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Citizen Engagement or Strong Individual Leadership

Exploring the preferred path for developing societies
A youtube Preview

Samar J. Singh, PhD

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1 Introduction

In this election year in India, the debate appears to center around the issue of what the country needs for good governance:

	OR	
Strong leadership		**Citizen participation**

There are many ways of pursuing this debate. This document is an attempt to use quantitative data to examine these issues. Hopefully this will contribute to the debate and elicit new learnings. Feel free to respond to errors or weak lines of judgement. We will examine closely the issue of authoritarianism in general that attaches to the idea of strong leaderships.

1.1 A quick overview

A quick overview of this paper is available on youtube here

1.2 Our assumptions - What are the desired outcomes of governance?

In general terms one could say that there should be good outcomes from governance. Good outcomes could be defined in a number of ways. For the sake of this paper and constraints on the availability of data from the Gapminder database, we are assuming that the following constitute good outcomes:

1. An increasing length of life
2. An increasing quality of life
3. Increasing resources to access the quality of life.

1.3 What are the indicators we will use?

1.3.1 An increasing length of life

One indicator we can use for this is Life Expectancy for which data is available intermittently for India since 1881 and annually since 1950. This represents the average number of years a child would live if current mortality patterns were to be maintained. Life Expectancy is strongly influenced by the Infant Mortality Rate which is a reflective of the quality of healthcare in the country. We will examine how Life Expectancy (LE) changes over the years and how it is impacted by circumstances that enhance the opportunity for citizen participation.

1.3.2 An increasing quality of life

We will use the United Nations Human Development Index (HDI) for quality of life as it measures countries on a scale of 0 to 1 on the basis of health level, educational level and living standards since 1980. You can find more about this here.

1.3.3 Increasing resources to access the quality of life

We will compare Life Expectancy(LE) and Human Development Index(HDI) against Income Per Person (IPP) which is the Gross Domestic Product(GDP) per capita adjusted for year by using 2005 as the standard, and for purchasing power across countries by converting GDP per capita into International Dollars. In our explorations we will study how these factors change over the years using Gapminder World software.

1.4 Introduction

A brief introduction to the Gapminder interface. Please use the on the control panel below the figure to advance the slide.

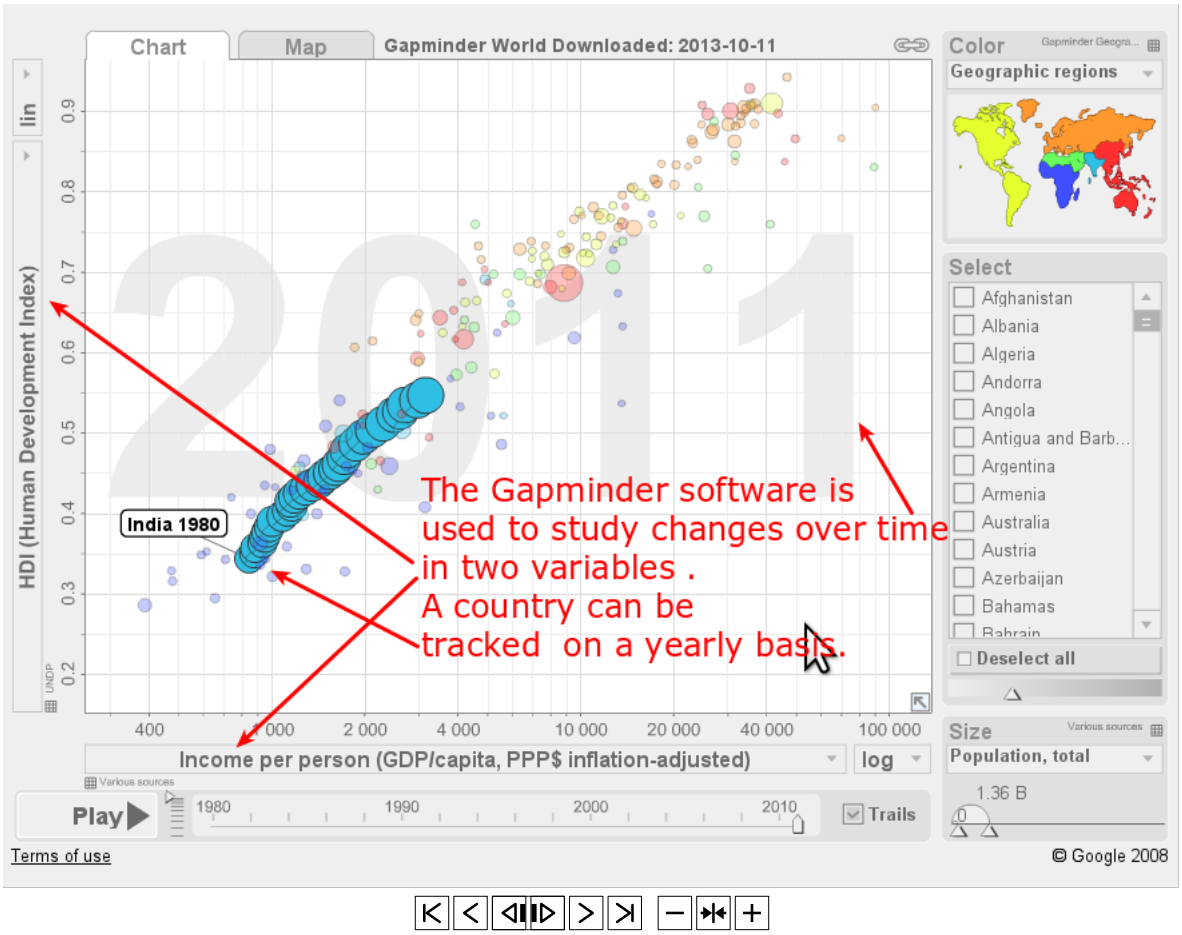


Figure 1.1: Using the Gapminder interface

Using the animation controls

2 The international perspective

We will explore how the nations at the top of the Human Development Index compare with the nations at the lower end. We will do this by graphing the Human Development Index(HDI) against Income Per Person(IPP) for all the countries for which data is available in the Gapminder database. The most recent data available is for 2011, as shown below.

