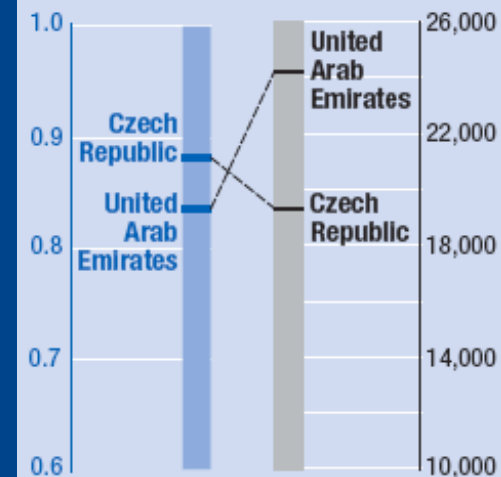
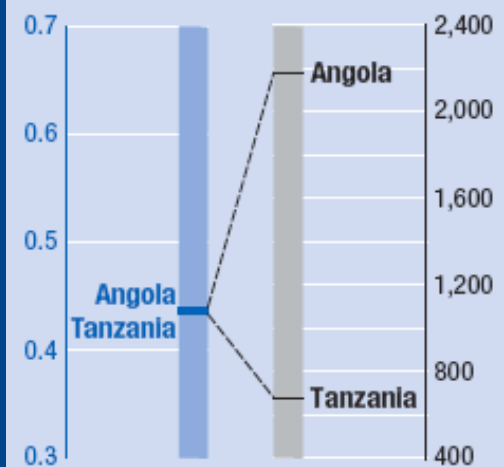
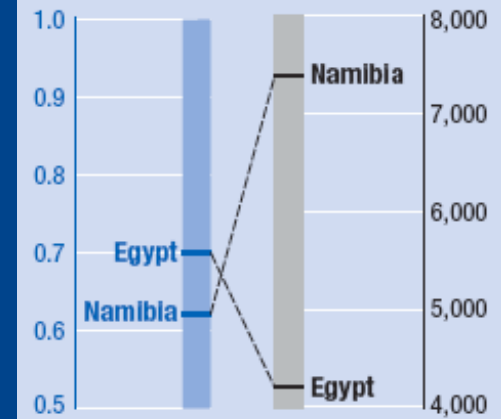
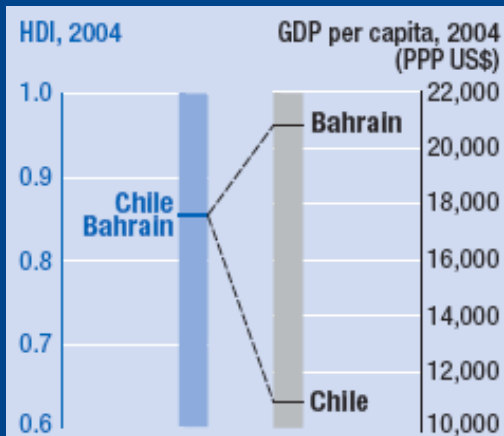


