What is development?

How can we measure development?

Definition of development

Economic growth – Increase in total value of goods and services produced. (measured by *GDP*)

Development – Improvement in human welfare, quality of life, social well being. Satisfying the population's needs and wants. (measured using a range of *socio-economic indicators*)

Sustainable development – "Sustainable development is development that meets the needs of the present without compromising the ability of future generations to meet their own needs." (Measured using indicators of *environmental quality*)

Our Common Future (Brundtland Report) United Nations World Commission on Environment and Development (WCED) 1987 recognized that environmental problems were global in nature and determined that it was in the common interest of all nations to establish policies for sustainable development. Norwegian Prime Minister Dr. Gro Harlem Brundtland.

"A country should be judged on how it provides for its most vulnerable inhabitants".

Measuring Economic Development

Gross Domestic Product
GDP – total value of goods and services produced in a country (US$)

Gross National Product
GNP – Including income from investments abroad (US$)

Purchasing Power Parity
PPP – Takes into account local cost of living and is usually expressed per capita (US$)

GDP/GNP per capita
Total value divided by the total population

Problems of using economic indicators such as GDP/GNP/PPP to measure development

➢Currency fluctuations

➢Prices of goods and services (PPP)

➢Distribution of Wealth

➢Dependency on one industry (skills, location, fluctuations)

➢Tax and govt spending on public goods

➢Informal economy and unpaid work eg child care and subsistence farming, bartering

➢Monetary value of goods traded can fluctuate, especially agriculture

➢Accurate info difficult to obtain, high informal sector, rural economy, ineffective governance

➢% of public and private sector

➢Remittances from migrant workers are not included

Problems of using economic indicators such as GDP/GNP/PPP to measure development

➢Negative externalities of economic growth are not included (eg pollution, environmental damage)
➢Environmental services such as the benefits derived from standing forest are not included.

Basically it is only a measure of the economic value of what is produced and paid for. Does not take into account what was produced, the environmental and social costs, how the wealth is distributed, who spends it and what it is spent on.

"There are three kinds of lies –

lies, damned lies and statistics"

Benjamin Disraeli – Prime Minister of UK
1874-80

Social indices

Demographic statistics on mortality and fertility can be used to measure development. See Population Slideshare links on Fertility and Mortality

