

ICT4B

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Introduction

- Who we are
- Why we're here
- Why are YOU here?
- Logistical Issues
 - Blackboard – www.cmu.edu/blackboard
 - Registration
 - Office Hours



Logistics (Cont.)

- Course Outline
- Syllabus
- Readings and Discussions – large part of the course
- Projects
 - Sample Topics
 - Africa case study
 - UN Advisory Sub-group
 - Digital Diaspora Network (DDN) / Digital Partners
 - <http://www.ddn-africa.org/>
 - Can we, as a group, analyze the problem and possible solutions? Prepare a preliminary project report?



Value of Knowledge

- Services Sector growth rates > Manufacturing > Agriculture (GDP basis)
- Every “commodity” exporter has seen low development
 - Congo
 - Nigeria, Middle East
 - Russia/USSR
 - What of China?



Millennium Development Goals

“We will spare no effort to free our fellow men, women, and children from the abject and dehumanizing conditions of extreme poverty, to which more than one billion of them are currently subjected.”

United Nations Millennium declaration –
September 2000



MDG (cont.)

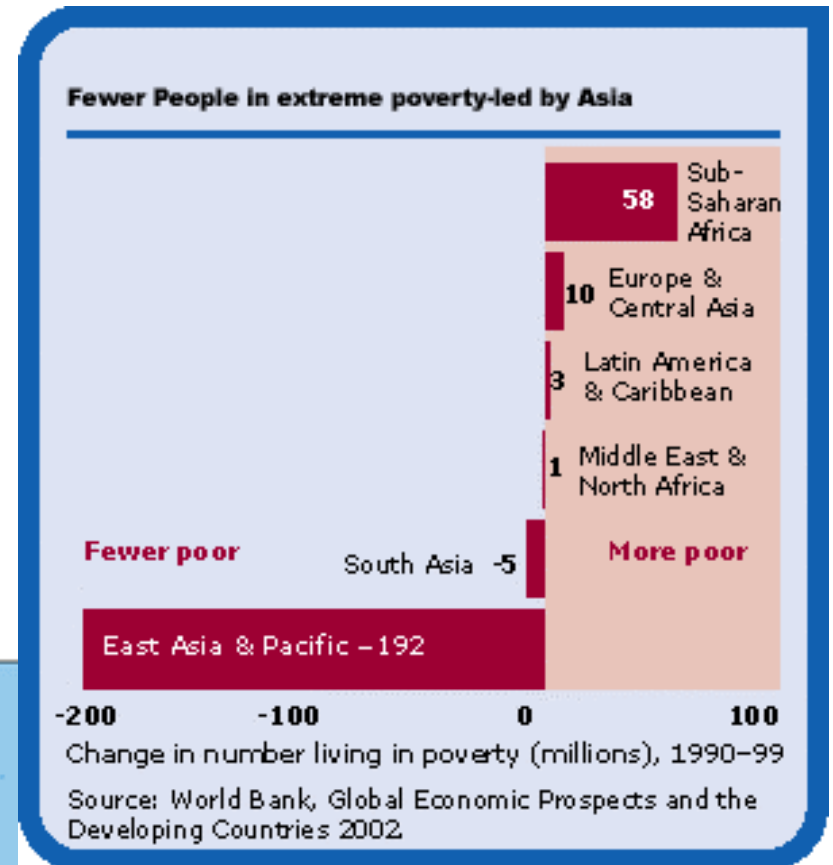
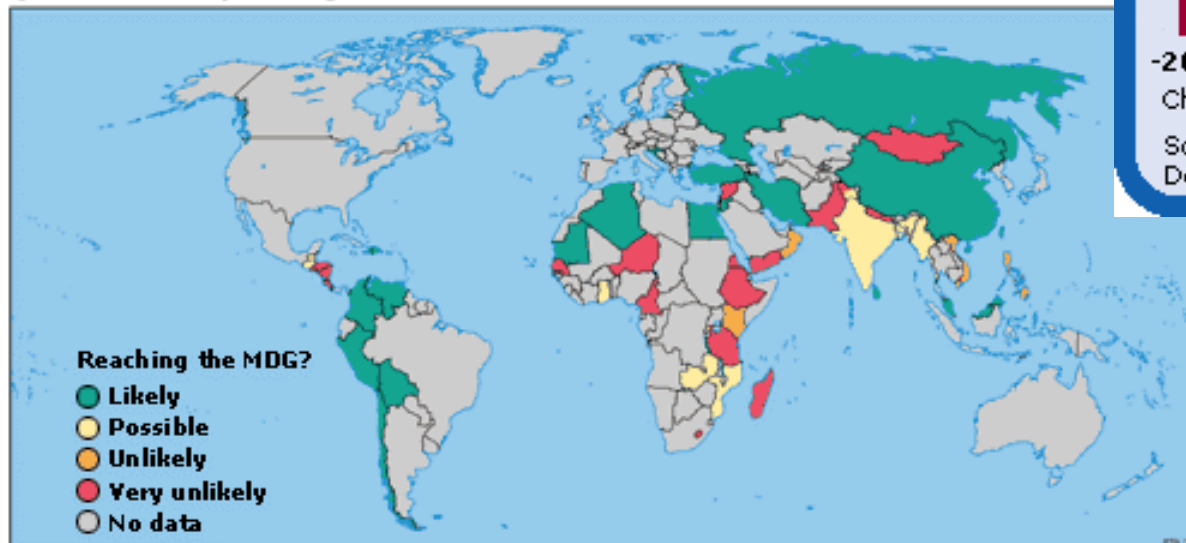
- Eradicate extreme poverty and hunger
- Achieve universal primary education
- Promote gender equality and empower women
- Reduce child mortality
- Improve maternal health
- Combat HIV/AIDS, malaria, and other diseases
- Ensure environmental sustainability
- Develop a global partnership for development