Three parts

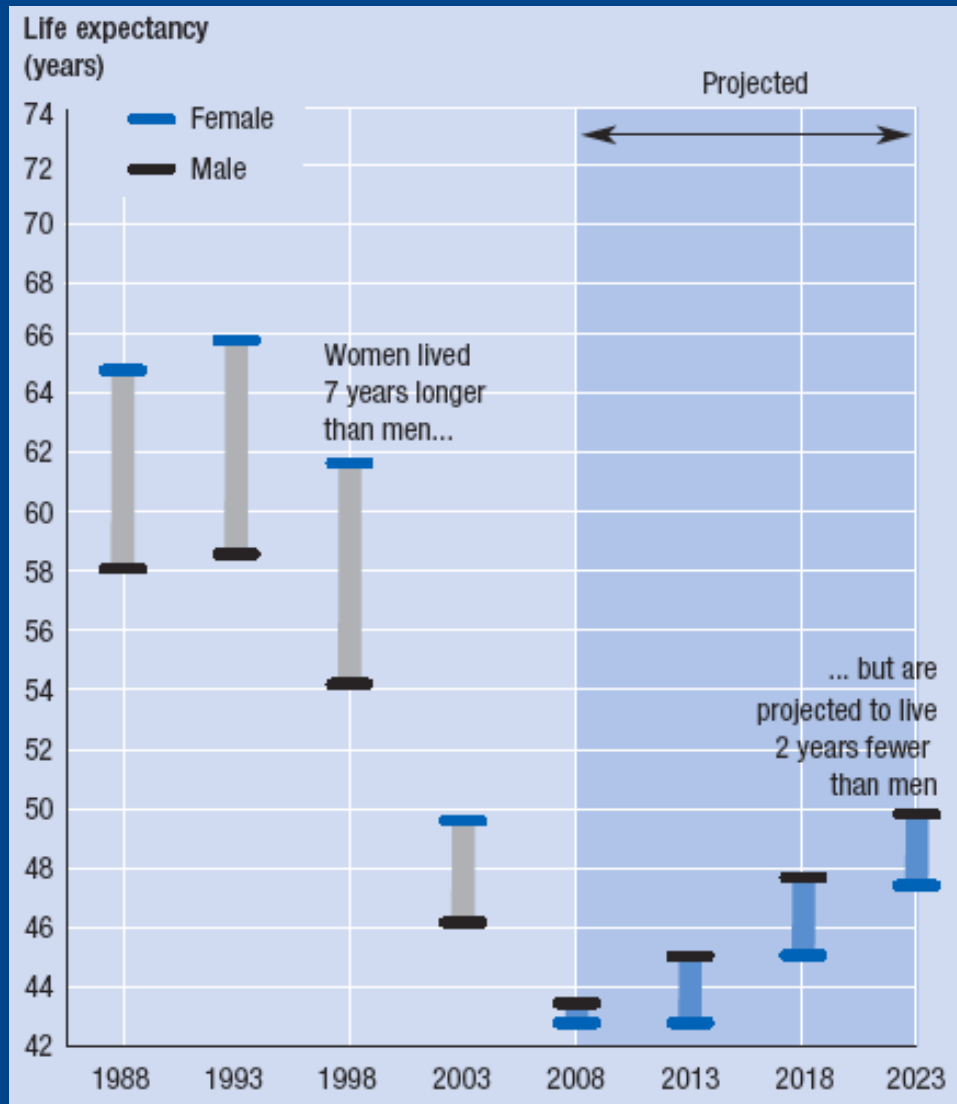
- HDR 2006 sneak peek - trends in human development (with a focus on inequality)
- National and international data
- HDR composite indices - description and new developments