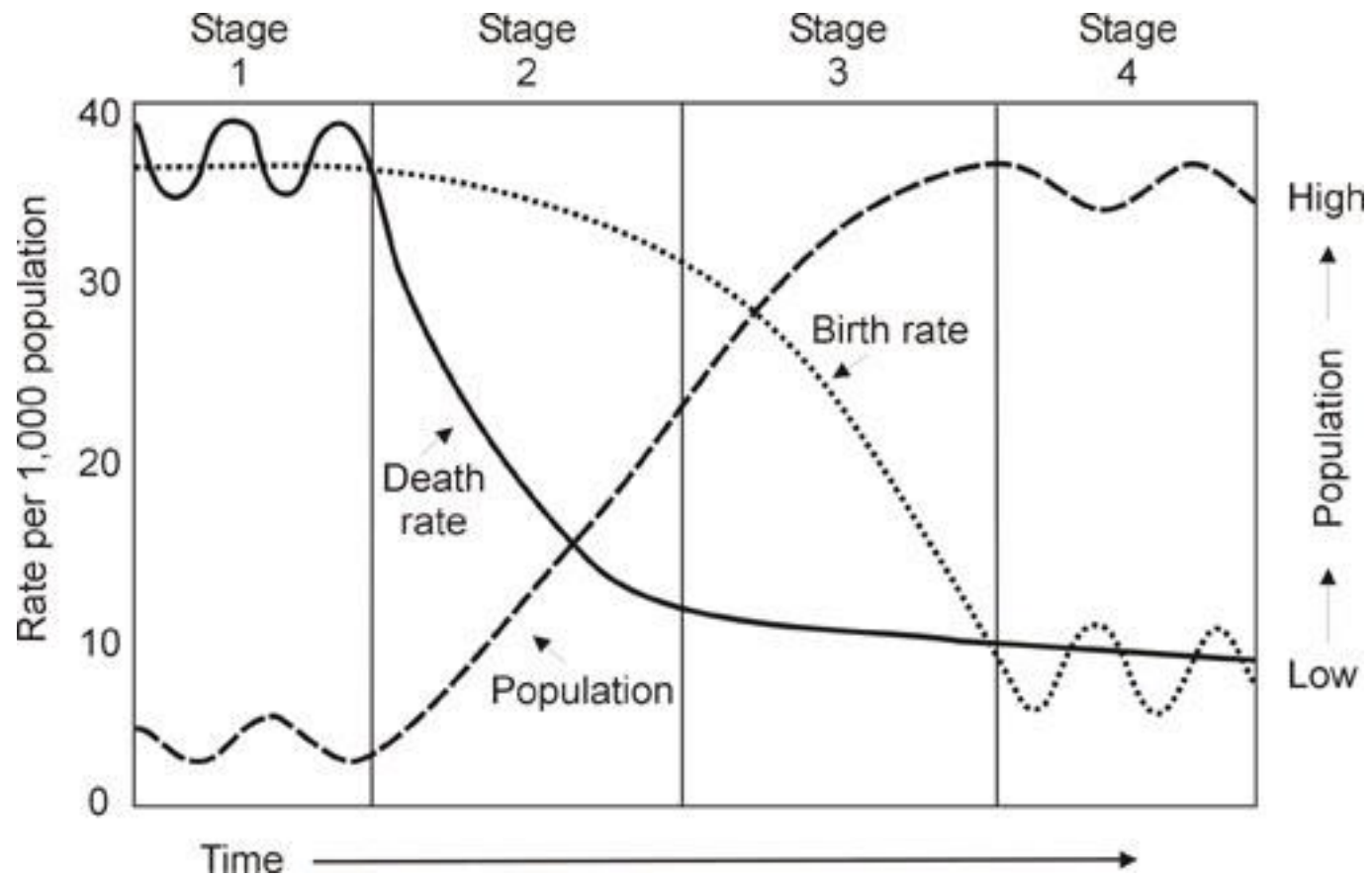Infant mortality
Life expectancy
Fertility rate

Why should care be taken with using Death Rate as an indicator of development?

Is there any correlation between pop density and development?

Pop growth rate can indicate what stage on the DTM the country is at, which can be linked to development.

Also % urban population shows levels of urbanisation which could be linked to development. Remember Zelinsky's model? (Pop, res, dev p.62)

Other social indices

There are a whole range of indicators which give us some idea about people's quality of life. These can be broadly described as social indices although they could be linked to the economy, environment and politics.

Access to safe water
Access to broadband internet connection
Male and female literacy rates
Number of people per car
Pop per doc
Food consumption
Mortality rates for diseases

Crime levels
Subjective life satisfaction
Obesity
Corruption perception index
Number in higher education
Energy consumption
Pollution levels air/water

Education and development - Nagle 436-437
Health and development - Nagle 438-440

Multiple component indices (composite indicators)

All the indices so far have been single component indices. There are also multiple component indices. These combine a number of single component indices to give a combined score.

Human Development Index (0-1)
HDI – PPP, life expectancy, adult literacy, average number of years schooling

Human Poverty Index 1 (for developing countries)
HPI-1 - % of pop with life expectancy of <40, % of adult illiteracy, % without safe water, % without access to health services, % of under fives who are underweight

Human Poverty Index 2 (for developed countries)
HPI-2 - % of pop with life expectancy of <60, % of adult illiteracy, % of people below the poverty line (50% of medium income), rate of long term employment >12 months

Relative / absolute poverty

The two different Human Poverty Indices reflect there are different definitions of poverty.

Absolute Poverty – Those living in absolute poverty are unable to satisfy their basic needs for survival; water, clothing, food, shelter and basic medicine. World Bank figure of $1.25 per day.