Extreme Poverty and Hunger

Halve the proportion of people living on less than one dollar per day in low and middle income economies, between 1990 and 2015 – from 29% to 14.5%

- In the 1990s, global poverty rates fell 20%, but growth was uneven
 - Sub-Saharan Africa saw a slight increase
 - Europe and Central Asia solve a substantial increase (in relative terms)

CHILD MALNUTRITION

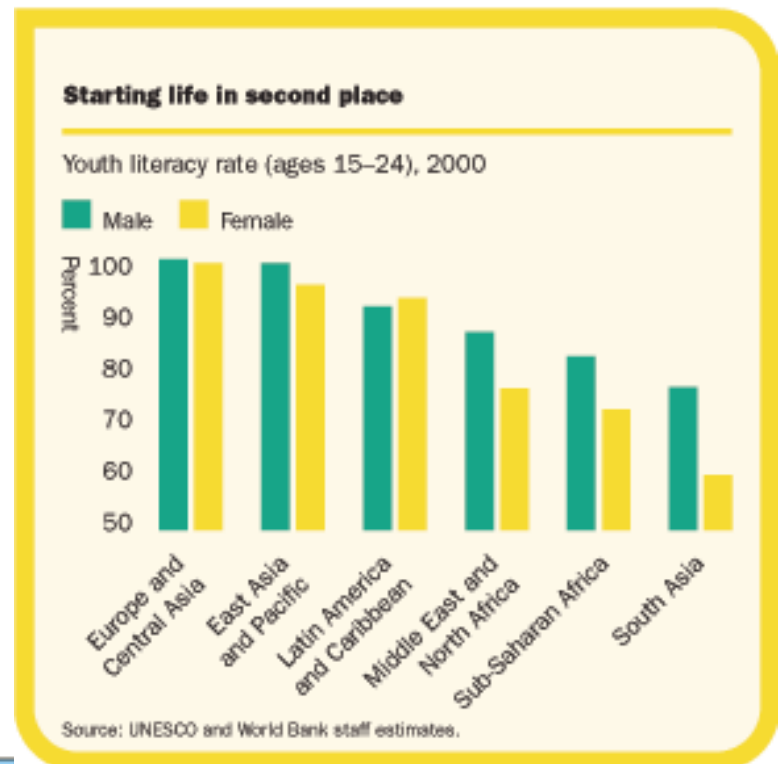


Source: MDG

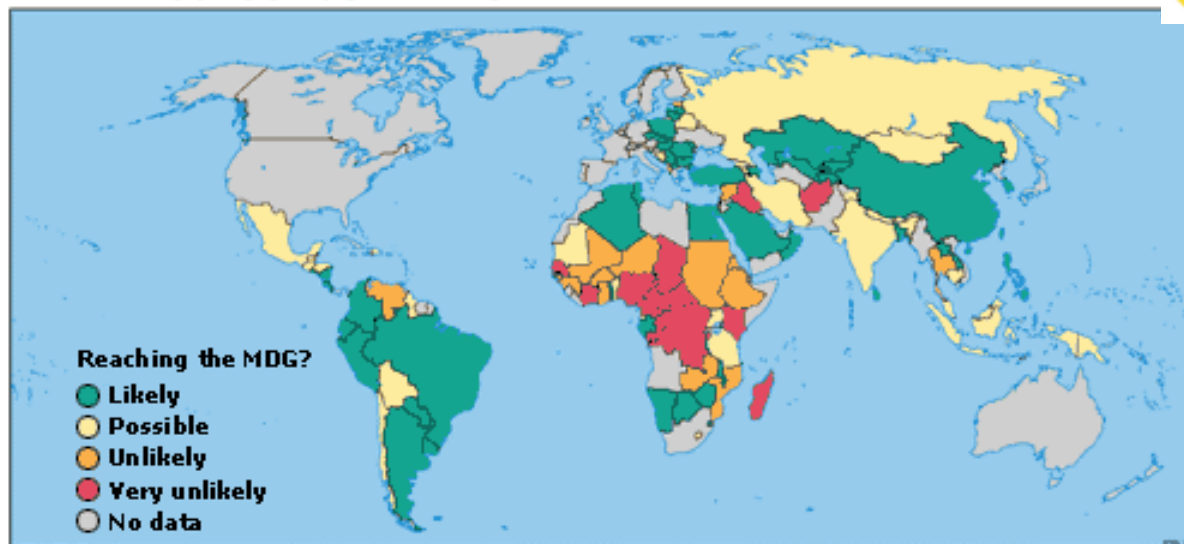
Universal Primary Education