Trends in human development: an analysis based on the HDI

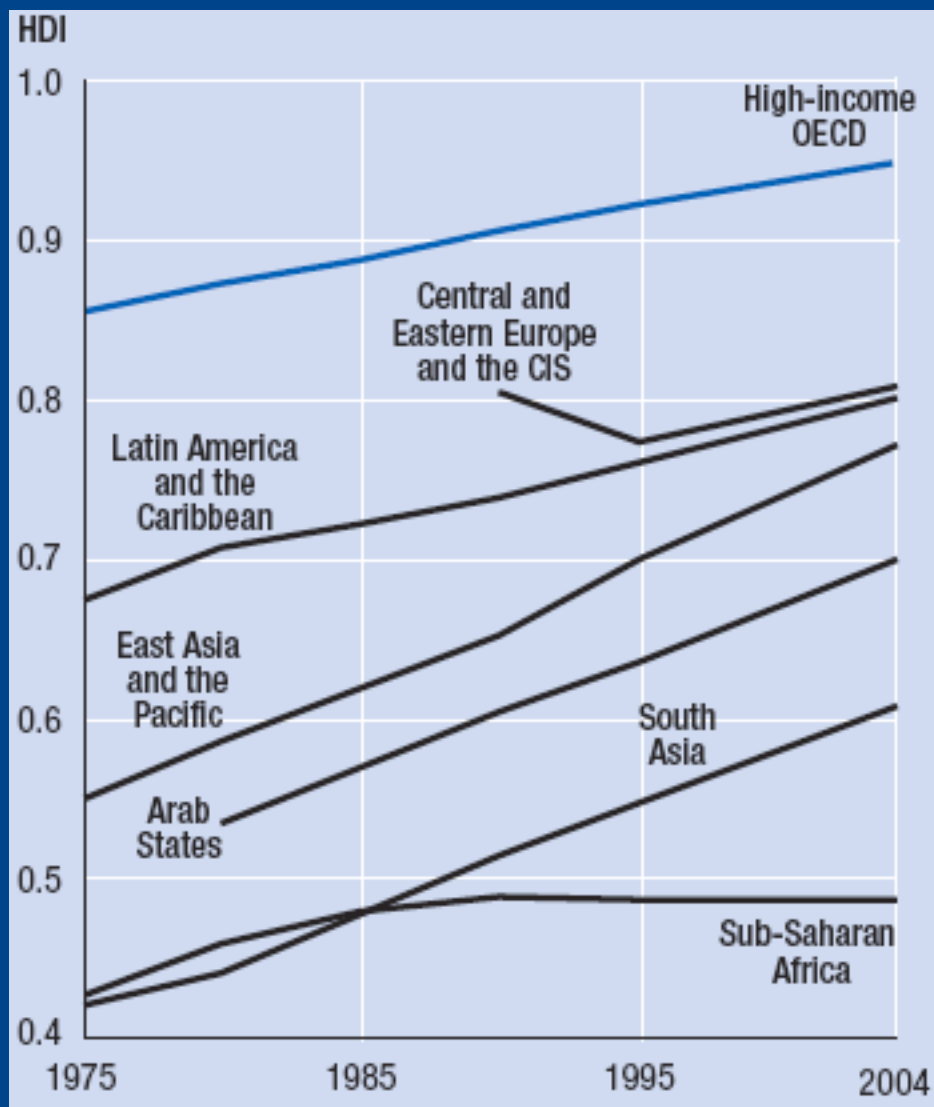
Same HDI, different income



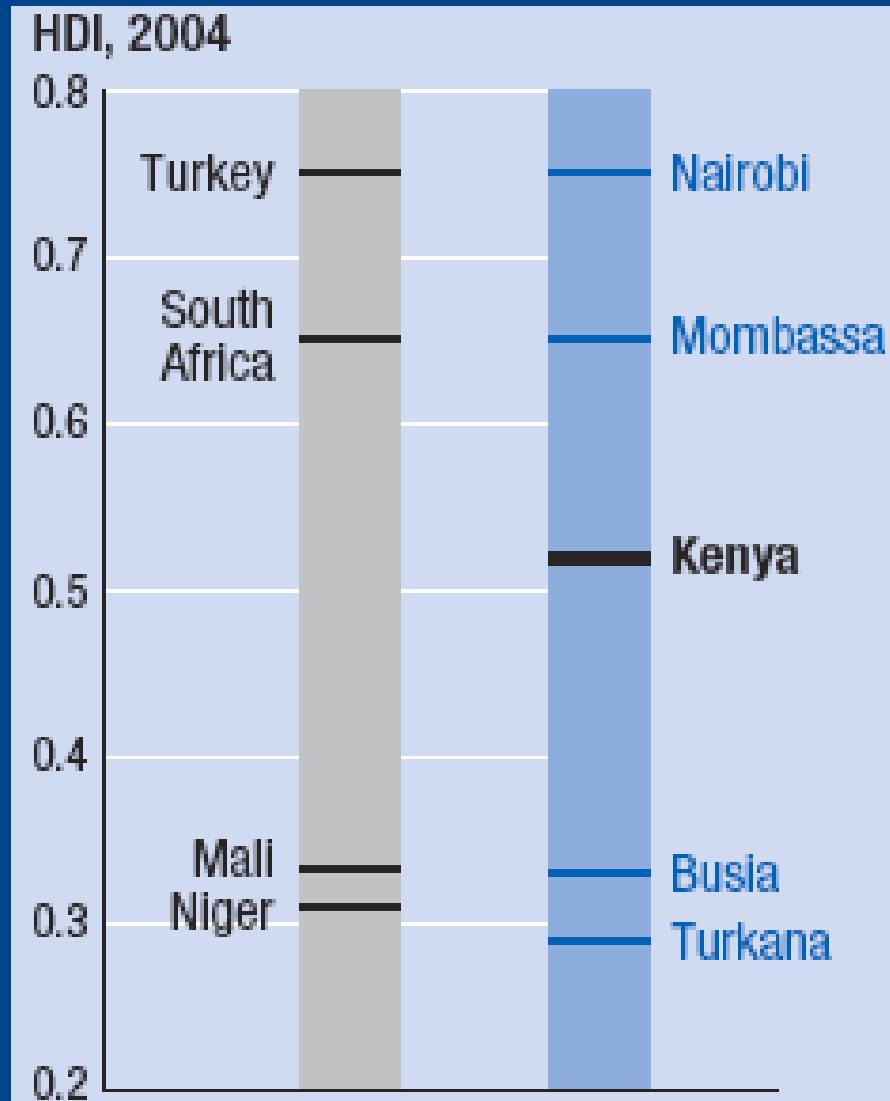