Relative Poverty – A level of poverty relative to the rest of the population of the country. For example below 50% of average earning.

Other multiple component indices (composite indicators)

Gender Empowerment Measure (GEM) and Gender-related Development Index (GDI) measure gender inequality.

Other quality of life indicators could measure a variety of social/economic/political and environmental indicators.

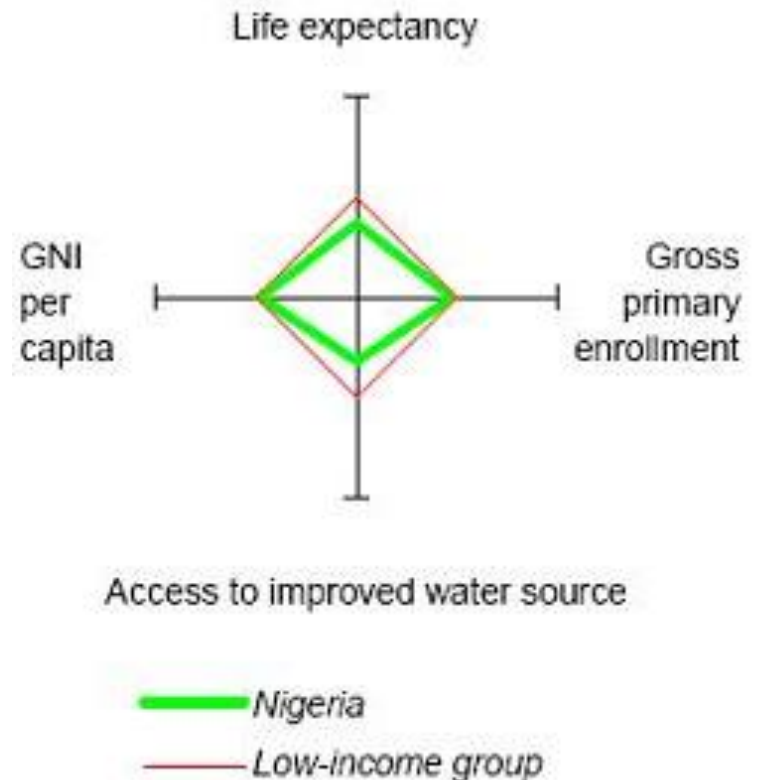## Multiple component indices v single component indices

Any ideas?

•MCI allow for easy comparison of countries across a range of indicators.
•Sometimes difficult to interpret what an MCI means. (Vietnam HDI 0.709)
•MCI only indicates the aggregate score not the relative performance in each of its components.
•All tend to use averages and do not reflect inequalities in wealth and income distribution

Development Diamonds

By illustrating multiple component indices diagrammatically it is possible to compare the relative performance in each of the separate indicators.
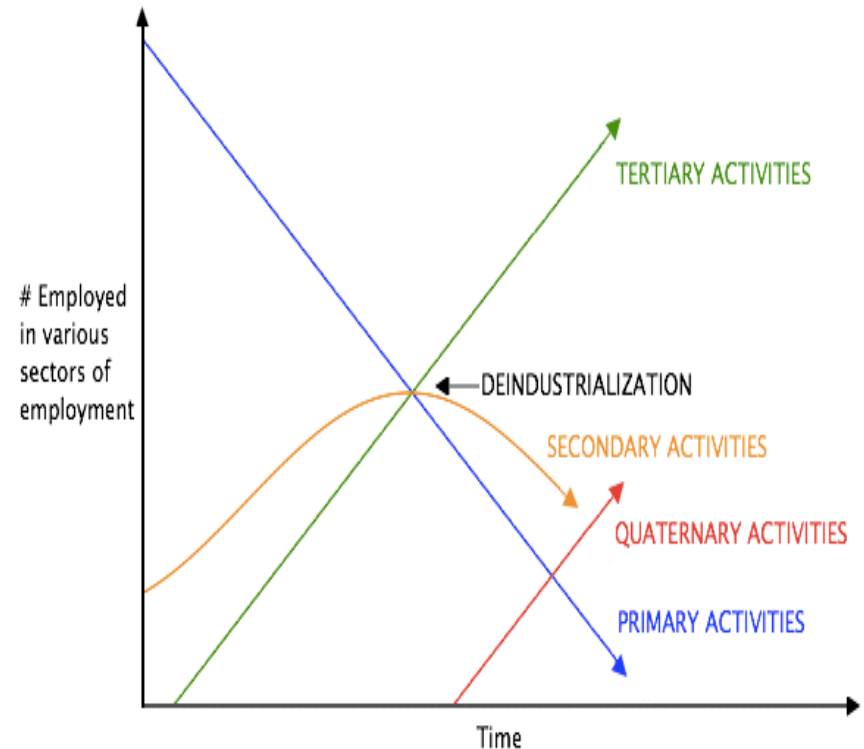
Development diamond*

