise, provident fund, electricity, Employee's State Insurance (ESI), and industrial safety and health.
16. Many such studies suggest that transaction costs add around 20 per cent to costs of doing business. However, these studies also tend to include infrastructure costs in transaction costs. That is, transaction costs are not procedural costs alone.
17. This was chaired by Kumar Mangalam Birla.
18. For instance, the First Five-Year Plan had the Rural Industrial Estate Programme and the Village Artisan-Oriented Programme. The Second Five-Year Plan had the Common Production Programme and the Pilot Project Programme. The Third Five-Year Plan had the Rural Industries Project Programme. The Fourth Five-Year Plan had the Rural Artisan Programme. The Fifth Five-Year Plan had the District Industries Centre Programme and the Backward Area Scheme. The Sixth Five-Year Plan had the Growth Centre Programme. The Eighth Five-Year Plan had the Integrated Infrastructural Development Programme. And the Ninth Five-Year Plan had the National Programme for Rural Industrialization. That apart, there is the Cluster Development Programme, spearheaded by UNIDO. Specifically, under the National Programme for Rural Industrialization, there was an objective of setting up 100 rural clusters every year, pushed by KVIC, the Small Industries Development Organisation (SIDO), the Small industrial Development Bank of India (SIDBI), and the National Bank for Agriculture and Rural Development (NABARD).
19. For Prime Minister Modi's explanation of the phrase, see <http://www.narendramodi.in/minimum-government-maximum-governance-3162> (accessed on 2 June 2016).
20. See <http://www.doingbusiness.org/rankings> (accessed on 30 July 2018).
21. For how the NITi Aayog is different from Planning Commission, see Bibek Debroy (2015).
22. Recommendations of the 14th Finance Commission available at <http://fincomindia.nic.in/> (accessed on 15 February 2015).

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Manufacturing

The Cornerstone of a Planning Strategy for the 21st Century

Santosh Mehrotra

Although India's gross domestic product (GDP) growth rate since independence has consistently increased decade by decade, industry (including manufacturing, construction, and so on) accounts for only 25 per cent of GDP (in 1950, it was 8 per cent). The manufacturing sector contributed in 2017 only about 16 per cent in the GDP, stagnating since economic reforms began in 1991. By contrast, in some Asian economies, the share of industry has exceeded 30–40 per cent while that of manufacturing, 20–30 per cent. For example, Malaysia roughly tripled its share of manufacturing value-added in GDP from 1960 to 2014 to reach about 24 per cent, while Thailand's share increased from 13 per cent to 33 per cent over the same period (Mitra et al. 2017); Vietnam too has seen a sharp increase in recent decades. In India, manufacturing has never been the leading sector in the economy other than during the second and third plan periods, and certainly not since the economic reforms.

No major country in the world has managed to reduce poverty or sustain growth over long periods of time without the manufacturing sector becoming the lead sector, driving economic growth. This is because productivity levels in industry (and manufacturing) are much higher than in either agriculture or services, and it has historically proved to be the source of productivity gains across the primary and tertiary sectors, through the spread effects of technological change. Manufacturing is an engine of economic growth because in addition to higher productivity, the manufacturing sector offers greater opportunities for economies of scale, for embodying technological progress and generates forward and backward

linkages that create positive spillover effects in the economy. The growth in services after manufacturing growth is very different in nature – it is in research and development (R&D) and high-end services – while without manufacturing, they are in low-end and fragile services. This is because manufacturing provides a strong technological base in the country. Not surprising that Rodrik (2011) has demonstrated that countries with larger manufacturing sectors grow faster.

Almost all organized sector industries saw accelerated growth of output and employment from 1991–1992 to 1995–1996 (with minerals and metals, machinery, automobiles, and chemicals and petrochemicals out-performing). However, this growth of organized manufacturing decelerated between 1996–1997 and 2001–2002. Organized manufacturing employment increased sharply, by 1.5 million, during the first half of the 1990s, and fell by 1.1 million in the second half of the 1990s.

Despite the stagnation in the organized employment growth, total manufacturing employment in India increased by 23 million (from 32.2 million to 55.2 million) between 1983 and 2004–2005. So, the expansion of manufacturing employment in India during the early 1980s to the middle of the 2000s occurred largely in micro and small units in the unorganized sector. The growth of employment and output of the organized manufacturing sector (as well as of overall GDP) revived during the early 2000s. Factory sector employment in India increased from 8.5 million in 2004–2005 to 13.4 million in 2011–2012. That was remarkable compared to the near ‘jobless’ growth that characterized this sector for the two-and-a-half decades since the 1980s (Thomas 2019).

However, between 2004–2005 and 2011–2012, overall manufacturing employment in India increased only from 55.2 million to 61.3 million – an increase of only 5.1 million new jobs (while organized manufacturing employment had grown during this very period by 4.7 million new jobs). Thus, between 2004–2005 and 2011–2012, the growth of employment in the manufacturing sector in unorganized sectors decelerated (Thomas 2019).

How can this situation of manufacturing share in India remaining stagnant in output and employment be changed? This is the question that this chapter addresses. We argue that in the absence of a well-articulated, well-defined industrial strategy, which itself must be part of a nation-wide planning framework (with its state-wise components), and which must be backed by an institutional set-up (government institutions, human resources, and so on – that are discussed in the last chapter), the transformation of India into a major manufacturing nation (and for that matter a great power), characterized by fast GDP growth with poverty reduction, remains out of the question. However, this must not be interpreted to mean that we can go back to protecting Indian manufacturing in the way India did before 1991.

Why an Industrial Strategy/Policy for the 21st Century?

In all East and South-east Asian countries, industrial policy was planned and executed as part of five year or longer-term plans – regardless of whether it was Japan, China, South Korea, Malaysia, Thailand, Indonesia, or the Philippines. In fact, as we argue in this book's last chapter, it was precisely because these countries had planning institutions – which went hand in hand with industrial policy – that the East and Southeast Asian countries managed to steer policies through turbulent times in the global economy, thus sustaining growth. They did not, unlike much of Latin America/Caribbean or Sub-Saharan Africa, experience 'lost decades' in the 1980s and 1990s.

When the market economies of the United States and Europe were hit by the global economic crisis of 2008, the same proponents of neoliberal policies started to undertake strategic government efforts to revive their industrial sectors defying in principle their own prescriptions for free markets and trade. The European Union (EU) has, for instance, identified sector-specific initiatives to promote sectors like motor vehicles, transport equipment industries, energy supply industries, chemicals, and agro food industries. The United Nations Conference on Trade and Development (UNCTAD) (2018) found that over 100 countries have in the second decade of the new millennium articulated industrial policies.

The US government, as Wade (2012) points out, has been pursuing selective industrial policy since decades, nurturing its industries with the aid of defence, health, and intelligence agencies, and especially promoting new technology across sectors. The US government funded the setting up of manufacturing innovation institutes to build what they call the National Network for Manufacturing Innovation.

The Theoretical Rationale for Industrial Policy in India

For the benefit of sceptics, we deliberately start with the *theoretical justification by mainstream economists for industrial policy*. There are plenty of sceptics in India itself, who want the Indian state to steer clear of a 'command and control' economy, which harks back to the pre-1991 days. However, no one believes that the South-east or East Asian economies were or are 'command and control' economies. What characterized them were industrial policies, with agile bureaucracies. But first, let us remind ourselves that even neoclassical economists accept government intervention in case of market failures. Mainstream economists point to specific instances of market failure that require government measures in the form of industrial policy: (a) deficiencies in capital markets usually as a result of information asymmetries; (b) lack of adequate investments inhibiting exploitation of scale

economies; (c) imperfect information with respect to firm-level investments in learning and training; and (d) lack of information and coordination between technologically interdependent investments (Lall 1996; also Birdsall et al. 1993). These are good reasons why a planning mechanism that is economy wide should be in place in such a large economy as India.

Chang (2003) noted that the *East Asian Miracle* study (Birdsall et al. 1993) did recognize three justifications for industrial policy. The first, in its view, was the need to *coordinate complementary investments* when there are significant economies of scale and capital market imperfections. In other words, industrial policy is needed for a big push in investments – something the East Asians were able to achieve. Second, industrial policies are needed to address *learning externalities*, such as subsidies for industrial training. In fact, industrial policy was reinforced by state investments in human capital, particularly general academic as well as vocational education/training (VET) aligned with the industrial policy, in most East Asian countries (Lee and Mehrotra 2017; Mehrotra and Acharya 2017). However, the lack of such investment in human capital (education, vocational skills, or health) has been a major constraint upon India being able to attract foreign investment in the first half century of development, which the Southeast Asian economies succeeded in doing.

Third, the state can play the role of *organizer of domestic firms into cartels* in their negotiations with foreign firms or governments – a role that has become particularly relevant in the 21st century after the big business revolution of the 1990s (following mega-mergers and acquisitions among transnational corporations [TNCs]) (Nolan 2003). In fact, given that China is one of the only few late industrializers that had been unable to create a large number of mega firms with an international reputation, one of the objectives of China's industrial policies since the 1990s has been to support the growth of such firms (with limited success, for example Lenovo computers and Haier home appliances).¹

There are three other very important reasons why developing economies need industrial policy (Chang 2003; Rodrik 2000). First, the role of industrial policy is to not only prevent coordination failures (that is, ensure complementary investments) but also *avoid competing investments* in a capital-scarce environment. Excess capacity will lead to price wars, adversely affecting profits of firms – either leading to bankruptcy of firms or slowing down of investment, both of which have been happening often in India, for example, in the airlines sector since the entry of private airlines since 1993, which have seen a bloodbath with five new airlines going under in the last 10 years. Even worse, price wars in the telecom sector in India have slowed profits (even caused losses), which hampers investment in mobile/internet coverage of rural India where access to mobile phones, let alone broadband internet, needs rapid expansion, and yet the digital divide between rural

and urban India persists. The East Asian states managed this role of industrial policy successfully. India, on the other hand, has not had an industrial policy at all in the over quarter century since 1991.

Second, industrial policy can ensure that the *industrial capacity installed is as close to the minimum efficient scale as possible* through policy measures such as investment licensing, forced mergers, and export requirements. Choosing too small a scale of capacity can mean a 30–50 per cent reduction in production capacity (Chang 2003); there is plenty of evidence of this phenomenon in India, as demonstrated by the unbridled growth of the unorganized segment in manufacturing. This is another role industrial policy performed in East Asia. The missing middle among Indian enterprises we have discussed elsewhere (Mehrotra 2016; Mehrotra et al. 2014) is nothing short of a failure of industrial strategy. A major factor contributing to the missing middle phenomenon was the reservation of products exclusively for production in the small-scale and cottage industries (SSI) sector since the 1956 Industrial Policy Resolution of the government of India. By the end of the 1980s, as many as 836 product groups were in the ‘reserved’ category, to be produced only by the SSIs. Astonishingly, this policy of reservation, with larger firms completely excluded from producing these products, lasted not just till 1991. In 2005, there were still 500 products in this category, that is, a full decade and a half after economic reforms were launched. Thereafter, the reservation of products of small firms was cut sharply to 16 products.

Finally, when *structural change is needed, industrial policy can facilitate* that process. In a fast-changing market, losing firms will resist and block structural changes that are socially beneficial but that will make their own assets worthless. Under those circumstances, industrial policies must help such firms. East Asian governments prevented such firms from undermining the process of structural change, such as orderly capacity-scraping between competing firms and retraining programmes to limit such resistance.

Unfortunately, however, the potential role of industrial policy has been consistently downplayed in developing countries outside of East Asia ever since the early 1980s after the growing dominance of the orthodox paradigm – with well-known consequences in much of Latin America and also Sub-Saharan Africa.

The East Asian miracle was very much founded upon export-oriented manufacturing, which employed the surplus labour released by agriculture, thus raising wages and reducing poverty rapidly. This strategy was the outcome of conscious, deliberate planned strategy. The growing participation of East Asian countries in global value chains (GVCs), graduating beyond simple, manufactured consumer goods to more technology- and skill-intensive manufactures for export was a natural corollary to the industrial policy. India has been practically left out of GVCs.

Increasing export of manufactures will need to be another rationale for an industrial policy, even though India has to focus more on ‘make for India’. The economic reforms of 1991 did lead to significant rise in India’s exports-to-GDP ratio. The exports-to-GDP ratio had barely risen from 4 per cent in 1960 to 7.1 per cent in 1990. However, by 1999 it had risen, though slowly, to 11.6 per cent. It took off thereafter to 18 per cent by 2004, and to 24 per cent by 2008, falling after the global crisis slightly, before recovering to 25.4 per cent in 2013. Unfortunately, there was regular decline thereafter: 23 per cent in 2014, 19.8 per cent in 2015, 19.35 per cent in 2016, and further to 18.9 per cent in 2017. From 2014 to 2018, there has been an absolute fall in US dollar terms in merchandise exports.

Never high, India’s global export share is much lower when compared with other export-oriented emerging economies like China (13.2 per cent), South Korea (3.1 per cent), Mexico (2.3 per cent), and Singapore (2.1 per cent). Exports are critical to countries acquiring a reputation as manufacturing nations. Merchandise exports account for 19 per cent of GDP in China, 35 per cent in South Korea, and 15 per cent in Bangladesh. *Exports* need to grow at 26.5 per cent annually for the next five years for *India* to reach a ‘respectable’ 5 per cent *share in world* trade from its current level of 1.7 per cent (2017).²

In this quest for increased exports, economies of scale are critical. Such economies were not possible with the policy-induced growth of micro-enterprises and informal units (the unorganized sector accounts for 45 per cent of India’s exports). What emerged in India as a result of reservation of products and a bureaucratic licensing of capacity for organized sector firms was the missing middle (also see Mehrotra et al. 2014; Mehrotra and Giri 2020). Whereas the unregistered manufacturing component generated only 33 per cent of the total output³ of the manufacturing sector in 2010–2012, it provided 65 per cent of manufacturing employment. As a result, labour productivity in the unorganized manufacturing sector is very low. Conversely, labour productivity is higher in organized manufacturing, but fewer jobs are generated.⁴

If evidence is still needed that the state’s role will be critical to manufacturing growth in India, the state’s role in the success story of India’s information technology (IT) industry must be put on record (Shankar 2018). The government invested in creating high-speed internet connectivity of global standards with the US for the IT software parks, long before the telecom modernization in India, enabling integration of the Indian IT industry into the US market. Second, the government then brought trade in services into the regulatory framework of imports and exports, allowing the IT industry to import duty-free both hardware and software and also provided it all the incentives available to exporters of goods. Third, the IT industry was able to function under the Shops and Establishment Act; hence, it was not subject to the 45 laws relating to labour and the onerous

regulatory burden these imposed. Finally, the IT sector had the benefit of low-cost high-value human capital created by public investments a generation earlier in scientific and technical education. Without all these, the IT success story would not have occurred. These offer insights to the potential for industrial policy.

We turn now to the instruments that must form part of India's industrial strategy at the current conjuncture.⁵

India – Essential Elements of an Industrial Strategy for the 21st Century

In India, there was no national manufacturing policy between 1991 and 2011 (as we noted earlier).⁶ A 1991 Industrial Policy reduced the barriers to entry for private industry (ending industrial licensing, deregulation, abolishing the Monopolies and Restrictive Trade Practices Act, and attracting foreign direct investment [FDI]), reduced the sectors reserved for the public sector from 17 to 8 (apart from beginning disinvestment in the public enterprises), and significantly reduced import duties. This remained the thrust of policies over two decades.

By the late 2000s, the need for an industrial policy was being felt. Hence, in 2011, a National Manufacturing Policy was announced. However, by this time, the very rapid reduction in tariffs (as we discuss later) led to Chinese and other imports flooding the Indian market with capital goods, intermediates, as well as consumer goods.

Not surprising that by 2012, when the 12th Five-Year Plan was being drafted, there was finally a firm view, reflected in this quote from its Industry chapter: 'In other words, the critical question now is not whether there should be an industrial policy but what should be the architecture of the industrial policy' (Planning Commission 2013: 54).⁷

A Trade-cum-industrial Policy

While the most severe effects of open-economy policies on India's manufacturing were felt from the early 2000s onwards, those effects had begun in the 1990s. In manufacturing, the simple average tariff fell from 126 per cent in 1990–1991 to 36 per cent in 1997–1998, then to 12.1 per cent in 2014–2015 (Singh 2017). Tariffs were reduced to well below the upper bound of rates permissible under the World Trade Organization (WTO) rules.

This is not to doubt the significant positive impact on the economy resulting from the economic reforms of 1991 (Ahluwalia 2002, 2006; Panagariya 2008), but although manufacturing output grew in absolute terms, its share has been

stagnant for over 25 years. At the same time, GDP growth in India was led by the services sector. Within the services sector, communications, software, and air transportation experienced high growth since the early 2000s. The growth of these services has been accompanied by a sharp rise in import demand for manufactured goods – computer hardware, telecom equipment, and aircraft. So, economic liberalization, while contributing to growth in the services part of the GDP, had the reverse effect on the manufacturing side.

This situation from 2001 onwards was not helped by the spate of free trade agreements (FTAs) that were signed by India, which led to what is known as an inverted import duty structure. This duty structure has the following features: higher duty on intermediate goods compared to final/finished goods, with the latter often enjoying concessional custom duty under some schemes since 2012 (FICCI 2012–2018). Due to this duty structure, domestic manufacturing units end up importing finished goods from China, Europe, and East Asian countries. On account of these factors, the trade deficit in the case of manufacturing on account of sustained global/import competition was 44 per cent of manufacturing GDP during 2008/09–2010/11).

A 2016–2017 study (Pant 2017) identified the areas where inverted duty structure (IDS) may exist in manufacturing sectors in India chosen for the study. Thus, from a survey of 67 firms representing five key sectors (capital good, electronics, textiles, garments, and automobiles), they found some evidence of IDS in the case of electronics and capital goods. In the case of electronics, the study found IDS in the case of desktop computers, and in the case of capital goods, grinding machine and computer numerical control (CNC) machines.

The one sector studied that did not face an IDS and prospered in India was automobiles. In this sector, most of the final goods are under the negative list of imports, whereas components are not. Most favoured nation (MFN) tariff rates have been also quite high for importing vehicles in completely built-up form. However, duties are quite low for the completely knocked down version of the vehicle which is expected to promote local assembling of the vehicles. Some components have also similar duties under MFN, but many of them attract lower duties under various FTAs especially under India– Association of Southeast Asian Nations (ASEAN) FTA. Hence, *prima facie*, the duty structure is in line with promoting domestic production in the automobile sector. Not surprisingly, India has become in the last 15 years or so one of the largest manufacturers of motor vehicles in the world of all kinds – two wheelers, three wheelers, cars, trucks, and buses.

However, one must note that nearly 30–35 per cent of the auto components used by original equipment manufacturers in India are imported. India is a net importer of auto components, with \$13 billion of imports versus \$11 billion of exports.

There is a second related issue associated with the lack of manufacturing growth in India since 1991. The import intensity of manufacturing production has dramatically increased. One of the structural trends visible in the manufacturing sector is the rising import ratio in output. The integration into the international markets is, however, asymmetric with import penetration almost doubling, whereas exports increased by only 20 per cent (Mohanty 2013). This often encourages manufacturers to import final goods from China and other neighbouring countries as costs of production at home turned higher than imported final goods. Many countries in the world have witnessed a rising share of China in their import basket. The contrast with China is instructive: imports rose in China as well, but (as in Korea) the importers generated much greater exports, giving China a formidable current account surplus and a war-chest of ever rising foreign exchange reserves.

For India, an upward trend in import intensity since 2003 explains capital intensity, to some extent. Also, firms spending more on technology imports and/or capital goods imports are those which are larger and have a higher foreign equity holding, with new plant and machinery which have a higher import intensity of output. The implication is that manufacturing would be characterized by 'jobless growth', while the number of youth joining the labour force would rise.

There is a structural dimension to the rising capital-intensity of manufacturing, which is a global phenomenon. Rising capital and skill intensity of manufacturing, as Rodrik (2016) argues, has limited the worldwide capacity of the manufacturing sector to absorb labour. According to him, it will not be possible for the next generation of industrializing countries to move 25 per cent or more of their workforce into manufacturing, as was accomplished by the East Asian economies. However, that should not mean that India cannot attempt to increase manufacturing share in GDP or share of employment above the current 12 per cent, relying both on the domestic and export markets.

There is a third dimension to India's manufacturing production pattern, linked to the second dimension of *rising import-intensity of manufacturing in India*. Veeramani (2012) argues that in the post-reform period (1993–1994 to 2010–2011), India's commodity composition of exports underwent consistent changes in favour of capital- and skill-intensive products. This could have some long-term dynamic effects on the economy, but it should also be a source of concern. The share of these products in India's export basket more than doubled from about 25 per cent in 1993 to nearly 54 per cent in 2010, while the share of unskilled, labour-intensive products halved from 30 per cent to 15 per cent per cent.⁸ The lack of dynamism in labour-intensive exports is a matter of grave concern, since these are among the products that must absorb the youths that are getting greater education and joining the labour force at a rate of at least five million per annum every year over

2011–2012 to 2015–2016; in fact, their number will only grow much faster all the way to 2030.

We are making the case for an integrated trade-and-industrial policy, which means that the Ministry of Commerce and Industries and the Department of Industrial Promotion and Policy (DIPP) and the Ministry of Finance (MOF, which takes a final view on taxes) will need to work together on such an integrated trade-and-industrial policy.⁹ Currently, the Tariff Commission, to which Federation of Indian Chambers of Commerce & Industry (FICCI) has been sending complaints consistently, is perceived as an unimportant body with no voice within DIPP. The National Manufacturing Competitiveness Council was disbanded by the changed government in 2015 (although some of its representations in DIPP were heard in respect of mobile handsets manufacturing, though too little too late happened since then, since all domestic manufacturers are merely screw-driver-based assemblers for imported components). There is no constituency for manufacturing in any ministry, especially MOF.

Surveys since 2012 by the FICCI (available each year till 2018) had been showing that a range of industries were exhibiting evidence of IDS.¹⁰ However, except in electronics after 2014, there was very little action attempted by the government to correct the situation. The 2017 FICCI survey notes that while the levied duties on finished products might be at par with duties on respective raw materials, the trade arrangements magnify inversion. These are the South Asian Free Trade Area, imports from Japan and Korea under FTAs, and FTAs with South-east Asian countries. It states that impact of duty inversion on domestic value addition can be assessed from the fact that the ores and concentrates used as raw materials facing higher duties (than the final products) constitute 90 per cent of total input costs. The 2017 FICCI survey mentions the following final products affected: LCD panels for TV, air-conditioners, washing machines, and refrigerators. Similarly, the 2018 survey notes that while natural rubber (used to make tyres) is in India's negative list in all major trade agreements, tyres are included in FTAs as eligible for import at concessional rates, 'despite adequate domestic capacity into India (especially from China)' (p. 13).

IDS constitutes negative protection in India's merchandise industries. This is because if effective rate of protection (ERP) is positive in the presence of IDS, then the latter may not affect domestic industries as the structure of tariff is still giving them protection.¹¹ But if the opposite holds true, then the tariff structure may severely impact the domestic as well as international position of India's manufacturing industries, which are increasing slower than potential growth since 1991.

A study of effective rates of protection in Indian manufacturing, with a view to examining the effect of IDS (Pathania 2017), shows that, as per the value-

added statistics, IDS exists in paper and paper products, chemical and chemical products, pharmaceuticals, computer, electronics and optical products, machinery and equipment, and other transport equipment for the majority of the years under consideration. Another study by Hoda and Rai (2014) had also reported existence of IDSs in electronic products such as refrigerators, air conditioners, washing machines, and microwave ovens. The higher the extent of positive protection, the lesser is the chance of IDS. This is obvious because higher extent of positive protection means more tariff on output (Pathania 2017).

TABLE 11.1 Tariff rates by unprocessed, semi-processed, and processed goods (%), 1990–2015

	1990– 1991	1993– 1994	1995– 1996	1996– 1997	1997– 1998	2010– 2011	2014– 2015
Unprocessed	107	50	27	25	25	22.5	23.5
Semi-processed	122	75	44	38	35	8.6	9
Processed	130	73	43	42	37	12.2	13.6

Source: Pathania (2017).

Table 11.1 provides clear evidence of how the situation changed over 25 years since economic reforms. It shows the fall in tariff rates imposed on imports of processed, semi-processed, and unprocessed goods during the years 1990–1991 to 2014–2015. However, notice how the situation completely reverses after 1997–1998 through the noughties, leading to IDS. Instead of IDS, what should have prevailed is the following: tariff escalation where import duties on semi-processed products are higher than on raw materials, and higher still on finished products. This practice protects domestic processing industries and discourages the development of processing activity in the countries where raw materials originate.

This issue has time and again been highlighted by industry, and the government has taken note of the issue. In the budget for 2014–2015, the government had, with a view to boost domestic manufacture and also to address the issue of inverted duties, reduced the basic customs duty (BCD) on various inputs or components. The BCD had also been reduced on various key inputs in order to encourage new investment and capacity addition in the chemicals and petrochemicals sector. This initiative was carried forward in the budget for 2015–2016, in which the rate of BCD was reduced on 22 key inputs/components across various sectors.

However, the existing FTAs contain long-term contractual obligations, which cannot simply be tailored or modified. Although the government can consider invoking the ‘safeguard clause’ (embedded in most of the FTAs to sanction the adoption of counter-measures to guard a domestic industry facing ‘threat of serious injury’ from substantial imports), maintaining a symmetry between applying the

safeguard measures and striving for the objective of trade liberalization is always a challenge.

The goods and services tax (GST) does attempt to deal with the issue of IDS in a specific clause. The law provides for refund of unutilized input tax credit (ITC) where credit accumulation is on account of IDS, subject to certain riders. It should be noted that no refund of unutilized ITC is allowed in cases where the goods exported out of India are subjected to export duty. However, we don't believe that this action is sufficient to counteract the pervasive and persisting effects of IDS across a range of sectors. Given the fact that, as we discussed above, there is evidence of negative protection (based on the ERP estimates), the GST provision for ITC cannot override the adverse effects of IDS. A much more serious action is required. All the GST has managed to do is neutralize the negative protection, and possibly level the playing field; but levelling the playing field for the potential domestic manufacturer cannot lead to a manufacturing sector investment boom, whether Indian or foreign led.

Who will take action in this matter and carry out this constant coordination and alignment between the various ministries? This requires a permanent body of experts from various fields, who have the power not merely to advise; this body must have the convening power and authority of either the Prime Minister's Office, or a much more powerful Planning body than either the erstwhile Planning Commission or the current NITI Aayog. In other words, what India needs is the equivalent of China's National Development and Reforms Commission (see more in Chapters 1 and 14 in this book).

Packages for Specific Industries (Not Enterprises)

The most labour-intensive manufactures are food processing, leather and footwear, wood manufactures and furniture, and apparel and garments. These product groups account for 50 per cent of manufacturing employment in India (which was responsible for 60 million of the total employment in India of 475 million in 2011–2012). Unfortunately, however, it is the unorganized segment of the enterprises in these labour-intensive manufacturing firms that employ most workers, not the organized segment. Perhaps this could be one reason for their relative neglect.