The feminization of HIV/AIDS



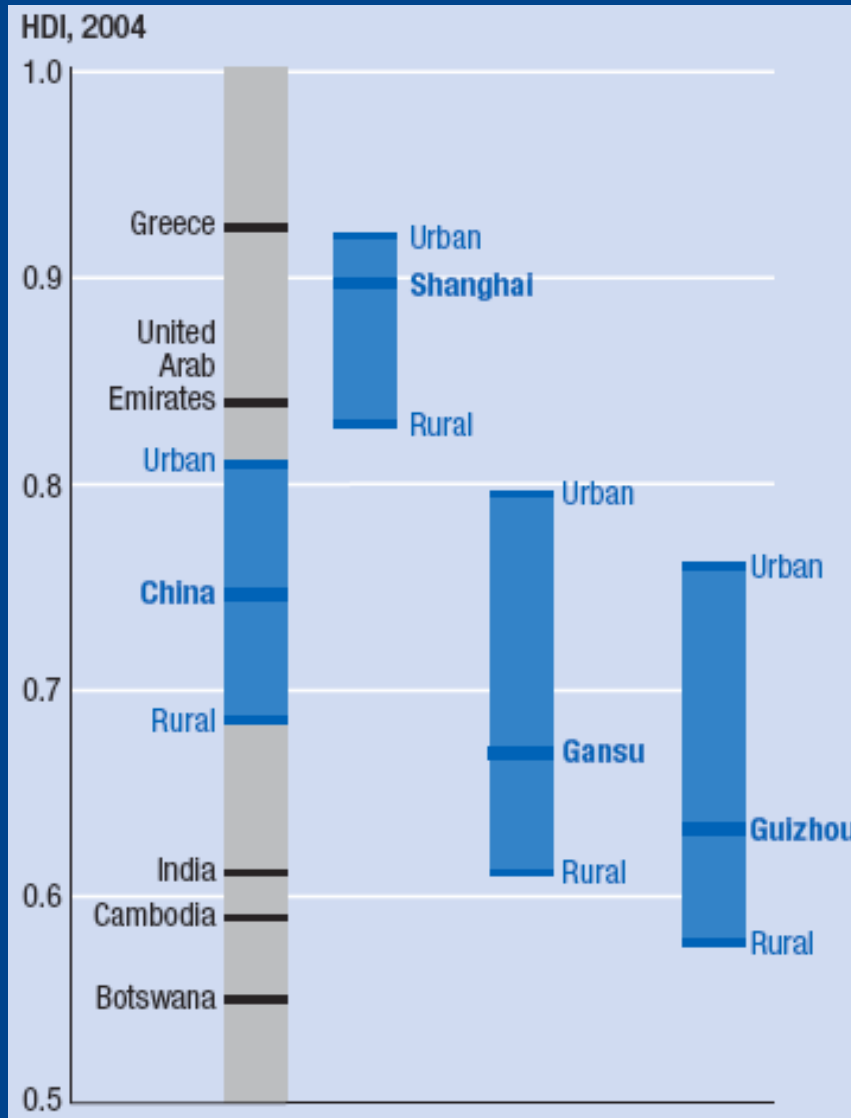
The exceptions to progress



Beyond the averages: inequality in Kenya...