2.1 Comparing the Human Development Index against Income per person

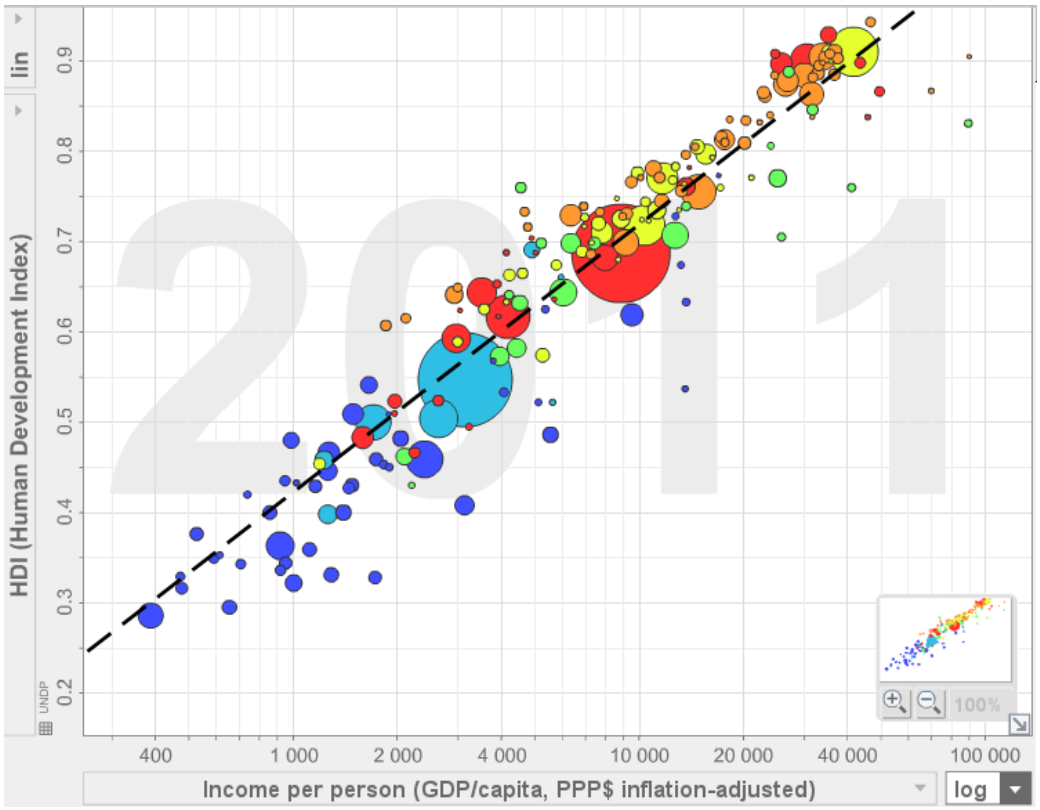


Figure 2.1: Human Development Index vs Income Per Person in 2011

2.1.1 The general relationship

Figure 2.1 shows the situation for 2011[1]. I have added a gray dashed line that represents the linear model of this relationship between HDI and IPP as a Best Fit Line. This is a computed best fit which has been superimposed on the Gapminder display.

[1] One country - Liechtenstein - has been left out of the representation above as this information was not available in the Gapminder database. Liechtenstein was ranked No. 8 in the HDI list.

It is clear that in general increasing levels of Income Per Person(IPP) show increasing levels of HDI. However this is a logarithmic relationship so as you go higher on the HDI a lot more IPP is needed to get the same increase of HDI. For instance, the distance between 2000 and 4000 on the IPP scale is the same as the distance between 20,000 and 40,000.

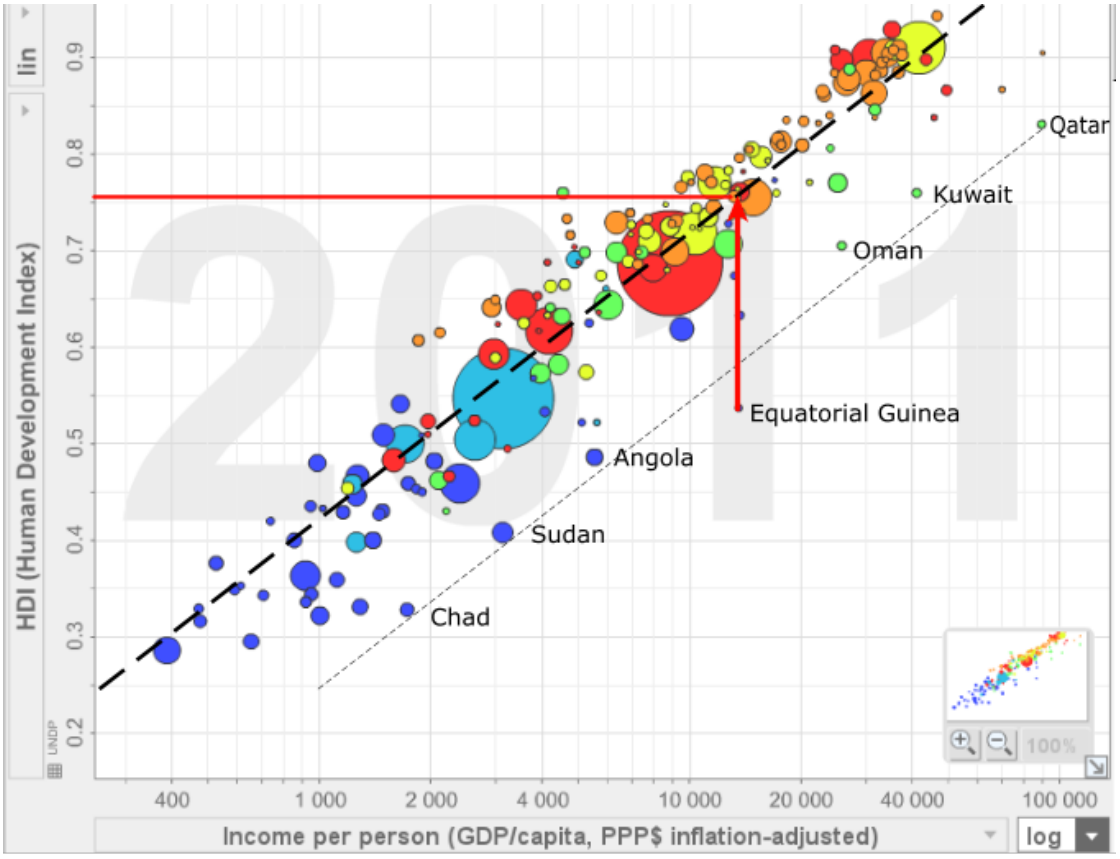


Figure 2.2: Human Development Index vs Income Per Person in 2011

2.1.2 The impact on HDI of newly formed democracies

It is interesting to note that the countries that lie furthest to the left from the Best Fit Line are largely the newly formed republics of the former USSR. Joining them (the green circle) is Libya, just liberated from an authoritarian regime. This led to a sharp fall in Ipp without a corresponding fall in HDI.

This positioning indicates that these countries have an HDI higher than the current state of their IPP would suggest, on the basis of the Best Fit Line.

2.1.3 The Authoritarian Regime relationship - using the Democracy Index

There are some countries that lie farthest from the best fit line to the right. These have the economic potential to have a much larger HDI. Equatorial Guinea for instance is illustrated as having a potential HDI of 0.76 instead of its current value of 0.54, if it were to follow the general model that other countries are aligned with.