In addition to the usual problems that beset all manufacturing (for example, poor infrastructure, uncertain electricity, and the poor record of the Indian state on 'ease of doing business' [EDB] until recently), each of these sectors have special problems and each deserve individual attention through a government package of policies in specific states where these activities are concentrated. Thus, Subramanian and Verma (2016) find that, drawing upon World Bank employment

elasticities, rapid export growth in these sectors could generate about half a million additional direct jobs *every year*. Nearly every successful economic growth take-off in post-war history in East Asia was associated with rapid expansion in apparel exports in the early stages. The ratio of jobs created for each unit of investment (in INR) is as follows: 31.1 jobs in apparel, 2.6 jobs in automobiles, and 1 job in the steel sector (based on Annual Survey of Industries, 2013–2014). India could take part of the market share that China is losing in international markets due to rising Chinese wages. But India is losing to Bangladesh, Vietnam, and even Myanmar and Ethiopia. Why?¹²

Subramanian and Verma summarize the reasons. First, logistics. The cost and time involved in getting goods from factory to destination are higher than in other countries. Second, labour costs could be an advantage, but not really for several reasons: (a) regulations on minimum overtime pay; (b) onerous contributions that become de facto taxes for low paid workers; (c) lack of flexibility in part-time work; and (d) high minimum wages in some cases. One indicator is that Indian apparel firms are smaller compared to firms in China, and even Bangladesh.¹³ Third, world demand is shifting towards clothing using man-made fibres while Indian domestic tax policy favours cotton-based production, and tariff policy protects an inefficient man-made fibre sector.

Garments and apparel in 2016 received such a package, as did leather sector in 2017. However, close on the heels of these packages came demonetization of high denomination currency notes (in November 2017). The cow slaughter ban disrupted the cattle trade in the country, and leather production collapsed (just as beef exports, in which India was the world's largest exporter, fell). All unorganized sector producers suffered, including these sectors. The government policy packages for these sectors came to nought as a result. Hence, these and other labour-intensive sectors (wood and furniture, food processing) deserve consistent support over long periods of time for them to compete internationally, as jobs in these sectors are vacated by China.

High-end, technology- and skill-intensive large-scale manufacturing will also need greater attention of industrial strategy making/implementation. Our argument is that policy must go beyond the traditional labour-intensive sectors. Electronics are not very labour intensive as final products. But seen in terms of the component and supply chain, it is a sector that creates a lot of jobs.

Moreover, India is the largest importer of defence equipment in the world. Between 2004–2008 and 2009–2013, India's share of international arms imports increased from 7 to 14 per cent. Russia remained India's largest supplier of arms in 2013–2017. Russian arms were 62 per cent of India's imports. But imports from the US increased by a whopping 557 per cent between 2008–2012 and 2013–2017. The US remained India's second largest arms supplier (SIPRI 2018).

Defence Equipment Manufacture

Clearly this import dependence needs to change. It needs a medium-term framework, a planning strategy with a vision, and then an action plan; it cannot be done without a planning institution. Domestic manufacture will save foreign exchange; it can build technological capacity for civilian manufacturing; it will grow new skills. If we export defence equipment, it can generate foreign exchange. Very importantly, it will generate jobs in the organized sector domestically instead of creating jobs for countries from where India imports defence equipment. Just as India's space missions and nuclear R&D have dual civil–military use, so does defence manufacturing. Moreover, being import dependent means at the time of a war, the supplier may not provide the support needed.

For five decades after independence, there was no private sector participation in defence equipment manufacture. Indian defence production was confined to defence public sector units (DPSUs) until 2001, in more than 50 Defence Research and Development Organization (DRDO) facilities, 41 ordnance factories, and 9 DPSUs. Decades of defence ties with Russia did not result in an Indian domestic defence industry. This is happening in recent years, with the private sector as partner (Tata, Mahindra, and L&T).¹⁴

The emergence of an automobile industry in India in the last two decades has demonstrated, through growing private sector participation, what is possible. But the defence industry, unlike the automobile sector, operates in a monopsonic market with the government as the only buyer, leading to greater business unpredictability for private players in defence, both foreign and domestic. India would need to encourage exports to reduce this unpredictability.

The aim should be to make India a design, development, manufacturing, and export hub for defence equipment, just as China succeeded in doing within 10 years between 2000 and 2010. Globally, China has surpassed Britain, France, and Germany as an exporter of arms, 70 per cent of which are supplied to neighbouring Pakistan, Bangladesh, and Myanmar. From the US, India has purchased weapons worth around US\$10 billion over the five years preceding 2014, but without any transfer-of-technology (ToT) clauses; future acquisitions should include ToT clause.

For Make in India in defence, FDI will be needed because of heavy capital and technology requirements, the existence of global supply chains involving multiple vendors (which will take time to build in India), and the need to rapidly implement projects to avoid obsolescence. However, the reality in 2019 is no different than in 2014, despite the promise of the Indian government to develop defence manufacturing as never before. As a retired Indian Navy chief noted: 'In 2014, it seemed that India's military-industrial complex would be jolted awake by PM

Modi's inspiring exhortation to "Make in India". But four years later, an indifferent politico-bureaucratic system has reduced it to a sterile slogan' (Prakash 2018).

But above all, to become a major defence manufacturer, India may need to re-examine its structure of governing defence production, as the Chinese did in 2000. Earlier, the Chinese defence industry was separated, Soviet style, between R&D and manufacturing units.¹⁵ The Chinese leadership allowed the military a central role in overseeing the defence industry. With end users involved, the result was a surge in innovation. In 1998, the Chinese defence industry filed for 313 patents and in 2010, for 15,000 patents. India's defence industry today mirrors its Chinese counterpart in 1998. The R&D element (the DRDO) functions separately from the manufacturing segment (the defence PSUs). Clearly, there is a need to question the present system of a centralized DRDO responsible for technology and system development with production enterprises making only modest efforts in R&D. Both platform development and production are integrated in the case of all Western defence firms. As Shah (2017) wisely asks: 'Could not the successful experience of ISRO [Indian Space Research Organization] and Atomic Energy of working in genuine development partnerships with Indian firms to develop almost all that they needed to overcome the handicap of the international technology denial regime be replicated?'

Solar Equipment Manufacture

The same applies to solar energy, whose potential in India is huge. But it should also offer a manufacturing opportunity, and the government is a near monopsonistic buyer. India is regarded by the global solar industry as one of the most promising markets, but low-cost Chinese imports have undercut India's ambitions to develop its own solar technology suppliers. Imports, mostly from China, account for 90 per cent of sales in 2017, up from 86 per cent in 2014.

Substituting for imports requires, as in any manufacturing sector, capabilities in three areas: (a) human, (b) technological, and (c) capital in the form of finance. On the first two capabilities, the supply chain of solar photovoltaic panel manufacturing is as follows: (i) silicon production from silicates (sand), (ii) production of solar grade silicon ingots, (iii) solar wafer manufacturing, and (iv) PV module assembly. The capital expenditure and technical know-how needed for these processes decrease from items 1 to 4, that is, silicon production is more capital intensive than simply module assembly. Most Indian companies are engaged in either only module assembly or both wafer manufacturing followed by module assembly. No Indian company is involved in silicon production, although a few are making strides towards it.

So we do not see the domestic players, in the short term at least, replacing imported ones. While the safeguard duty now puts locally made panels on par with imported ones in terms of cost, the domestic sector needs to do a lot more to be effective. For instance, it will have to go down the supply chain and make the input components locally instead of importing them and putting the modules together here. Public procurement is the way forward (Shankar 2018). Government are still free call out bids for solar power plants with the requirement that these be made fully in India. This would not violate any WTO commitment. However, no bids would be received normally as manufacturing facilities for these do not exist in the country. But if the bids were large enough with supplies spread over years, which gives enough time for a green field investment to be made for manufacturing in India, then bidders would emerge, and local manufacturing would begin.¹⁶

China's cost advantage derives from capabilities on all three fronts (mentioned earlier). The first is that the six largest Chinese manufacturers had core technical competence in semiconductors, before they turned to manufacturing solar cells 15 years ago. It takes time for companies to learn; hence, we discuss learning by doing separately in a later section (see Mehrotra 1990 for further discussion). So, when the solar industry in China began to grow, Chinese companies already possessed the know-how. Experts suggest that the human and technical learning curve could be from five to ten years. Indian companies had no learning background in semiconductors when the solar industry in India began to grow from 2011. India's state governments need to support semiconductor production *now*, as part of a determined industrial policy to develop this capacity for the future.

The second source of cost advantage for China comes from government policy support – which should point the direction to Indian policymakers. The Chinese government has subsidized land acquisition, raw material, labour, export, among others. Not so in India. Perhaps even more important is the commitment by government to procure over a long run – without that, the investment in building up the design and manufacturing for each of four stages of production of solar power equipment would come to nought. Thirdly, the cost of debt in India is highest in the Asia-Pacific region. While cost of debt in China is about 5 per cent, it is about 11 per cent in India.

Fifteen years ago, the Chinese could also have remained dependent upon imports from Korea or Germany; they did not. For India, remaining dependent on imports only leads to short term benefits. A continuation of the current approach means India's energy sector will be in the same condition as its defence industry, where enormous amounts of money have been spent procuring weaponry.

The Indian government allows in the solar panel manufacturing sector 100 per cent foreign investment as equity, and it qualifies for automatic approval. The

government is also encouraging foreign investors to set up renewable energy-based power generation projects on build-own-operate basis.

But the Chinese government is clearly adopting an aggressive stance. The Chinese are aware about the growing demand for solar power in India, and the government's commitment to renewables. In 2018, China cut financial support to developers and halted approval for new projects in June. As a result, Chinese producers will cut prices to sustain their manufacturing plant capacity utilization by sustaining exports to India. In other words, the Chinese strategy is to undercut any planned effort by India to develop the entire supply chain capacity within India – so that dependence on imports from China continues.¹⁷

Addressing the 'Missing Middle' by Cluster Development for Micro, Small, and Medium Enterprises

One purpose of industrial policy is for the government to encourage scale economies, by encouraging growth of small firms into bigger ones – to fill in the missing middle. A serious policy for development of modern industry clusters has to be put in place, which requires a focus on brown field (not just green field) sites. Cluster programmes are administered by several ministries (textiles, leather, food, micro, small and medium enterprises [MSME], and heavy industry [auto]) under various names and different terms and conditions. This fragmentation of policy must end. Serious planning for clusters across the country requires industrial planning, both at federal and state levels.

There are 1,400 modern industry clusters in India spread throughout the country, but cluster development could be facilitated because they constitute a geographically concentrated set of activities. In addition, there are nearly 4,500 traditional activity clusters producing artisanal products (handloom, handicraft, and other traditional single-product group clusters) using old technologies, characterized by low productivity and low earnings, with a large number of self-employed or own-account workers. Most of India's unorganized manufacturing, which account for 40 per cent of manufacturing GDP and over 50 per cent of exports, is located in these clusters.

There are at least three sets of actions required for modern clusters by the central government, though these actions will also help the traditional product-related clusters – technology upgradation, market information facilitation, and design improvement. For this purpose, Planning Commission (2013), in the 12th Plan, made an excellent recommendation to set up a Cluster Stimulation Cell at apex level in the MSME Ministry that will work to promote Cluster Associations. But this kind of Cell will need replication at the state level, given that there are

over 5,500 clusters around the country, and mechanisms found to make them operationally effective at the district level. This will require an infusion of funds. Mehrotra and Biggeri (2007) show how effective cluster development has been in China's industrial development (as well as in late-industrializer Italy). For instance, there are as many as 100 clusters in China only producing socks!

The 1,400 modern clusters are in urban locations mostly, and as unorganized segment enterprises. They are mostly in small towns (< 0.5 million population) or in small (0.5–1 million) and medium cities (1–4 million). So the first action of the government is that the poor infrastructure in these urban locations has to be addressed (on that see next subsection).

Second, India's Cluster Development programme, which took off only in 2005, will need much more than the < ₹1,000 crores per annum (or < \$150 million at 2018 exchange rates), which is the budget of the MSME Ministry, for the 5,500 clusters in India. Also, notable is the biased nature of the Ministry of MSME's incentives (Mehrotra et al. 2014), financial and non-financial – which favour micro and small capital investment enterprises to the detriment of their growth into medium-sized enterprises.

Finally, the modern industry clusters will need much greater access to institutional sources of credit. The limited resources of the Small Industries Development Bank of India (SIDBI) cannot suffice. The public sector banks are diffident in lending to micro and small establishments (on account of lack of trust, low capacity of firms to prepare bankable projects, and the high transaction costs of dealing with a large number of small borrowers).

The Reserve Bank of India (RBI) has for long required state banks to allocate 40 per cent of lending to priority sector lending (PSL) – 18 per cent to agriculture and 22 per cent to MSMEs. However, RBI (2015) rightly recommends extending PSL status to medium enterprises in addition to MSEs. It also recommends that to ensure that the smallest segment (micros) are not crowded out due to the inclusion of medium enterprises, a target of 7.5 per cent of PSL lending to micro enterprises be added. Also, it recommends that the priority sector lending status may stay with them for up to three years after they grow out of the category of MSMEs so that MSMEs do not remain SMEs merely to be eligible for priority sector status. We endorse these recommendations, but banks have not implemented them.

From the mid-2000s onwards, commercial banks in India increased their lending to large-scale industries (especially to the power and telecom sectors (Nagaraj 2019). Long-term lending by commercial banks to large-scale industries eventually led rising non-performing assets; banks were not used to such lending. However, the shares of agriculture and industry in the credit by commercial banks declined from the 1990s onwards. Worse still, the share of non-food gross bank credit going to SSIs fell from 15.1 per cent in 1990–1991 to 6.5 per cent

in 2005–2006, 5.7 per cent in 2010–2011, and only 4.9 per cent in 2017–2018. At the same time, personal loans and professional services in total outstanding bank credit in India increased from 9.4 per cent in 1990–2001 to 22.8 per cent in 2017–2018 (RBI 2006). This is over and above the high cost of interest (11 per cent versus 4 per cent in China) (Thomas 2019).

Given this context, together the three sets of policy measures discussed – institutional support, fixing the incentive structure for MSMEs, and credit – can be effective in transforming the smaller manufacturing enterprises, especially in improving their productivity, enhancing employment, and enabling them to grow in size to fill in the missing middle of both manufacturing establishments and the cities of India (see next subsection on urban development).

However, as important as credit in raising cluster productivity is skills. Education enrolments have improved dramatically over the past seven years: primary net enrolment rate was 97 per cent already in 2007; between 2010 and 2015, secondary (classes 9–10) enrolment rate grew from 58 per cent to 85 per cent (with gender parity) and even further since then. However, at the local cluster level, there are few vocational education or training centres available. With VET focussed at the cluster level, these newly educated youth will be able to get employment at cluster level, close to their homes. This equally applies to girls, as for cultural reasons, their parents will not be inclined to let them live away from home; gender parity at secondary level now requires a new focus on vocational training at *cluster level* to make these boys and girls employable – while also raising their productivity.

Policymakers need to recognize that between 1970–1971 and 2011–2012, the *share of rural areas* in manufacturing output grew from 25.8 per cent to 51.3 per cent. In other words, the net domestic product (NDP) contributed by rural areas exceeds that of urban areas. Rural areas contributed 58 per cent of the incremental manufacturing output in India between 2004–2005 and 2011–2012, as opposed to 25 per cent share in incremental employment (5.3 million). This suggests that manufacturing in rural areas used more capital-intensive production technology after 2004–2005; yet 75 per cent of total manufacturing employment in rural areas is in labour-intensive sectors like wearing apparel, textiles, food products and beverages, tobacco products, wood and wood products, and non-metallic mineral products.

The rise in capital-intensity is probably the result of the lack of education/skills in the rural workforce. Those with secondary education and above constituted only 22 per cent of rural workforce in 2011–2012, and those with vocational training was only 14.6 per cent. One should add, however, that the share of youth with secondary education has risen sharply after 2011–2012 (Mehrotra and Parida 2018), which should suggest that what they will still need is vocational training/

technical education. Hence, access to vocational training must be provided urgently in and near clusters.

With the rise in education levels, there may be other opportunities that government should promote. These brownfield clusters could benefit hugely from the spread of internet and online sales to utilize the educated youth in rural/semi-urban areas. Online trade is an example. Technology can enable clusters of business to form in underdeveloped, rural areas. For instance, in China, rural micro e-tailers started in 2009 on Taobao.com Marketplace, one of the largest online retail platforms in China owned by Alibaba. These clusters – called ‘Taobao Villages’ – spread rapidly, from just 3 in 2009 to 2,118 across 28 provinces in 2017 (World Bank 2018). India’s 5,500 odd clusters can benefit from similar activities.

Aligning Urban Development with Manufacturing Clusters

Modern industry clusters cannot grow without better infrastructure. Urban planning needs alignment with planning for cluster development. Given the fact that 99 per cent of unregistered and 95 per cent of registered enterprises are micro-enterprises, they are concentrated in small towns (< 0.5 million) and nearby villages. Indian manufacturing has been becoming rural slowly, but could become more urban. For that to happen, India’s urban infrastructure must improve.

But the real question is: in which class of cities must it improve? Of India’s urban population, half live in small towns of less than 0.5 million; for a low-middle income country like India, it is difficult to find resources to provide quality infrastructure in a large number of small towns. Only 27 per cent of India’s urban population lives in middle-tier cities (those with a population between 0.5 and 4 million). By contrast, nearly half of urban residents in China live in similar middle-tier cities, and only a quarter in small towns (McKinsey Global Institute 2014). It is in these middle-tier cities that infrastructure investment should be concentrated.

It is the brownfield sites of modern clusters that must grow for manufacturing output/employment to expand in India. What is important is that *the cities/towns chosen are such that the Cluster Development Programme of MSME is also implemented in such a town. Also needed is synergy in the planning for Cluster and the infrastructure (Atal Mission for Rejuvenation and Urban Transformation, or AMRUT) programme, so that the objective of industrial development with job creation is one of the outcome objectives.*

Industrial Corridors to Engage in Global Value Chains and to Meet Export and Domestic Demand for Manufactures

The development of industrial corridors is a part of the area- or cross-state planning process. India was largely bypassed by the trade in networked products

(NPs), where it exports only \$25 billion (0.5 per cent of global trade in NPs). China's share is 20 per cent, Korea's 5 per cent, Singapore's 3.5 per cent, Malaysia's 2 per cent, Thailand's 2 per cent, and even Vietnam at 1 per cent is double India's share.

Like in automobiles, India could become a preferred destination for assembly of electronics, telecom hardware, electrical machinery, computers, and office machines, if it made a strategic plan (like the Automobile Manufacturing Plan 2006–2016) to increase its exports.

One effective policy instrument that integrates industry, infrastructure, urban services, and the institutional and regulatory edifice – and which India is pursuing in a big way – is the development of economic or industrial corridors. Five such corridors have been conceived, each of which have industrial city development provided for. First, the Delhi–Mumbai Industrial Corridor, with eight nodes (or industrial parks); and second, the Amritsar–Kolkata Industrial Corridor, both of which are in north India, and both have been work-in-progress for long. The remaining three planned ones are all in south India: the Bengaluru–Mumbai Economic Corridor, with one industrial node (for which perspective planning has been completed); the Chennai–Bengaluru Industrial Corridor, with three industrial nodes (for which regional perspective planning and master planning has been completed); and finally, the Vizag–Chennai Industrial Corridor, with four nodes (for which a conceptual development plan has been completed, and the regional perspective plan and master planning for the four nodes will be undertaken).

The use of economic corridor development (ECD) as a planning tool is old, but turning it into a multidimensional concept and using it for planned spatial economic development emerged in the early 1990s in both Asia and Europe. We discussed smaller scale cluster development in an earlier section, where essentially the local government is supposed to play a critical role. However, the ECD idea is to 'consolidate the fragmented governance mandates of the various authorities under one zonal or cluster management entity that allows businesses to operate seamlessly and efficiently' (Mitra et al. 2017). Clearly, in India's context, both cluster development of the traditional variety discussed earlier and the ECD concept still remain to be realized.

The big bottleneck in India for the development of such export processing zones or corridors relates to the availability of land in a country with 47 per cent of its workforce still in agriculture, and density of population that is very high by international standards. As Shankar (an ex-Secretary, DIPPI) argues: 'If the Centre in partnership with the States had taken the lead in assembling land and investing adequately and had got the private sector to come in only where it could, the outcome could have been quite different.' The Delhi–Mumbai Industrial

Corridor has not taken off as the initial decision was to get the private sector to invest and develop industrial areas. Shankar notes that it then took some years to find out that private investment on the scale needed would not be forthcoming and to accept the need for Central government financing for the trunk infrastructure. The physical and social infrastructure comparable to the best in the world is still a work in progress. It is essential to think of workers' housing (a key to productivity) as an integral part of industrial area development, just as software SEZs have housing and workplaces within walking distance.

Mineral Development as a Foundation

India has great potential for discovery of minerals as the Indian landmass consists of crustal elements that is ancient. India has ample resources of minerals (Kumar and Ganeshan 2015), but presently mining accounts only for around 2 per cent of the GDP. As a major resource for development, extraction and management of minerals must be integrated into the overall industrial strategy.

However, India's imports of non-fuel minerals are much higher than their exports. Moreover, small size mines dominate the industry. In addition, mining in India is largely public sector driven with public enterprises accounting for around 66 per cent of the value of mineral production; the rest depends on medium and small mines that are largely privately operated (Ministry of Mines and FICCI 2013).

Clearly, an industrial strategy in India will benefit significantly from India utilizing its mineral potential. One per cent increase in the growth rate of mining leads to an increase of 1.2 to 1.4 per cent in the growth rate of industrial production (contributing 0.3 per cent in the growth rate of India's GDP).

However, little is currently being spent on exploration of minerals in India. If governments, union or state, or the PSUs are unable to invest on the scale required, then foreign and private firms will need to be incentivized. However, the government can well claim that 100 per cent FDI has been permitted in mining. So, what is holding investment back?

Regulation of mining remains an issue. Given the widespread regulatory failure, there is a need to create an independent mining regulatory authority for oversight at the central and state level to restore investor confidence. Primary regulatory responsibility must lie with the state governments. The first National Mineral Policy (NMP 1993) allowed FDI up to 50 per cent with no limit on captive FDI; but little interest was shown by foreign investors. Hence, a National Mineral Exploration Policy came into existence in 2016, which is a structured framework for comprehensive exploration in the country with a judicious interplay of government support and private innovation and enterprise.

However, FDI has not increased in mining, although it has grown sharply in other sectors (mainly in services, and to some extent in brownfield manufacturing in the form takeovers). The amount of FDI in mining was \$1.32 million in 2000–2001 and \$55.75 million in 2016–2017. Clearly, mining is not attracting foreign investment.

In addition, there have been repeated violations by existing mining companies (Indian and foreign), as well as governments of social and environmental impact assessment guidelines. As part of its Industrial Policy, the union government will have to re-think its mining policy. The August 2017 Supreme Court of India judgment found the mineral policy outdated and made the case for a new policy.

Several issues are important (as found in The Energy and Resources Institute [TERI] studies). First, the data from Geological Survey of India geological mapping should be available in a Geographic Information System environment to facilitate entrepreneurs to take investment decisions for exploration.

Second, the Mining and Minerals Development and Regulation (MMDR) Amendment Act, 2015, has made auctions as the only mode of granting mineral concessions. This implies that the Indian Bureau of Mines and the State Directorates of Mining need to have the capacity to undertake mineral resource estimate and reserve valuations. This requires their capacity building.

Third, mining has both backward and forward linkages which need to be encouraged. This can be done by allowing free transfer of concessions including mining leases, and by giving a slight preference to value addition and end use when calling bids for mineral deposits. Fourth, scientific human resources including knowledge at the frontiers of geoscience has already emerged as a bottleneck. The country will need more mining engineers, geologists, geophysicists, geochemist, and geoinformatists. The Ministry of Mines estimated that in the period up to 2025, there will be a need to produce some 3,000 geo scientists and 40,000 mining engineers over and above the normal supply (Kumar and Ganeshan 2015).

Finally, new attention is needed for rehabilitation of areas and people uprooted by mining. The MMDR Act, 2015, provides for the creation of a District Mineral Foundation in every district affected by mining-related operations to work for the benefit of persons and areas affected by such operations. These foundations should deliver on rehabilitation of old mines as well affected peoples; otherwise, affected people will agitate to ask mines to be closed.

Finally, there is an electric vehicle (EV) demand rush that is likely to happen across the globe and in India. There is a major implication for global demand for minerals used in EV batteries. Cobalt demand will rise five times, as will demand for copper and also nickel. In a 2016 study (Gupta, Ganesan, and Ghosh 2016), 12 most critical minerals (with high economic importance and high supply risk) for India's manufacturing growth were identified. The study says that for 7 of

these – and nearly half of 49 minerals analysed – India is totally import dependent. If India is going to bet big on EVs, then the challenge is even greater. Again, the Chinese dominance in EV-relevant minerals is overwhelming.¹⁸ This creates exclusive markets for Chinese battery and EV manufacturers (Gupta, Ganesan, and Ghosh 2016), a situation similar to solar panels. India needs a comprehensive strategy, that is, the role of industrial policy in this sector.¹⁹

Creating a Design Capability and Innovation Institutional System

No country ever became a manufacturing force without (a) a design capability and (b) an institutional system that incentivizes and sustains innovations. In other words, India needs a system to develop human and technical capabilities at both the enterprise and the national level.

Maira (2015) rightly notes that the success of India's software industry was founded upon the availability of high-class talent, largely developed in Indian Institutes of Technology. These engineers were available to write software to international standards. But he rightly points out India had an incipient electronic hardware industry and a robust machine tool industry. The same engineers who built India's automobile and software industries were available to these industries, too. Maira (himself spent years with the Tata Engineering and Locomotive Company [TELCO], now Tata Motors), states:

However, the growth of these industries was killed by trade and industry policies after the 1990s. In 1990, India's capital goods industry was the same size as China's. By 2010, China's was 50 times larger. Now, India is importing large quantities of capital goods and electronic hardware from China. There is a huge trade imbalance, and there are also security concerns.

Others, however, contend that the failure of these industries reflected less our trade and industrial policies post 1991, and more the quality of entrepreneurship (as within the same policy environment, Hindustan Motors (of the Birla group), continued to produce the 1950s Austin Morris called Ambassadors in India). TELCO, on the other hand, concentrated on building in-house capabilities. Nevertheless, TELCO was kept out of the car industry for two decades and entered the industry finally at a much more competitive time.

Correcting the IDS is necessary and correct, but protection is not a sensible way to build industrial capabilities, to foster learning.²⁰ There are far superior alternatives for building capability in Indian firms, including investment in higher education and funding public research within the higher education sector.

Within a broader industrial policy, a critical dimension will remain building a design capacity in enterprises. The problem TELCO had in the 1980s in convincing government to allow it to produce an Indian light commercial vehicle to compete against the Japanese, who had been allowed into India in the first opening up of the commercial vehicle industry, is a perverse story about how domestic capabilities could be suppressed (Maira 2015). And Telco's success in that sector, in spite of the constraints put on a domestic manufacturer, is an inspiring story of the power of human capabilities.

The lessons for building up a design capability suggest the following principles (Maira 2015). First, enterprise leadership must focus attention on acquiring design capabilities, even though accountants and economists may disagree. A second principle is 'Learning to Learn'. When Telco was finally allowed to make a car (in the mid-1980s), and foreign partners were permitted too, some of the world's best manufacturers showed great interest in joining hands with TELCO. TELCO had choices. Two over-riding criteria TELCO set were, to choose the company that had demonstrated the best ability itself to learn, and who was willing to help TELCO to learn faster. Honda won on the first criterion. Maira recalls: 'We were struck by the systematic approach they took to learning and building capabilities, as they were with ours. They were also the most willing to help us learn faster, with much faster "indigenization" targets than others.'

The third principle is that at the macro-level, sectors need learning/capability building plans for sectors. In preparing the 12th Plan, the machine tool manufacturers delineated the gap between the capabilities they had and what was needed – thus describing the 'known unknowns'. Then they explained what they would do themselves to bridge the gap, to make these into 'known knowns'. And then suggested a frugal list of what government could do to help them along.

To quote a Nobel-prize winning economist, Joseph Stiglitz (Stiglitz and Greenwald 2014), you can only 'learn by doing' – the 'technology' in most products is under the skin, in the parts inside the assembled products. And, even deeper, in the machines and tools that make the part. The economic argument, that to grow a sector one must enable it to get the best and least expensive inputs it needs, is short-sighted. So, to build technological depth in our industries, we must foster the production of electronic hardware, and machine tools, and capital equipment – all of which India is now importing from China.

