Lecture III:
Well-being (Countries)

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1. Seven dimensions of development

- Development is about the enhancement of human wellbeing
- Wellbeing is a multidimensional concept implying priorities and trade-offs, with the consequence that defining development is a national and personal choice reflecting the social needs and aspirations of the corresponding individual, group, class, or nation
- Everybody wants development over underdevelopment, but there is considerable disagreement across individuals and nations as to what is meant by development and how it can be achieved
- At a country level, a good starting point is to look at the Millennium Development Goals (MDG)

The Millennium Development Goals

- **Goal 1: Eradicate Extreme Hunger and Poverty**. Halve, between 1990 and 2015, the proportion of people whose income is less than $1 a day and halve, between 1990 and 2015, the proportion of people who suffer from hunger

- **Goal 2: Achieve Universal Primary Education**. Ensure that, by 2015, children everywhere, boys and girls alike, will be able to complete a full course of primary schooling

- **Goal 3: Promote Gender Equality and Empower Women**. Eliminate gender disparity in primary and secondary education, preferably by 2005, and in all levels of education no later than 2015

- **Goal 4: Reduce Child Mortality**. Reduce by two-thirds, between 1990 and 2015, the under-five mortality rate

The Millennium Development Goals

- **Goal 5: Improve Maternal Health**. Reduce by three-quarters, between 1990 and 2015, the maternal mortality ratio

- **Goal 6: Combat HIV/AIDS, Malaria and other diseases**. Have halted by 2015 and begun to reverse the spread of HIV/AIDS

- **Goal 7: Ensure Environmental Sustainability**.
  - Integrate the principles of sustainable development into country policies and programs and reverse the loss of environmental resources
  - Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation
  - Have achieved by 2020 a significant improvement in the lives of at least 100 million slum dwellers

- **Goal 8: Develop a Global Partnership for Development**

Progress towards MDG1 on poverty as of 2010

	1990	2010	MDG met
Developing Regions	46.7	22	Yes
Northern Africa	5.2	1.4	Yes
Sub-Saharan Africa	56.5	48.4	No
Latin America and the Caribbean	12.2	5.5	Yes
Caribbean	24.9	28.1	No
Latin America	11.7	4.5	Yes
Eastern Asia (includes China)	60.2	11.6	Yes
Southern Asia including India	51.5	29.7	No
Southern Asia excluding India	52	21.5	Yes
South-Eastern Asia	45.3	14.3	Yes
Western Asia	5.1	3.6	No
Oceania	42	35	No
Caucasus and Central Asia	9.8	3.5	Yes
Least Developed Countries	64.6	46.2	No

Progress towards MDG1 on hunger as of 2013

MDG1 Hunger	1990-92	2011-13*	MDG met
Developing regions	23.6	14.3	No
Northern Africa	<5	<5	Unclear
Sub-Saharan Africa	32.7	24.8	No
Latin America & the Caribbean	14.7	7.9	No
Caribbean	27.6	19.3	No
Latin America	13.8	7.1	Close
Eastern Asia	22.2	11.4	Close
Eastern Asia excluding China	9.9	11.3	No
Southern Asia	25.7	16.8	No
Southern Asia excluding India	26.3	16.4	No
South-Eastern Asia	31.1	10.7	Yes
Western Asia	6.6	9.8	No
Oceania	13.5	12.1	No
Caucasus and Central Asia	14.4	7	Yes
Least developed countries (LDCs)	38.6	29	No

Progress towards other MDGs in developing regions

MDG		1990	2012
Goals attained			
MDG 3A	Eliminate gender disparity in primary education (% ratio females/males between 97 and 103)	86	97
MDG 7C	Halve the proportion of the population without sustainable access to drinking water (%)	30	13
Goals failing			
MDG 2A	Achieve universal primary education (%)	80	90
MDG 4A	Reduce by 2/3 the under 5 mortality rate (deaths per 1000 live births)	99	53
MDG 5A	Rdeuce by 3/4 the maternal mortality rate (deaths per 100,000 live births, women 15-49)	430	230

- The concepts enumerated in the MDGs help us draw a list of some of the dimensions of development
- The 7 horsemen of underdevelopment
    - Income and income growth (MDG1)
    - Poverty and hunger (MDG1)
    - Inequality and inequity (MDG3)
    - Vulnerability (Implicit in MDG1)
    - Basic needs in education and health (MDGs 2, 4, 5, and 6), and in sanitation and housing (MDG7)
    - Environmental sustainability (MDG7)
    - Quality of life: empowerment (MDG3) and long a list of other features associated with capabilities and happiness
- MDG were integrated to the Sustainable Development Goals

Forthcoming priorities in development

- The remaining poor in the world are located in emerging countries such as China and India and failed states and post-conflict countries in places such as Sub-Saharan Africa

- Growth will not be sufficient to reduce extreme poverty and more emphasis need to be given to effective social programs

- Greater focus should be given to vulnerability to shocks as recurrent food, financial, and climatic crises are a major source of new poor