Ensure that all children will be able to complete primary schooling, by 2015

- In 1999, 120 million primary school age children were not in the school
 - 53% were girls
 - 74% were in South Asia and sub-Saharan Africa
- MDG reset the earlier targets from 2000 to 2015



PRIMARY SCHOOL COMPLETION

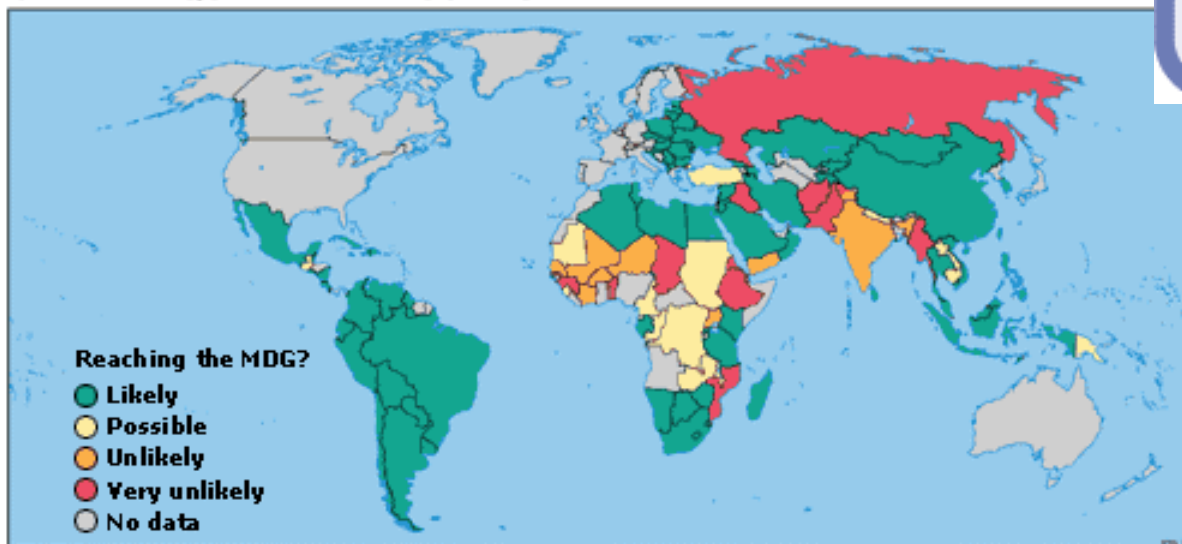


Source: MDG

Gender Equality and Empowering Women

Eliminate gender disparity in primary and secondary education, preferably by 2005, and to all levels of education no later than 2015