Before liberalization, some sectors and some firms within each sector built better capabilities than others. India began by building an indigenous bulk drug manufacturing capability, from indigenously produced chemicals, hence the manufacturing of formulations from the bulk drugs was easy (see Mehrotra 1990). This was the beginning. Thereafter, India's pharmaceutical industry grew by design, because India enacted a non-TRIPS²¹ compliant patent policy in 1970. This allowed the pharmaceutical industry to grow stronger so that by 2005 when

a TRIPS compliant act was introduced, its internal R&D capacity could allow it to remain competitive in global markets.

Similarly, former Confederation of Indian Industry (CII) president (and major industrialist himself), Naushad Forbes, notes that protection of our computer hardware industry was so perverse that net value added in India was negative. However, we know that now India is a major supplier of IT services for design, architecture, accounting, and logistics but uses very little of these in domestic industry and for its manufactured exports. India could bring its edge in services to a range of industries in electronics and electrical machinery, defence equipment, and green technology.

Building a National Innovation System

India also has many strengths in R&D, but it still lacks the key ingredients of a national innovation system. Let us discuss India's strengths first. Herstatt et al. (2008) conducted their own survey in India and found a number of reasons for the prominence of India on the world R&D landscape: (a) the market potential in India, (b) the relative safety of intellectual property rights, (c) the availability of skilled labour, and (d) its low cost. Plus, the similarity to Western/British judicial system is considered by multinational firms as a major advantage since it gives them a better idea of the system and a sense of security. In fact, in 2018, there were over 5,000 international firms that had set up their R&D centres in India, drawing upon these comparative advantages. However, Indian private firms have yet to demonstrate similar enterprise in respect of R&D.

India's well-developed R&D infrastructure is the key to success as a leading offshore research location. By the end of 2006, India had a total of 3,960 R&D institutions, including public sector and the private sector. The Government of India had six departments dealing exclusively with science and technology, that is, Departments of Atomic Energy, Biotechnology, Earth sciences, Science and Technology, Scientific and Industrial Research, and Space. In addition, other government departments have major R&D operations: the Ministries of Defence, Agriculture, and Chemicals and Petrochemicals. However, government R&D has largely focussed on defence and space, which cornered 26 per cent and 18 per cent of central government R&D (Herstatt et al. 2008).

However, the regulatory framework remains a problem. Some laws still applicable were promulgated by the East India Company in the 19th century. Since 2015, the union government's focus has been on the EDB, and India's ranking in 2014 at 142 (which improved to 77 in 2018) in the world is an indicator of the procedure bound approach.

Major challenges remain for India's incipient national innovation system. The creation of a 'Learning Society' (Stiglitz and Greenwald 2014) needs some

extensions in India – to ensure ‘learning by doing’. Three such extensions are needed. First, the absence of an Industrial Policy has prevented India from becoming a manufacturing hub, leaving innovation stunted and total factor productivity lower than its potential. The second challenge is that multiple failures in the entire education system have led to poor educational outcomes for the current workforce. The third challenge is an underfunded R&D system that has no way to convert patents into commercially viable technological solutions. Let us deal with the latter two challenges in turn.

For the science, technology, and innovation (STI) infrastructure created over 70 years to lead to inclusive growth, the education and learning levels of the workforce must improve. Thus, in 2015–2016, 38 per cent of manufacturing workforce had primary or less education; an additional 19 per cent had 8 years of schooling; 32 per cent had secondary/higher secondary (classes 9–12); and under 10 per cent were graduates or above. Only 10 per cent of the workforce in manufacturing had formal or informal VET (Mehrotra and Parida forthcoming). The services sector fared only slightly better.

Educational enrolments have improved very rapidly within the last decade. Secondary enrolment reached 85 per cent (2015) and higher since; higher education enrolment reached 26 per cent; literacy will reach 90–95 per cent by 2021. But

- massification of higher education has not meant learning levels are high; there are serious shortages of science, technology, engineering, and maths (STEM) teachers at secondary/higher secondary level and
- 53 per cent enrolment in tertiary education is in social sciences and humanities/law/business, while engineering, manufacturing, and science account for 39 per cent (of which science accounts for 5 per cent).

What is needed is much greater private and public investment in education; 4 per cent of GDP won't suffice.

Second, structural shifts are needed to align industrial policy to education/skills policy for India to become a serious STI hub in such areas as Industry 4.0. However, this also requires millions of 15–18 year olds to be diverted into VET and a focus on STEM in higher education. De Solla Price showed some 50 years ago that new scientific discoveries appear in industrial innovation with a typical lag of some 25 years. As such, an understanding of old scientific findings is adequate for most industrial innovation. This will translate into course teaching, which suggests that science education is more important to most industrial innovation than new scientific research.

In India, VET is very much government-driven and supply-driven. What is needed is a demand-driven and employer-led, and industry-financed (not mainly government funded) VET system (Mehrotra 2014, 2016; MSDE 2016; Planning

Commission 2013, chapter on employment and skill development). Such a poorly educated workforce is being given short-term (at most three-month long vocational training by the National Skill Development Corporation publicly funded private training providers), which has failed to improve their employability (see the report to Ministry of Skill Development of the Sharda Prasad Committee, 2016, of which this author was a member).

India has fewer R&D professionals (160) per million people than other major nations: 710 in Brazil, 890 in China, 3838 in the US, 3,950 in Japan, and 5,151 in Germany (Ravi 2016). One reason is India allocates only 0.7 per cent of GDP to R&D, while China invests 1.8 per cent, the US 2.9 per cent, and Japan 3.4 per cent. India currently underspends even relative to its income level. In addition, most other countries, especially East Asian countries like China, Japan, and Korea, have seen dramatic increases in R&D as a percentage of GDP as they have become richer. India, on the other hand, has only seen a slight increase (Ministry of Finance 2018).

Despite spending only 0.72 per cent on R & D, there has been impressive growth in scientific publications (6th in the world) and patents filed (7th) (Ministry of Finance 2018). But increased government R&D expenditure will not make India a 'learning and innovation society'. The challenge is to transform knowledge/technologies into commercially attractive solutions through entrepreneurial communities. It is sobering that 90 per cent proposals do not clear initial peer-review evaluations for lack of novelty and poor translational potential, and moreover, knowledge from supported grants is not utilized and most patents rarely get used. The result is that government efforts to provide downstream support like setting up technology parks, incubators, and incentives for start-ups (all of which have characterized such union government initiatives as Start-up India and Atal Incubation Mission; see Chapter 14 of this volume) are unlikely to yield results.

Low total R&D expenditure alone is one problem; its distribution across corporations (44 per cent), public research institutes (52 per cent) (that is, Council of Scientific & Industrial Research [CSIR] labs), and universities (4 per cent) is an issue. The global average for corporates' share is 71 per cent, of public research institutes the lowest at 12 per cent and 17 per cent for universities. So the question arises: why is Indian private firms' R&D expenditure so low? Forbes (2016) suggests that the top sectors that account for 70 per cent of global industrial R&D are five: pharmaceuticals, auto, technology hardware, software, and electronic and electrical equipment. So, as India is not a major producer in these sectors (except pharma and auto), Indian firms' R&D expenditure is also low. Using industrial learning from Korea and Taiwan, the flow runs sequentially from industrial development to industrial in-house R&D to public scientific research. An industrial sector competing with the best firms in the world, he notes, is a

requirement for sustaining investment in in-house R&D, and strong in-house R&D is a requirement for sustaining investment in public scientific research of value to industry. Forbes argues that only since 1991 has Indian industry increasingly had to compete with the world's leading firms. This has in turn driven investment in in-house R&D by Indian firms in pharmaceuticals, autos, and to a very limited extent in IT. However, it does not help if Indian firms specialize in software services, not products.

There are 2,500 global firms accounting for most of industrial R&D, of which 26 are Indian; of the 26 Indian firms (against 301 Chinese firms and 80 South Korean firms), 19 are in just three sectors – pharmaceuticals, automobiles, and software – and India has no firms in five of the ten top R&D-intensive sectors worldwide (Forbes 2016). Part of the explanation of why industrial R&D in India lags is this absence of several sectors which are R&D intensive.

Another part, Forbes argues, is that the most successful periods of rapid industrialization across countries – Japan in the 1950s and 1960s, South Korea and Taiwan in the 1970s and 1980s, and China since 1990 – have been accompanied by significant imports of technology – considerably higher levels than in India until the noughties. Much innovation happens without recourse to formal R&D. Research and Development started to contribute significantly to Korean and Taiwanese industrialization only in the 1980s, and to China's only in the 2010s. Industrial development must precede the choice of investing in R&D. However, these insights give us no idea what is to be done to ensure private firms invest more in R&D (Mani and Nabar 2016). We have a manufacturing structure focussed on skill-intensive and capital-intensive sectors – sectors which require constant innovation, and constant and substantial investment in innovation, to be competitive over time. So, one hopes the incentive that drives firms worldwide to invest in R&D will drive Indian firms as they become global: that they will otherwise be put out of business by competitors.

It is argued that who does publicly funded R&D is again very different in India. Most public R&D (over 90 per cent) is done by the government in its own autonomous R&D Institutes. Barely 10 per cent of publicly funded R&D is conducted in universities. The Indian higher education sector has the lowest share of national R&D (4 per cent) of any major economy. Suggesting that CSIR institutes' funding could be frozen in nominal terms, and increases for research funding be diverted to universities, Forbes (2016) rightly notes the advantages of doing research in universities:

First is the apprentice-journeyman benefit – the graduates industry hires will come trained in doing research. Second, the industry-research linkage issue is immediately drastically reduced: every university has an automatic, costless and

strong linkage with industry through students - each time industry employs a graduate a new link is formed. Students know their professors, and vice versa. Third, not only does teaching benefit from the research-teaching combination, but research benefits too.²²

Labour Law Reform as a Corollary of Industrial Policy

One reason organized manufacturing jobs have not grown is the plethora of central labour laws (47 reduced to 35 through repeal over the 2014–2018 period) that apply, in addition to over 100 state government labour-related laws (Planning Commission 2013). There is a very strong case for a simplification and rationalization of at least central laws into four labour codes (which have been put up on the Ministry of Labour website over 2016–2018). Unfortunately, however, the government has not managed to introduce these in Parliament on account of lack of stakeholder agreement.

One way forward is that a social security mechanism is put in place for the 93 per cent of the Indian workforce that is without any social insurance. For the organized sector, the paradigm of joint contribution by the employer and the worker has been the universal operating principle from the early days of industrialization. But in India, this ends up acting as a disincentive for low wage workers and their low profit employers to enter the organized sector. Therefore, it is critical that social insurance is ensured progressively to all, regardless of employment. This would require that, for the poorest informal workers, the government meets the premium cost of old age pension, death/disability insurance, and maternity benefit. For those above the poverty line, a contributory system should be put in place, which is mandatory and statutory in nature, unlike the voluntary, scheme-based mechanisms in place (Mehrotra 2016). We have argued elsewhere that the fiscal costs of such a social insurance mechanism are well within reasonable limits.

If such a social insurance system was supplemented by a minimum income guarantee, as well as universal healthcare, the stakeholder consultations relating to reforming labour laws would be marked by less acrimony, and are likely to be resolved. That would serve the interests of all workers (current and potential), through job creation in the formal sector (which is already growing, since the Goods and Services Tax became universal) (Ministry of Finance 2018).

The real advantage of such a social insurance system would be to do away with the distinction between the worker in the organized and unorganized sector and to create a regulatory regime which provides for a smooth transition from a micro to small, and even to medium, and finally to a large enterprise. This in turn would generate more jobs over time in the organized, formal sector.

Conclusion

We argued in this chapter that the planning function in India's central government must be revived with a view to devising and implementing a national industrial strategy. This requires that there is much greater recognition in the top leadership that without a serious manufacturing strategy, and policies to match the strategy, India will never become a major manufacturing nation. A quarter century without such a strategy has meant that the manufacturing share of GDP and employment has barely grown at all. There is only just over two decades left for India's demographic dividend to run out (by 2040), and without an industrial strategy India cannot realize the dividend.

The eight elements of an industrial strategy that India urgently needs (as outlined earlier), are in addition to the focus on improving EDB (on which there has been appropriate focus in recent years) or encouraging FDI. Moving towards a more protected economy is not the way forward, while strategic use of tariffs to prevent dumping by foreign firms is appropriate. Even more importantly, the real effective exchange must not be allowed to appreciate (as it has over 2014–2018 by 20 per cent).

However, implementing such an ambitious and comprehensive industrial strategy will require an end to the coordination failure that so characterizes many governments, but especially democratic governments in large developing countries. This requires three things: first, an institution to be created that is a Super Planning Ministry, that has the ear of the Prime Minister's Office, and has reasonable financial clout for it to implement and incentivize industrial development. Second, it requires that such a Super Ministry meets some specific criteria for staffing. Finally, the Indian bureaucracy, which will be ultimately held accountable for outcomes that are well defined in terms of specific outputs, will need to become a learning bureaucracy and one that is willing to conduct experiments/pilots before they are implemented in even a few states, let alone nationally. Each of these is further elaborated upon in the concluding chapter of the book.

Notes

1. This fact is especially notable for China, given that it was a much later addition to the 'flying geese' model of East Asian industrial growth, in which Japan was the leader, and Korea and Taiwan in the second tier, with Malaysia, Singapore, and Hong Kong following. China joins the 'flying geese' only after the mid-1990s (Singh et al. 1994).
2. In recent years India's exports have shifted more to skilled-labour- and capital-intensive products and from developed to developing country markets – especially in Africa and Asia. Of almost \$2 trillion in EU imports, India supplies only a little over \$40 billion. Of the total imports of Latin America and the Caribbean of over \$800 billion, India supplies only \$10 billion (Chhibber 2018).

3. See National Account Statistics report (2014) of the Central Statistical Organisation (CSO).
4. In principle, there should be no trade-off between labour productivity and labour intensity. The productivity of the enterprise can be ensured through higher efficiency and higher productivity of other factors, but given the capital market imperfections (among other factors), the unorganized sector is caught in a low-technology, low-wage, low-productivity trap.
5. Peres and Primi (2009: 14) indicate that government may act in *four broad roles* as (a) regulator (fixing tariffs, production subsidies, and fiscal incentives to support certain sectors); (b) producer (producing through public enterprises in key sectors); (c) consumer (through public procurement programmes); and (d) financier and investor (credit and public investment in industrial priorities). We will keep in mind Altenburg's (2011: 11) analysis of the *levels of economy* that industrial policy can be used: macro (fiscal and monetary policies, exchange rate, and foreign trade policies); meso (targeting specific sectors to improve their competitiveness, for example, technology institutes, export finance, and skilling centres); and micro (improving the capabilities of firms with strong positive externalities for diffusion of technological learning).
6. India's first Industrial Policy was formulated in 1956. Thereafter, the industrial policies were reformed from time to time through statements in 1973, 1977, 1980, and 1991.
7. The union government focused on encouraging FDI through the 'Make in India' initiative. However, although there was a slight increase in total FDI since 2014, the share of manufacturing in total FDI flows into India declined from 47.8 per cent during the period October 2012–September 2014 to only 30.3 per cent during the period October 2014–March 2017 (Rao and Dhar 2018). Further, an increasingly larger share of FDI flows into India is not in the form of 'greenfield' investments, but is achieved through the acquisition of shares of domestic firms (Nagaraj 2017).
8. The bias of its export composition in favour of capital- and skill-intensive products has provided India with a comparative advantage in poorer regions of the world (for example, Sub-Saharan Africa), but this happened at the expense of market share in industrialized countries, which were India's traditional export destinations (Veeramani 2013).
9. Note that so far we have said nothing about the ease of doing business (EDB). The World Bank's EDB index is compared by Hallward-Driemeier and Pritchett (2015) with its own firm-level Enterprise Surveys: 'Overall, we find that the single numerical estimate of legally required time for firms to complete certain legal and regulatory processes provided by the Doing Business survey does not summarize even modestly well the experience of firms as reported by the Enterprise Surveys'. (p. 123). In fact, Jayasuria (2011) has shown that the relationship between EDB ranking and incoming FDI, when the sample is restricted to developing countries, an improved ranking has, on average, an insignificant (albeit positive) influence on FDI inflows. On average, countries that undertake large-scale reforms relative to other countries do not necessarily attract greater FDI inflows. Nagaraj (2019) adds that Russia, like India now, improved its EDB rank from 120 in 2012 to 20

six years later, taking it ahead of China, Brazil, and India – but did not see an improvement in investment inflows. China, however, received one of the highest capital inflows but its EDB ranking was low and hovered between 78 and 96 for the years between 2006 and 2017.

10. In 2012, the survey showed tyres, electronic hardware, electrical equipment, medical instruments, aluminium and articles, and technical textiles; in 2013, it was again aluminium and articles, electronics, capital goods, cement, chemicals, paper, steel, textiles, and again tyres; in 2014, again electronics, chemicals, capital goods, aluminium and copper, rubber, steel, and textiles; in 2015, still aluminium, capital goods, electronics, rubber, steel, textiles, chemicals and plastics, pharmaceuticals, and tractors. Over the years, the surveys' lists became longer: in 2016, it was capital goods, cement, electronics and electricals, rubber, textiles, and now minerals too got added.
11. As per the conventional method, ERP is defined as the percentage excess of domestic value added due to imposition of tariff and non-tariff barriers over free trade value added at international prices.
12. India faces higher tariffs in the US and EU, unlike its competitors (which India can do little about).
13. Some 78 per cent of firms in India employ less than 50 workers with 10 per cent employing more than 500 workers. By contrast, in China, the comparable numbers are 15 per cent and 28 per cent.
14. TATA Group, Mahindra Group, and Larsen & Toubro have entered into joint ventures with leading foreign defence companies. In all, 30 licensed private companies commenced commercial production and about 23 joint ventures, involving public and private sector companies, to manufacture defence equipment, had been established till 2012.
15. Shankar (2019) India, after the traumatic experience of 1962, tried to develop a national defence industry insisting on licensed production with technology transfer in the ordnance factories and DPSUs. Separately, through the DRDO, India pursued technology and systems development with the expectation that nationally developed platforms would gradually replace the need for imports and self-reliance would be achieved.
16. Shankar (2018) continues: 'Bidders should be assured of being given earmarked developed land with suitable infrastructure at a reasonable rate for putting up their manufacturing plant. Also, duty free import of capital goods should be permitted, and indicated in the bid itself. Since energy costs are a major part of the manufacturing cost of the ingots (the material for solar panels), the assured provision of electricity directly by NTPC at their average cost from the unallocated quota at the disposal of the center, should result in even lower bid prices.'
17. India has an annual solar-cell manufacturing capacity of about 3 gigawatts while the average annual demand is 20 gigawatts. The shortfall is met by imports of solar panels.
18. Chinese companies produce 77 per cent of refined cobalt. Chinese manufacturers control 50–77 per cent of the market for cathode and anode materials, electrolyte solutions, and separators used in lithium-ion batteries.

19. Shankar (2018) makes the argument for public procurement as a tool to encourage manufacture. The Energy Efficiency Services Limited got prices of LEDs to go down in a few years to a fraction of their original price through repeated bulk procurement. With electric cars, they got prices which are so low that they are being able to hire these cars out for use by the central government on the same terms as other normal cars without asking for any subsidy.
20. Raising tariffs on finished products may not be appropriate; rather the IDS must be corrected by lowering tariffs on raw materials and intermediates for domestic manufacture.
21. TRIPS refers to The Agreement on Trade related Intellectual Property Services.
22. The 4,000 CSIR scientists would be a huge impetus to the national higher education system, particularly graduate education. Some research laboratories could themselves become colleges. Several already run PhD programmes and all should be required to. But what is vital is that they extend their teaching role to Masters programmes and form permanent linkages with undergraduate institutes.

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Fiscal Planning to Sustain Growth and Poverty Reduction

Santosh Mehrotra

A major argument of this book is that India is at a critical juncture of its development journey, with just over two decades remaining for its demographic dividend to run out. If India is to realize this dividend, it is critical that growth is not volatile, which it has been since the economic reforms began. One of the reasons why growth is not sustained is that investment has itself been volatile, both public and private investment. Investment to gross domestic product (GDP) after rising consistently from 2003 to 2008 has fallen since then over the next 10 years.

This chapter argues that an important reason for this situation arising is the absence of long-term fiscal planning, both at the central and state government levels. In accordance with the basic Keynesian notion that public investment should draw in private investment, it is essential that public investment is sustained. However, if government consumption tends to rise (whether it is due to interest payments on past debt, salaries, or subsidies), then public investment will be adversely impacted. Hence, we argue that there is a strong case for long-term fiscal planning for the economy, which means a medium-term expenditure framework (MTEF). This dimension of the planning function was neglected, especially since the 1970s, and even in the 21st century this situation has not changed.

In addition, this chapter argues that disbanding the Planning Commission and ending any financial role for the National Institution for Transforming India (NITI) has weakened the planning function, which India's growing inter-state divergence on growth/human development performance cannot afford. The Planning Commission had acquired an extremely critical role since economic reforms began in financing human capital formation at the state level. This role has been compromised by eliminating any financial resources for NITI.

This short chapter is organized as follows. The first section discusses the need for fiscal planning which would include an MTEF. But not only does India not have an MTEF, but it has been consistently characterized by the adverse consequences of fiscal deficits, which have been typical of government budgeting. It also examines how government consumption has been a major source of persistent deficits, which must be controlled. Government consumption is undermining public investment, which is critical to sustained GDP growth. The second section briefly discusses the issue of the optimal size of the state over the next couple of decades of the 21st century, which should guide the fiscal planning function in the governments of India. The third section discusses the ending of the fiscal role of NITI, which coincided with the disbanding of PC. It argues for a reinstatement of this fiscal role to address inter-state disparities. It also underlines the importance of the fiscal strengthening of the third tier of government – the local bodies – to ensure growth and human development. The final section concludes the chapter.

Planning Function and Why a Sustained Fiscal Deficit Is Inimical to Growth

Planning the fiscal space that a government has to deliver the economic and social services it is elected to deliver requires an MTEF in any economy, especially in a developing economy attempting to hasten the country's structural transformation. Such planning is only possible in a developmental state in conditions of relative fiscal sustainability. However, there is a structural problem with India's fisc: revenue deficit as a share of fiscal deficit of the union government that was barely 4.9 per cent in 1981–1982 had grown to 41.7 per cent by 1990–1991 (just the year before India's economic reforms began, and when India took a large International Monetary Fund [IMF] loan). The historians of fiscal balances note this dramatic shift took place over the 1980s in India. From that level, the revenue deficit till date has only risen, sharply. It has tended to remain between 60 and 81 per cent of the fiscal deficit (Roy 2018). This situation poses a serious challenge to the ability of the union government to even maintain public investment let alone increase it. Some 85–87 per cent of total union government expenditure consists of revenue expenditures, and only the remaining 13–15 per cent is capital expenditure. This is the second reason why planning the fiscal space is so crucial. Sustained GDP growth and hence poverty reduction will be compromised if the fisc does not support conditions of ever-rising public investment in health, education, and infrastructure. Volatility in growth often arises from fiscal imbalances that are not contained, and poor management of the fisc.

If revenue expenditure is so dominant, and the revenue deficit explains most of the union government's fiscal deficit, it means the government will continue to

borrow to maintain itself. In such a situation, one condition of good management of the fisc is a fiscal responsibility law (Patel and Buiter 2017: vol. 4). There are several reasons for the need for containing the public sector debt and deficit, which might be high or rising. First, there is the risk of sovereign insolvency or the bankruptcy of the exchequer. To achieve sustainability, either revenues will have to be raised or public spending cut. Public spending on non-merit goods can cut off productivity raising infrastructure investment or desirable support for health and education, mainly for the vulnerable. In fact, there is an observed negative correlation between debt burden and growth (Patel and Buiter 2017).

A second reason why rising public debt burden is a cause for concern is *financial crowding out*. For an economy with full utilization of resources, government borrowing for current spending will lead either to displacement of private investment or to an increase in the current account deficit. Since the Indian economy is nowhere near full utilization of resources, this may not be such a strong consideration in India's case. However, in the short run, the financial savings rate is a constraint, and the risk of crowding out of private investment is real. Between 2012 and 2018, household savings as a share of GDP fell from 23.6 to 17 per cent.

Thankfully, the size of India's external debt is not large.¹ As gross household financial savings as a share of GDP is only 10.4 per cent, there will always be pressure for higher interest rates. With high domestic interest rates, India's private sector might shift to large scale borrowing abroad in foreign currency, which will come with its own set of problems. This did happen towards the end of the 2000s.

Rising public debt is a cause for concern for a third reason. Unsustainable fiscal policy can contribute to volatility which can adversely affect investment and growth. Fiscal policy should be neither pro-cyclical nor involve quick corrections, because such volatility can lead to private savers and industries to grant too much weight to short-run considerations, resulting in a sub-optimal allocation of resources for investment.

A fourth reason for concern over a high public debt burden arises from the risk of monetization of chronic deficits leading to inflation. This is a pattern of fiscal policy that has been long standing in India, resulting in what Patel and Buiter (2017) call fiscal dominance over monetary policy.

A final reason for concern over rising government expenditure is *the fear that the sovereign fiscal elbow room* is narrowing from a macroeconomic perspective. This could result in the government being left with very little capacity to counter the effects of the transmission of external shocks or a domestic banking crisis (the country is facing one currently) that might require recapitalization of banks, or even possible external conflict.

All of these risk factors clearly exist in the case of India, as recent history has shown. Hence, there is need for long-term fiscal planning to enable the real side

of the economy to perform optimally. This is particularly true in a developing country which is beyond the midpoint of its demographic dividend with barely two decades or slightly more left before the dividend runs out. Sustained growth with fiscal responsibility is an absolutely critical minimum to ensure that growth will not be compromised over the next two decades at any cost. For all these reasons, fiscal planning is absolutely essential.²

The history since economic reforms began in 1991 does not inspire confidence. The 1991 crisis, apart from being a balance of payment crisis, itself was the result of repeated fiscal indiscretions in the late eighties. There was indeed some improvement during the five years immediately following the balance of payments and fiscal crisis over 1992–1993, but by 1996–1997, the fiscal balance deteriorated again. As a result, the fiscal deficit to GDP ratio was the same in 1998–1999 as in the crisis year of 1991. However, there was slippage again, and the result was that the government had to pass the Fiscal Responsibility and Budget Management (FRBM) Act of 2003 which ran its course up to the fiscal year 2008–2009.

Unfortunately, over the dream run of the economy up until 2008–2009, the union government adopted pro-cyclical policies. While there was still some fiscal space left for a year after the global financial crisis to undertake counter cyclical measures, that space ran out rather quickly resulting in the resumption of a very large fiscal deficit to GDP ratio, high and rising inflation (especially food inflation), and the consequent decline in the growth rate that occurred after 2011–2012. The pump-priming of the economy post-2008 lasted too long, its quality was poor (raising revenue rather than capital expenditure, unlike in China), and remained too large, resulting in the government going into fiscal consolidation mode for a seven-year period lasting at least until 2019 (the time of writing). The Comptroller and Auditor General of India informed the nation in 2019 that in 2018–2019 the real fiscal deficit of the union government alone stood at 5.85 per cent of GDP, not 3.46 per cent as announced, because of off-budget borrowings for both revenue and capital expenditure (*Economic Times*, 25 July 2019).

We should never lose sight of this history. India's primary deficit has the characteristics of being structural. A key reason is that some 80 per cent of the union government's revenue deficit (that is, recurrent budget deficit) is explained by interest payments on past debt and salaries and pensions. The latter include the rising burden of salaries of para-military forces (on which the government spends 2 per cent of GDP). In other words, the union government mainly borrows to maintain its revenue expenditure. Such a government's ability to contribute to economic growth is limited. With smaller fiscal deficits and higher savings and investment, the government could indeed make a contribution to faster growth. We should not lose sight of the fact that the period of high growth was

not unrelated to the transformation of public sector dissaving in 2002–2003 to a positive savings ratio of 5 per cent of GDP in 2007 (apart from rising household and corporate savings).