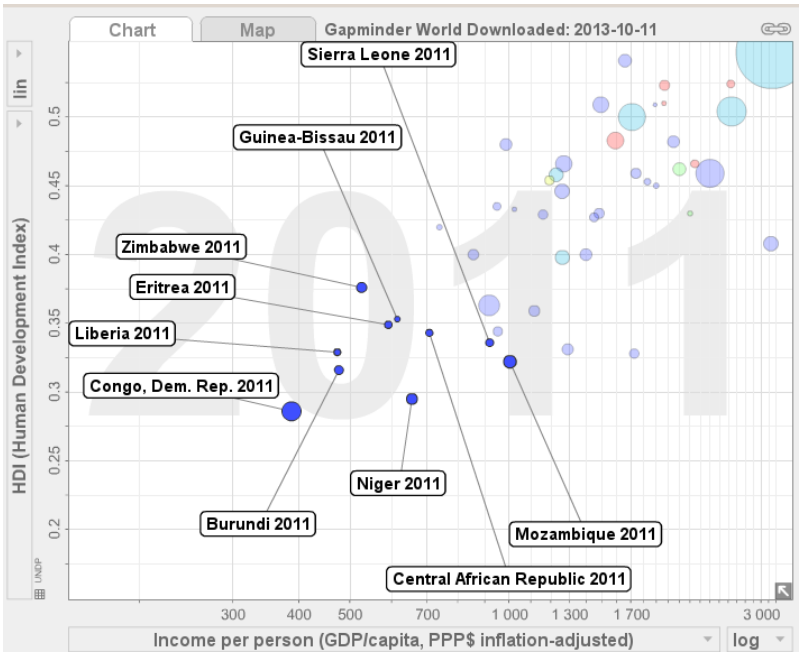
Why these countries do not achieve their HDI potential could possibly be explained by their unique correlation and the findings of the Democracy Index for 2011. As the Economist Intelligence Unit which publishes this Index says:

> The index provides a snapshot of the state of democracy worldwide for 165 independent states and two territories—this covers almost the entire population of the world and the vast majority of the world's independent states (micro states are excluded). The overall Democracy index is based on five categories: electoral process and pluralism; civil liberties; the functioning of government; political participation; and political culture. Countries are placed within one of four types of regimes: full democracies; flawed democracies; hybrid regimes; and authoritarian regimes.

The Democracy Index 2011 cites **each** of these countries as belonging to a group called **Authoritarian Regimes.**

While it is not true[2] that all Authoritarian Regimes fail to follow the best fit line, it is possible that authoritarinism can inhibit a country from achieving it's highest potential in terms of HDI. It is worth noting that this principle seems to hold good across the range of Income Per Person, e.g. from Chad to Qatar.

2.1.4 Examining the bottom left corner



Country	HDI Rank	Democracy Index Classification
Zimbabwe	173	Authoritarian Regime
Guinea-Bissau	176	Authoritarian Regime
Eritrea	177	Authoritarian Regime
CAR	179	Authoritarian Regime
Sierra-Leone	180	Hybrid Regime
Liberia	182	Hybrid Regime
Mozambique	184	Hybrid Regime
Burundi	185	Hybrid Regime
Niger	186	Hybrid Regime
Dem.Rep. Congo	187	Authoritarian Regime

Ten countries that lie at this end of the line are indicated in the figure above.

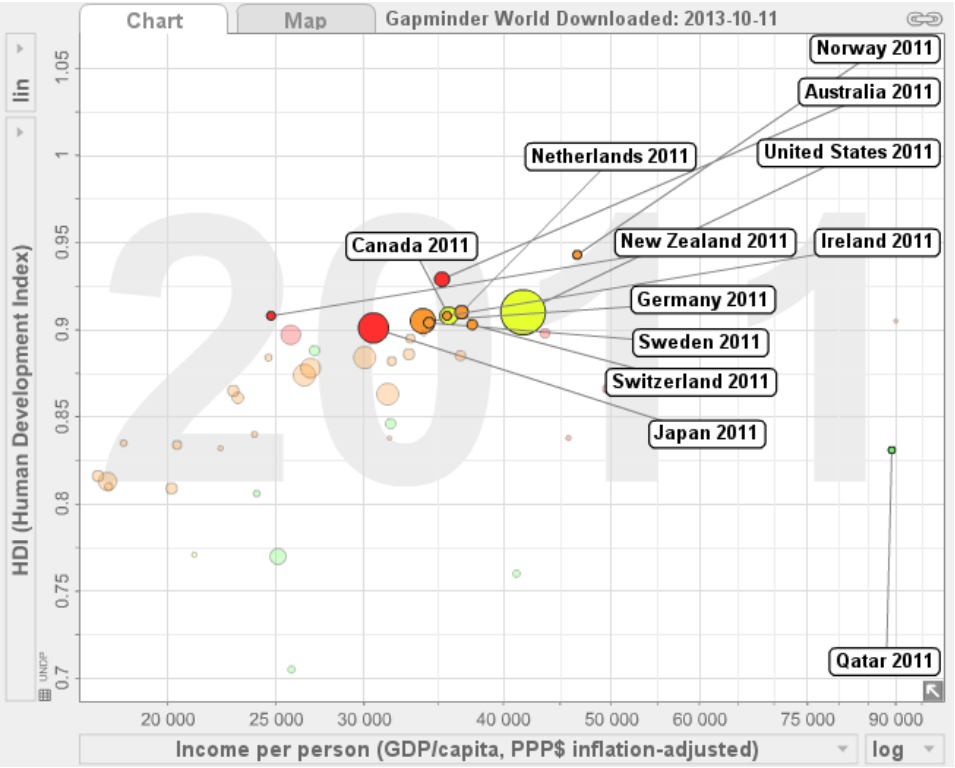
Observations

- All these countries have an HDI of less than 0.4. All fall within the categories of Hybrid Regime or Authoritarian Regime according to the Democracy Index 2011.

[2] China is one example of an Authoritarian Regime which has achieved its potential and falls on the best fit line.

- None of these countries are known for their high standards of education.
- India's HDI rank is not much higher. We are closer to this range above than to the countries at the top end of the HDI.

2.1.5 Examining the top right corner



Eleven countries have an HDI above 0.9 on a scale of 0 to 1. These are labeled at the top end of the figure. None is a dictatorship nor do any of these countries have identifiable strong charismatic leaders who could personally have led these nations to the upper echelons of the HDI. Norway which occupies the first position in HDI is a titular monarchy which has a minority govt. with formal support from the Liberals and Christian Democrats.(See BBC link)

However, there is one country which outranks every country in terms of Income per person by a wide margin - Qatar. Qatar is an absolute monarchy where the Emir has the final say. It has the world's highest Income per person(IPP) of $89281 with an HDI of 0.831 and an HDI rank of 37. Norway which occupies the first place on the HDI has only about half the income per person(IPP). This seems an anomaly that appears hard to explain. As our agenda is also to consider the role of participative democracy (See Section 2.1.6) and education (See Section 2.2) we will explore this further.