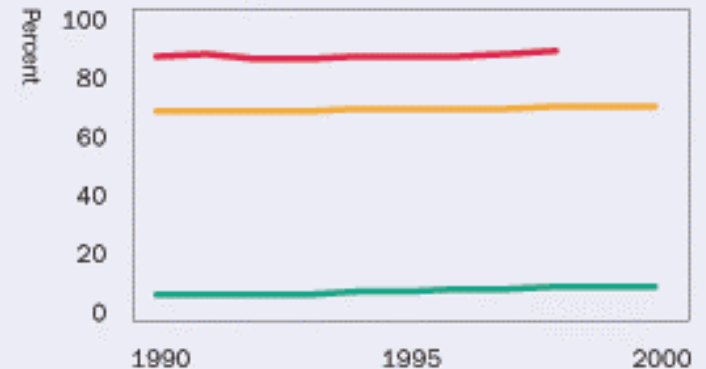
GENDER EQUALITY IN EDUCATION



Large gaps remain in roles and opportunities for women

Ratio of female to male, global average

- Primary and secondary enrollment
- Labor force participation
- Parliamentary representation



Source: World Bank staff estimates.

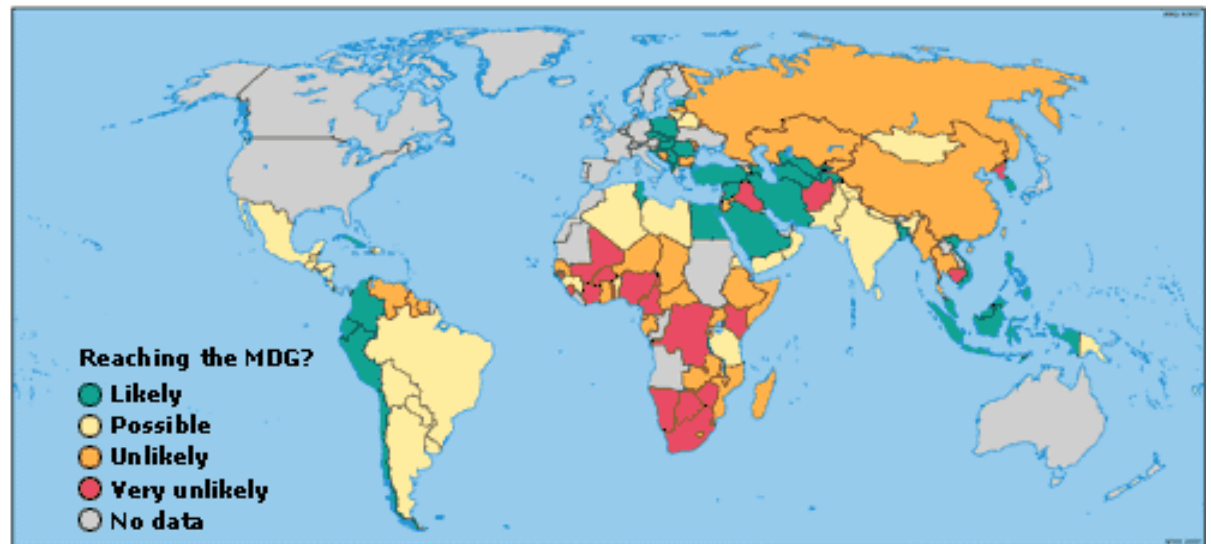
Source: MDG

Reduce Child Mortality

Reduce by two thirds and be under – five mortality rate, between 1990 and 2015

- Deaths of children under five fell from 15m to 11m over the eighties.
 - Vaccination programs
 - Oral rehydration therapy
 - Antibiotics
 - Economic growth and improved social conditions