By contrast, the Chinese consolidated fiscal balance has sustained budget deficits of merely 3 per cent of GDP over long periods of time – much lower than India. A series over 1952 to 2017 shows that the worst year in China was 1962, when the fiscal deficit was 4.9 per cent of GDP (<http://ceicdata.com>). Not surprisingly, it has contributed to the Chinese economy's ability to sustain public investment (in addition to the much higher private investment rate found in China).

The Culprit: The Revenue Deficit

The union government's revenue account was in surplus or balanced until the late 1970s. Since the 1980s, however, the centre's revenue account (that is, recurrent revenues and expenditure account) has consistently been in deficit. Fiscal planning is seriously compromised as a result. In the two decades following the mid-1970s, there were hardly any years in which the combined revenue expenditure as a share of GDP fell. In fact, for half of this period, it rose by more than 0.5 per cent of GDP, year on year. The result was that revenue expenditure as a share of GDP almost doubled over the past four decades. The main reason for this situation is interest payment, which rose from 1.26 per cent of GDP in 1970–1971 to as high as 4.64 per cent of GDP in 2002–2003. Subsidies (a significant share of which are non-merit ones) added to the burden, especially within the last decade.

The revenue deficit rose to over 5.5 per cent of GDP in the late 1990s. It is notable that when a statutory limitation was put upon the fiscal deficit by the Fiscal Responsibility and Budget Management Act (2003), the situation changed sharply. From that point on, there was a sharp decline in the revenue deficit of the union government due to the Act (though we should add that that was not the only reason for the improvement, as there was also a simultaneous rise in the GDP growth rate). But after the global crisis, the fiscal deficit worsened, partly because the pump-priming was too large, with the result that inflation rose to unbearable levels in recent history (close to 10 per cent per annum, and food inflation close to 20 per cent per annum, after 2012).

A gradual correction is underway after 2012 not only in the centre but also in the states. In fact, unlike the centre, Roy (2018) finds that the states as a whole now meet the golden rule. In the case of the revenue deficit, the 'golden rule' prescribes that revenue or current budget should be in balance or in surplus. This is especially challenging to achieve, given that a large proportion of revenue expenditure goes into servicing the existing debt stock and hence is rigid in the short run.

Fiscal Planning: Contrasting Behaviour of the Centre and the States

Fiscal planning is essential but the union government of India has had a long and consistent history of fiscal deficits, which have not been helped by the fact that there has been a veritable absence of an MTEF that drives annual budgeting. Successive Finance Commissions provide estimates of what the future five years may look like – but these are just estimates and do not inform the annual process of budget making. Equally, the three-year frameworks being provided in the annual budgets on the recommendations of successive Finance Commissions are gestural in nature and have no impact in either informing or constraining annual macro fiscal decisions. The result is a constant volatility in terms of the union government's fiscal stance (notice, for example, the collapse of public investment by the union government in the years 2014–2015 and 2015–2016, with consequences for infrastructure investment, quite apart from the adverse effects on public goods expenditures like health and education). The one time that an FRBM law existed, the central government acted procyclically over 2003–2008, by increasing expenditures.

Thus the union government quickly ran out of fiscal space in a few years. This exacerbates an already declining trend in public investment, especially by the union government. Gross capital formation (GCF) as a proportion of GDP in India was 19.2 per cent in 1980–1981, rose to 23.0 per cent in 1992–1993, but following stagnation in investment after the mid-1990s, it was still at 24.3 per cent in 2000–2001 (2004–2005 as the base). But there has been a sharp fall in public investment in India since the 1990s. Gross fixed capital formation (GFCF) in the public sector as a proportion of India's GDP peaked at 12.2 per cent in 1986–1987, but subsequently declined to 6.6 per cent by 2002–2003. The union government's role in public investment shrank, but states have been unable to pick up the slack. There was a decline in the central government's capital expenditure to GDP ratio from 2003–2004. However, from 2002–2003, the capital expenditure of the states in relation to GDP is higher compared to the central government. As a result, the total public investment (centre + states) rose after 2003–2004 and remained in the range of 7 to 8.5 per cent of GDP for the next 10 years. In other words, post-FRBM, state governments became the primary drivers of public investment, while the central government's capital expenditure to GDP ratio fell during this period. It needs to be highlighted that in the pre-FRBM period, the central government was the primary driver of capital spending (Chakravarty 2017), but by 2019–2020 the central government's capital expenditure to GDP ratio fell to 1.3 from 1.4 the previous year.³

However, post-2011–2012, private investment fell (as corporates had over-borrowed from banks), and growth slowed down especially when private

investment fell. The GDP growth rate fell over 2014–2019 to levels below 7 per cent, compared to the 8 per cent that had prevailed over 2004–2014. This kind of situation contributes to GDP growth volatility which has been the Latin American malaise, and GDP growth volatility is a reason that Latin America remained caught in a middle income trap. India has Latin American levels of inequalities in wealth. India must sustain a GDP growth of 8–9 per cent for at least a 20-year period like Japan, Korea, and Taiwan, if poverty is to be reduced before the demographic dividend runs out (by 2040). Growth to be sustained must be inclusive (Mehrotra 2016). In other words, it must generate non-agricultural jobs and reduce income poverty while sustaining investments in human capital; we have demonstrated econometrically that these synergies existed in India over 1993 to 2016, but only in certain states (Mehrotra and Parida forthcoming).

In contrast to the union government, India's state governments have contained public debt. Twenty state governments passed fiscal responsibility legislation (soon after the Parliament passed the FRBM 2003 law)⁴ and maintained the fiscal deficit below 3 per cent of GDP through the 2000s (2.2 per cent of GDP over 2006–2011, and 2.4 per cent over 2011–2016). However, as the economy slowed, the fiscal deficit of states climbed to nearly 3 per cent of GDP by 2018–2019, as did debt-to-GDP to the FRBM limit of 25 per cent. The Reserve Bank of India (RBI), in its 2019 study of state finances, already observes cuts in capital expenditure by states, which may exacerbate the GDP slowdown. Clearly there is a risk that the union or state governments could behave less than responsibly since the political cost of painful fiscal retrenchment will be borne by the opposition, when it's turn in office comes around. This is clearly not the way growth can be sustained. Hence, the need for fiscal planning and an agreed MTEF arises. This, more than anything, will be true test of cooperative federalism.

The Fiscal Responsibility and Budget Management Framework

The Fiscal Responsibility and Budget Management framework does provide a medium-term framework, but this is exclusively prudential in nature. It poses limits to government borrowing and does not provide a *raison d'être* for government spending.

In addition, there is no coordination between one half of government spending and the other (the centre and the states) in our intergovernmental fiscal system. States are collectively as important as the centre in the fiscal realm but there is little coordination between central and state budgetary initiatives or resource mobilization effort. The centre keeps a prudential check on state debt and attempts to influence state spending through centrally sponsored schemes which are cost shared – but with the end of planning, even that imperfect coordination

instrument is not available to address the question of what and how much the governments of India should be spending on different fiscal heads. The outcome is path-dependent incremental spending, constrained only by the need to maintain fiscal prudence which results in interruptive and often strategically irrational limits placed incrementally on different government initiatives from time to time. It is not surprising that the effectiveness of government public expenditure processes in securing real outcomes is limited, resulting in voters regularly punishing (at least state) governments for poor delivery in elections, or development being bypassed as an election issue in favour of more primordial and conflict-generating platforms. This is the opposite of what the outcome of (fiscal) planning can be.

As Roy and Kotia (2017) note, the states have been much more fiscally responsible than the union government. The sub-national fiscal deficit improved significantly in the states after the FRBM in the 20 states that adopted individual fiscal responsibility legislation for themselves. They note that the sharp correction in sub-national fiscal deficit was on account of both revenues and expenditure control. State governments did not respond in good times by fully utilizing their higher revenues to increase spending. In fact, revenue expenditure as a share of GDP fell in each of the 4 years of the FRBM (2003–2007), while at the same time, capital expenditure was protected. Hence, it is the states which have driven public investment rather than the union government. In fact, Roy et al. (2017) note that transfers played a small role in the fiscal consolidation of the states, while the improvement in own revenues was significant during this period.

By contrast, the fiscal indiscretions of the union government in the wake of the global financial crisis (2008) were only compounded by the fact that the banking sector, which was entirely within the domain of the union government, was allowed to extend credit on a sustained basis for nearly a decade, regardless of whether due diligence had in fact been conducted by the individual banks on major infrastructure projects or borrowings by large corporates. The end result was that as international markets collapsed and domestic growth slowed after the global financial crisis, from 2012 onwards in particular, the banks were in no position to lend any further. Non-performing assets (NPAs) of the banks mounted rapidly post 2012,⁵ with the result that the entire economy faced sharp declines in the investment rate.

Investment fell from its peak of 38 per cent of GDP in 2007–2008 to less than 31 per cent of GDP by 2014, and further to 28.6 per cent by 2017–2018. Large corporates were over-leveraged, while banks had NPAs mounting every month. This dual balance sheet problem, as it has come to be called, was the reason for the end of the dream run of GDP growth of the economy (of 8.4 per cent per annum over 2003–2004 to 2011–2012). Job growth collapsed.⁶ This is not a situation that can be allowed to be repeated even once before the demographic dividend runs

out in just over 20 years' time. This kind of behaviour has already stalled GDP growth and risks stalling it again if this kind of situations are repeated (assuming that we get out of this situation quickly in the first place).

Real cooperative federalism, which the Indian Constitution calls for, would mean fiscal planning between the centre and the states, of a medium-term nature (3–5 five years) – which does not allow for sudden farm loan waivers being granted by states, that have threatened to throw even the state fiscal discipline out of kilter, putting the states' finances in the same imbalance that the centre is beset by. This is especially dangerous for long-term growth, since it is the states that carry the main burden by public investment.

Historically, public and private investment contributed approximately equally to total investment, but the role of public investment in growth has diminished over time. After public investment peaked at 12.7 per cent of GDP in 1986–1987, public and private investment started to diverge, with public investment accounting for only approximately 7 per cent of GDP in more recent years, compared to private investment exceeding 20 per cent of GDP. But the central government accounts for a small part of public investment, with most coming from the states. As compared to revenue expenditure, capital expenditure of the centre is rather small, at less than 2 per cent of GDP. The government largely maintained the level of capital expenditure in recent years. Following an increase of 0.2 per cent of GDP in 2016–2017, capital expenditures, including grants in aid for capital formation by states, reverted to 2.8 per cent in 2017–2018.

India and the International Trend towards Better Fiscal Planning

In the last quarter century, there has been a sharp rise in countries with fiscal rules. In 1990, only about seven countries had fiscal rules in place, which included the US, Germany, Indonesia, Japan, and Luxemburg (Ministry of Finance 2017). According to the IMF, the number of countries with a fiscal rule – either national or supranational – rose to over 80 by 2014. There was a steady adoption of such rules in the decade of the 1990s, and a more aggressive adoption in the decade of the 2000s – around the time India adopted its first FRBM Act.⁷ Post crisis, the number of countries with rules began to rise again, as countries tried to return to a path of fiscal discipline and undo the post-crisis expansion. By 2012, the number of countries with fiscal rules was, in fact, higher than before the crisis.

Although emerging markets were late entrants (two emerging markets had fiscal rules by 1996), by the time of the onset of the global financial crisis, the number of emerging market economies with a fiscal rule (~27) was virtually identical to that of advanced economies. In India's case, the FRBM Act (2003) was paused in 2008 and a new path to returning to the 3 per cent of GDP target for the centre's

gross fiscal deficit was re-adopted from September 2012. That said, by 2014, the number of emerging markets with fiscal rules (~33) had exceeded the number of advanced economies with fiscal rules.

The main policy recommendations of the new FRBM Report (2017) are the following: (a) Adopt a prudent medium-term ceiling for general government debt of 60 per cent of GDP, to be achieved by FY23. (b) Within the overall ceiling specified above, adopt a ceiling of 40 per cent for the centre, and the balance 20 per cent for the states. (c) Adopt fiscal deficit as the key operational target consistent with achieving the medium-term debt ceiling. (d) Adopt a path of fiscal deficit with fixed operational targets rather than a range. (e) A path of fiscal deficit to GDP ratio of 3.0 per cent in FY18–FY20, 2.8 per cent in FY21, 2.6 per cent in FY22, and 2.5 per cent in FY23. (f) Reduce revenue deficit to GDP ratio steadily by roughly 0.25 percentage points each year, to reach 0.8 per cent by FY23.

This must be mandatory because the recent experience with government policy is disturbing. While growth revived momentarily after the global economic crisis, the overly large stimulus (combining tax cuts and spending increases) was at the expense of high budget and current account deficits and high inflation, which lowered growth. Fiscal policy during the period of fastest growth (2004–2008) was procyclical, when it should have been the opposite. To make matters worse, the large fiscal stimulus had stretched out for longer than necessary. Mohan and Kapur (2015) and Mundle, Bhanumurthy, and Das (2011) have argued that the fiscal stimulus in fact started prior to the global crisis, in the run-up to the 2009 general election. Macroeconomic stability is well understood to be a necessary condition for sustained economic growth, and for external stability. Fiscal stimuli or monetary expansion can generate spurts of growth, but growth accompanied by macroeconomic stability sustains for a longer period of time. Clearly, India's stimulus overshot its target. Macroeconomic management after the global economic crisis resulted practically in a domestic crisis by 2013: a general government deficit of nearly 10 per cent of GDP, inflation at over 10 per cent (in an economy with millions of poor), the current account deficit was 5 per cent of GDP, and the share of capital expenditure was low. Finally, the growth rate fell.⁸ This is precisely the kind of situation that India cannot afford to repeat if growth is to be sustained and not become volatile. It is volatile growth in Latin America that has locked them into a middle-income trap.

Better fiscal planning also presupposes two preconditions in India. Given the states' wide-ranging spending responsibilities and their large share of tax revenue, medium-term fiscal targets should cover the states, or at least should be made consistent with states' fiscal rules (OECD 2017). States now receive a larger share of the general government 'divisible tax pool' and rely less on earmarked grants. This should give states more autonomy to prioritize growth-enhancing spending

items, such as hard and soft infrastructure. In recent years, states accounted for over 60 per cent of total government investment spending. In the coming years, however, investment spending may be squeezed by likely wage and pension hikes and the partial takeover of the debt of states' electricity distribution companies (3.5 per cent of GDP in total), affecting the quality of spending (RBI 2016).

Second, a fiscal council in India could monitor the implementation of the fiscal strategy, and in particular the consistency of the annual budgets with the medium-term path (OECD 2017; FRBM 2017 for the Ministry of Finance). If the fiscal rules include escape clauses, the fiscal council should verify whether they are exercised in an appropriate way. This institution could carry out fiscal sustainability analysis and produce independent growth, inflation, and public finance projections. It should also advise the government on how to improve the fiscal data, accounting, and fiscal risk assessment (OECD 2017).

We are not suggesting that the fiscal council should be located in a Super-Ministry of Planning. Rather it should be independent of both the new NITI, the Prime Minister's Office and the Ministry of Finance – but will need to make sure that an industrial strategy designed by the new Planning Commission is not compromised by poor fiscal planning.

The Size of the State: What Is Optimal for Our Emerging Economy?

While the main recommendations of the FRBM report (2017) are unexceptional, I have one major problem with its set of formulations. It says little about the size of the state, which, at its foundation, is a function of the tax plus non-tax revenue to GDP ratio. The fiscal deficit, which the FRBM Report focusses on, is in the last analysis the outcome of the revenue base of the state. The fact is that since the economic reforms began, for general government (that is, centre and states together), the share of total revenue to GDP has not changed at all, with tax/GDP at 17 per cent or so, and non-tax to GDP at 2 per cent of GDP. This is despite the fact that over the period since 1991, per capita income has grown at least three times, and tax buoyancy has been around unity.

For a country where the government spends 1.15 per cent of GDP on public health, under 4 per cent of GDP on all levels of education, and in which 93 per cent of the workforce is without any form of social insurance, and where the infrastructure gaps are so serious, the size of the state must grow (for a detailed discussion of the requirements in these sectors, see Mehrotra 2016). Given what we have argued in this chapter (consistent with the FRBM Report 2017), if fiscal deficit is to be contained, while the size of the state grows, then this is only possible with a rise in the tax ratio.

We know that from 1880 to 1980, in the now industrialized countries, the size of the state grew monotonically. Public expenditure share in GDP was 11 per cent in Europe in 1880, but had risen to between 40 and 50 per cent of GDP in much of the industrialized world 100 years later. The reason the size of the state grew was the rise in health and education expenditures and social transfers (Lindert 2004).

But should the size of the state in India grow regardless of the fact that the current quality of public expenditures and the institutions (for example, actual physical institutions, the rules, procedures, and incentives that govern their interaction with citizens, and human resources that staff them) reek of both incompetence and venality? In India, the quality of the institutions matters (as in most other developing countries), and without a significant improvement in the quality of institutions that govern education, health, and infrastructure investments, as well as the creation of far larger network of institutions to implement social insurance, a rise in the size of the state may not benefit the citizenry. This is the reason we devote a significant part of Chapter 14 (the concluding chapter) to the quality of institutions that must conduct planning and also implement plans.

Nevertheless, despite this caveat about the quality of institutions, I would expect that, in the interest of sustained and inclusive growth, the size of the Indian state should grow from its current level of about 25–26 per cent of GDP to about 30 per cent by the year 2025, and even further to 35 per cent of GDP by 2030. In the absence of this expansion in the size of the Indian state, its capacity to invest in infrastructure, health, education, and social insurance will be seriously compromised. This in turn will compromise the inclusiveness of growth; without inclusiveness, growth itself cannot be sustained. We have argued elsewhere (Mehrotra and Delamonica 2007) that there is a synergy between economic growth, income-poverty reduction, and human capability enhancement; there is not only a two-way interaction between growth and poverty, poverty and human capability, and growth and human capability. In the presence of the third variable, each of two interactive effects are multiplied in magnitude; this has been demonstrated in the case of India econometrically for the period 1993–2016 (Mehrotra and Parida, forthcoming). The size of the state is a key determinant of the intensity of these multipliers.

Taken together, growth accounting analysis shows that the growth momentum in India since the 1990s has been fundamentally supported by increases in total factor productivity, which accounted for an average of 60 per cent of overall growth between 1990 and 2011, and, since 2013, has again emerged as a key driver of growth. Both the diminishing role of capital accumulation and the comparatively limited importance of human capital in driving growth contrast the Indian growth experience to East Asia, as especially China relied on strong investment and capital accumulation. The implication is that sustained growth will be dependent upon

increasing investment in human capital, meaning public investment in health, education, and social insurance must rise – without delay. Indirect tax reform in the form of a nationwide goods and services tax (GST) (in July 2017) is likely to improve indirect tax collections, reduce inefficiencies, and increase formalization of enterprises. The next set of tax reforms must address direct taxes.

Personal income tax (PIT) revenue is low, and its redistributive impact is limited. A large informal sector creates difficulties in raising revenue. In India, only 53 million individuals paid PIT in 2014/15, that is, about 5.6 per cent of the population, ‘reflecting the very large zero rate tax bracket and the exemption for agricultural income’ (OECD 2017). An individual starts paying taxes when his/her income reaches 2.5 times the average worker income in the organized sector. For those paying income taxes, there is little progressivity since the top rate kicks in at a very high level by international standards (more than 12 times the average wage of a worker in the organized sector). A host of specific tax expenditures further reduces tax liabilities of the well-off, such as a tax allowance for the repayment of mortgage principal. Simulations by the Organisation for Economic Co-operation and Development (OECD 2017) suggest that bringing the PIT schedule more into line with other emerging economies and abolishing tax expenditures would raise PIT revenue by at least 50 per cent. In addition, more revenue could be raised by less distortive property taxes. Wealth in India is extremely concentrated, and real estate accounts for the bulk of household assets. States levy stamp duties and registration charges on the sale of real estate, and municipalities levy some recurrent taxes – which are low (see Mehrotra 2016: ch. 5 for a longer discussion).

Similarly, corporate income tax may be 34.5 per cent, but in reality, tax exemptions lower effective tax rates (to 23 per cent in FY2013–2014) but create large variations across enterprises by size, sector, and ownership. Tax disputes are large, and about 40 per cent of them go through the court system, resulting in delays. The union government reduced corporate tax rates from 30 to 25 per cent in 2019, together with removing tax exemptions (which amounted to revenue foregone, also called tax expenditures). This made India’s rates comparable to those in East/South East Asia, but whether it will have the Laffer curve effect of raising revenues later remains to be seen.

Correcting fiscal deficits will be impossible unless tax revenues to GDP ratio rises consistently each year, by half a percentage point of GDP over the next two decades – which is how long India’s demographic dividend will last.

India’s Diverging States and the Planning Function’s Role⁹

In our country, unlike other developed federal or quasi-federal economies such as the US, Canada, Australia, and European Union (< 2), the regional disparities of

per-capita incomes are much greater (> 6), leading to a 'development imbalance'. This is explained by differential growth rates between states over time – even though the differences between states in respect of the human development index have been falling (see Mehrotra 2016; Mehrotra and Parida forthcoming). These can threaten social and economic stability. Such uneven development exists also within our states, not just between the states. That is why it requires a serious fiscal policy intervention.

Our constitution and creative democratic politics had addressed such issues by creating two institutions, namely the Finance Commission and the Planning Commission, for promoting fiscal federalism. The Finance Commission derives its *raison d'être* from articles 275 and 280 and their sub-clauses to meet horizontal and vertical imbalance, whereas our political process leveraged article 282 to create the Planning Commission. These institutions were used to carry out systemic fiscal transfers in the nature of devolution or conditional ones. 'This arrangement or framework of fiscal federalism in India served well in maintaining the general wellbeing and integrity of our country,' notes Kelkar (2019). He argues that lack of such instruments have led to break ups in many other federations.

The 13th Finance Commission (2010–2015) opened up the possibility of formulaic tax devolution to the third tier in order to strengthen and empower the democratic decentralization process, through an interesting/innovative mechanism. This provided much needed 'revenue buoyancy' to the local governments. The 14th Finance Commission (whose award covered 2015–2020) gave a sharp increase in the percentage share of taxes devolved to the states whilst virtually in effect eliminating conditional transfers via the Planning Commission grants or grants under central sector/sponsored schemes. This along with the replacement of the Planning Commission by the NITI Aayog is considered by some to be a major reform for our cooperative federalism. We have a somewhat different perspective in this regard to which we will now turn.

The collapsing of two different sources of transfers, aimed at differing objectives, is profoundly problematic. The outcome differences between states is caused by two different types of horizontal imbalances. Each of these imbalances is important and needs to be rectified. One has to do with the differing levels of per-capita consumption of basic public goods and services. The other has to do with the differing levels of stock of infrastructure leading to the differential growth accelerating potential development. These are two distinct policy goals and following the Tinbergen principle (the number of policy objectives should be matched by the number of policy instruments) warrants two distinct policy instruments. Eliminating the Planning Commission and replacing this with the NITI Aayog merely as a think tank leaves us with only one instrument, namely

the Finance Commission. This approach if not reviewed can lead to a serious problem of increasing regional and sub-regional inequities.

We would argue that replacing the Planning Commission, which was promoting regionally balanced growth in India, by the NITI Aayog, a think tank, has reduced the government's policy reach. This means that currently India's fiscal federalism stands only on one pillar, namely the union Finance Commission. This is a serious weakness of our present fiscal federalism and needs to be quickly corrected.

Pinaki Chakravarty (2017) argues that India has been experiencing the process of 'Conditional Convergence' amongst the different states. This qualified result suggests that our policy approach of using an additional policy instrument such as the Planning Commission for resource transfers to the states through plan grants has been useful in reducing 'development imbalance'. How do we make it more effective?

We would argue strongly that there is a deep analytical foundation for the NITI Aayog getting significant resources to allocate to states. These resource transfers will be aimed at reducing the development imbalances by promoting faster growth in lagging states and sub-regions. Given our political economy, these grants need to be conditional and formulaic. The purpose of these grants would be to enable the lagging states to build capacity in infrastructure (roads, ports, railways and digital connectivity, supply of power, access to credit, and improving governance). The Planning Commission had been using various forms of the famous Gadgil formula and later the Gadgil–Mukherjea formula for allocating plan grants. Kelkar (2019) argues there is need to reinvent the central grants by using somewhat different variables and formulae, keeping in mind the macro-economic conjuncture and structural needs. These grants can be capital or revenue. Equally, these can be either conditional or unconditional transfers.

The Ministry of Finance would be the inappropriate body for this transfer to states. It is primarily concerned not with structural transformation but rather with the issues related to short/medium term macroeconomic stability. Kelkar is right here in invoking Tinbergen's assignment principle, namely number of objectives matching the number of instruments. It would be appropriate that a functionally distinct entity such as NITI Aayog 2.0 be utilized to perform the allocations to address the structural issues including removal of regional imbalances in the economy.

This means NITI Aayog 2.0 will be responsible for allocating development or transformational capital or revenue grants to the states. Given the overall resource constraints, what this would mean is that the future Finance Commissions, as against what has been done by the 14th Finance Commission, will have to revert to the modest percentages in their devolution formula as was indeed the historical trend. Without any reduction in the overall transfers, the composition and their

source will change. Consistent with our argument in section 1 of this chapter, the overall levels of such transfers will be determined by the Ministry of Finance keeping in mind the FRBM regime in place. Such an approach will strengthen cooperative federalism as an acceleration of lagging regions will lead to higher growth in all the regions.

Of course, this does not mean the new Planning Commission/NITI 2.0 should engage in the micro-management of yesteryears vis-à-vis central ministries and the state governments. Similarly, NITI Aayog 2.0 need not be involved with the approval of the states' annual expenditure programmes. It should rather strive to be a think tank with 'praxis', possessing considerable financial muscle and devoting its energies to outline coherent medium- and long-term strategy and corresponding investment resources for transforming India. Kelkar suggests that NITI Aayog 2.0 will annually need the resources of around 1.5 per cent to 2 per cent of the GDP to provide suitable grants to the states for mitigating the development imbalance. These formulaic annual grants, whether capital grants or revenue grants, for the relevant CSS will need to be conditional to ensure that (a) outcomes are commensurate and (b) it discourages an individual state to adopt policies that have negative policy externalities, for example, creation of populist subsidies and thus avoid a race to the bottom. Such presence of 'negative policy externalities' we notice often in, for example, the provision of free 'electricity' and irrigation water subsidies. Such a perspective for the resource needs of NITI Aayog 2.0 should be kept in view by the 15th Finance Commission (its recommendations will apply to 2020–2025) in making their recommendations.

There is another important reason for proposing such conditional transfers. These grants effectively involve transfers from relatively rich states to the other states. To maintain political support for such transfers, it is essential they are seen as purposeful, effective, and bringing long run positive gains to all the states. After all, all indirect taxes are somewhat regressive, and consequently relatively poorer sections of the richer states are transferring resources. The benefits of their sacrifice will need to be effective and equitable.

For the new NITI Aayog to be more effective, it is required that the institution is part of the highest level of decision making of the government, as we argue at length in Chapters 11 and 14. This means the vice chairman of the new NITI Aayog will need to be a permanent invitee of the Cabinet Committee on Economic Affairs. Thus, the new NITI Aayog will make available to the highest level of policymaking the knowledge-based advice and provide the national and long-term perspective on policy proposals. Today, there is no such advice available to our cabinet. Kelkar too emphasizes the need for such a perspective, as every ministry tends to take a sectional or sectoral view. There are externalities of decisions taken by separate ministries, just as there are similar spillover effects of decisions of state

governments. Equally, individual ministries cannot fully take into account the inter-sectoral implications or the long-term implications for the different regions of India. The Finance Commission being the First Pillar, NITI Aayog 2.0 will be the Second Pillar of the New Fiscal Federalism.