2.1.6 Measuring levels of participation in democracy

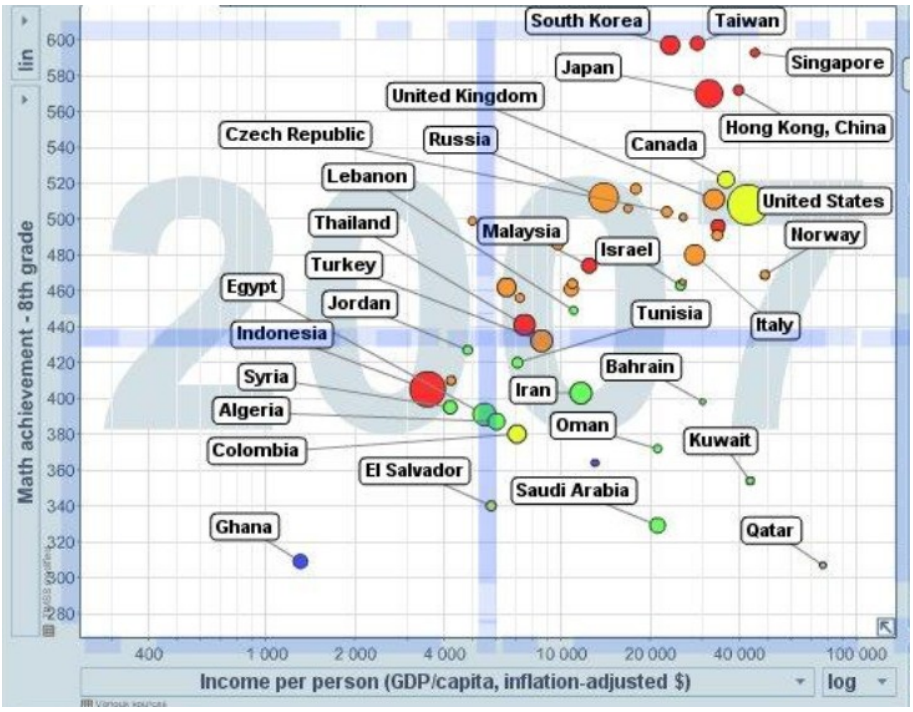
The Economist Intelligence Unit compiles a Democracy Index which can be downloaded here for 2011. One component of this unit which is measured on a 1 to 10 scale is a Political Participation component or PPI. The table below is compiled from the various sources cited earlier.

Country	HDI Rank	PPI	IPP$
Norway	1	10.0	**46,608**
Australia	2	7.78	35,254
Netherlands	3	8.89	36,716
United States	4	7.22	41,678
Canada	5	7.78	35,741
Ireland	6	7.22	35,604
New Zealand	7	8.89	24,757
Germany	9	6.67	33,896
Sweden	10	8.89	34,327
Switzerland	11	7.78	37,537
Japan	12	6.11	30,593
Qatar	37	2.22	**89,281**

We see an immediate incongruity here. Qatar has almost twice the Income Per Person(IPP) of Norway but is ranked 37th on the HDI. This is an exception to the general rule cited earlier that increasing levels of IPP correlate with increasing levels of HDI. It may be worth noting that the Political Participation Index (PPI) for Qatar is the same as that for Pakistan i.e. 2.22 (2011).

2.2 Measuring levels of educational attainment

As the top ranked countries of the HDI are all democracies with high levels of public participation, and high quality K-12 systems we will explore the role of authoritarian regimes in impacting school education and eventually HDI, through the use of the Gapminder software.



In the diagram above we evaluate the impact of authoritarian regimes on educational achievement. Here the vertical axis uses the results of the TIMSS test to evaluate math achievement at the 8th Grade. Many countries e.g. India do not deploy the TIMSS test to measure educational outcomes. These tests are conducted every four years but the 2011 results have not been incorporated into the Gapminder software currently.

In order to make the data simpler to understand I have put an arbitrary set of axes at the middle of the horizontal and vertical scales. There are some notable observations.

- There is not a single country in the top left hand quadrant. This denotes a high Math Achievement score coupled with low IPP values. The inference is that without the resources you are unlikely to have high TIMSS scores.
- The countries that occupy the higher echelons of the HDI tend to be represented in the upper right quadrant which denotes high IPP with high TIMSS test scores. The inference is that if you have the resources you could do well in the TIMSS test.
- The countries that occupy the bottom left quadrant represent low maths test scores and low IPP. This is logical that a lack of resources limit what can be done in education. The inference is that low TIMSS test scores correlate well with low levels of IPP.
- The bottom right quadrant is occupied by some of the wealthiest nations but represents the lower half of the TIMSS test results. A quick look will show that these tend to be authoritarian regimes as cited by the Democracy Index 2011, that may not permit a questioning approach in the school system in order to produce pliant populations. Qatar for instance scores lower than Ghana in TIMSS scores. This impacts the quality of life a nation will have as measured by the HDI.

2.3 Findings - the International Perspective

The data show that while a high IPP is necessary for achieving a high HDI, there is an additional requirement for political participation by citizens without which the highest quality of life as represented by the HDI can be difficult or impossible to achieve. The public record is that dictatorships and authoritarian governments in nations where IPP is low can generate corruption ridden regimes with a predilection for targeting minorities e.g. Pakistan. Finally and perhaps more perniciously, authoritarian regimes appear to tinker with the education system to produce pliant populations, but in the process do their people the injustice of reducing educational achievement nationwide. That of course creates a vicious loop of declining standards of ability and opportunity.

By contrast, the Scandinavian countries which populate the higher echelons of the HDI, are often minority governments. As the BBC says [3] about the current Norwegian Prime Minister, Erna Solberg, “Her government rules in a minority after failing to win over several small centrist parties. But minority governments are common in Nordic countries and her Conservative Party has enlisted the formal outside backing of the Liberals and the Christian Democrats to ensure stability.”

The role of education in the Scandinavian countries, high levels of equity and the focus on the empowerment of women and children may permit a level of discourse across political boundaries that makes it obligatory for even minority governments to listen to the voice of its people. This is reflected in Norway’s maximum score of 10 for the political participation component of the Democracy Index for 2011.

The Best Fit Line shown in Figure 2.1 gives credence to the probability that a country which provides its people with a voice in the democratic process will achieve a higher level of HDI than it would with an authoritarian government.

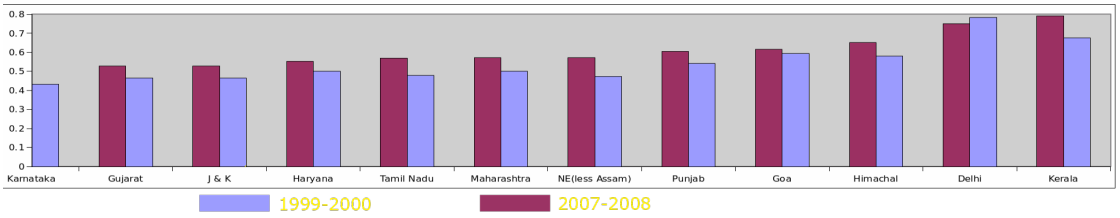
[3] http://www.bbc.com/news/world-europe-17745324

3 The Indian perspective

The issues we seek to explore here are the roles that citizen participation and strong vs weak leaderships have played in Indian history from 1881 onwards as the Gapminder database contains more frequent data for the years since 1881. From 1950 onwards that data is available for each year.