CHILD MORTALITY



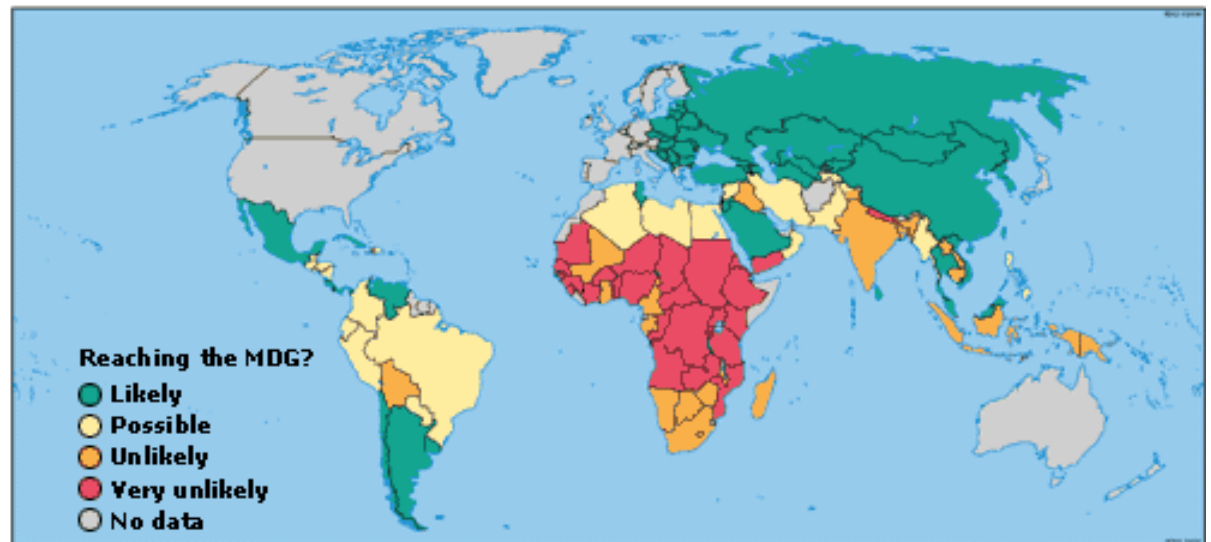
Source: MDG

Improve Maternal Health

Reduce by three quarters the maternal mortality ratio, between 1990 and 2015

- Women's health
- Access to medical services, especially during childbirth

MATERNAL MORTALITY



Source: MDG

Combat HIV/AIDS, Malaria and other Diseases

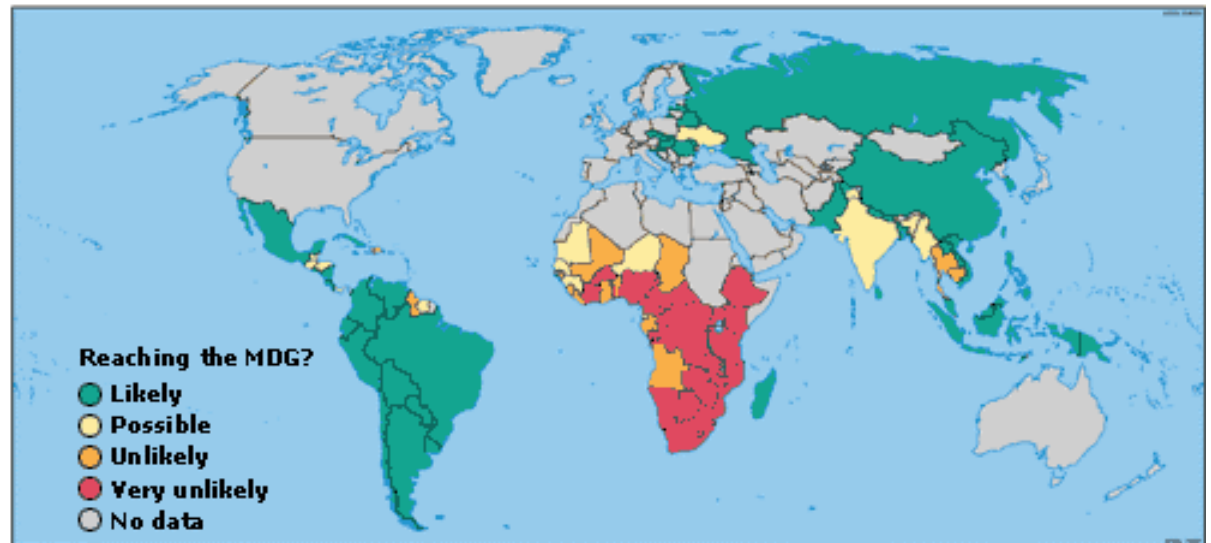
Halt and begin to reverse the spread of HIV/AIDS by 2015