Since uneven development is a characteristic within states as well, there is a case for State Finance Commissions, and the State Planning Boards will also need to address this problem. This implies that the State Finance Commissions will also need to be strengthened in terms of their mandate, and their recommendations should receive acceptance similar to the union Finance Commission. India's third tier of government is very weak in terms of both human resource capacity and resources. They collect only 1 per cent of all revenues collected by any level of government and are responsible for less than 5 per cent of expenditures of all levels of government. To begin with, they need to be strengthened with resources in order to be able to build up their human resource capacity in fields that are relevant to the delivery of basic services.

Kelkar suggests this can be achieved by amending (a) article 266 of the Constitution to include a consolidated fund for municipalities and *panchayats* and (b) articles 243H and 243X to ensure that revenue allocated by the central and state Finance Commissions to municipalities and *panchayats* do not form part of the consolidated fund of the state and instead the funds flow directly to the consolidated fund thus created. We have also argued similarly earlier (Mehrotra 2016).

This requires deep democratic decentralization. To achieve this goal, it is necessary to vigorously implement the 73rd and 74th Amendments. This will empower the third tier of our federalism, namely elected local bodies. To give content to such empowerment involves transferring functions and functionaries from the second tier to the third tier and strengthening the fiscal base of the third tier. This is what is called as the '3-F' strategy for effective democratic decentralization (Mehrotra 2005, 2016). India's new fiscal federalism will have to make arrangements to provide the fiscal base and financial resources to the third tier government. Towards the empowering of the third tier, the reformed NITI Aayog will also need to play an important role.

To provide the necessary fiscal base for the third tier, Kelkar argues for a constitutional amendment to enable both the states and the centre to share an equal percentage of their GST (that is, of state GST and central GST) with the third tier. This will provide a buoyant fiscal base to the third tier and, more importantly, align interests of the elected officials with their citizens as GST is essentially a consumption-based tax.¹⁰ This would enable providing a fiscal base of not less than 1 per cent of GDP to the 3rd Tier in a predictable manner. The aligning of interests of the elected officials with tax mobilization has been demonstrated to

deliver results in terms of taxes collected, as well as effective utilization of resources for local development (Lin and Liu 2009; Mehrotra 2016).

Conclusion

India's development goal is sustained GDP growth (of over 8 per cent per annum) over the next quarter century. There have been six episodes in the last five decades when growth rates exceeded 8 per cent, about once in each decade. Most episodes of acceleration lasted only one to two years, and corrected sharply in the years after. Discounting the several one/two year episodes (1976, 1989) or others, when an unsustainable fiscal deficit (such as in 2010–2011) resulted in bursts of growth, the only durable episode of growth sustaining at levels above 8 per cent for five continuous years is the one which lasted from 2004 to 2008.

In the absence of that kind of growth, income-poverty cannot be reduced dramatically, and human capabilities enhanced. By 2040, the demographic dividend will be over, and India will become an aging society. The implication is that fiscal planning from now on must, by definition, be long-term, so that (a) the growth priorities, especially public investment for infrastructure, are in no way compromised, (b) the educational requirements of a youthful population are met to meet the requirements of an industrializing and innovative economy, and (c) the long-term funding of the health needs of an aging society, as well as the social security payments that will rise over time, is assured. In the absence of fiscal planning, which incorporates these explicit objectives, the 21st century future of India's citizens is at risk.

Equally importantly, a new version of the NITI requires the revival of its financial allocation function, if the growing divergence of states in respect of social and economic performance is to be reversed.

Notes

1. The International Monetary Fund (IMF) estimates that the general government budget deficit was 10.9 per cent of GDP for 2009–2010 of which 10.6 per cent to GDP was domestically financed. This situation has not changed.
2. 'The government's credibility', as Patel and Buiters (2017: 159) notice, 'becomes a crucial driver of the markets response to the government's plans for future fiscal virtue. If the government has been persistently pro-cyclical in the most recent boom period or spending the windfalls created by unsustainable growth and other friendly acts of God and of the external environment (good harvest, favourable terms of trade shocks) or even cutting tax rates or forgiving debts owed by private agents to the sovereign, then its credibility when it announces future fiscal tightening

measures but without any upfront public spending cuts or tax increases is likely to be minimal.’

3. However, we should note that Chakravarty (2017) examines whether the application of fiscal rules has resulted in an increase in the fiscal space for public capital investment spending in major Indian states. This analysis shows that by controlling other factors, there is a negative relationship between fiscal rules and public capital investment spending at the state level during the rules-based fiscal regime. So, there is need for caution while formulating fiscal rules that in future the constraint is felt by recurrent not capital expenditure.
4. The two governments that did not (West Bengal and Kerala) were the ones that were confronted with fiscal crises, over the 2000s (as was noted by the 13th Finance Commission).
5. Non-performing assets of banks were about INR 1.5 lakh crore in 2014, and stood at nearly INR 8 lakh crore in 2018.
6. Non-agricultural job growth was 7.5 million per annum over 2004–2005 to 2011–2012, and fell to 2.2 million per annum over 2011–2012 to 2015–2016, just when the additions to the labour force began increasing (Mehrotra and Parida 2018). National Sample Survey Office 2017–2018 data suggests that the record in the two since 2016 was similar.
7. The number of countries with rules then dipped in the global financial crisis, which was understandable, given that many countries held their rules in abeyance to use fiscal policy aggressively to counter the slowdown in their economies.
8. Since 2014, there was a renewed reform impetus in India: a new inflation targeting framework has been implemented, energy subsidy reforms have decisively reduced the level of subsidies, the fiscal deficit has been reduced, and fiscal federalism has been strengthened (World Bank 2018).
9. This section draws heavily upon chapter 15 (‘Two Pre-requisites for Optimum Governance: Deep Fiscal Decentralisation and the Bureaucracy’s Ability to Learn’, in Mehrotra (2016); and on Vijay Kelkar’s ‘Towards a New Fiscal Federalism’, Sukhamoy Chakravarty Memorial Lecture, January 2019.
10. Towards this, Kelkar proposes the following rates: a single GST rate of 12 per cent with central GST (CGST) and state GST (SGST) of 6 per cent each, and both centre and state to share 1/6th of this with the third tier.

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Plan, but Do Not Over-plan

Lessons for NITI Aayog

Pronab Sen

*plus ça change, plus c'est la même chose*¹

—J-B. Alphonse Karr

One of the early acts of the Narendra Modi government, announced from the ramparts of the Red Fort on 15 August 2014, was the dissolution of the Planning Commission and its replacement with a new entity – the NITI Aayog.² The intent was made amply clear – old-style central planning was out; new-style reforms agenda was in. With this step, India, supposedly the last surviving bastion of central planning, would join the rest of the world in embracing a market-led process of growth and development. It was certainly a bold vision, but unfortunately ahistoric.³ But be that as it may, it was quite clear even at the outset that the NITI Aayog would eventually have to be mandated to develop a formal strategic plan for the country, even though the nomenclature may be changed.⁴

The inevitable has happened. The NITI Aayog has been charged with developing a 15-year vision, a 7-year strategy, and a 3-year implementation framework. Although expectedly the term ‘plan’ is scrupulously avoided, it is quite obvious that planning is back. This is a good thing. After all, the principal function of planning is to evolve a shared commitment to a common vision and an integrated strategy not only in the higher echelons of government but among all stakeholders. No development strategy can be successful unless each component of the system works towards a common purpose with the full realization of the role that it has to play within an overall structure of responsibilities.⁵ The NITI Aayog mandate meets this requirement admirably.

However, for this to happen, it is not sufficient that the vision and the strategy are clearly articulated in a formal document which is communicated and is readily

available to everyone in the government, and appropriate orders are issued for compliance and implementation. Nor is it enough that all other stakeholders, in the states and in the public at large, are kept abreast through a well thought-out communications strategy. The *process* through which the vision and the final strategic plan are evolved and implemented can be at least as important as both the product (that is, the strategic plan) and the communication strategy.

An inappropriate process of formulating a strategic plan can have a number of undesirable effects which adversely affect the quality of the plan and even more so the quality of its implementation. The national planning experience in India clearly illustrates the dangers of faulty processes, which led to progressive disenchantment with the plan, and eventually culminated in the demise of the Planning Commission in 2014. The purpose of this chapter is to reflect on the past experience with a hope that it would help the NITI Aayog avoid some of the more egregious errors that were made.

The Planning Experience in India

It may be useful to begin with a brief review of the Indian planning experience in order to set the context. There has been a tendency in recent years to treat the development strategy followed by India as an undifferentiated *continuum*, with little substantive variation from plan to plan. Nothing could be further from the truth. Indian development strategies have evolved from one plan to another in response to the objective conditions of the economy and to the challenges of the moment. Some of these changes have been strikingly bold and original, others more modest, but change there has been.

The First Five-Year Plan was not really a plan at all, but an agenda for the reconstruction of a badly damaged country in the aftermath of the Partition. It is the Second Five-Year Plan which set the stage for formal planning in the country. The politically mandated objective of the plan was to increase the growth rate of gross domestic product (GDP) to the maximum feasible given the limitation of resources. The principal constraint at that time was the availability of savings, and existing growth theories and models held little hope for any dramatic improvement over an extended period of time. The decision to convert the savings rate from a constraint to an additional objective bore the *imprimatur* of Professor P. C. Mahalanobis, who was not a politician but a technocrat. The emphasis on the establishment of heavy industries through public investment, both as a means of rapid industrialization and for raising the low savings rate of the economy, was certainly original in its conception.⁶ It reflects the tremendous confidence that our political leadership of that time, led by Pandit Nehru, had in the analysis and judgement of technocrats that it chose a path which was largely untrodden. The

phased reduction of the savings constraint and the need for maximizing short-run growth also required planning to be done over multiple time horizons. Thus, the perspective plan was set for 15 years, while the operative plan was for 5 years, and annual plans to concretize the resource allocations.

The Third Plan, conceived during a period of emerging balance of payments problems and falling international prices of primary products, called for a rethinking of the strategy. A new constraint – foreign exchange – was emerging and had to be taken into account in addition to the savings constraint. There were two possible ways to address this issue: (a) increased emphasis on exports or (b) reducing imports through directed domestic production. The former alternative would require derailment of the strategy to increase the savings rate, and thereby the long-run productive potential of the economy. Thus, the Third Plan introduced the concept of import substitution as a strategy for industrialization and growth. The genesis of this strategy was partly political and partly technocratic. On one hand, it gelled well with the political desire for national self-reliance and, on the other, it was consistent with the ‘export pessimism’ of main-line economics of the time. Whatever be the merits of this strategy in hindsight,⁷ it received considerable attention, and even acclaim, from academics and practising policymakers, and was widely emulated by other developing countries.⁸

There were two other developments of note during this period, both institutional in nature. The first was the explicit recognition of the need to decentralize planning which was mandated by the federal nature of India’s Constitution. Thus, the states of the union were expected to undertake state-level plans within the broad framework and resource allocation of the national plan. Technical support was provided by the centre to the states for this purpose. Second, the import-substitution strategy required the government to intervene in the pattern of industrialization over and beyond the role of the public sector envisaged in the Second Plan. Detailed sectoral planning using input–output models to determine optimal industry-wise capacity creation by the private sector was institutionalized at this time.

The Fourth Plan came after one of the most difficult periods in Indian economic history. The two-year period from 1965 to 1967 witnessed the worst drought in recent memory and consequent famines in large parts of north India. At the same time, all aid was cut off to India by the donor countries on account of the Indo-Pakistan War of 1965, including food aid. This traumatic experience brought food security into the forefront of policy imperatives, which was further buttressed by the observation that sustained industrialization was not possible without adequate provision of wage-goods.⁹ Thus, a third constraint was introduced into growth theory – the wage-goods constraint. The necessary efforts to address the agricultural constraint meant greater involvement of the centre in agricultural

development, which was otherwise a state subject under the Constitution. This plan was also characterized by the introduction of another concept, which has only recently become popular in the international discourse – environmental sustainability.

The Fifth Plan too was path-breaking in that it recognized that growth and industrialization would not necessarily improve the living conditions of the people, particularly the poor – a recognition which only recently finds echo in the development position being taken by the World Bank. The strategic thinking in this instance was purely political and was driven by one of the most potent political slogans of independent India – ‘Garibi Hatao’ – coined by Mrs Indira Gandhi. This did not require a change in the constraints, but added an extra element to the objectives of the plan. The concepts of ‘minimum needs’ and directed anti-poverty programmes were innovations of this recognition. However, this also involved the centre treading further into the domain of the states. The Fifth Plan also marks a point of departure from the Mahalanobis model, and a reversion to the Harrod–Domar model. The significance of this shift has perhaps not been fully appreciated, but it is a clear pointer to the view that was emerging at that time that savings may no longer be the main constraint to long-run growth.¹⁰ In effect, therefore, it could be moved back to being a constraint instead of an objective.

The Sixth Plan, for the first time, explicitly recognized that the success of the Mahalanobis heavy industrialization strategy in raising the savings rate of the country had created a situation where the savings constraint was no longer binding and indeed excess capacities were becoming evident in certain industries. A shift in the pattern of industrialization, with lower emphasis on heavy industries and more on infrastructure, begins here. On the other hand, it also represents a shift towards a more ‘technocratic’ planning approach, where the plan targets became more ‘realistic’ than ‘visionary’, which was the characteristic of the preceding four plans. This persisted for the next three plans as well. It also marks the beginning of disenchantment with planning within the political leadership.

The Seventh Plan represents the culmination of this shift in perspective and may justifiably be termed as the ‘infrastructure’ plan. It was also during this period that a reappraisal of the import-substitution strategy and a shift towards a more liberal trading regime began. The change in strategy in this case was not decided by the technocrats but by the political leadership, especially Rajiv Gandhi, who was the prime minister at the time. However, it was the responsibility of the technocrats to convert the politically dictated strategy to an operational blueprint. With hindsight, the potential risks of the new strategy were clearly not fully appreciated.

The Eighth Plan was overtaken by the foreign exchange crisis of 1991 triggered off by the Gulf War, and the economic reforms that came in its wake. The dramatic events and policy initiatives of the two-year plan holiday period between 1990

and 1992 demanded a full reappraisal of the planning methodology, and the Eighth Plan represents the first efforts at planning for a market-oriented economy. Although the shift in planning did not entirely take place, the economy performed unexpectedly well, recording an average annual growth rate of 6.7 per cent.¹¹

Unfortunately, this growth momentum could not be maintained in the Ninth Plan, even though the planning methodology had adjusted substantially to reflect the new conditions.¹² In particular, it recognized that private investment was central to attaining the plan targets, and that the direction of private investment was driven by the functioning of the financial sector of the country. Thus, for the first time in Indian planning, the financial sector was included as an integral part of the plan. This added a fourth constraint – the financial constraint – which is quite distinct from the savings constraint. It recognizes that weaknesses in the financial sector can potentially prevent the economy from absorbing all the investible resources available.

The other critical point to note about the Ninth Plan is that again for the first time in Indian planning history it recognized the possibility that demand rather than investible resources could become the main constraint to growth and, as a consequence, the conduct of fiscal policy needed to be brought into the planning framework rather than be left entirely to the Finance Ministry.¹³ The warning was, however, not entirely taken to heart by the economic administration in the country. The pressures of fiscal rectitude in the face of the implementation of the Fifth Pay Commission award led to a sharp reduction in public investment at both the Centre and the states, which precipitated a cyclical downturn in the economy. Agricultural failure in three out of the five years exacerbated the problem, with draconian monetary contraction to check accelerating inflation adding to the fiscal contraction.

The Tenth Plan marks the return of visionary planning to India after a long period of incrementalism. It sought to double the per capita income of the country in the next 10 years and to create 100 million jobs over the same period. To a large extent, these targets were motivated by the demographic pattern that had emerged. It was quite clear that the single biggest challenge to Indian planners and policymakers at least for the next two decades would be to provide employment to a labour force which would be growing faster than ever before. The demographic projections indicated that although there was likely to be a steady reduction in the rate of population growth in the country, the growth rate of the working age population had attained a historical peak during the Ninth Plan period at about 2.4 per cent per annum and would decline only gradually thereafter. The growth rate of the labour force, however, was likely to be slower at 1.8 per cent per annum, but even this needed to be seen against the past record in creation of work opportunities. During the 1980s and early 1990s, the average rate of growth

of employment, which is a proxy for work opportunities, had been around 2 per cent per year, but it dropped sharply to around 1 per cent during the latter part of the 1990s. Therefore, if the immediate past trends in work creation continued into the future, the country faced the possibility of adding about 2.5 million people to the ranks of the unemployed each year. Such a situation was clearly insupportable.

It was further realized that creation of work opportunities in the macro sense in itself may not solve the problem of unemployment and poverty. Since the growth of the labour force was unevenly distributed in the different regions of the country, the spatial pattern of creation of work opportunities becomes extremely relevant. It would have been naïve to believe that there are no barriers or costs to large-scale migration within the country. How this confluence can be achieved is therefore a planning issue, and cannot entirely be left to the markets. In particular, it was noted that there will always be a tendency for private investment to focus on the already developed regions, which will accentuate regional disparities. Unless public intervention, particularly in infrastructure, could gradually redress the initial imbalance, matters would simply become progressively worse.¹⁴ Therefore, the Tenth Plan laid considerable stress on the issue of regional balance and for the first time had a separate volume on states.¹⁵

The Eleventh Plan took forward the insights of the Tenth Plan and introduced the concept of 'inclusive growth'.¹⁶ Along with the Tenth Plan's concerns on employment and infrastructure,¹⁷ the Eleventh Plan added the focus on human resources, especially health and skill development. The prescience of this became evident during the course of the plan. As the economy accelerated to a 9 per cent growth trajectory, skills shortages emerged in almost all sectors of the economy other than agriculture. By the middle of the plan, it was clear that skills, and not investible resources, had become the binding constraint on the Indian economy, and would continue to remain so for the foreseeable future. On the other hand, underemployment of the un- or semi-skilled labour continued to pose a challenge. Thus, increasing alternative work opportunities in rural areas was a key element of the plan.¹⁸ However, the objectives of this plan also led to a further sizeable increase in the involvement of the centre in matters of the states.

The Eleventh Plan too was overtaken by events. The global financial crisis of 2008–2009 and the severe drought of 2009 took their toll. Although the economy recovered fairly rapidly,¹⁹ the growth momentum had been damaged. In addition, the success of the Tenth Plan and the early years of the Eleventh Plan in raising not only the growth rate of the economy but even more so the incomes of the rural poor led to a sharp increase in the demand for non-cereal foods. Since the supply response was inadequate, food inflation accelerated and continued to remain in double digits.

The Twelfth Plan, therefore, was framed under not very favourable circumstances. The global economy was slow in recovering from the global crisis, and the Indian economy too had lost its momentum. Corporate investment, which had led the high growth performance of the Tenth and Eleventh Plans, was floundering for a number of reasons including tight monetary policy and regulatory bottlenecks. By now, it was clear that the Indian economy was substantially integrated with the global, and its growth path could no longer be viewed independently from global developments.²⁰ This plan, therefore, was less about new initiatives and more about bringing coherence in the development policy environment. The basic premises of this plan remained more or less the same as that of the Eleventh with a focus on the measures necessary to improve the impact of the initiatives.

The Vision

Returning to the mandate of the NITI Aayog, from all accounts it appears that the responsibility for framing the vision has been delegated to the NITI Aayog instead of being articulated at the highest political level. The Indian experience shows that this can be seriously problematic. The Second, Third, Fourth, Fifth, and Tenth Plans were instances where the vision was articulated at the highest political level, and only the strategic thinking was left to the technocrats, who also were responsible for the detailed planning.²¹ Each of these plans recorded spectacular success.²² The Seventh Plan, on the other hand, is an instance where there was a political vision but little strategic thinking, leading to a situation where the strategic plan was at odds with the vision. The result was a serious economic crisis.²³ The Sixth, Eighth, Ninth, and Twelfth Plans were examples of a lack of vision, with the predictable result of the strategic plan being little more than business-as-usual.²⁴ The Eleventh Plan is interesting in the sense that although the political vision was less about growth and more about equity and social development, the economy performed spectacularly well until the global financial crisis hit.²⁵ This is mainly because this plan essentially built upon the strategy of the Tenth Plan, which was overtly growth-oriented, and reaped the benefits of the momentum that had been created.

The first thing that is quite clear from this experience is that no good strategic planning can ever occur in the absence of a challenging and well-articulated vision. A good vision statement must have three critical characteristics:

1. It must capture the imagination of the nation so that all stakeholders feel that it is an end worth working towards.
2. It should be seen to have full political commitment, especially at the highest level.

3. It must force the strategic thinkers and technocrats to go beyond mere extrapolations.

None of these characteristics is likely to hold if the vision is framed by the technocrats themselves or, even worse, through crowdsourcing.²⁶ On this count alone, the NITI Aayog appears to have been started off on the wrong foot.

It is not too late yet to undo this weakness, but it will require the prime minister to: (a) publicly declare his vision for the nation, (b) charge the NITI Aayog to give it substance, and (c) work actively in propagating it across all stakeholder categories. It is not as if Mr Modi does not have vision, and he is unquestionably a great communicator. However, most of his vision statements which have captured public imagination, such as 'Make in India', 'Swachh Bharat',²⁷ or 'Beti bachao, beti padhao',²⁸ are inherently sectoral in nature. These can be elements of a larger vision, but left by themselves, they can lead to a seriously distorted strategic framework.²⁹ Mr Modi needs to articulate a broader overarching vision which can encompass all of these, and other, sectoral objectives, and provide the touchstone for gauging their relative importance.

Ideally, the vision should be amenable to quantification to a substantial extent so that the technocracy is able to work out the targets, the trade-offs, the time dimensionality, and the strategies that need to be followed. It is not necessary that the vision statement itself must be quantitative in nature – the quantitative dimensions can be worked out through a process of interaction between the planners and the leadership. An excellent example of this is the 'Garibi Hatao' (eliminate poverty) slogan of Mrs Gandhi as the vision for the Fifth Plan. This vision forced the planners to first define *garibi* (poverty) in a measurable, politically acceptable manner, and then recast the planning model to include poverty reduction as a specific target. The end product of this process was not only a comprehensive development strategy but also a fundamental contribution to plan modelling.

In contrast, the Tenth Plan vision of doubling per capita income in 10 years was overtly quantitative in itself, and therefore did not require extensive consultation between the technocrats and the political leadership. Nevertheless, the challenging nature of the vision, coupled with the need to integrate the millennium development goals (MDGs) into the development strategy, forced the planners to go into areas which had not been taken into account in earlier plans, or indeed in the planning literature.

There have been two pronouncements by the prime minister which have the potential for providing such an overarching vision. The first is the slogan that was the centrepiece of Mr Modi's election campaign – 'Sab ka saath, sab ka vikas' (with all, development for all). This is similar to the 'Garibi Hatao' vision in that it is not in itself quantitative but can easily be fleshed out in concrete quantitative terms. The second is the target of doubling farmers' incomes in 10 years, which is

similar to the doubling of per capita income of the Tenth Plan. This, along with the sustainable development goals (SDGs) which India is a signatory to, can be converted into a comprehensive development strategy with sufficient ingenuity on the part of the technocrats. Mr Modi can pick either or evolve a completely new vision which has the characteristics of a good vision statement, or he can face the prospect of being saddled with a plan which he does not believe in wholeheartedly.

The Strategy and the Action Plan

Devising a strategy to attain the vision is possibly the most difficult part of the planning process. This is particularly so when the vision encompasses multiple, seemingly unrelated, objectives. In a country as large and diverse as India, this has pretty much always been the case; but the magnitude has become even more daunting with the adoption of the SDGs.³⁰ Devising a development strategy involves two steps which need to work in tandem, usually with several iterations. The first step is conceptualizing the strategic approach, which is a creative act linking the objectives, the constraints, and the instruments in a manner which subserves the attainment of the vision. The second is to subject the conceptual strategy to tests of internal consistency and feasibility. This is a technical process which quite often requires developing new analytical frameworks.³¹

The implementation or action plan, on the other hand, is subordinate to and derives from the strategy. Its purpose is to flesh out the skeleton framework of the strategic approach through appropriate policies and programmes which can be implemented by the ministries and state governments. This separation between the strategy and the implementation frameworks is important and should not be diluted. In our earlier plans, the strategy was articulated in the Approach Papers, which had very little by way of policies or programmes. The final plan documents were the implementation blueprints, which adhered to the ideological and conceptual framework laid out in the Approach Papers and went into the operational design in great detail.

To begin with, therefore, it is important to acknowledge that strategic planning is always and everywhere a top-down function. The development of a strategy requires a system-wide perspective which is usually available only at the apex level of an organization, whether it is the central or state government, and even there only in the unit charged with tracking developments across all staff and line functions. More often than not, the strategy is the product of one single person – the ‘strategic thinker’ in the words of H. Mintzberg – supported by a team of analytical experts.³²

There is, however, a contrarian point of view which believes that a strategic plan can and should be evolved by aggregating plans developed at the subordinate

levels – often referred to as ‘bottom-up’ planning – by simply ironing out overlaps and contradictions. The argument offered is that such ‘bottom-up’ planning leads to a much higher degree of ‘buy-in’ or ‘ownership’ of the strategic plan among all stakeholders than any top-down approach.

While ‘buy-in’ among stake-holders is certainly an important consideration in formulating plans, the ‘bottom-up’ approach completely misses the whole point of strategic planning. It may be borne in mind that strategic planning is about achieving a long-term vision which cannot be attained through a ‘business-as-usual’ approach, and requires addressing factors not in control of the government by deployment of factors over which it does have control. At subordinate levels, it is more than likely that the ministries/state departments will consider what they are currently doing to be the best for the country and will simply reiterate the business-as-usual. Even if they do not, it will always be the case that even internal factors will be seen to be outside the control of the concerned arm of government, which will necessarily distort the subordinate plan away from that which is optimal at the national level. These problems cannot be corrected merely by addressing overlaps and contradictions and dictates a ‘top-down’ approach.

Having said this, it needs to be reiterated that ‘buy-in’ is extremely important to the success of any plan, and this cannot happen merely through exhortations or clever communication strategies. The process of formulating and implementing the strategic plan has to be designed in such a manner that it inculcates a sense of ownership and commitment among the lower tiers of the organization. In particular, the implementation or action plan should be evolved in such a manner as to inculcate the highest level of ‘buy in’ as possible. There are two other equally compelling reasons why the process is important. The first is information: different tiers of an organization have information which may not be available in other tiers. The second is accountability: no tier of the organization should be able to claim that it does not bear some responsibility for failure.

There are three dimensions which need to be taken into account while designing an appropriate process of strategic planning and implementation. The first is consultation. It has long been established that a major factor in inculcating ownership is a sense of participation. It is clear that all stakeholders cannot, and indeed should not, directly participate in formulating the plan. There are two aphorisms which succinctly capture why this is necessarily so: *Too many cooks spoil the broth* and *Missing the wood for the trees*. Strategic planning, and especially strategic thinking, is all about focusing on broad patterns and cutting out the noise. Excessive participation by lower tiers almost always leads to excessive focus on details which are deemed paramount at the subordinate level and retards the distillation of the essentials.³³ Insufficient participation is just as bad. Not only is there no sense of ownership, which also reduces accountability, but important

information may be lost. A *via media* between these extremes is a carefully designed process of consultation which simultaneously meets the need of eliciting all relevant information and inculcating a sense of participation and ownership.

The second dimension is decentralization. No matter how well designed the consultation process, it cannot either elicit or utilize the variety of detailed information that exists within the organization. More importantly, it cannot be the principal modality for building accountability into the implementation of the plan. This particular requirement demands that subordinate units, which are ultimately responsible for implementing the plan, are given sufficient leeway to design their own activities and modes of implementation without compromising the broad objectives of the plan. In other words, a balance needs to be struck between over-centralization, on the one hand, and anarchic freedom at the subordinate level, on the other. This balance has to be reflected in the level of detail that the strategic plan goes into.