- Achieving sustainable growth in the context of climate change requires the participation of developed countries

- Effective use of aid and delivery of social protection require good governance

- Political instability and improved governance require participation of the middle class

1. Income and Income Growth

- The first and most broadly agreed upon dimension of development is the level and growth of per-capita income
- Income is measured as the Gross National Product (GNP): $GNP = GDP+$Net Income from abroad
- To give an average measure of wellbeing, GDP can be divided by population size (GDP per-capita)
- Growth in GDP per-capita is a good measure of progress over time in average income
- Problem with GDP: z-goods
- Alternative measure: Genuine Progress Indicators (GPI)

$$GPI = GDP+ValueUnpaidWork-CostCrime-CostEnvDamage$$

2. Poverty and Hunger

- Reducing poverty and hunger are central issues in development
- Measuring poverty:
    - Choosing an indicator of wellbeing: income or consumption
    - Comparing this indicator to a threshold: poverty line
- Poverty remains staggeringly high in developing countries
- Economic growth has been the main instrument to reduce poverty, but no all growths are equally effective for poverty reduction: pro-poor growth
- Challenges in the relationship between poverty and development:
    - Absolute or relative poverty?
    - Do the poor behave differently than non-poor?
    - Low poverty can be itself a source of growth?
    - Are all the poor the same? (Chronic versus transitory poor)
   - What are the pathways out of poverty?

World poverty

Region	Poverty headcount ratio at $1.25/day poverty line (percentage)		Change in headcount ratio (% points)	Number of poor (million)		Change in number of poor (million)	% distribution of LDC poor	% distribution of LDC population
	1981	2010	1981-2010	1981	2010	1981-2010	2010	2010
East Asia and Pacific	77	12	-65	1097	251	-846	20.7	34.1
China	84	12	-72	835	156	-680	12.8	20.8
E. Europe and Central Asia	2	1	-1	8	3	-5	0.3	8.1
Latin America and Caribbean	12	5	-7	42	30	-13	2.4	9.9
Middle East and North Africa	10	2	-7	16	8	-9	0.7	5.6
South Asia	61	31	-30	568	507	-62	41.8	27.7
India	60	33	-27	429	400	-29	33.0	22.7
Sub-Saharan Africa	51	48	-3	205	414	209	34.1	14.5
Total developing countries (LDC)	52	21	-32	1938	1212	-726	100	100

2. Inequality and Inequity

- Reducing inequality is becoming a central goal in development
- Inequality versus inequity:
    - Inequality: how aggregate income is distributed across a population after income has been achieved
    - Equity: the degree of equality of opportunities to generate future income or to achieve other development goals such as education and health
- Why inequality matters:
    - Arguments against equality: Savings and entrepreneurship
    - Arguments in favor of equality: Access to assets, costs of inequality, boosting solidarity and cooperation, avoid political capture
- Growth, poverty and inequality are related
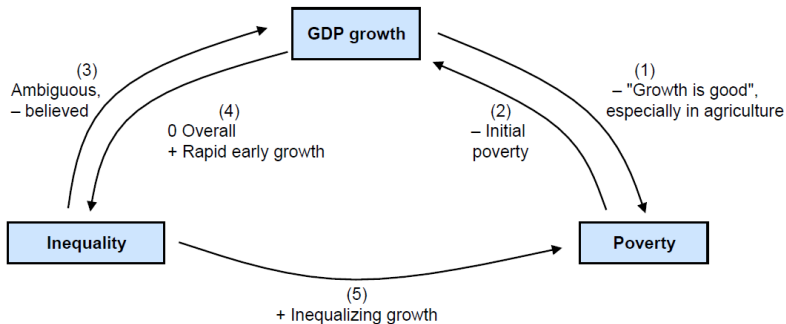
3. Vulnerability to shocks

- Reducing vulnerability to shocks has an intrinsic value as a dimension of development
- Reducing vulnerability can be a powerful instrument to reduce the emergence of new poor
- Globalization may have increased vulnerability due to greater exposition to international crises and price volatility
    - More exposition to crises: Food price crises (2008-2011)
    - More smoothing mechanisms

4. Basic Needs: Human Development

- Basic needs are multidimensional: goals and instruments
- Dimensions of basic needs:
    - Health
        - Life expectancy at birth
        - Infant mortality rate
        - Maternal mortality rate
        - Incidence of HIV/AIDS
    - Education
        - Net enrollment rate
        - Dropout rate, grade-repetition, and grade-retention rate
        - School attainment
        - Score in standardized tests
    - Nutrition
        - Prevalence of malnutrition and hunger
   - Micronutrient deficiencies

Child health: z-scores

- z-score is a standardized indicator defined as $z = (x - \mu)/\sigma$, where x is raw score such as the height or weight of an individual, μ the mean raw score in the population, and σ the standard deviation of the raw score in the population
- Height-for-age ratio:
  - Moderately stunted: height-for-age z-score between -2 and -3
  - Severely stunted: height-for-age z-score less than -3
  - Measure of chronic malnutrition
- Weight-for-age ratio:
  - Moderately wasted: weight-for-age z-score between -2 and -3
  - Severely wasted: weight-for-age z-score less than -3
  - Short-term measure of health