Halt and begin to reverse that incidence of malaria and other major diseases by 2015

■ HIV

- Tremendous impact on sub-Saharan Africa
 - Some countries have adult infection rates over 30%
- HIV affects young people disproportionately – half of new infections are among 15 to 24-year-olds

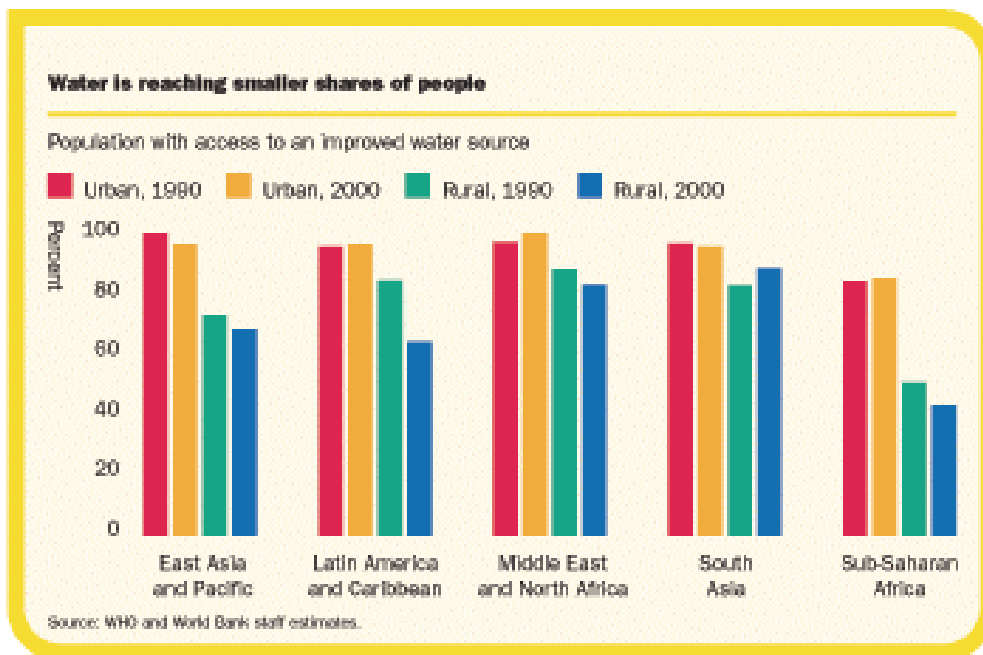
HIV/AIDS PREVALENCE



Source: MDG

Insure Environmental Sustainability

Source: MDG



Integrate the principles of sustainable development into country policies and programs and reverse the losses of environmental resources

Halve the proportion of people without sustainable access to safe drinking water, by 2015

Achieve by 2020 a significant improvement in the lives of at least 100 million slum dwellers