The third dimension is feedback, which is not so important in actually designing the strategic plan itself but is crucial to the 'learning' and re-designing processes.³⁴ However, the feedback design and parameters should be drawn up at the time of formulating the plan if it is to be really effective. It should be made clear that feedback is not synonymous with monitoring – an error that is commonly made in designing management information systems (MIS). Monitoring is essentially an audit activity meant for tracking the progress of implementation of the plan against the specified measures and timelines. Feedback, on the other hand, relates to the information required by the planners to judge whether the assumptions and assessments made by them at the time of plan formulation are borne out by later developments, which enables them to recalibrate the plan suitably.

The Process

The national planning experience in India is most instructive in terms of the processes that were employed and their impact on the effectiveness of the plans. The Second and Third Plans had very little by way of consultations, but that did not really affect either the ownership or accountability since there was a very high level of decentralization. The plans scrupulously stayed away from all areas which were placed in the domain of the states by the Constitution, and were left to the states to design and implement. They were also not overly prescriptive with regard to the domains of most central ministries other than laying down the broad contours of policy. In view of the limited coverage of these plans, both the information and the feedback needs were relatively modest and could be obtained without any great information flow from the subordinate units.

The downside of this hands-off approach was that since each state was left to its own devices without any real central guiding principle, they formulated their own plans independently of each other. The net result was a wide array of development experiences across the states of the country, leading to increasing divergence between them. The second problem was that there was no rational basis for the centre to determine the amount of central funds that should be allocated to each state for their development needs. This led to a certain degree of resentment among states, who accused the centre of allocating funds on a political basis rather than on any objective economic or development criteria.

This arrangement began to change from the Fourth Plan, and gained momentum from the Fifth. In the 40 years since, the encroachment of the centre into domains of the states has increased progressively from agriculture to social protection (anti-poverty programmes) to a wide variety of social services. As a consequence, the national plan increased steadily in both scope and level of detail.³⁵ Correspondingly, the planning process too became increasingly more elaborate and complex. It is instructive to examine the extent to which these processes met the needs of ownership, information, and accountability in terms of the three dimensions of process design, namely consultation, decentralization, and feedback.

The consultation process operated in three tiers. First and foremost, it was embedded in the structure of the Planning Commission, which had divisions corresponding to each ministry of the central government as well as a state plans division. The function of these divisions was to constantly interact with their counterparts in the ministries and the states in order to keep abreast with developments. These divisions were thus able to provide relatively detailed information on an ongoing basis to the division concerned with formulating the plan.³⁶ They, however, did little in terms of either ownership or accountability, and, indeed, may have actually been damaging in terms of these two dimensions.

The second tier of consultation was the Steering Committees and Working Groups that were set up by the Planning Commission prior to the preparation of each plan. The Steering Committees were chaired by the concerned member of the Planning Commission and included the secretaries to all ministries concerned with the broad subject area. The Working Groups were established by the Steering Committees to go into the details of sub-components of the subject area, and were chaired by the secretary of the most relevant ministry.³⁷ These Working Groups included not only officers of the Planning Commission and the ministries but also representatives of selected state governments, academics, and other domain experts.³⁸ This methodology was very successful in eliciting high levels of information and expertise, and did contribute substantially to ownership of the plan at the official level of the central government. It was, however, not designed

for generating political buy-in, and neither was it effective in obtaining ownership at the state level. Indeed, as will be explained later, it may have contributed to alienation among the states. The record on accountability too is mixed.

The third tier of consultation was aimed at the political level. This was carried out through meetings with state governments usually led by the chief ministers. The main consultation was on what is referred to as 'The Approach Paper to the Plan', which was essentially a document laying out the strategic thinking underlying the plan. Subsequently, the Approach Paper and the final plan document were placed before the National Development Council (NDC) for approval, at which time the political leadership in principle could demand changes in these documents.³⁹ This procedure could have elicited a fair degree of buy-in, provided that the follow-up processes were better. As things stood, the state-level consultations were meticulously documented, but no feedback was ever provided on which suggestions were accepted and which were not along with appropriate justification. The net result was that states, quite rightly, felt that this consultation was merely a façade for the centre to do as it pleased. The NDC meetings were even more *pro forma*, and the states had good reason to believe that their views did not count.

The decentralization process became progressively worse over the years and steadily eroded the degree of buy-in, first among states and then even among the ministries. Its effects on accountability were even worse. Originally, the centre transferred a block grant to states for development purposes, which were used by the states to fund programmes designed and implemented by them.⁴⁰ Later, carve-outs were made from the total state allocations for specific purposes of national importance, but the design and implementation were left to the discretion of the state governments. Up to this point, there was considerable ownership of the plan by the states despite their reservations about the consultation process. This began to change from the Fifth Plan itself, with central ministries becoming more involved in matters belonging to the domain of the states through what are called 'centrally sponsored schemes' (CSS). The CSS were programmes implemented by the states but partially funded by the centre.⁴¹

Initially, the CSS were designed by the central ministries, and this unified design was imposed on all participating states. The states not only resented this imposition but had little accountability for failure of these schemes. To make matters worse, the CSS not only reduced the funds available to the states from the central allocations, but also reduced the amount they had available from their own funds. This was a further blow to ownership by the states, and a source of even greater resentment. During this period, the Planning Commission did not interfere with the design and implementation of the CSS, except to undertake cost-benefit appraisal of the proposed project. This approach ensured that there

was full ownership of these schemes and full accountability at least in the central ministries. Later, however, the Planning Commission also started to interfere with the design of the CSS. This was the kiss of death, since it removed both ownership and accountability among not only the states but also the central ministries. To a large extent, the eventual demise of the Planning Commission was probably the outcome of this overreach, since it led to widespread resentment in all other tiers of government.

Insofar as the feedback process is concerned, to state it baldly, there was none whatsoever at any time.⁴² There were no doubt elaborate monitoring processes, and the Planning Commission had a full-fledged evaluation wing which periodically assessed both the central programmes and the CSS. However, as has already been mentioned, monitoring and evaluation (M&E) are distinct from feedback. In the first place, M&E are both audit procedures and, as such, are usually resented by the subjects of these activities.⁴³ Feedback, on the other hand, tends to inculcate a sense of participation since it elicits not just facts but also opinions. Second, while M&E are about enforcing accountability, feedback is about understanding the consistency between objective, design, and action, which can create an accountability of a different type altogether. Thus, although the Planning Commission undertook a detailed mid-term appraisal of the progress of each plan and designed course corrections when necessary, these were rarely informed by an understanding of the design problems embedded in the original plan.

In brief, therefore, although the Planning Commission did have an understanding of the importance of processes, these were not thought through in terms of their impacts on the various components of the larger system. All too often, the form was mistaken for the substance. The net result of such faulty processes was a steady build-up of disenchantment and resentment, which culminated in the eventual demise of the commission, and perhaps of planning itself in India.

The Lessons

The main learning from this experience is that the NITI Aayog needs to devote as careful thought to the planning process as to formulating the strategic plan itself. This is not a technical exercise, and involves a deep understanding of people and of organizational behaviour. Some of the features of this process can be summarized as follows:

1. The prime minister should articulate the broad vision for the country, and not merely endorse a suggestion put up by the bureaucracy.
2. The NITI Aayog should work out the components of this vision in terms of the objectives and targets, and obtain full support of the prime minister.

It may also be desirable to place these before the Governing Council of the NITI Aayog for its endorsement.⁴⁴

3. The broad strategy for attaining the expanded vision should be worked out within the NITI Aayog, keeping in mind the interrelationships and synergies that may exist among the various objectives. This strategic plan should confine itself to strategy and not extend itself to detailed design, which should be left to the lower tiers. This involves laying out the objectives, the targets, the time path, and the resources. All else is detail, which is best done by others.
4. In framing the implementation or action plan, the NITI Aayog should clearly specify which interventions should be designed and controlled by the central ministries and which should be left to the state governments with only financial support from the centre.
5. In the course of formulating the strategic plan, there will inevitably be serious differences of opinion between the NITI Aayog and the ministries/state governments. These differences need to be resolved before the strategic plan is finalized. The resolution can only be done at a level higher than that of the Aayog, and this role has to be played by the chief executive officer (CEO).
6. Last, but not least, the NITI Aayog should consciously guard against developing *hubris*, which inevitably leads to micro-prescriptions – the bane of the erstwhile Planning Commission.

Notes

1. Loosely translated as ‘the more things change, the more they remain the same’.
2. NITI being the acronym for ‘National Institution for Transforming India’.
3. India has never really had central planning in the sense and form that were present in the USSR, China, and other communist countries. And even the rudimentary trappings that existed earlier were decisively given up 25 years ago post the 1991 reforms. Since then, Indian planning much more closely resembled the systems in vogue in many countries in western Europe, such as the Netherlands and France.
4. Some form of a plan would be necessary if for no other reason than that access to International Development Agency (IDA) funds require the existence of a nationally owned Poverty Reduction Strategy Paper (PRSP), which is nothing but a national plan under a different rubric. Moreover, the UN Sustainable Development Goals (SDGs), if taken seriously, will require an integrative framework for operationalization.
5. The author’s personal experience over the 15 years he spent in the Planning Commission was that the most active users of the plans were the private corporate

sector which saw the utility of a consistent economy-wide strategy for its own strategic planning.

6. Although the model used for the Second Plan is now known as the Feldman–Mahalanobis model, acknowledging its similarity to the model developed by G. A. Feldman in 1928, the two were developed independently. Nevertheless, while there are commonalities between the Soviet and the early Indian planning models, their mode of implementation was quite different.
7. The spectacular success stories of Taiwan and South Korea, which followed an overt ‘export-led’ strategy, began only about five years later.
8. The Third Plan also saw the involvement of a number of the world’s most eminent economists in developing and refining the original Mahalanobis model. In an important sense, the theoretical basis of this plan foreshadowed the ‘two-gap’ model of growth which was developed by Chenery and Strout in 1966.
9. There was a four-year ‘Plan holiday’ between the Third and the Fourth Plans, which enabled the planners to recalibrate the earlier strategy. This was a political decision, and the planners had to incorporate this into the plan model.
10. By the mid-1970s, the savings rate in India had doubled as compared to the early 1950s and had surpassed that of the USA.
11. The Eighth Plan, like the two previous plans, was ‘realistic’ in its target, which was set at 5.5 per cent. It should also be mentioned that the plan model continued to be the same as that of the two earlier plans, despite the change in the economic system.
12. This plan used a macro-econometric model in addition to the standard planning model.
13. In earlier plans, the fiscal side was taken into account only to the extent that it affected the availability of plan resources.
14. Three notable interventions of this plan were the National Highway Development Programme (NHDP), the Pradhan Mantri Gram Sadak Yojana (PMGSY), a rural roads programme, and the Sarva Siksha Abhiyan (SSA), a universal primary education programme. It should be noted that the latter two interventions were again encroachments in the domain of the states.
15. Indeed, the Tenth Plan provided a consistent state-wise break-down of the principal targets of the plan in consultation with the state governments.
16. The term ‘inclusive growth’ is first mentioned in the Approach Paper to the Eleventh Plan, and has since become the dominant catchphrase in international development discourse.
17. The Eleventh Plan consolidated the various infrastructure initiatives of the Tenth Plan under the rubric of Bharat Nirman and gave them additional impetus. The other major innovation in this area was the push given to public–private partnerships (PPPs), particularly in power, roads, and ports.
18. The Mahatma Gandhi National Rural Employment Guarantee Scheme (MGNREGS), the world’s largest workfare programme, was the principal intervention to address this issue.

19. On the technical side, the Eleventh Plan introduced computable general equilibrium (CGE) models to complement and supplement the planning and macro-econometric models of the previous plan. This enabled the system to evaluate different policy options for addressing the shocks being faced by the economy.
20. The Twelfth Plan extended the formal modelling approaches of the three earlier plans by undertaking a scenario-building exercise using a systems approach, with very good effect indeed.
21. The Second Plan was led by Professor Mahalanobis; the Third and Fourth Plans by Pitamber Pant; the Fifth by Professor Sukhomoy Chakrabarty; and the Tenth Plan by this author.
22. In each of these cases, there were strong charismatic prime ministers at the helm: Pandit Jawaharlal Nehru during the Second and Third Plans; Mrs Indira Gandhi during the Fourth and the Fifth; and Mr Atal Behari Vajpayee during the Tenth, although heading a coalition.
23. In this instance, there was a single-party government headed by Mr Rajiv Gandhi as the prime minister. However, Mr Gandhi did not believe in planning and reportedly termed the Planning Commission 'a pack of jokers'. Little wonder then that there was total demoralization in the planning set-up.
24. In each of these cases, there was a coalition or a minority government with relatively weak leadership precluding the possibility of a politically compelling vision.
25. This is of course not to say that the equity and social development objectives were not achieved. They were to a very substantial extent. The Eleventh Plan period witnessed the most rapid reduction in poverty in India and considerable progress in primary education.
26. It is learnt that NITI Aayog has asked the central ministries and state governments to suggest their visions. The most egregious example of a bureaucracy-led crowd-sourced vision is the SDGs adopted by the United Nations.
27. Clean India.
28. Save the daughter, educate the daughter.
29. The matter is further complicated by a host of programmatic pronouncements made by the Prime Minister in diverse sectors such as the Jan Dhan Yojana, Smart Cities, Micro Units Development & Refinance Agency Ltd. (MUDRA), Ujjwal DISCOM Assurance Yojana (UDAY), and Ude Desh ka Aam Nagrik (UDAN), among others.
30. The SDGs comprise 17 goals broken up into 126 primary targets plus 43 secondary targets. It is probably beyond the capability of even the best strategist to weave all of these into a comprehensive, internally consistent national development strategy. Choices will have to be made, and this can only be done through the filter of a national vision.
31. The Second, Third, Fifth, Tenth and, to a lesser extent, Twelfth Five-Year Plans required such new analytical approaches.
32. There is a fascinating debate in the management literature on whether strategic planning is a creative act or a technical one, which is central to determining the skill

sets needed in bodies like the NITI Aayog. See Ansoff (1991, 1994) and Mintzberg (1990, 1991, 1994).

33. Excessive participation is as bad as a 'bottoms-up' approach, perhaps even worse.
34. The feedback on the plan itself is subsumed under the consultation dimension. Here the term 'feedback' refers to the information flow that is generated in the course of implementation of the plan.
35. A rough indication of this expansion is given by the fact that the Second Plan was only 140 pages long, whereas the Twelfth is nearly 1,400.
36. The Perspective Planning Division of the Planning Commission was ultimately responsible for both strategic thinking and the technical aspects of formulating the strategic plan.
37. For the most part, the reports of these Working Groups, suitably harmonized by the Steering Committees, formed the basis of the sectoral chapters of the final plan document.
38. In later years, this was expanded to also include representatives of civil society and industry – the other important stakeholders. At its peak, this process involved nearly 6,000 persons.
39. The NDC is the apex decision-making body on all development matters in India. It is composed of the entire union cabinet and chief ministers of all states, and is chaired by the prime minister.
40. Reacting to the charges of politicization of allocations during the Second and Third Plans, the central government started to allocate block grants on the basis of a formula approved by the NDC – the so-called Gadgil formula – from the Fourth Plan onwards.
41. The states were required to contribute a particular proportion of the total funds in order to access the centre's share.
42. The structured interaction between the divisions of the Planning Commission and the central ministries was the nearest that came to a feedback process.
43. Evaluation can have non-audit dimensions if well designed, but this was not the case in India.
44. The Governing Council of the NITI Aayog is chaired by the prime minister and has all state chief ministers as members.

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Why Does India Need a Central Planning Institution in the 21st Century?

Santosh Mehrotra

The question ‘Does India need central planning?’ should be answered at both theoretical and empirical levels. This question requires to be answered because, when the Indian Planning Commission (PC) was disbanded and its concomitant five-year plans abandoned at the end of 2014, there was little substantive reasoning why this was done.

Economists who have some sense of the historical evolution of institutions (for example, the market and the state) in the now industrialized countries (all capitalist) know that *laissez-faire* in the economy/society never really existed anywhere, ever. There actually is no economy in the world that is not ‘planned’, to a smaller or greater degree (see Chapter 1 in this volume for more on this argument).

This chapter has three sections. The first section addresses the question above and discusses the theoretical and empirical arguments why planning is still needed in India. The next section discusses the functions that the erstwhile PC performed, what the current National Institution for Transforming India (NITI) does, and what should be the possible functions of a planning institution in a country the size of India in a rapidly globalizing economy. The final section examines how the planning function in India should be structured in terms of organization and human resources for effective functioning.

Why Planning? The Theoretical and Historical Argument

The market economy in the currently industrialized countries would not have come into existence but for the state; the state was critical in establishing key institutions of the market economy – land and labour were two such factors of production (Polanyi 1944). In the United Kingdom, the state was responsible

for bringing land into the market economy through its programme of enclosing common land; thereby, it also set in motion a process which ultimately led to the creation of a national market for labour (Moore 1968).

While the Industrial Revolution began in England in the last quarter of the 18th century, it can hardly be said that an integrated national economic system existed until the second quarter of the 19th century. No market economy was conceivable that did not include a market for labour; but to establish such a market, especially in England's rural civilization, a complete transformation of the traditional fabric of society was needed. In fact, during the most active period of the Industrial Revolution, from 1795 to 1834, a new gigantic wave of enclosed common land brought land into the market economy and produced a rural proletariat compelled to earn a living by offering their labour for sale. On the other hand, various laws, rules, and traditions precluded them from earning a living by their labour. However, the repeal of those laws led to a national market for labour by the action of the state, which enabled labour to be employed in the factory system.

'The road to the free market was opened and kept open by an enormous increase in continuous, centrally organised and controlled interventionism' (Polanyi 1944). He also makes clear that this is not to be interpreted as a conscious planning exercise. He means that the emergence of *laissez-faire* was not a natural development, but one led by state policies. There is an amazing diversity of matters on which action was taken by the state, including basic health, sanitation, and education.

These were helpful in both establishing and strengthening capitalism through the mitigation of social costs (their most visible and direct objective), but also by promoting growth through a healthier, better trained workforce, safer markets for consumers, and newer areas of investment. Thus, social and economic development occurred together and reinforced each other as growth transformed societies, and states took up different and expanding roles (Nell 1992).

As Polanyi puts it aptly, 'While the *laissez faire* economy was the product of deliberate state action, subsequent restrictions on *laissez faire* started in a spontaneous way. *Laissez faire* was planned; planning was not' (1944: 141). He means that the emergence of a market economy was not a natural development, but one led by state policies.

Similarly, but much earlier, Adam Smith (1937) pointed out the role of the state in 'erecting and maintaining those public institutions and those public works, though they may be in the highest degree advantageous to a great society, are, however, of such a nature, that the profit could never repay the expense to any individual....' Such works were 'those for facilitating the commerce of the society, and those for promoting the instructions of the people' (Smith 1937: 681). Each of the European countries passed through a period of free trade and *laissez-faire*,

followed by a period of 'anti-liberal' or social legislation and measures in regard to public health, education, public utilities, municipal trading, social insurance, trade associations, and factory conditions (Polanyi 1944). This was as true of Victorian England as of Bismarck's Prussia, of France (Third Republic), and of the post-bellum United States.

In the case of the United States, state intervention in establishing property rights, facilitating the provision of critical physical infrastructure (especially railways and telegraphy), funding of agricultural research, and so on, were key to successful early industrialization (Chang 2001; Kozul-Wright 1995). Most importantly, the United States was the birthplace of the idea of infant industry protection, and was indeed the most heavily protected economy in the world for about a century, until the Second World War.¹

After the Second World War, there was worldwide rejection of the laissez-faire doctrine, which had not shown much evidence of success between the two world wars. During the following 25 years or so, known as the Golden Age of Capitalism, a variety of interventionist economic theories, such as welfare economics, Keynesianism, and the early development economics, focused very much on the role of the state (Chang and Rowthorn 1995; also see Deane 1989). These interventionist theories identified many market failures and argued that active state involvement was necessary to correct these failures. They agreed that a mixed economy was necessary and desirable. *In other words, the preceding examples of industrialized countries demonstrate capitalism is consistent with planning.*

For those in India (or elsewhere) who associate central planning with 'socialism', they can be forgiven since Nehru (India's first prime minister) was indeed a Fabian Socialist, and also heavily influenced by the not-insignificant achievements of the Soviet Union within a few decades after its revolution of 1919. This influence of so-called socialism was also evident in Indira Gandhi (Nehru's daughter and India's third prime minister, 1967–1977, and again 1980–1984), who happened to engineer an amendment to the Indian Constitution to ensure that the word 'socialist republic' was introduced in its Preamble, to read: 'We, the People of India, having solemnly resolved to constitute India into a sovereign *socialist secular* democratic republic...' ² (emphasis added). There was no real evidence of 'socialism' in her policies; she interpreted a growing number of public sector enterprises and the nationalization of private banks (1969) as 'socialism'. Mere state intervention or state ownership of productive enterprises is not socialism.

India was very much a mixed economy in its non-agricultural sectors with a growing public sector role in industry in the first three decades of planned development, and a combination of semi-feudalism and capitalism in the way agrarian relations were organized (Bhaduri 1973; Bharadwaj 1974). India's economy performed rather well under a state-driven model, but only in the first 15 years.

Industry grew faster between 1951 and 1965 during the first three five-year plans than in the colonial period, led by an import-substitution industrialization (ISI) strategy, an appropriate strategy at the time (as many have noted in earlier chapters) followed by most developing countries.

The problems in India's case arose because the 'socialist' only-in-name influences and the anti-colonial sentiment in early years led to the survival of ISI well beyond its 'use-by' date (Bhagwati and Panagariya 2012), as we noted in Chapter 1. Thus, there is no ground for confusing the failures of poor policy with planning per se, just as this planning should not be confused for 'socialism'.

Both East/South East Asian countries had, and still have, five-year plans. An industrial strategy (starting with ISI but moving quickly to supplement with export-oriented labour-intensive manufacturing) was integral to their planning, and planning was integral to the success story of the East/South East 'miracle' economies. What was also integral was that they ensured productive use of their most abundant factor, that is, labour, through an export-oriented manufacturing strategy. It was this strategy or policy that was lacking in India's planning; giving 'planning' per se a bad name for poor strategy or policy is indicative of a shallow understanding of both socialism and planning. For the first three decades after independence, the world economy (especially Europe, North America, and Japan) was growing rapidly, but India did not take advantage by producing to export to these markets.

India's neglect of producing for international markets and focusing on only the domestic market clearly became a failure of colossal proportions. It failed because it was not accompanied by efforts to expand the domestic market through investment in agriculture, which would have raised consumer demand for manufactures (Chakravarty 1987). A belief prevailed that agrarian institutional reforms (*zamindari* abolition, land ceiling laws, consolidation of fragmented land, and so on) would suffice to ensure equitable growth, which proved a chimera. This was a failure of poor policy, based on a lack of recognition of what the binding constraints upon the economy were at the time – a lack of consumer demand. A wrong policy (implemented with instruments which were crude) cannot be confused with being a failure of planning itself.

A failure of similarly serious proportions was the neglect of school education and public/preventive health services for all. Again, this was not a failure of planning, but a catastrophic failure of the strategy within planning.

However, one clear success story of the early years of planning in India was certainly the emergence, under state ownership (not unlike in the Soviet Union and China), of heavy industry/capital goods industry, that led to the development of a series of industries that private industry had not shown much interest in investing in.³

The point is that the ‘miracle’ economies of East Asia became high achievers because their strategy was superior (Mehrotra and Jolly 1997; Amsden, 2003). Their strategy of export-oriented labour-intensive manufacturing was particularly suited to the growing international economy in what we have referred to above as the golden age of capitalism (the quarter century after 1945). These success stories were crafted and located in planning ministries that actually prepared and successfully executed five-year plans. In India’s case, planning has been given a bad name, unfortunately by planners, because India failed on many fronts, while planning enabled strategies to succeed in other countries. Like the East Asian miracle economies, both the ‘socialist planned’ economies of the Soviet Union and China invested in land reforms, public health for all, and public schooling for all early in their development. The ‘miracle’ economies of East Asia did practically the same, without calling themselves ‘socialist’ or centrally planned economies.

Even after China launched its ‘market economy’ reforms in 1979, its State Planning Commission still survived. *If anything, the Chinese Planning Commission became more, not less, powerful after 1979, as it was the basis for planning the agricultural revolution of the 1980s. It also was, and still is, the base for planning the industrial strategy of the country.*

In every South East Asian economy, the equivalent of a planning commission or ministry has always existed in the last over half century, and still exists. These economies sustained gross domestic product (GDP) growth rates higher than India for long periods, long before the early 2000s when India’s spurt in GDP growth began. They have reduced poverty at rates that are not found in Latin America, Sub-Saharan Africa, or in South Asia. They emerged out of the Asian economic crisis (of 1997–1998) fast, as they did from the global economic crisis post 2008.

Why Planning? The Contemporary Argument

We have argued in much of this book that such a large country as India, which is extremely diverse (not just culturally but in levels of economic and human development), cannot develop without a strong planning institution at its helm. In fact, at India’s level of development, even the states will need planning institutions that are stronger than the ones that they have had for the last 70 years. Different states or ministries of the union government cannot be left to take major decisions that impact across states. The Constitution of India, for this reason, Granville Austin (1972) rightly describes, speaks of ‘cooperative federalism’ as the model.⁴ In Chapter 12, we have already argued for a NITI that, like the abolished PC, is able to allocate resources to reduce the infrastructure and human development gaps between less and more developed states of India – as a means of job creation in the poorer states.

Unfortunately, the main ex-post argument advanced by many economists/bureaucrats for abolishing the PC was hardly credible, to say the least. The government never gave any argument when the PC was swept away, except for some really facile ones: that India is an open economy in a globalized world, hence if the market is to allocate, why have a centralized Soviet-style PC? There are many problems with such an assertion:

1. The PC never did Soviet-style centralized planning, even during the Mahalanobis time. A very large share of India's economy is private. More importantly, the nature of the five-year plans kept evolving from prescriptive to indicative (a point well made by several authors in this volume).
2. Markets are important, but they fail. In addition to normal arguments of market failure (discussed earlier), in India, the government must intervene on behalf of the segment of population which cannot participate in the market in the first place; and this cannot be undertaken through 'schemes'. It requires a cohesive plan. The idea that a PC needs to work with markets and wherever markets are weak, it should strengthen them as well as supplement them through other means, still holds good – irrespective of our market enthusiasts (many of whom are senior bureaucrats). The role of a non-market-based approach for inclusive development justifies the need for planning for another two decades, until the end of our demographic dividend. Realizing India's demographic dividend should be a primary goal of planning in the 21st century.

A second reason why India must have a strong central planning institution is that India's high GDP growth rate must be sustained for at least two decades more, at rates comparable to those achieved between 2003–2004 and 2011–2012 (8.4 per cent per annum at factor cost with base year 2004–2005). Since 2011–2012, growth has been volatile, and certainly below potential, rarely exceeding 7 per cent per annum (at market prices at 2011–2012). There are far too many risks to India's growth that can cause volatility in growth which can undermine the prospects of India's demographic dividend. The East Asian countries sustained high growth for 15–20 years at a stretch, while China did it for 30 years, the latter an achievement unprecedented in human history. (By contrast, India's growth since 2000 has been subject to great volatility, despite achieving a higher average than during the 1990s.) That is how the East Asians were able to ride the wave of their demographic dividend, which comes but once in the life of a nation. The Chinese State Planning Commission was critical to the successful implementation of an industrial policy, which evolved in the light of conditions in the international economy (Mehrotra and Acharya 2017).