Life expectancy

GNI per capita

Gross primary enrollment

Access to improved water source

Nigeria
Low-income group

Measuring development by employment structure or GDP contribution of different sectors of the economy

Is a country's economy an agricultural economy, newly industrialising, industrialised, or a post industrial economy?

Could be measured by % employed in each sector or % contribution to GDP of each sector.

Clarke's sector model – Nagle 441

Is a country industrialised?

Country	%of GDP from industry	% of Industry which is manufacturing	% industrial employment
UK	27.3	60.8	29
Canada	28.9	71.3	25
Japan	30.2	67.9	34
India	26.2	58.8	16
China	51.1	69.3	15
Venezuela	46.3	30.9	27
Indonesia	43.9	60.6	14
Morocco	30.3	55.4	25
Iran	39	35.1	23
Cote d Ivoire	20.4	63.7	10
Bangladesh	26.4	60.2	16
Poland	30.5	57.7	36

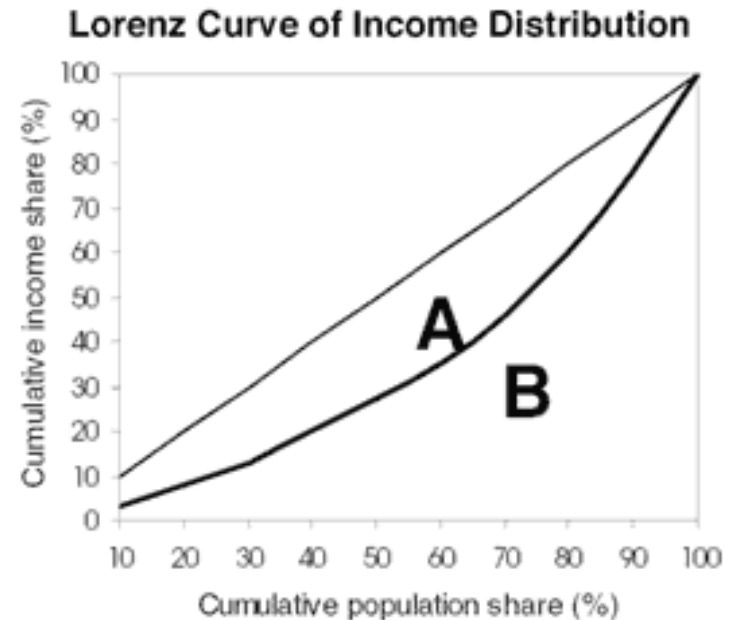Sutcliffe's model of industrialisation – Nagle 441

Measuring inequality

It is possible to measure the inequality of distribution of income, land or many other indicators using the *Gini coefficient.*