The issues we explore in this chapter relate to the correlation of inflection points in the relationship between Life Expectancy and Income per person with changes in opportunity for citizen participation or civic engagement.

Generally speaking - as the following figures show - there is wide disparity between Indian states with some, such as Kerala, having a higher score than some parts of the United States. The figure below, of the top 12 Indian states shows that states with authoritarian impact such as Jammu & Kashmir due to the presence of the Army or Gujarat due to strong leadership rank tenth or lower, while states such as Kerala with good indicators for civic engagement are at the very top of the scale.



Source:http://iamrindia.gov.in/ihdr_book.pdf - Page 24

Figure 3.1: HDI scores for the top 12 Indian states for 1999-2000 and 2007-2008

3.1 Introduction

We will have a quick overview of India and other nations in terms of the tracks of Life Expectancy (LE) and Income Per Person (IPP) in the animation of Figure 3.1.

I examined various timelines of Indian history and selected the following events for evaluation on the basis that they had the potential to impact citizen's opportunity for engagement. These were mostly derived from the BBC website for an India timeline. The principal intent was to see if events that empowered the citizen and/or provided opportunities for engagement in the political process were signaled by inflexion points in the graph of IPP vs Life Expectancy (LE). While the frames/slides are incremented every 4 years each blue circle represents a specific year. Kindly use the animation controls to move to the specific frame recommended in the paragraphs below.

Using the animation controls

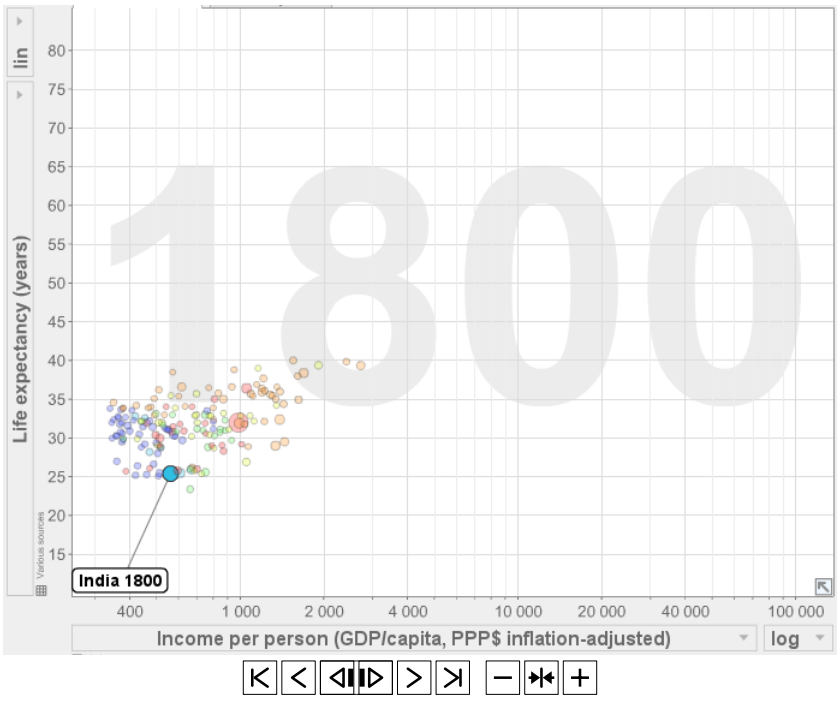


Figure 3.2: Overview of inflexion points in India's Life Expectancy and Income Per Person

3.2 Principal inflexions

There are 5 Principal Inflexions which we will analyse in later sections. These are presented below:

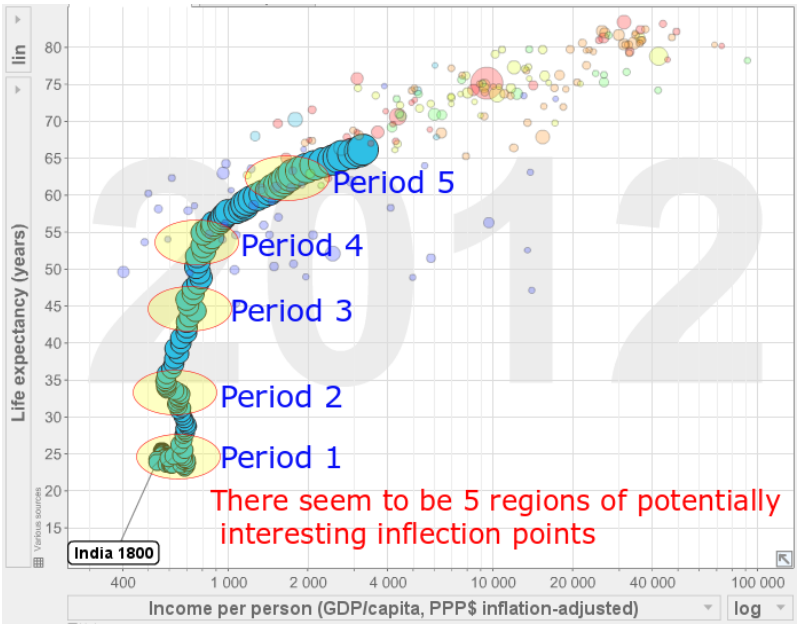


Figure 3.3: Inflection points in the Life Expectancy/Income per person relationship from 1800 to 2012

3.3 Events - Period 1

3.3.1 Animation - 1884 to 1932

Please use on the control panel below the figure to advance the slides one by one.