India's own growth has been impressive. In 1960, India was a low-income country with a per capita income (in 2011 purchasing power parity [PPP] terms) of US\$1,033. This was equivalent to about 6 per cent of the US per capita income at the time. However, India attained lower middle-income status in 2008 and today has a per capita income of US\$6,538 (PPP), which is 12 per cent of the US. If per capita income in India grows at 6.5 per cent per year (which has not been the case in the last five years), India would reach upper-middle income status by the mid-to-late 2020s, according to the *Economic Survey 2018* (Ministry of Finance 2018). If it grows closer to its potential (7.5 per cent per annum, as mentioned by OECD 2017), this goal could be achieved sooner.

However, there is nothing inevitable about this possibility. Latin American countries have been in a middle-income trap for decades, and India has to guard against such a trap. The reasons for the trap/stall were supposed to be twofold, rather in the way the two blades of a pair of scissors operate (according to the *Economic Survey 2018*). On the one hand, as countries attained middle-income status, they would be squeezed out of manufacturing and other dynamic sectors by poorer, lower-cost competitors (for example, Vietnam, Bangladesh, and Cambodia). On the other hand, they would lack the institutional, human, and technological capital to carve out niches higher up the value-added chain (which the East Asians and China did). Thus, they would face pressure from both below and top, and hence would be unable to graduate above middle-income status.

We know that growth rates around the world have dropped sharply after 2008. The global economic crisis led to a sharp fall in growth rates globally. For example, world growth declined from 4.3 per cent in the 10-year period prior to the crisis to 2.9 per cent in the decade after the crisis.⁵

For late industrializers like India, there are four new trends post global financial crisis of 2008 that might slow down growth, thus undermining the realization of the demographic dividend (Ministry of Finance 2018). To prevent these forces from adversely affecting India's growth prospects requires deep planning.

In this quest, India's first challenge is to ensure GDP and export growth despite the repudiation of rapid globalization that is a marked international trend post-2008. Early convergers benefited from rapid globalization during the golden age of capitalism reflected in dramatic increases in the world trade–GDP ratio. As a result, Japan, South Korea, and China all managed average export growth rates of over 15 per cent for the 30 years of their convergence periods.

However, this globalization has led to a backlash in advanced countries demonstrated by the fall in world trade–GDP ratios since 2011. As a result, the opportunity available to the early convergers, specifically the ability to export at double digit rates of growth for three to four decades consistently, may not be available to India. India experienced rapid export growth from 2004 (when

its level was US\$63 billion a year) to US\$183 billion in 2009, rising further to US\$315 billion in 2014 (or from 11 per cent to 25 per cent of GDP over 1991 to 2014). However, merchandise exports had fallen to US\$263 billion in 2015–2016, and barely achieved US\$303 billion in 2017–2018. What seems to have not been explored (although there is potential) is the export of service sectors like banking, legal, and financial services, which remains untapped largely because of a muddled export policy at present. Indian wage rate for service sectors are still low, and since technology has disaggregated the value chain, it is possible to achieve a high rate of export growth at present.

Second, manufacturing is well known as a very important sector to ensure successful transformations (Rodrik 2015). This sector exhibits ‘unconditional convergence’ towards the world frontier so that it can become the basis for rapid growth. India’s manufacturing to GDP ratio has not exceeded 17 per cent for the last quarter century since economic reforms began in 1991. With Industry 4.0 hitting Indian manufacturing as well, clearly an Industrial Policy (the components of which we specified in Chapter 11) is going to be critical to India’s sustained growth of productivity through greater manufacturing.

There is a third adverse factor facing India (and most other low- and middle-income countries) in the period post 2008, that is, the relatively low level of human capital that we have written about elsewhere (see Chapter 11 in this volume; Mehrotra 2014, 2016; Ministry of Finance 2018). There is one key difference between early convergence based on manufacturing and late convergence (which faces the adverse factors of automation/Industry 4.0, and the retraction from globalization). In early convergence, it was the alignment of human capital endowment (educated but relatively unskilled labour) with manufacturing that allowed for the spread of dynamism to the rest of the economy (Acharya and Mehrotra 2018). Shifts in labour, the so-called Lewisian transformation from agri- to non-agri growth, were possible because of this coincidence.

However, the late industrializers (including India) failed to provide basic education early enough in the development process necessary for some structural transformation. But that failure is now a serious problem because, as the *Economic Survey* rightly emphasizes, technology will increasingly favour skilled human capital, a prerequisite for India to become a ‘learning society’ (Stiglitz 2014) where the requisite skills will include adaptability and the ability to learn continually.

Fourth, climate-change-induced agricultural stress makes convergence more difficult for late convergers. For India, agricultural growth had picked up to just over 4 per cent between 2004 and 2014 (but fell to 2.7 per cent per annum over 2014 to 2018). However, a recent study also analysed drought trends and variability in India for the period 1901–2004. It indicated an increasing trend in drought severity and frequency (Mallya et al. 2016). For the poorest countries, growth

rates in agricultural productivity have even declined after the global crisis. For example, Indian agricultural productivity growth has been stagnant, averaging roughly 3 per cent over the last 30 years (Ministry of Finance 2018). With rising variability of rainfall, farmer revenues could fall by up to 20–25 per cent in non-irrigated areas.

All these adverse factors facing India at the end of the second decade of the 21st century have to be addressed through conscious and expertly devised policies – which requires policy and programme coherence across key sectors of the economy, which is impossible in the absence of a strong planning institution at the helm of India's governance structure.

Planning for a 21st Century India: Functions

What should a new planning body for the 21st century look like in India? This question cannot be adequately answered without examining what were the issues in early 2014 with the PC as it then existed.

Issues That Needed Resolution Regarding Functions and Performance of PC in 2014

India's PC was created in 1950. The Government of India, in a Cabinet Secretariat Resolution dated 15th March 1950 resolved as follows:

During the last three years, the Centre as well as the Provinces have initiated schemes of development, but experience has shown that progress has been hampered by the absence of adequate co-ordination and of sufficiently precise information about the availability of resources. With the integration of the former Indian States with the rest of the country and the emergence of new geographical and economic facts, a fresh assessment of the financial and other resources and of the essential conditions of progress has now become necessary. Moreover, inflationary pressures inherited from the war, balance of payments difficulties, the influx into India of several million persons displaced from their homes and occupations, deficiencies in the country's food supply aggravated by partition and a succession of indifferent harvests, and the dislocation of supplies of certain essential raw materials have placed the economy under a severe strain. The need for comprehensive planning based on a careful appraisal of resources and on an objective analysis of all the relevant economic factors has become imperative. These purposes can best be achieved through an organization free from the burden of the day-to-day administration, but in constant touch with the Government at the highest policy level. Accordingly, as announced by the Honourable Finance Minister in his Budget speech on the 28th February, 1950, the Government of India have decided to set up a Planning Commission.

The Resolution further stated that the PC will perform the following functions:

1. make an *assessment of the material, capital and human resources* of the country, including technical personnel, and investigate the possibilities of augmenting such of these resources as are found to be deficient in relation to the nation's requirements;
2. *formulate a plan* for the most effective and balanced utilisation of the country's resources;
3. on a *determination of priorities*, define the stages in which the Plan should be carried out and *propose the allocation of resources* for the due completion of each stage;
4. indicate the factors which are tending to retard economic development, and *determine the conditions* which, in view of the current social and political situation, should be established *for the successful execution* of the Plan;
5. determine the *nature of the machinery* which will be necessary for securing the successful implementation of each stage of the Plan in all its aspects;
6. *appraise from time to time the progress achieved* in the execution of each stage of the Plan and recommend the adjustments of policy and measures that such appraisal may show to be necessary; and
7. make such interim or ancillary recommendations as appear to it to be appropriate either for facilitating the discharge of the duties assigned to it, or on a *consideration of the prevailing economic conditions, current policies, measures and development programmes*; or on an examination of such specific problem as may be referred to it for advice by Central or State Governments. (Emphasis added)

Emanating from this resolution, there emerged over time in fact essentially three main functions of the PC: (a) five-year plan formulation (function 2), (b) the plan's financial allocation (function 3), and (c) determination of policies/programmes (along with the ministries of the union government (function 7) consistent with the plan and appraisal programmes (function 6). For nearly 65 years, these were the main functions of the PC, when it was suddenly disbanded at the end of 2014. The PC used to allocate around 26 per cent of the union budget which had three components – central sector schemes, centrally sponsored schemes, and block grants (around 75 per cent of the union budget was called the non-plan component, involving subsidies, interest payment, and so on, which were in the nature of committed payments and hence used to be governed by the Ministry of Finance and not the PC).

Notice that functions 4 ('determine the conditions for successful execution') and 5 ('machinery for implementation') of the PC Resolution (henceforth PCR

1950) remained neglected, for all practical purposes. That is one reason why we devote a full section (the last one in this chapter) to this subject.

In this section, we will focus on what the PC was doing, what the NITI has been doing, and what the future course of action should be whereby a new/reformed institution could perform roles required of it in a rapidly growing, fast diversifying economy.

Five-year plans from the beginning required input–output *modelling*. That role used to be performed *within* the PC. By the mid-2000s, it was decided by the PC that these models were no longer relevant for a market-driven economy, in which most goods were freely importable. Initially, the input–output modelling activity continued in-house. However, three external research institutions, which were working with different types of macro-economic models, were commissioned to do simulation exercises for the PC using their models. Later, the internal input–output modelling was given up, and the PC came to depend entirely on inputs from research institutions using their models.

The position in the PC that was emerging at the time when it was disbanded was quite nuanced: it was felt that modelling should be continued within the PC but must be anchored by an in-house analytical team, which should work on models developed by research institutions. Some models could focus on some sectors (for example, energy and transport, or agriculture and urban rural structural change), while others could focus on the macro economy, balance of payments, and so on. The idea was an in-house team would work on these models, using the PC versions for its own purposes, while continuing to consult with the institutions for different perspectives based on their use of the same model. There was also a firm view within the PC that the PC should not engage in short-term models (for example, periodic revisions of growth and inflation), but rather concentrate on medium-term structural issues.

This focus on structural issues would be consistent with what we have argued in this book as a primary role for the PC: focus on providing the contours of an industrial strategy, with other ministries performing line functions (for example, Department of Industrial Policy and Promotion, Department of Commerce, Ministry of Micro, Small, and Medium Enterprise [MSME], and Department of Heavy Industries). That means the modelling undertaken inside this planning institution in future must have industrial development as a primary goal.

Appraising Programmes

As we noted earlier, the PCR (1950) felt this was meant to be a function of the PC. The real problem, however, had historically been that PC's ability to judge whether the programme design proposed will actually deliver the expected

results remained low. When I joined the PC (in 2006), I was stunned to note that ministries typically prepared (and still prepare) programmes without explicitly exploring alternative programme designs to achieve the same results. Programmes are devised as ‘top down’ designs where the centre provides funds and the states implement. The effectiveness of this modality was being questioned within the PC for several years preceding 2014 (I was witness to it during the eight years I spent with the organization). There was recognition of this problem, and an effort had commenced to correct it.

The central share of funds for centrally sponsored schemes (CSSs) comes from the union budget after the Finance Commission (FC) devolution is made. In that sense, it is the Government of India’s own money. The CSSs are usually implemented on subjects enumerated in either the Concurrent list or the State list (in the Constitution), as opposed to the Centre Sector scheme which relates to Union list subjects ordinarily. Since the Government of India wants this money to be deployed in rather strategic manner, all CSSs have elaborate guidelines, although states are consulted during their formulation. In 2013, there were 142 CSSs. The United Progressive Alliance government (2004–2014) attempted to rationalize them by reducing their number to 66. This was largely done by clubbing together related schemes under an umbrella scheme. Importantly, it also stated that 10 per cent of the annual allocation to a state in a scheme would go as a flexi fund. It also provided that states may request for state-specific change in guidelines.

When the new government assumed power, states demanded a further rationalization of CSSs. Meanwhile, the 14th FC (which made recommendations for the 2015–2020 period), without getting into details, recommended only five sectors (it did not advise closing any scheme) where such transfer should take place. But since the 14th FC raised the devolved share of total funds from 32 to 42 per cent from 2015 onwards, the fiscal space with the union government tightened, forcing the Ministry of Finance to categorize some CSSs to be transferred to states for funding, and reducing centre’s share in a CSS to 50 per cent. This was opposed by the states. In the first NITI Governing Council meeting (in 2015), a sub-group of states recommended reduction in the number of schemes from 66 to 28. (Again it was more an exercise of consolidating related schemes under an umbrella scheme in each sector.)

In doing this, the centre reduced its allocation on CSSs in per cent terms, but very marginally. It also ignored the advice of the 14th FC to implement schemes in only five sectors; instead, it continued most schemes with some modifications but placed them under an umbrella scheme. In any case, the NITI’s role in such CSS became marginal, while the line ministries became dominant in operational terms, and the financial allocations were made by the Ministry of Finance (as NITI’s financial role was eliminated).

Becoming a Knowledge Bank

The PCR (1950) had never envisaged for the PC to become a knowledge hub or bank. However, this was clearly a role that should have emerged over the PC's evolution, but did not. Most of the country in 1950 was at a not dissimilar level of per capita income as well as human development. But states evolved differently, some growing much faster, others slower; some experiencing significant improvement in human development, others much less. Indian states were a veritable laboratory of development practice, and from the successes of the high-achievers the others could have learnt. There was no better organization than the PC that could have collected these examples of good policies, programmes, and practices which other states could have adopted. This would have required that the PC had the domain expertise to recognize such great practices and then engage as 'experts' to pass on these practices and programmes to other states. This never happened, partly perhaps because the value of this function was not recognized, and partly because, over time, domain expertise within the top bureaucracy of the PC was lacking (we will return to this subject later).

Only partly because of some of these weaknesses, and more likely on account of extraneous reasons (which never became explicit), the PC was superseded in 2014.

Constitution of the NITI

On 1 January 2015, through a resolution of the Council of Ministers, the Government of India constituted the NITI. The Resolution read as follows in respect of its objectives and composition:

The Government has replaced Planning Commission with a new institution named NITI Aayog (National Institution for Transforming India). A cabinet Resolution issued today gave details of the new institution. The institutional framework of government has developed and matured over the years. This has allowed the *development of domain expertise* which allows us the chance to increase the specificity of functions given to institutions. Specific to the planning process, there is a need to separate as well as energize the distinct 'process' of governance from the 'strategy' of governance.

In the context of governance structures, the changed requirements of our country, point to the need for setting up an institution that serves as a Think Tank of the government – a directional and policy dynamo. The proposed institution has to provide governments at the central and state levels with relevant strategic and technical advice across the spectrum of key elements of policy. This includes matters of national and international import on the economic front, *dissemination of best practices from within the country as well as from other nations*, the infusion

of new policy ideas and specific issue-based support. The institution has to be able to respond to the changing and more integrated world that India is part of.

An important evolutionary change from the past will be *replacing a centre-to-state one-way flow of policy by a genuine and continuing partnership with the states*. The institution must have the necessary resources, knowledge, skills and, ability to act with speed to provide the strategic policy vision for the government as well as deal with contingent issues.

Perhaps most importantly, the institution must adhere to the tenet that while incorporating positive influences from the world, *no single model can be transplanted from outside* into the Indian scenario. We need to find our own strategy for growth. The new institution has to zero in on what will work in and for India. It will be a *Bharatiya approach to development*.

The institution to give life to these aspirations is the NITI Aayog (National Institution for Transforming India). This is being proposed after extensive consultation across the spectrum of stakeholders including *inter alia* state governments, domain experts and relevant institutions. The NITI Aayog will work towards the following objectives:

- a. To evolve a shared vision of national development priorities, sectors and strategies with the active involvement of States in the light of national objectives. The vision of the NITI Aayog will then provide a framework 'national agenda' for the Prime Minister and the chief ministers to provide impetus to.
- b. To *foster cooperative federalism* through structured support initiatives and mechanisms with the States on a continuous basis, recognizing that strong States make a strong nation.
- c. To develop mechanisms to *formulate credible plans at the village level and aggregate these progressively* at higher levels of government.
- d. To ensure, on areas that are specifically referred to it, that the interests of national security are incorporated in economic strategy and policy.
- e. To pay special attention to the sections of our society that may be at risk of not benefitting adequately from economic progress.
- f. To design strategic and long term policy and programme frameworks and initiatives, and monitor their progress and their efficacy. The lessons learnt through *monitoring and feedback* will be used for making innovative improvements, including necessary mid-course corrections.
- g. To provide advice and encourage partnerships between key stakeholders and national and international like-minded Think Tanks, as well as educational and policy research institutions.
- h. To create a knowledge, *innovation and entrepreneurial support system through a collaborative community of national and international experts*, practitioners and other partners.
- i. To offer a platform for resolution of inter-sectoral and inter-departmental issues in order to accelerate the implementation of the development agenda.

- j. To maintain a state-of-the-art Resource Centre, be a *repository of research on good governance and best practices in sustainable and equitable development* as well as help their dissemination to stake-holders.
- k. To actively *monitor and evaluate the implementation of programmes* and initiatives, including the identification of the needed resources so as to strengthen the probability of success and scope of delivery.
- l. To focus on *technology upgradation* and capacity building for implementation of programmes and initiatives.
- m. To undertake other activities as may be necessary in order to further the execution of the national development agenda, and the objectives mentioned above. (Emphasis added.)

Against these objectives and goals, what has the NITI in fact been doing over the first four years (since 1 January 2015) of its existence? Before we discuss that subject, let us point out what NITI is not doing. First, it was announced sometime in 2015 that there will no more be five-year plans. Clearly, India was abandoning the path that the rest of Asian countries, which had weathered the global storms of the 1980s and 1990s, had followed. These same storms had buffeted the Latin American and Sub-Saharan economies so severely that for them those decades became lost decades. India and most East/South East Asian economies had sustained the planning process through these storms and maintained growth well above their population growth rates – with the result that they had succeeded far better than the other regions of the Global South in reducing poverty.

Second, NITI does not make financial allocations to union line ministries (on the plan account), nor to state governments. This undercut everything else that NITI would do, since NITI would no longer have any ability to incentivize appropriate spending or behaviour. We are convinced that a new planning body for the 21st century must have financial muscle if it is to be listened to and its advice followed.

Instead of five-year plans, the Government of India decided in early 2016 that India will rather have three types of plans (which NITI will prepare): one, a three-year Action Plan (2016–2019); a seven-year Strategy (2016–2023); and a fifteen-year vision to cover the entire period up until the 2030 Sustainable Development Goals were achieved.⁶ Ideally, NITI could have prepared a vision first, carved out the strategy from there, and, based on resources, listed the three-year action points. What has since happened is that NITI did prepare a three-year Action Agenda for the period (2017–2018 to 2019–2020). The seven-year strategy document exists in draft form, perhaps since 2017, but was never finalized. No fifteen-year vision document was ever prepared though one may be prepared for 2020 to 2035.⁷ So, the Action Plan, prepared under the leadership of NITI's first vice-chairman (Arvind Panagariya), did become an official NITI document (but

Panagariya resigned in September 2017). When a new vice-chairman took over, a new document was prepared, titled *Strategy for India at 75* (in late 2018), intended as a strategy for the period from 2019 to 2022 (when India celebrates 75 years as a nation-state).⁸

Equally important was the process by which the three-year Agenda was written. It was essentially prepared by a small number of consultants within NITI, led by the vice-chairman (Panagariya). This document, however, was not prepared with any consultation process that had become quite normal in the PC during a plan preparation process.⁹ In fact, the 12th Plan was prepared particularly in a highly consultative mode.

It was indeed curious how the three-year Action Agenda came to be drafted, quite apart from it being mainly an internally produced document (by a small number of staff/consultants). There were no consultations at all with the state governments, which somewhat undermined all the focus on the need for practising ‘cooperative federalism’, as the mentioned document intended NITI to do. In fact, the term ‘cooperative federalism’, which exhorts our polity to follow that lofty goal. This goal was much in vogue in central government circles in the early years after NITI was created. When the full meeting of the NITI Aayog took place in early 2017 to ‘approve’ the country’s three-year Agenda for Action (2017–2020), all the chief ministers (see the composition of NITI in the Appendix), who, as with the erstwhile National Development Council (NDC) (which used to consist of all the states’ chief ministers), had to approve the Agenda, were presented with a document they had never seen before. This was unusual because the states were always sent a draft document of even the Approach Paper to the five-year plan as well as the actual plan document well in advance of the NDC meeting, before the discussion would take place.

It is ironic that the Resolution of the Cabinet announcing NITI (cited earlier) states: ‘An important evolutionary change from the past will be *replacing a centre-to-state one-way flow of policy by a genuine and continuing partnership with the states*’ (emphasis added). One objective (item b) also states that the objective of the organization will be to ‘foster cooperative federalism’. Given these objectives, it is indeed curious to observe the process that led to this three-year Agenda.

Another very important change that occurred between the PC and the NITI is that the latter has no financial allocation function (which it needs; see Chapter 12). We noted earlier that the PC had, for the six-and-a-half decades of its existence, made plan fund allocations to union government line ministries as well as state governments for their plan budget. This was part of an Annual Plan budgeting exercise, accompanying the budget preparation of the union line ministries, which involved financing CSSs for the states. The reduction of the number of these CSSs,

all of which tended to be designed between the PC and the relevant line ministry (more the latter than the former) has been clearly a move in the right direction, allowing states much greater leeway in using funds.¹⁰

In fact, the PC had taken some initiatives to push for decentralized programme design, such as the Rashtriya Krishi Vikas Yojana (RKVY, a programme designed to raise the productivity of food crops), which gave high flexibility to the states with almost no micro-management by the union government. Thus, an internal document stated: 'We have made an important start by introducing much greater flexibility in CSSs. This must be consciously expanded.'

The problem is that the tendency to take schemes to scale without necessarily studying the impact first through pilots, or even evaluating schemes that were running in a limited number of districts, is a penchant that existed in the PC,¹¹ but has hardly been abandoned in NITI (or other parts of the union government).¹² Two examples of this problem will suffice.

The first NITI example is from the health sector. The union government in 2018, encouraged by NITI, decided to take to scale a so-called Universal Health Insurance Scheme for hospitalization of poor patients (Ayushman Bharat, announced in Budget 2018–2019). This essentially is supposed to cover 500 million people under a hospitalization insurance coverage up to a value of INR 500,000 per family of five. This practically quintuples the number of households covered by hospitalization insurance, and at the same time increases by nearly 20 times the financial coverage per household. A similar scheme (Rashtriya Swastha Bima Yojana) had been in place since 2007, and had managed to cover just over 100 million people over 10 years and provided hospitalization coverage up to only INR 30,000 per annum per family of five members. No evaluation of the latter programme was conducted, and yet the 2018 plans were to increase insurance cover from INR 30,000 to INR 500,000, and to increase coverage fivefold – a truly ambitious scale.

A second example is from 31 December 2016 (again in an announcement). A conditional cash transfer was in place since 2009 for pregnant and lactating mothers, offering them INR 6,000 for up to two children, conditional upon their attending ante-natal clinics, getting two tetanus toxoid vaccinations, and after childbirth coming for post-natal care, immunizing their child fully, and so on.¹³ It was implemented in 52 districts of India until the end of 2016. Suddenly, the Government of India (though not NITI) announced that it will be implemented across all the 681 districts of India. No evaluation had been carried out before the announcement (though only in 2017 an evaluation was conducted by NITI's Development Monitoring and Evaluation Organization, DMEO).

PC/NITI as a Knowledge Hub and Role in Persuasion of States

We noted earlier that although this role should have become over time part of the PC's function as a corollary to the monitoring/evaluation function, it did not perform this role very effectively. When this question was posed to the outgoing PC senior management, the PC pointed out that in this role it had experienced a number of successes, but also many failures. Examples were cited where the PC had worked successfully and cooperatively with ministries after a PC initiative. In the last five years of the PC's existence, it brought about greater convergence across rural development schemes. Second, the PC began to allow more flexibility to states in CSSs. Third, the PC made efforts to persuade many ministries and state governments to take up public-private partnerships, and draft model concession agreements later approved by inter-ministerial groups. Fourth, the PC persuaded the Finance Ministry to make the regulatory changes needed to implement infrastructure debt funds or set up a Rail Tariff Regulatory Authority, and finally, the PC made efforts to restructure the Integrated Child Development Scheme (ICDS).

However, the PC accepted (in an internal document) that it had not been successful in many areas, for example, in pushing structural reform in the railways, reforming the structure of the major ports through corporatization, bringing about faster alignment of energy prices with world prices (though progress was made), and introducing much-needed flexibility in labour laws.

It is not entirely clear if NITI has had much success in emerging as a knowledge bank or had success in persuasion. The NITI Aayog has indeed made an attempt to collate and disseminate best practices across different sectors in the Indian economy. It has created a decent knowledge portal – www.indiaknowledgehub.gov.in. However, the challenge here is to ensure that best practices that have been collated in this portal are being used by different units of government. The readership, especially at the level of senior government functionaries from district magistrates and above, is unknown.

Remaining still with the PC, the more important issue was that, in my view, the PC (or NITI) *was not doing what it should*. There had not been an explicit Industrial Policy in the country since 1991, when economic reforms began, although a government statement on the subject mentions the need for deregulation domestically and opening up externally.¹⁴ This was quite the opposite of what happened with the Chinese State Planning Commission after China's economic reforms began.

At least within the PC there was clear recognition that it was trying to do too much with too few people who were domain experts. Thus, an internal document noted (early 2014):

In our internal deliberations, all Members agreed that the Commission should not simply function as a Ministry, with units 'dealing with' one or more Ministries, staffed by the same type of people as the Ministries. The Commission can make a difference only if it becomes a genuine 'knowledge hub' that is seen to bring expertise to examine issues.

The area where the Commission was most handicapped was the absence of domain knowledge specialists – a weakness that I became personally and rather painfully aware of as soon as I joined in late 2006 (to head the Rural Development Division, and then the Development Policy Division). The commission was staffed largely by officers, drawn from the same All India Services that populate the ministries. Many of the officers are outstanding, and they even have experience in the areas they are handling. However, as an internal document of the PC noted candidly,

while having worked in an area in the Central Government or state government gives the officer a 'background' or 'experience', and that is certainly valuable, it is not the same thing as 'expertise'. If the Commission is to add value, it cannot do so functioning with a largely generalist staff, commenting on issues as they come up from ministries. Such comments are viewed as only '*pro forma*' inputs, welcomed when in agreement with the views of the Ministry, and likely to cause irritation when not.

The situation only worsened in NITI from 2015 onwards. The most remarkable thing that happened just as NITI came into existence was the wholesale departure of senior Indian Administrative Service (IAS) officers for line ministries, since they knew that the PC was about to be emasculated. So, what emerged in terms of staffing was as follows. There were apparently about 1,200 sanctioned posts for the PC, most of which would have been occupied in mid-2014. However, in 2015, soon after NITI came into existence, the number of sanctioned posts was cut down to half – and brought down to 600. The actual warm bodies in place by the end of 2015 were 450. And since we know that 89 per cent of staff in the central government consist of Groups C and D (lower level staff such as drivers, peons, *farash*, *daftary*, cleaners, clerks, stenographers, and so on), it is unlikely that professional staff in place would have exceeded 50 odd.¹⁵ When you spread them across at least 26 'verticals' (as they began to be called, rather than divisions), you get a fairly small smattering of professionals across these verticals.

NITI merely tried to fill in the vacuum of absent domain experts by recruiting 11 consultants and 25 young professionals in various areas of economics, finance, education, public health, engineering, urban planning, and infrastructure, among

others. But consultants cannot substitute for specialists who become part of the institutional memory of the organization (as happens in China in the case of the National Development and Reforms Commission [NDRC]).¹⁶ There are occasions when even important recommendations are being drafted by young professionals.