This measures the extent to which distribution varies from completely even distribution.
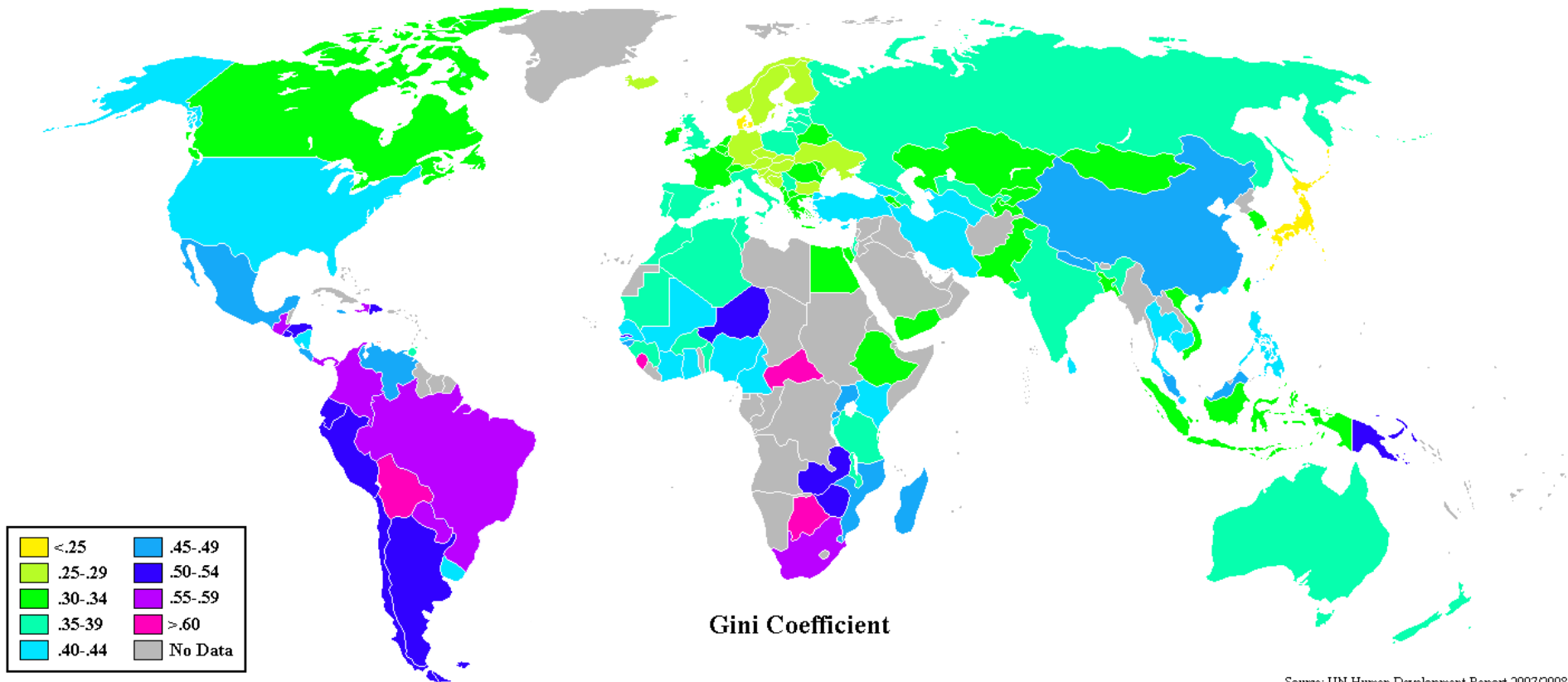
Could be measured across the population or across different regions of the country.

0 = Complete equality (everybody has the same amount)