...and in China



Characteristics of the HDR measurement approach

- Comparability
- Credibility
- Simplicity
- Transparency
- Composite indices
- Particular focus on inequality

National and international data - the process

- Data start at the national level (collected through surveys, censuses etc.)
- International statistical system collects data
- Harmonization occurs

Reasons for inconsistencies between national and international data

- Data not transmitted to international level – communication failures
- Time lags
- Different assumptions and definitions

Composite indices

To be effective, a composite indicator should be...

- Conceptually **clear**
- Policy **relevant**
- With **measurable** components
- Methodologically simple and **transparent**

The family of indices

- *HDI (Human Development Index):*
 - Summary measure of human development
- *GDI (Gender Development Index):*
 - HDI but adjusted for gender inequality
- *GEM (Gender Empowerment Measure):*
 - Captures gender equality in economic and political participation and decision making
- *HPI (Human Poverty Index):*
 - Captures the human poverty in a country

Combining the indicators

- 'Goalposts' are chosen for each indicator
- Using goalposts rather than observed minima and maxima allows comparisons over time
- Set with the timeframe 1960-2050
- Also set to allow for disaggregation – some subgroups can have lower values than observed in country data

Goalposts for the HDI

Indicator	Maximum value	Minimum value
Life expectancy	25 years	85 years
Adult literacy	0%	100%
Gross enrolment	0%	100%
GDP per capita	100 (PPP US\$)	40,000 (PPP US\$)

Calculating the HDI

Dimensions:

A long and healthy life

Being Knowledgeable

A decent standard of living

Indicators:

Life Expectancy

Literacy & Enrolment

GDP per capita

Dimension index

Life Expectancy Index

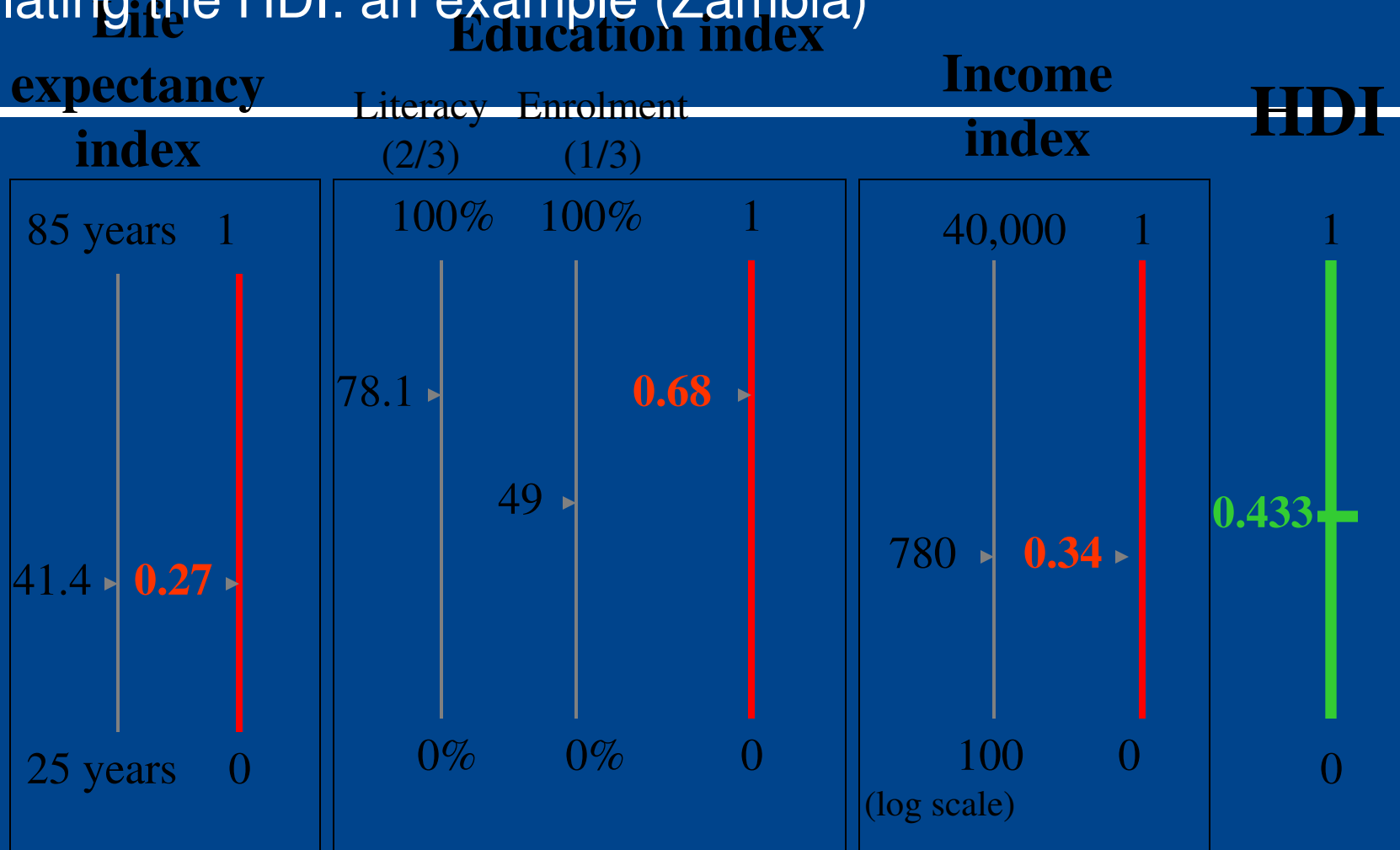
Education Index

GDP Index

The HDI

```
graph TD; subgraph Dimensions; D1[A long and healthy life]; D2[Being Knowledgeable]; D3[A decent standard of living]; end; subgraph Indicators; I1[Life Expectancy]; I2[Literacy & Enrolment]; I3[GDP per capita]; end; subgraph Dimension_Index; DI1[Life Expectancy Index]; DI2[Education Index]; DI3[GDP Index]; end; D1 --> I1; D2 --> I2; D3 --> I3; I1 --> DI1; I2 --> DI2; I3 --> DI3; DI1 --> HDI[The HDI]; DI2 --> HDI; DI3 --> HDI;
```

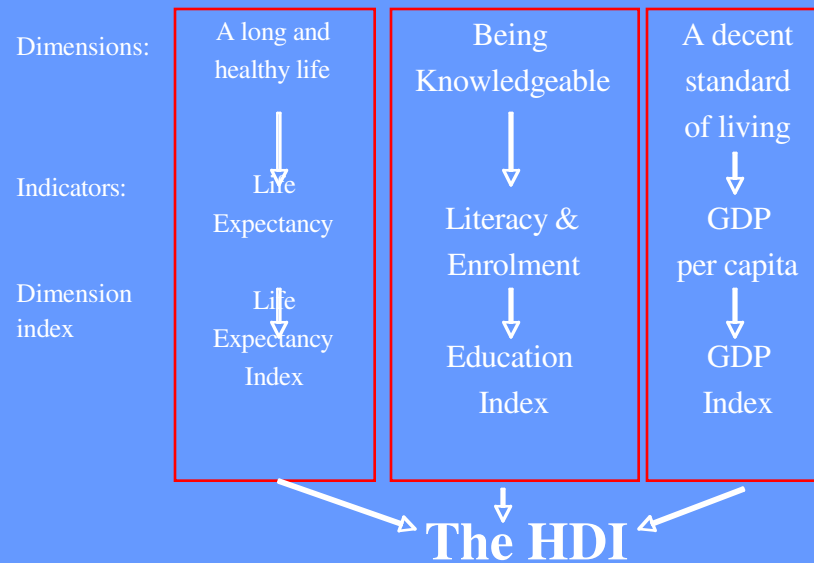
Calculating the HDI: an example (Zambia)



$$\frac{0.27 + 0.68 + 0.34}{3} = 0.433$$

The Human Poverty Index for developing countries (HPI-1)

Calculating the HDI



A decent standard of living
Access to safe water and
children underweight for age

The Human Poverty Index (HPI-1)

$$HPI = [1/3(P_1^\alpha + P_2^\alpha + P_3^\alpha)]^{1/\alpha}$$

Where:

P_1 =Probability of not surviving to age 40 (times 100)

P_2 =Adult illiteracy rate

P_3 = Average of people without access to safe water and children underweight

As α rises greater weight is given to the dimension in which there is most deprivation. $\alpha=1$ implies simple average (perfect substitutability), $\alpha=\infty$ sets HPI = highest value (no substitutability). In the global HDR $\alpha=3$, giving additional but not overwhelming weight to areas of most acute deprivation