Historically, in the PC, there had been very little restructuring of the way the PC was organized. The only area where there was consciously planned internal restructuring was in phasing out the internal Programme Evaluation Organization (PEO), which had existed since the early 1950s. The PEO had 15 regional and project offices, spread out through the length and breadth of the country, since they conducted concurrent and ex-post evaluations of government programmes. However, the PC had decided in 2012 to create a new Independent Evaluation Office (IEO), with a professional economist as its head, to lead the office. The IEO's head was, after much deliberation, placed in the rank of Minister of State, that is, the same as the other members of the PC. This was deliberate, since the IEO was not only intended to be separate and independent from the PC, but also at par in rank with other members of the PC. Even more importantly, appointing him/her to a rank of Minister of State meant that secretaries of the Government of India would be junior in rank to him; therefore, it was hoped that secretaries of line ministries whose programmes were being evaluated would not necessarily ignore the recommendations of what could sometimes be harsh criticisms of the evaluated programmes.

However, one of the early actions of the union government after May 2014 was to close down the one-year-old IEO. So, an independent source of evaluation of government programmes was disbanded. What emerged thereafter was that the PEO was totally merged into NITI; so, far from becoming an independent office, which could do credible evaluations as though a third party was undertaking it, it became totally part of NITI, in a way that perhaps even the PEO was not. In addition, the re-naming of PEO into DMEO or the downgrading of the position of its head to an additional secretary level position did not augur well for the future of evaluation of government programmes. What seems to have happened, looking at the website of NITI, is that its evaluation reports look not much different from the ones that the PEO had conducted for decades.

The Appraisal function, that belonged to the PC (as we have noted earlier), continued much as always under NITI. It seems that ministries continue to send project proposals for appraisal and comment to NITI, and a division handles that function. This is despite the fact that it is entirely unclear how much value the NITI staff can add to a ministry's work, given that there is even less domain knowledge in NITI than there was in the PC. Besides, this is the kind of routine activity that an internal document in the PC in 2014 had already felt needed to be shed.

The internal document had noted: 'The first step in internal reorganisation is that the Commission should seriously consider defining and shedding routine activity. For example, every draft Cabinet Note comes to the Commission, but most of these are routine and do not involve basic policy issues.'

NITI's Substantive Areas of Work

NITI's own website announces that at 'the core of NITI Aayog's creation are two hubs – *Team India Hub* and the *Knowledge and Innovation Hub*'. The Team India Hub leads the engagement of states with the central government, while the Knowledge and Innovation Hub builds NITI's think tank capabilities. These hubs reflect the two key tasks of the Aayog.

The Team India hub consisting of six verticals is supposed to provide coordination and support framework to NITI in its engagement with the states. The Innovation Hub function essentially finds expression in the Atal Innovation Mission.

The Atal Innovation Mission was started in 2015, which is the centrepiece of the Knowledge and Innovation hub. The mission intends to support the establishment of new incubation centres called Atal Incubation Centres (AICs) that would nurture innovative start-up businesses in their pursuit to become scalable and sustainable enterprises. The AICs would create incubation facilities across various parts of India with suitable physical infrastructure in terms of capital equipment and operating facilities, coupled with the availability of sectoral experts for mentoring the start-ups. Moreover, AICs would be in areas such as manufacturing, transport, energy, health, education, agriculture, water, and sanitation.

There were some other NITI activities which were part of its Knowledge Hub function. Development support services for infrastructure projects began to be provided. This initiative involved providing project-level support from concept planning until financial closure to state governments for a demonstrable project shelf consisting of 10 to 12 projects. However, here too, the NITI Aayog appointed an international consulting firm, Ernst and Young, as its consultant to partner with NITI to formalize the initiative. It is not clear how or why a line ministry dealing with such infrastructure projects could not handle the consultancy assignment to international firms on its own; what value was added by NITI doing it remains unclear.

Monitoring

One role NITI is supposed to play in government is to promote a kind of competitive federalism (although all the language is that of 'cooperative federalism'). So while

Annual Reports (we examined four of them¹⁷) always have a section on how NITI is promoting cooperative federalism, the real focus seems to be on generating competition between the states, by ranking them along a number of dimensions.¹⁸ It has, by developing different indices, brought the focus of delivering agencies to key performance indicators (KPIs), introduced a sense of competition through its policy of naming and shaming. There was an oft-repeated criticism that while India introduced competition in 1991, it left the government sector untouched. It is not that many civil service reforms have been done, but ranking of different administrative units is a good way of introducing competition.

NITI has developed the first-ever agricultural marketing and farmer-friendly reforms index to sensitize states about the need to undertake reforms in the areas of agriculture marketing, land lease, and forestry on private land. There has been some impact on the ground (according to the NITI website) in that, following the launch of this index, Punjab adopted the Agricultural Produce Marketing Act and Livestock Marketing committee Act and 23 states adopted selling guidelines and transit guidelines for minor forest produce and farm timber produce.

Similarly, KPIs have been established as a means of monitoring outcomes in health care, education, and the water sector with each state submitting the respective KPI data sets and NITI, through an external agency, reviewing such inputs. Another consultancy organization has been hired as the validation agency for the KPIs.

Similarly, the Ministry of Finance asked the DMEO division of NITI to monitor the implementation of the outcome budget 2017–2018 of India. Hence, the DMEO has developed a web-based interactive dashboard for this purpose. The ministries can upload data to the dashboard on an online basis.

Likewise, a programme to transform 115 identified districts in India (in the so-called relatively ‘backward states’) across development indicators was launched by NITI in 2017–2018. The objective is to rank the districts with the objective of improving the standard of living of citizens.

Here again the states have been ranked. Likewise, a digital transformation index has been proposed by NITI for the states. This will allow the states to examine their progress towards digital transformation and compare it with that of others. These indices are intended to act as a catalyst to reform.

To summarize, NITI is a shadow of its predecessor organization, concentrating its activities on building a series of indices to monitor performance on various dimensions. This is an important enough function and adds to the management information system for different ministries for their programmes. Yet, at the same time, the fact that the evaluation function has gone back to an unreformed PEO seems nothing short of unfortunate. In addition, it has started a set of innovation-

related activities. The innovation activities are merely 'tinkering' with an attempt to create a National Innovation System, about which we have written in Chapter 11.

Proposed Areas of Concentration of a Planning Body in India

India clearly needs a planning institution, which should be at the hub of planning for the challenges the country faces in the 21st century. However, as an internal note of the PC had noted in 2014:

We cannot become a knowledge hub on everything. But we could try to develop platforms for encouraging knowledge flow with the active involvement of outside domain specialists in certain areas. The areas we should concentrate on are: (i) Longer term projections of the economy for a 10 to 20 year period, focussing on structural change in the context of an evolving world economy. This should be a 'rolling activity' updated (a) at the start of the Plan and (b) at the stage of the Mid Term Appraisal. (ii) Energy policy issues covering all the major energy sources and the scope for improving energy efficiency through new technology. (iii) Transport connectivity and Logistics; (iv) Education and Skill Development; (v) Health and Nutrition; (vi) Agriculture and Rural Development (vii) Climate change and water related Issues. Each of these areas spans more than one Ministry and is also an area that concerns the States. The list could be modified to add one or two other areas.

Unfortunately, however, even this list of the PC still does not include industrial policy. Some of the items in the list above should be part of the function of (a) devising and (b) implementing an industrial policy. Most of these functions were included in the PC's own internal note, since they were perceived to be national priorities. But these are also areas that the ministries of the union government are competent to handle. If these line ministries need greater domain expertise, they should each be provided with a Strategy and Policy division, staffed mainly by domain specialists. But they do not need to be necessarily part of the core function of a reconstituted NITI/PC. However, these items would certainly be important components of an Industrial Strategy for India.

Similarly, a successful industrial strategy will also require soft infrastructure (the legal and regulatory framework for giving direction to an industrial policy), which too should belong to the domain of the new planning body.

How to Implement an Industrial Strategy/Policy for India

A necessary condition for India to become a major manufacturing nation is to have the institutional framework for implementing an industrial strategy. Given

that we have made a case for the planning function to become more robust for the sake of rapid industrialization, in this section we discuss how this can be achieved. There were weaknesses in the planning function, which partly led to its demise in 2014. If those weaknesses are not addressed in a successor institution, none of the desirable objectives outlined in earlier chapters will be achieved. Here we spell out, not in detail, but certainly in outline, what is needed for an effective implementation strategy for an industrial policy.

In the last quarter century since economic reforms, India has undergone multiple structural changes. First, many of India's states are much stronger both economically and on human development outcomes, which is one reason they are more independent of the union government. A second big change is the growth of regional parties in India, which makes the states more difficult for the union government to deal with. A third big change is that the share of the private sector in total investment has increased significantly; accordingly, the share of public investment has shrunk. Fourth, the Indian economy is more connected to the world economy, with the share of trade in GDP and of foreign direct investment (FDI) rising.

All these factors increase the risk of coordination failure among governments, and between the centre and the states. In fact, it strengthens the case for stronger planning, even if it is of a different nature. We can only repeat that after the Chinese economic reforms – involving the development of a market economy from a socialist centrally planned one – the State Planning Commission became more, not less, powerful. This is logical, since a fast growing, rapidly diversifying – but still a developing – economy, needs more nuanced, and more agile, planning.

The prerequisites of successful planning are of three kinds: (a) the institutional structure, (b) the characteristics of the human resources needed to staff, and hence perform this planning function, and (c) this institutional structure's mode of operation (experimentation, competition between states, methods of staffing, and so on).

The Institutional Structure for Planning and Implementing an Industrial Strategy

The erstwhile PC's own weaknesses prevented it from performing the function of devising an industrial strategy, let alone coordinating its implementation. The current NITI Aayog is clearly not designed to perform that role, for a variety of reasons: (a) its staff strength has been whittled down to a third of the erstwhile PC, (b) the erstwhile PC's human resources lacked in domain knowledge, both at senior advisory and at middle management levels, and that problem has not been addressed in the new institution, and (c) NITI's role is confined to formulating

and advising on issues that might be assigned to it, on ad hoc basis, by the top leadership in government.

What is needed is a body with the following characteristics at a minimum: (i) it is large enough to cover the domains that we discussed in Chapter 11 (and earlier in this chapter), with staff hand-picked for superior and demonstrated domain knowledge, and (ii) having the ear of the head of government, so as to ensure that its industrial strategy recommendations will also be accepted (after due consultation) by state chief ministers, as *union government policy in respect of industrial investments will carry with them the carrot of public funds* (see Chapter 12). In other words, it will be a super-ministry, and less like an ordinary ministry (which the PC had become).

However, given that India is a federal democracy, there would have to be improvements upon the *processes* adopted in the PC for consultations, especially with the state governments. There was recognition within the erstwhile PC that the processes were not anywhere near adequate or effective.¹⁹

At the union government level, the super-ministry must be able to influence and override (as its minister will be the prime minister), the *four* most important union line departments/ministries that currently impact industrial strategy: Finance, Industrial Policy and Promotion, Commerce, and MSME. Even more important than to override these four, it must coordinate their actions in a way that current committees of secretaries (or for that matter the over-burdened cabinet secretary) are unable to do.

Domain Knowledge Critical to Domain Divisions in the Super-planning Ministry

In addition to creating this institution, it must be staffed very differently from the way presently ministries and NITI are staffed, or for that matter the erstwhile PC was staffed.

Interviews needed before existing government staff are appointed internally. Domain knowledge is a prerequisite to finding suitable staff in this new body, which is not just another ministry of the central government, but is supposed to be a knowledge bank and a centre of knowledge management. Yet most of the staff who are appointed to a particular division in the PC/NITI from within government are simply ‘dumped’ there, without any consultation with the head of a division. All heads of divisions should be given the choice of rejecting staff that are clearly inappropriate to their needs. This can only happen if positions are advertised within the government system, and officers from other ministries or within NITI itself are invited to apply for them. Those shortlisted would then only be selected after an interview process, led by the appropriate division and external experts.

All over the world (for example, the World Bank, the International Monetary Fund, the UN system, and the UK bureaucracy), official staff always have to internally apply for a position, get shortlisted along with other internal candidates, and go through an interview before they can be considered for appointment to a particular position.

In addition, the finest domain specialists need to be hired (probably on contract, rather than on permanent basis) for each area from *outside the current government employees*.

The overall case for greater professionalization within such a super-ministry is strengthened by the experience of China's planning system, specifically China's reformed NDRC (earlier called the State Planning Commission):

The planning system has been *staffed with trained professionals and planners*. They are able to set clear (not necessarily realistic due to political interference) economic development objectives, formulate strategies, and prioritize action plans. Most of them *spend their entire career in the system, thus sustaining the institutional memories (learned from past failure in particular)*. The institutions have a *merit-based promotion mechanism* to permit and encourage planners to search for solutions as far as the solutions do not deviate from the ideological and political directions. Perhaps more important, the decision makers in the planning machinery are often those who *rise within the system and thus have adequate respect to the professional work*. (Liu 2004; emphasis added)

Given that an important part of NITI's mandate is to try to introduce structural reforms and take a long-term decisions, domain knowledge and stability of tenure are very important. But equally important is the ability of the incumbent to coordinate with the relevant ministries as well as Prime Minister's Office (PMO), and others. This would mean that the incumbent must know the internal functioning of the government. Whenever we talk of staffing, we seem to disregard this important behavioural aspect. Mr Pangariya was not effective because he could not take the secretary-level bureaucracy along. The NITI Aayog's members are less effective compared to the PC members. The first reform is as follows:

1. Induct more members of stature. The Minister of State (MoS) rank means that he/she should be able to coordinate with the secretaries of different ministries.
2. As regards staffing of the senior level, there should be a healthy mix of within-service and lateral entry. Indian bureaucracy is full of talented officials, but one needs to have special attributes to be effective in the NITI Aayog. If an official has demonstrated skill as well as domain knowledge, his/her continuation in NITI should not be subject to normal Department of Personnel & Training rules.

3. The vice chairman and chief executive officer (CEO) of NITI must have a major say in selection of officers. Currently, the staffing of the NITI Aayog is no different from that in any other ministry.
4. If a senior-level position is to be filled by lateral entry or consultancy, the job description should be clear and here domain knowledge and ability to accomplish specified tasks should be the main criteria.
5. At mid as well as lower levels, there is very little rationale for continuation of government servants. Section officers, deputy secretaries, and so on, are not suited for knowledge-based work. They can undertake only routine work (such as administration). Here NITI needs a very large contingent of consultants and young professionals.
6. NITI is quite understaffed. It is entirely unclear how an understaffed organization with limited domain knowledge is supposed to provide strategic direction that would change the course of development.

So, the biggest reform in staffing is to have more members and more senior functionaries with correct aptitude and appetite for learning (if drawn from bureaucracy) and domain experts (if drawn from market for specified tenure). Needless to add, NITI must have the flexibility to recommend senior civil servants for lateral transfer within the Government of India or repatriation to home state cadres, as the case may be, in case they turn out to be non-performers. Cost of carrying on with a wrong person in the NITI Aayog is not non-insignificant. It is the lost opportunity to make a difference and hence the opportunity cost is terribly high.

A Learning and Professionalized Bureaucracy

This sub-section focuses on the effectiveness of the administrative arm of the executive, which is partly determined by its ability to learn from international experience. The contrast between the ability to generate, transmit, and implement new learning is remarkably different between the Indian and Chinese states.

I should point out that the ranking (by NITI) of states on different dimensions (important those dimensions may be) is not the same thing as ensuring learning. In addition, it means learning from *other countries*, not just states of India. This requires a broader analytical capacity than needs for merely generating competition between states based on rankings.

Learning and competition are part of the governance processes of the Chinese state as well. Despite being a one-party state, China is characterized by a high degree of fiscal decentralization; on the contrary, although India is a democratic, federal republic, it has a highly fiscally centralized system of governance (see

Mehrotra 2016: ch. 15). Despite its centralization (which should ideally encourage easier flow of information between units of government), India has not succeeded in building institutions that might encourage cross-state learning from each other's good practices. The PC of India could have, and certainly should have, played this institutional role of enabling greater learning between states, but in this regard it signally failed.

Unlike China, India has no tradition of experimentation with policy or programmes before they are implemented. On the contrary, the experimentalist mindset was deeply ingrained in China's approach to reform. A process of experimentation always precedes the engagement of many national policies, which serves as a powerful guarding mechanism.

In fact, in 1978 the Communist Party of China broke with its ideology-based approach to policymaking in favour of one which Deng Xiaoping called the process of 'feeling our way across the river'. The senior Indian bureaucracy is imbued with a sense of confidence that derives from their first decade or so in service spent as district administrators – which in reality is a false sense of 'expertise'.

There are many ways in which institutions can shape experimentation. India has limited means to translate state-level success to the national level. Very rarely in India have prime ministers previously been successful chief ministers in India's states (the 2014–2019 period is the sole exception). Though cabinet ministers include some who have prior provincial ministerial experience, yet rarely with a distinguished record. In contrast, in China a full five terms of leading a province with a successful record is almost a pre-condition for elevation in Beijing (Jordan, Turban and Wilse-Samson 2013).

Planning cannot succeed in any country if plans do not translate into actual practice and hence outcomes on the ground. For local politicians and bureaucrats in China, promotion is strongly influenced by performance, as determined by the Organization Department of the Communist Party (not merely by the opinions of superior bureaucrats as reflected in annual confidential reports, and by seniority in India). Bureaucrats' tenures in China are co-incident with all-government personnel changes, roughly five years or so.

By contrast, in India it is a miracle if a bureaucrat's tenure lasts even two years at a time. Eventually, outcomes of policies and programmes matter much more in China for purposes of promotion, while the weight of superiors in evaluation is much greater in India, and 'not making a mistake' is very important. In fact, in India frequent transfers, generalist careers, and pure seniority in promotions make for both poor learning and poor experimentation. Longer tenures ensure that it is easy to attribute success to individual leaders in China.

In India promotions for the bureaucracy are almost automatic, regardless of performance.²⁰ Saxena (2018), who spent four decades in the senior civil services,

notes that though the IAS is failing on many fronts, monitoring of programmes and flow of funds are especially problematic, an improvement on which could possibly improve performance. Administrative data is collected at all levels of government, which he says is not used to measure output and take corrective action, ‘but only forwarding to a higher level, or for answering Parliament/Legislative Assembly questions’. To top it, administrative reporting is heavily inflated systematically (for which evidence is plentiful).²¹ Similarly, many state governments (especially from northern and eastern parts) are neither able to draw their fund entitlements from the central government nor pass these on to districts/villages in time, so the centre diverts these to better performing states – compounding the poor performance of poor states.

Which Approach to Specialization?

There are two alternative approaches to ensuring specialization/domain knowledge in the bureaucracy: (i) encouraging/mandating specialization among the IAS/provincial civil services, and (ii) promoting lateral entry at mid- and senior-level positions. We will discuss each proposal in turn.

Natarajan and Subbarao (2017) and Mehrotra (2016) are convinced that the biggest question confronting the IAS is its lack of specialization. The IAS was modelled on the colonial-era Indian Civil Service as a generalist service to deliver the core function – collect taxes and maintain law and order. The challenge of development in a large, populous, and impoverished country was added on later. While the IAS might have performed creditably despite being generalists, at least until the economic reforms, the level of specialization that the diversification of India’s economy and the third industrial revolution since the 1990s, and now Industry 4.0, demand is well beyond the generalists’ capacity to ‘administer’. One cannot blame them for what Saxena (2018) rightly calls their growing ‘ignorance’. When combined, however, with what he calls ‘arrogance’, that is a dangerous combination for the citizenry and for developmental outcomes. The effects on the effectiveness of the bureaucracy are worsened because it is virtually impossible to force non-performers to leave.

The Constitution Review Commission, way back in 2002, had made the case for specialization. That recommendation was reinforced by the second Administrative Reforms Commission (2008). Little, however, has changed.

I have argued elsewhere (Mehrotra 2016) that there might be a case, in a 35-year career, for civil servants to be generalists in the first 15 years, and acquire field experience. However, the next five years must be spent specializing, through a combination of study leave, specialized training, and experience in this specialization. Thereafter, the last 15 years must be spent in that same

specialization. This would be a career path that would be the inverse of the career trajectory in the corporate private sector. In the latter, the young are hired as specialists, then rise to become managers and generalists. Currently, in the civil services, the young join as generalists and remain generalists all their life; this needs to change.

The specializations should be to staff the economic ministries (industries, heavy industries, small/medium industry, agriculture, and finance); the regulatory ministries (for example, telecom, power, shipping, and highways); and the social sectors (labour, health, education, skills, drinking water and sanitation, tribal welfare, and social justice). Every ministry has specialist advisers even now, but they have historically reported to the generalists, an anomaly if ever there was one.²²

Only in the science-related ministries have specialists become secretaries as heads of departments (atomic energy, biotechnology, and science and technology).

Saxena (2018) points out a serious situation that has arisen in the current century, thanks to inappropriate planning during the 1990s. There was a belief among those in the senior echelons of government that the government's functions would decline after the economic reforms began. Therefore, it was decided that the annual intake of the IAS was cut down from 150 to 60–70. But as we have argued in Chapter 12, the size of the state *increases* as per capita income of a country rises; it does not increase proportionately, but more than proportionately (Lindert, 2004). The fact that such a decision could even have been taken speaks volumes about how much knowledge determines these kinds of major decisions that have implications further down the years. The result is that in the current century and currently, there is such a shortage in the central government of senior IAS officers (at joint secretary level) that 'a railway traffic officer works as joint secretary (health), and an ordnance service employee finds himself in the Ministry of Tribal Affairs' (Saxena 2018). State governments are unwilling to release senior officers from their state cadres to meet the requirements of the central government. In this situation, you have the exact opposite of specialization, when the need for specialized officers has only grown.

Is lateral entry at senior level the way forward? Natarajan and Subbarao (2017) make the case for it: there should be a system of annual recruitment into the IAS of mid-career professionals from diverse sectors, according to them. Given the shortage of senior IAS, lateral entry, they say 'will bring in much-needed outside experience, buffer the talent within the administration and challenge the IAS into continuous self-improvement'. They argue that lateral entrants should come through an open competitive exam, giving little chance for the IAS to complain or develop adversarial relations with them. However, in my view,

while lateral entrants have come in the past and performed valuable service, their numbers will and should remain limited. In any case, there would normally be great resistance from the regular IAS to lateral entrants.²³ The latter would, however, be required in significant numbers in the new super NITI that we have argued for in this book.

Conclusion

India is less than a quarter century away from the end of its demographic dividend. This dividend comes but only once in the life of a nation; once gone, India will become an ageing society (which China became from about 2015 onwards). The East Asian success story in sustained economic growth and poverty reduction in the second half of the twentieth century was built upon those countries mostly riding the wave of their demographic dividend – the only region in the world that has so succeeded. India, with the largest number of poor people in the world, must similarly succeed, for the sake of current and all future generations. No East Asian success story was built without strong planning institutions. It is for India's leaders to draw the right lessons from that success story of planning in the twentieth century to build a 21st century India.

Notes

1. During this period, few countries had tariff autonomy, either because of colonial rule or unequal treaties. For details, see Chang (2001)
2. The 46th Amendment in 1976, during the Emergency rule imposed by Indira Gandhi, introduced these two words, which were not present in the Constitution between 1947 and 1976.
3. Pharmaceutical plants set up at the time to manufacture ingredients for bulk drugs became the basis of large pharma companies later producing formulations for consumption by first the domestic and later other developing country markets. This is apart from heavy engineering plants, heavy electrical plants, steel factories, and aluminium plants – all for the first time in India's history (see Mehrotra 1991 for a detailed analysis).
4. Elsewhere, we (Mehrotra 2016) have argued strongly for a highly fiscally decentralized form of governance, within this model of cooperative federalism.
5. 'The corresponding numbers for four major groups of countries were from 3.6 percent down to 1.4 percent for advanced economies, 4.5 to 3.3 percent for upper-middle income countries, 4.9 to 4.2 percent for lower-middle income countries and 5 percent per annum for low-income countries' (Ministry of Finance 2018).
6. This was in accordance with Office Order of the Prime Minister's Office (PMO) (dated 9 May 2016). The PMO advised NITI to prepare these documents.

7. Based on personal communication.
8. A member of the Prime Minister's Economic Advisory Council wrote, in response to its release, 'Strategy? What Strategy?' (Roy 2018): '... since the abolition of the Planning Commission, there has been no comprehensive attempt to specify a strategic framework to secure India's development objectives.' He goes on: 'There is a development aspiration but no co-ordinated development strategy. The malaise is institutional. Apart from the negative political costs of delivering homilies as opposed to results, this suits those who benefit from incoherence in strategic vision. Absent a concrete strategy, all initiatives are discretionary and ad-hoc. This maximises entrenched vested interest power. Lip service is paid to political wishes through cosmetic initiatives and event management.'
9. Historically, that process involved the creation of a good 4–12 Expert Working Groups (WG) for each sector, drawn from across the country, in which state governments were also engaged. These WG reports then became the basis for preparing a Steering Committee report, which pulled together the extensive and intensive work of the Expert Groups (as reflected in WG reports). It was these Steering Committee reports to the PC that would form the basis of what became the chapters in each plan. The author was himself engaged in these exercises for both the 11th (2007–2012) and 12th (2012–2017) Five-Year Plans.
10. As stated in an internal document of the PC in early 2014, 'Programmes are devised as "top down" designs where the Centre provides funds and the states implement. Experience shows that this does not work.'
11. The PC had at least recognized there is a problem of this kind. Thus, an internal document noted: 'Another major problem in our programme design is the tendency to universalise schemes without gaining experience through pilots. The Planning Commission has suggested a different approach in the delivery of Universal Health Care. Instead of rolling out a pre-determined national design, it is proposed to start pilots.'
12. We have argued this for the PC elsewhere earlier (Mehrotra 2016: ch. 15).
13. I had been involved in its original design in 2009.
14. This is not the equivalent of an industrial policy, as we discuss at length in Chapter 11.
15. My conversations within NITI pointed out that the number of mid-level research officers and senior research officers had sharply shrunk after 2014.
16. A June 2019 news report mentioned that NITI may hire 50 new consultants.
17. The ones for 2014–2015, 2015–2016, 2016–2017, and 2017–2018 were available on the website of the NITI Aayog.
18. On cooperative federalism, there were a few reports produced early in 2015 – the first year of NITI's existence – by groups of states, led by their chief ministers, on key subjects. For example, one such report was on the status of skill development missions, another on Swachh Bharat, and a third on CSSs. These task forces of chief ministers met and approved what were reports produced by in-house NITI staff. The only other meetings of chief ministers are when the Governing Council of NITI meets, which consists of a rotating set of chief ministers from different states.

19. Arun Maira, Member, Planning Commission (2009–2014), made a strong case for improved processes and greater consultation (as also for Scenario Planning, which he incorporated into the Industry chapter of the 12th Plan). One of innovations in the PC was the India Backbone Implementation Network (IbIN). This idea targets a root cause of slow implementation of projects and programmes. The root cause (he suggested to me in conversations) is differences amongst stakeholders and the resulting confusion amongst agencies in implementation.
20. Too many mediocre staff reach the senior-most level, with few substantive posts available.
21. The government between 2004 and 2014 was reporting rural households with toilets at over 65 per cent, and it was only when Census 2011 data was released that it revealed that the share of rural households with toilets was 31 per cent. Similarly, the state governments were reporting in 2013 that only 2.1 per cent of children were severely malnourished, while a nation-wide survey for the central government (financed by UNICEF) revealed that the share was 9.4 per cent. In other words, under-reporting leads to civil servants claiming that there is no problem to resolve – thus little action is needed. This problem has not improved since 2014 (see Mehrotra 2018 on sanitation claims; see Mehrotra 2019 on jobs claims).
22. The one-third or so of IAS officers who never make it to the central government should be expected to similarly use their specialist expertise at the state level, where specialization is equally needed.
23. For instance, a director in the PMO argued strongly against lateral entry (Natarajan 2015). He claims: (i) There will be recruitment and operational difficulties with such entry. (ii) It runs the risk of degenerating into a ‘spoils system’. (iii) An infusion of cherry-picked external talent will adversely affect morale of incumbents. (iv) It will affect career progression opportunities for regulars. In fact, he makes a case for allowing civil servants to work outside government with multilateral agencies and corporations.

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