Build a Global Partnership for Development

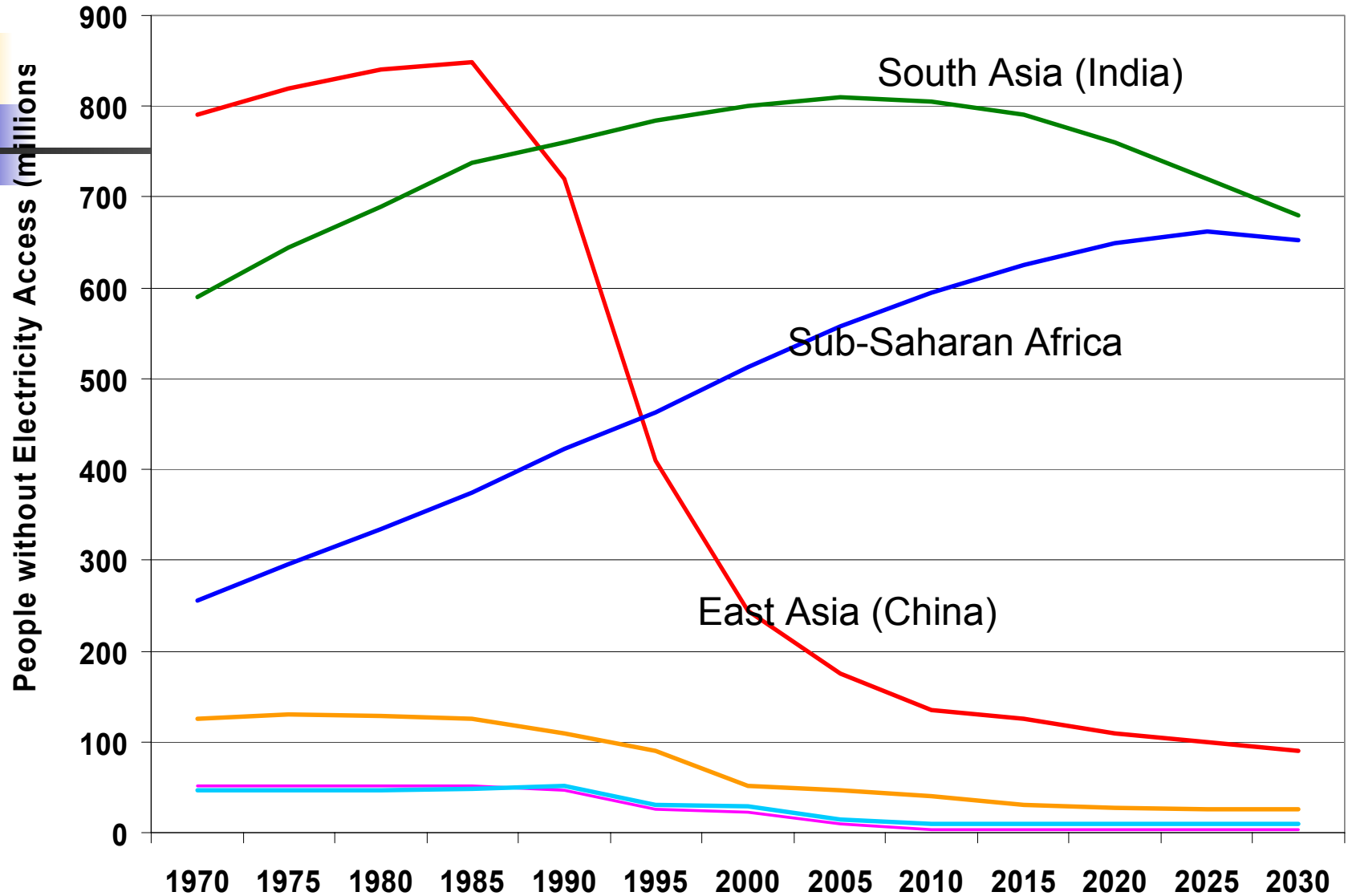
- Kofi Annan's Global Compact – public and private partnerships
- Need more than aid
 - Not all aid goes to the poor
 - Average value of aid to low-income economies was \$12 a person in 2000
- Trade barriers (and subsidies) are significant
- Reducing debt levels for the Heavily indebted poor countries (HIPC)



ICT – A Means or an End?

- World Summit on Sustainable Development, August 2002, in Johannesburg was groundbreaking
 - Use of principles of sustainability relating to development
 - Understanding of the importance of technology, especially ICT
- But still, limited scientific analysis for the business case for ICT
 - Correlation vs. Causality

Access to Electricity



Source: WEO 2002



How to achieve development?

- China provides a number of insights
 - Limited Democracy
 - Central Control with increasing autonomy to provinces and local authorities
 - Economic growth was probably KEY
 - LDC issue - State Owned Enterprises
 - Inefficiency
 - Corruption
 - Poor allocation of capital and resources
 - Limited understanding of technology
 - Policies
 - Education / Investment
 - Tendering



Free Rider Effects

- Are traditional economic measures enough?
- Externalities
 - Critical issue if ICT is more a means than an end
 - Mid-day Meal Program in India example
- Public Goods
- Network Effects