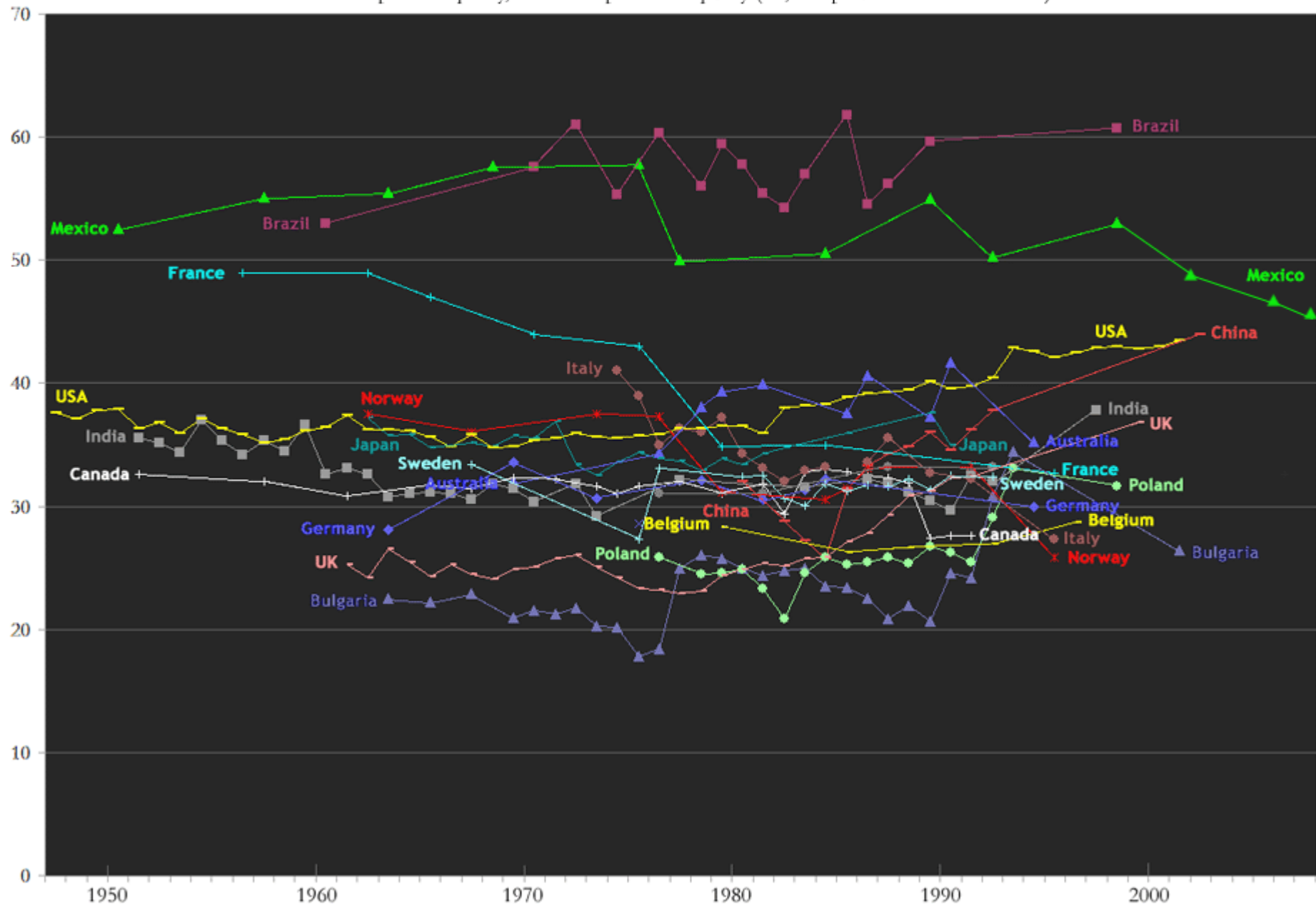100 = Complete inequality (one person has all the income)

Lorenz Curve of Income Distribution

Cumulative income share (%)

A

B

Cumulative population share (%)

Gini Coefficient World Human Development Report 2007-2008

Legend — Gini Coefficient:

Color	Range	Color	Range
Yellow	<.25	Light blue	.45-.49
Yellow-green	.25-.29	Dark blue	.50-.54
Green	.30-.34	Magenta	.55-.59
Teal	.35-39	Pink	>.60
Cyan	.40-.44	Gray	No Data

Gini Coefficient

Income Disparity since World War II – the Gini Index

where 0 is perfect equality, and 100 is perfect inequality (i.e., one person has all the income)

Design you own development diamond based on 4 single component indices which you feel together give a clear picture of development.

You will use this to compare your country case studies.

To what extent do you think it is possible to accurately measure development and make comparisons between countries?