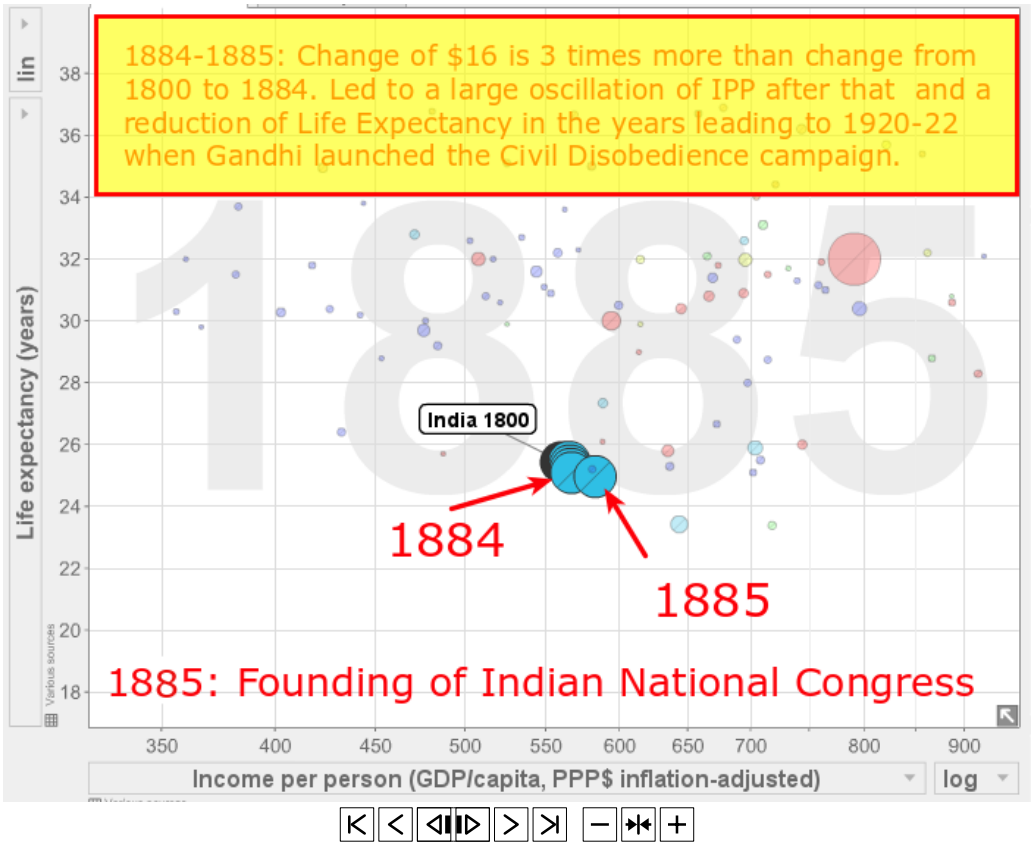


Figure 3.4: Overview of inflexion points - Period 1

Events

(A) 1885 Indian National Congress founded. (Source) First opportunity for citizen engagement in India.

(B) 1917-18 Gandhi holds first satyagraha in Bihar. (Source) Citizen engagement takes hold without recourse to modern communication. The advent of Radio in British India only came about after 1920.

(C) 1920-22 Gandhi launches Civil Disobedience campaign: a novel citizen engagement strategy for the day. (Source)

Analysis

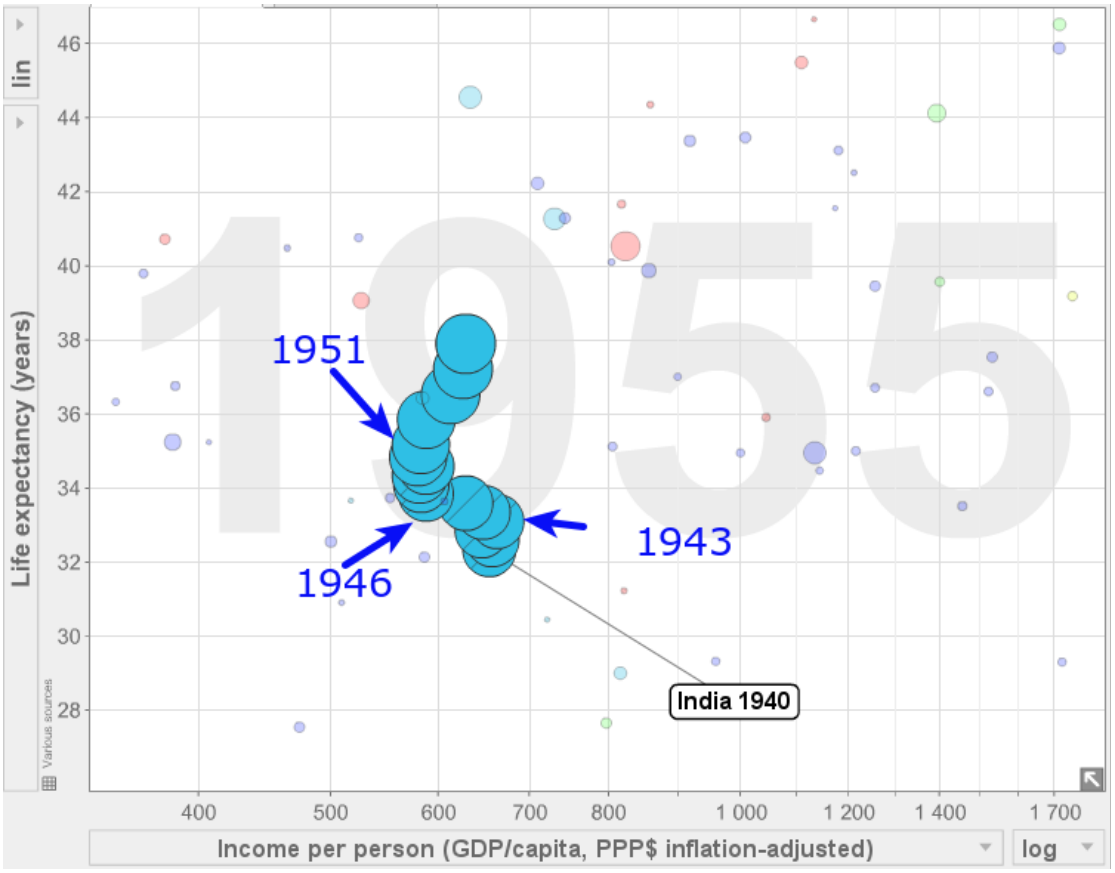
The increase in IPP between 1884 and 1885 was of the order of $16 as seen in Frame 1 of Figure 3.4. That is not remarkable in itself except that it was 3 times the amount that IPP had changed in the previous 84 years. It is notable that this was the first time that an event (A) invoked participation of

people across India which contrasts somewhat with the 1857 mutiny. The 1857 mutiny produced no visible inflexion. In that sense the founding of the Indian National Congress began the participation of people in British India in a political process - albeit in a very limited sense.

In any event this created a turbulence[1] which only began to reduce in 1917-1918 (B) and eventually led to the inflexion point visible in 1922. That becomes apparent as one looks at successive frames from 1922 to 1932 in terms of the increase in Life Expectancy.

It is in looking at Figure 3.3 that one sees the massive change from 1922 to 1947 -25 years - compared to the change between 1800 and 1922 - 122 years.