α in the HPI formula

- As α rises greater weight is given to the dimension in which there is most deprivation.
- $\alpha=1$ implies simple average (perfect substitutability),
- $\alpha=\infty$ HPI = highest value (no substitutability).
- In the global HDR $\alpha=3$, giving additional but not overwhelming weight to areas of most acute deprivation

The Human Poverty Index for OECD countries (HPI-2)

Dimensions:

A long and healthy life

Knowledge

A decent standard of living
Social exclusion

Indicators:

Probability at birth of not surviving until age 60

Functional illiteracy rate

Relative income poverty
Long-term unemployment

The Human Poverty Index (HPI-2)

$$HPI = [1/4(P_1^\alpha + P_2^\alpha + P_3^\alpha + P_4^\alpha)]^{1/\alpha}$$

Where:

P_1 =Probability of not surviving to age 60 (times 100)

P_2 =Functional illiteracy rate

P_3 =Relative income poverty (population below 50% median income)

P_4 = Long-term unemployment

As α rises greater weight is given to the dimension in which there is most deprivation. In the global HDR $\alpha=3$, giving additional but not overwhelming weight to areas of most acute deprivation

The Gender-related development Index (GDI)

- Same components as the HDI
- After calculating dimension index for each sex – they are combined in a way to penalize gender equality (**equally distributed index**)
- The GDI is calculated by taking the unweighted average of the three equally distributed indices

The Gender-related development Index (GDI)

Formula for the equally distributed index:

$$\{ [Female.pop.share(female.index^{1-\epsilon})] + [male.pop.share(male.index^{1-\epsilon})] \}^{1/1-\epsilon}$$

ϵ determines the size of gender equality in a society. In the global HDR it is set at 2.

Goalposts for calculating the GDI

Indicator	Maximum Value	Minimum value
Life expectancy		
Female	27.5 years	87.5 years
Male	22.5 years	82.5 years
Adult literacy	100%	0%
Gross enrolment	100%	0%
GDP per capita	\$40,000(US)	\$100(US)

The Gender Empowerment Measure

Dimensions:

Indicators:

Political participation
and decision making

Share of parliamentary seats

Economic participation
and decision making

Share of positions as
legislators, senior officials and
managers; and profesional
and technical workers

Power over economic
resources

Share of estimated earned
income

The Gender Empowerment Measure

- Calculate dimension index and equally distributed equivalent percentage (EDEP) for each dimension (like GDI)
- For political and economic decision making divide EDEP by 50 (the ideal share women should have)
- N.B. For political and economic decision making EDEP can be calculated directly (as indicators are already %)