Global Burden of Disease (WHO)

- GDB measures the gap between the current health status of a population and the ideal situation where everyone lives into old age, free of disease and disability

- It is measured in disability-adjusted life years (DALY):

$$DALY = YLL + YLD$$

  - YLL=years of life lost due to early death relative to ideal life expectancy at birth
  - YLD=years of life lost due to ill health and disability

- GDB=The share of DALY in the ideal of life expectancy

Birth ··· Disability ··· Early death ··· Ideal life expectancy at birth (Japan: 83)

Years of healthy life | YLD: Years of life lost due to ill-health and disability | YLL: Years of life lost due to early death | Years

DALY = YLL + YLD
Disability adjusted life years = Number of years lost due to early death and to ill-health and disability
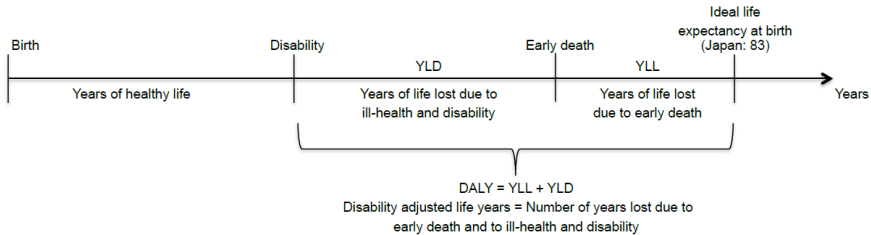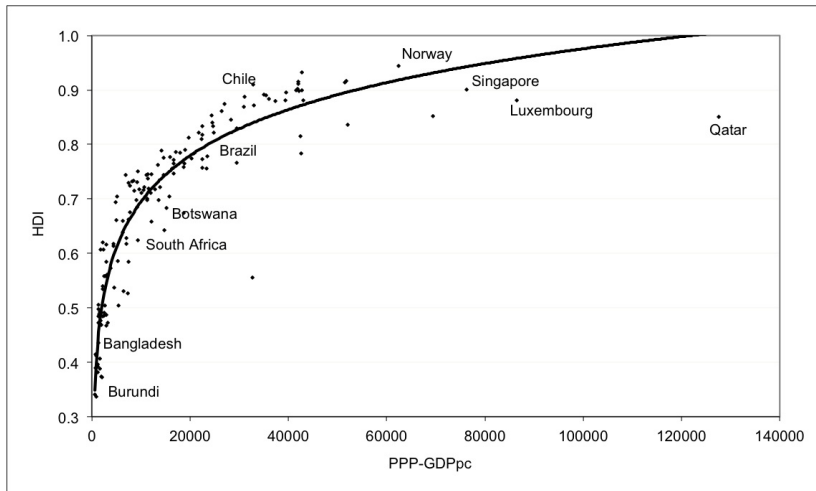
Human Development Index (UNDP)

- The HDI is the most celebrated basic-needs index
- The HDI combines indicators of health, education, and PPP-adjusted per capita income

$$HDI_k = \frac{1}{3} \sum_{i=1}^{3} \frac{H_{i,k} - H_{i,min}}{H_{i,max} - H_{i,min}}$$

- H_1: life expectancy at birth
- H_2: educational attainment index (2/3 for adult literacy and 1/3 gross enrollment ratio)
- H_3: PPP-adjusted per-capita income

HDI versus GDPpc

The Acute Multidimensional Poverty Index (MPI)

- Alkire and Santos (2010) proposed an improvement over the HDI called the MPI
- Three dimensions of poverty: health, indication, and standard of living with equal weights
- Indicators are compared to thresholds:
    - Health: child mortality and nutrition
    - Education: years of schooling and child enrollment
    - Standard of living: access to electricity, drinking water, sanitation, flooring, cooking fuel, and assets
- A household is declared "poor" if it is below threshold in at least 30% of these indicators

MPI

Dimension	Indicator (weight)	Poverty threshold
Health	Child mortality (1/6)	Any child has died in the family
	Nutrition (1/6)	Any adult or child is malnourished
Education	Years of schooling (1/6)	No household member has completed 5 years of schooling
	Child enrollment (1/6)	Any school-aged child not attending school up to class 8
Living standards	Access to electricity (1/18)	No electricity
	Drinking water (1/18)	No access to safe drinking water within 30 minutes walk round trip
	Sanitation (1/18)	Sanitation facility not improved or shared with other households
	Flooring (1/18)	Dirt, sand, or dung floor
	Cooking fuel (1/18)	Uses dung, wood, or charcoal
	Assets (1/18)	Does not own more than one of radio, TV, phone, bike, motorbike, refrigerator. No car or truck

MPI versus Headcount Poverty