3.4 Events - Period 2



(A) 1942-43 Gandhi launches Quit India movement - an exercise in massive civic engagement. (Source)

(B) 1946 PM Atlee announces to the House of Commons the need for India to gain independence. (Source)

(C) 1947 Independence and partition. (Source)

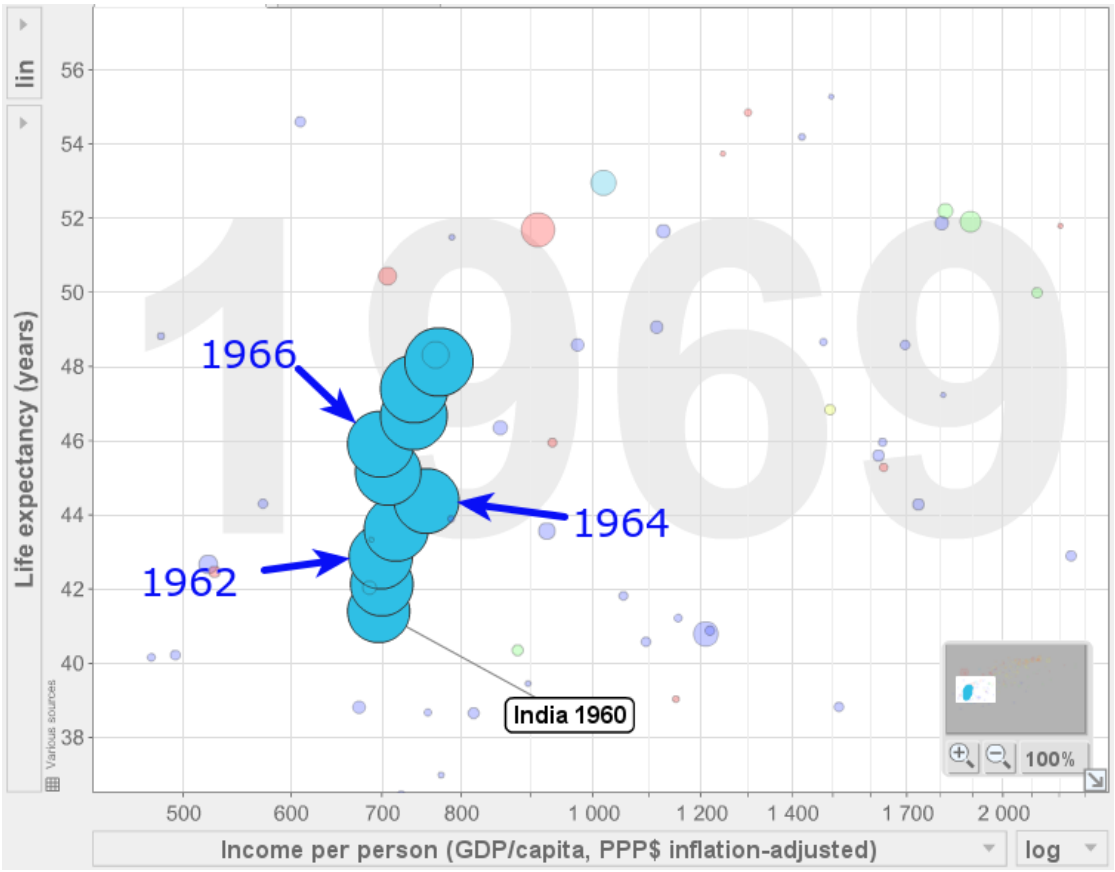
(D) 1951-52 First General Elections held in India - widespread perception of an historic opportunity for shaping national governance. Citizen engagement through the electoral process. (Source)

[1] It is possible this is due to the quality of data available at that time. However the amplitude of that variation is probably reliable.

Analysis

It would appear that the nett result of Gandhi's Quit India (A) movement was to reduce the IPP and slightly increase the rate of Life Expectancy. However the announcement of Independence for India in 1946 (B) which coincided with preparations for handover really stabilized the IPP without leading to a significant decline in rate of increase of Life Expectancy. The General Elections (D) for the first time in India's history - an unprecedented empowerment of citizens - led to an increase in the rate of Life expectancy as well as an increase in IPP. By contrast, historic as it was, 1947 (C) may not have so dramatically altered the relationship between citizens and the state as the General Elections did.

3.5 Events - Period 3



(A) 1962 War with China. Strong leadership in disarray.

(B) 1964 Prime Minister Nehru dies.

(C) 1966 Indira Gandhi takes over as Prime Minister.

Analysis

The war with China (A) was a stunning blow both for Nehru and for the citizens of India. However, that is an inflexion point in leading to an increase in IPP which could legitimately be seen to result from citizen engagement in the political process as citizens donated jewelery and money for the war effort.

The passing of Nehru in 1964 (B) signified the passing of the Old Guard that had brought India to independence. The appointment of Indira Gandhi as a compromise choice in 1966 (C) after the death of Prime Minister Lal Bahadur Shastri appears to indicate that weak leadership is consistent with renewed increase in IPP and LE.

3.6 Events - Periods 4 and 5

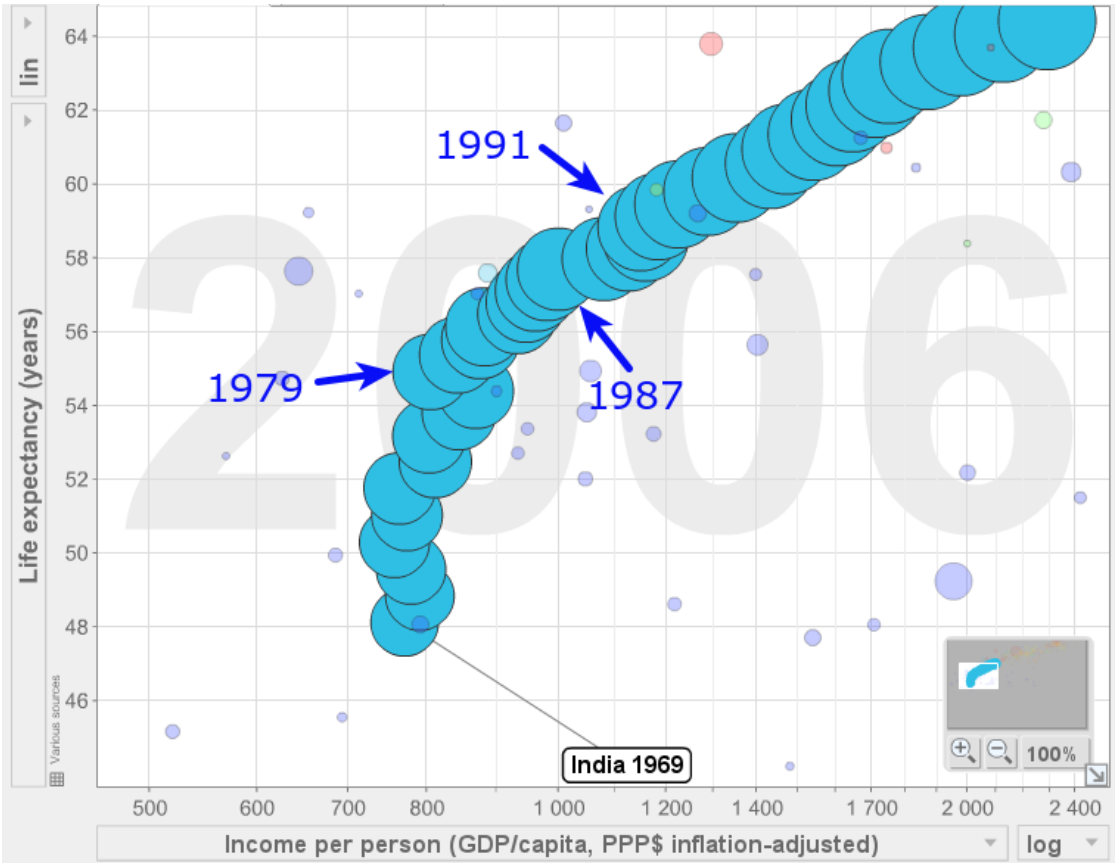


Figure 3.5: Final Developmental Leg

(A) 1979 Divisions within the ruling Janata Party result in elections in 1980. Absence of strong political leadership.