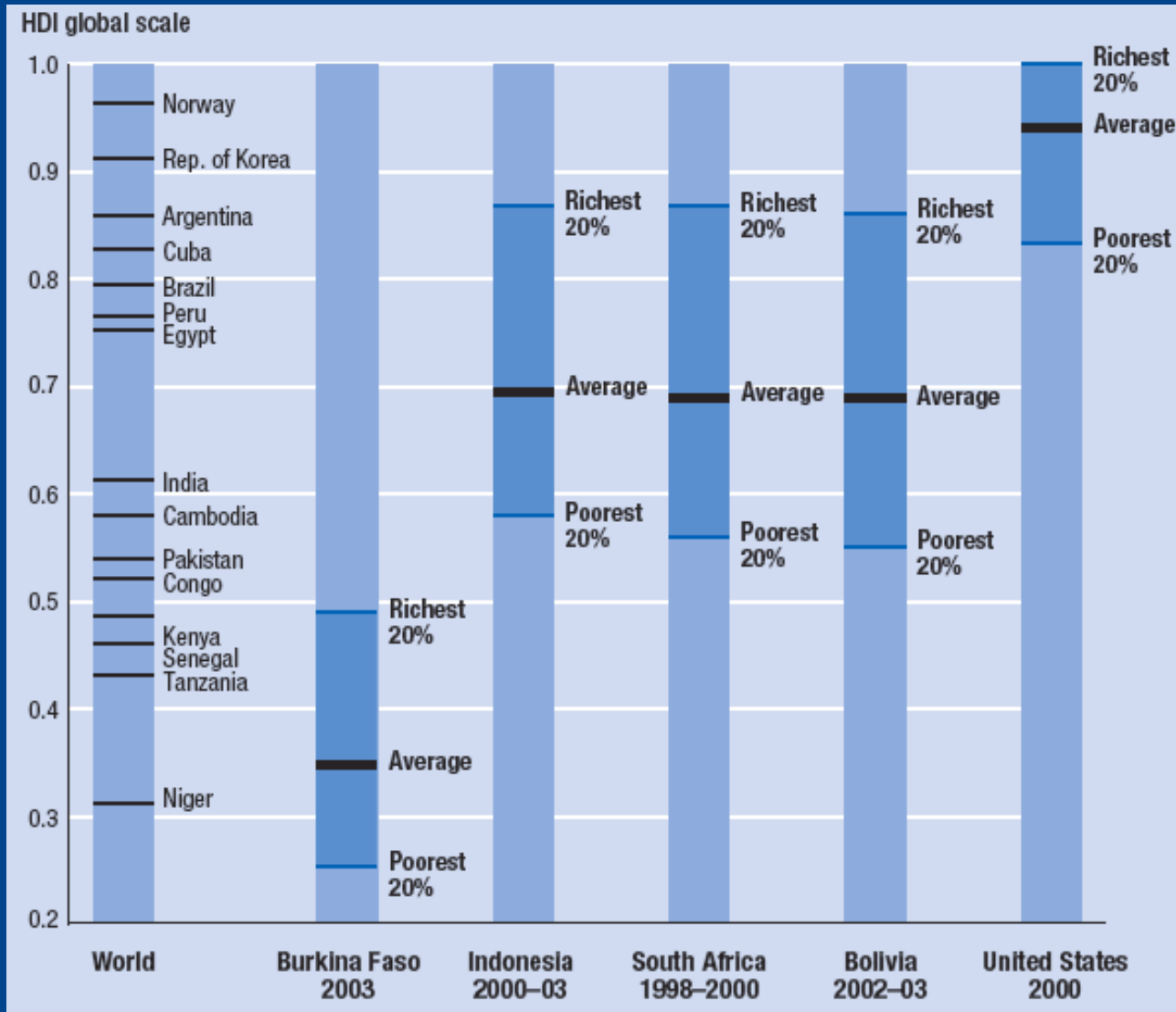
The Gender Empowerment Measure

- Income is not logged in the calculation of the income index.
- Again $\epsilon = 2$, for moderate penalisation of inequality

Inequality and the HDI

- One critique of the HDI: only looks at the average
- Previous attempts at adjusting HDI for inequality had only moderate success
- Either hard to interpret or with impossible data requirements
- HDR 2006 approach: HDI by income quintiles

HDI by income groups - the results



HDI by income groups - methodology

- Combines information from Demographic and Health Surveys (DHS) and household expenditure surveys
- Matches the two surveys by using questions common to both
- Innovative approach - probably also has other applications on the national level

Reviewing the GDI and GEM

- GDI and GEM introduced in 1995
- Awareness that there are some problems
- Project led by Stephan Klasen, around a dozen papers discussed at January workshop

(Mis)interpretation of GDI

- GDI is not a measure of gender inequality; it is a measure of human development adjusted for inequality
- Proper way to understand gender inequality is to compare the GDI value (or rank) with the HDI value (or rank)

Practical issues with the GDI

- Female and male earned income calculation has serious problems
- Most of the difference between GDI and HDI score is because of earned income - problematic

Recommendations on GDI

- Increase the weight of inequalities in life expectancy relative to income
- Replace with a male and a female HDI
- Be more transparent about its problems in the HDR itself

GEM

- The need: an index which captures the most pressing areas of gender discrimination
- Current GEM measures participation in political and economic decisionmaking, and command over economic resources

GEM

- Workshop explored issues such as care work, violence against women, alternative indicators for education
- Conclusion: need for further data work, but also to research what the main issues should be

HDRO future actions on gender

- Added note to this year's HDR describing the project, outlining the problems and solutions identified.
- Idea is to implement short-term agenda next year
- Long-term research agenda will continue