(B) 1987 A significant jump in IPP. Rajiv Gandhi's reforms agenda, fragile leadership or a bit of both?

(B) 1991 Macroeconomic crisis - Prime Minister P. V. Narasimha Rao and his finance minister Manmohan Singh announce economic reforms.

Analysis

Mrs. Gandhi declared martial law in 1975 - a clear signal of strong leadership. There is a visible change with 1976 registering a slightly lower IPP. 1979 (A) is a time when there is an apparent failure of governance, yet that is the year the final development leg commences. Mrs. Gandhi returned to power only in 1980. Further evidence of an inflexion point of investment in corporate fixed investment in

1978-79 is available here. As a reflection of business sentiment, it can be considered a proxy for citizen engagement taking place in the absence of strong political leadership.

In 1987 there is a marked increment in IPP. The political atmosphere of the time is perhaps aptly described by Arun Shourie's assessment quoted in the New York Times of 8 Feb., 1987 as:

> "It is a moment of grave danger," wrote Arun Shourie, a columnist close to Mr. Gandhi. "Among the people, the earlier enthusiasm that he will usher reform has given way to an apprehension that at this rate he will not be able to hold things together."

This was also the year that India sent troops into Sri Lanka to help the Sri Lankan Govt. fight the Tamil Tigers which may not be relevant but bears mention because of its subsequent connection to Rajiv Gandhi's assassination in 1991.

However Feinberg (Feinberg et al. (1990)) has indicated that US investment went from USD 35.9 million in 1985 to USD 65 million in 1988. Overall this was a peak period of reform from the previous state of strong bureaucratic influence. In that sense it may well have sparked entrepreneurial activity and enhanced the role of the citizen as a stakeholder in the economic process from the bureaucratic stranglehold of the Nehru era. It was also a period when Rajiv Gandhi's image was of an increasingly fragile leadership which culminated in his assassination in 1991. The Bofors scandal and the transfer of Mr. V.P. Singh from Finance to Defence contributed to the image of weak leadership. Again it would appear that periods of weak leadership appear to correlate well with increases in Life Expectancy and/or Income per person.

3.7 Findings - the Indian Perspective

As one reviews the period from 1885 to 2011 one sees a general absence of strong leaders. If Nehru could be called a "Strong" leader then one could argue that strong leaders are not so good for IPP although much of the blame for that can be placed on the Nehruvian socialist tendency. India turned onto the final development leg at a time of weak and fractured government in 1979. It has made its most significant progress under a mild mannered economist in his capacity as Finance Minister in 1991 and then as a "weak" Prime Minister from 2004 onwards. Prime Minister Vajpayee, during whose regime progress on the final development leg is significant, is likely to be judged as a persuasive Prime Minister rather than a "strong" leader.

By contrast during the "strong" leadership of Prime Minister Indira Gandhi, India was subsumed in the "HIndu Rate of Growth" evident in the near vertical line from 1969 to 1977.

Amartya Sen's observation Sen (1999) about 20th century democracy being more a matter of making a country "fit through democracy" rather than the 19th Century question of discussing whether a country was "fit for democracy" bears consideration as we try to make our decision on the important issue of whether we want citizen participation or strong leadership. Perhaps our choice of a party should be dictated by whether that party will make us fit **through** democracy or will try to make us fit **for** democracy.

Finally, we also have to be mindful of world history where strong charismatic leaderships in Germany, Japan and Italy managed to plunge the world into war.

3.8 Some confounds

There are many other events such as the Second World War, riots, wars with Pakistan, assassinations of ruling heads of state, the Bangladesh Intervention, and transitions of political parties into and out of power. None of these seem to represent an inflexion point in their own right.

The other confound is the apparent immediacy of outcomes in terms of IPP or LE when an event creates weak leadership or other opportunities for citizen empowerment. If one was to hazard a guess it would have to be that the perception of an opportunity for citizen empowerment may create an immediate stimulus for action. This of course may also occur at times of weak leadership or periods of uncertainty.

4 Conclusions

In Fig. 2.2 we have seen that there is a reasonably reliable model for predicting HDI from IPP for the majority of nations. At the same time we see that this model varies significantly not in slope but in terms of the intercept for a subset of nations that are categorized as authoritarian regimes.

This evidence taken along with the correlation between events signaling strong participative potential of citizens and progress in IPP/LE seems to indicate that citizen participation is a necessary element for sustained economic and social progress. As we saw with the case of Qatar, increasing income per person through economic growth is not an adequate condition for development although economic growth is a necessary condition complemented by improvements in health and education, from which civic engagement may develop, thereby promoting equity.

When this evidence is considered along with the outcomes of Chapter 2 one is led to the belief that the quantitative evidence in the Gapminder Database appears to support the hypothesis that citizen participation is to be preferred over strong leadership for national progress in terms of HDI, Life Expectancy and Income Per Person.

4.1 Caveats

I am neither a historian nor a statistician. However, I have done just enough research to know correlation does not equate to causation. Hence, these observations must be used with care and critically examined. The purpose of this publication is to stimulate data-driven explorations that subvert the hypothesis inherent in this study that it is citizen engagement and participation in political and economic spheres that leads to improvements in HDI and Life Expectancy.

In this document I have merely tried to use the Gapminder software for dates up to 2011, and the Gapminder data to correlate events that should have stimulated citizen participation mostly using the timeline provided by the BBC, with visible inflexion points in the Gapminder representation.

I have also examined the Gapminder data to identify the periods when data was infrequent or absent. Sometimes data has been inserted using the guesstimates of the Gapminder team. However, given the eminence of Hans Rosling as a statistician and epidemiologist it is possible this carries less risk than would otherwise obtain. A draft of this document was sent to Gapminder to identify errors.

In any event, the objective of this exercise is to stimulate debate. Kindly feel free to forward new data which conflicts with these observations and I will be happy both to integrate it and acknowledge the source.

Bibliography

Feinberg, R., Gent, J., and Müller, F. (1990). Economic Reform in Three Giants: U.S. Foreign Policy and TheUSSR, China, and India. Overseas Development Council. Transaction Books. 3.6

Sen, A. K. (1999). Democracy as a universal value. Journal of democracy, 10(3):3–17. 3.7