

Poverty and Energy

Some notes

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Three ways of defining poverty

- Income poverty
 - \$1 per day
 - Poverty lines (head-count, intensity etc)
- Human development poverty
 - HDI (1990)
 - HPI (1997): survival, knowledge, standard of living
- Deprivation
 - Exclusion, isolation, vulnerability

Energy and the MDGs: Education

- Better learning environment
- Frees the time of (especially) girls
- Extends study hours
- Allows access to new media, including ICTs

Energy and the MDGs: Health

- Reduces indoor pollution
- Increases time of child-care in homes
- Improves health centre facilities through hygiene, cold-storage, lighting
- Tele-medicine

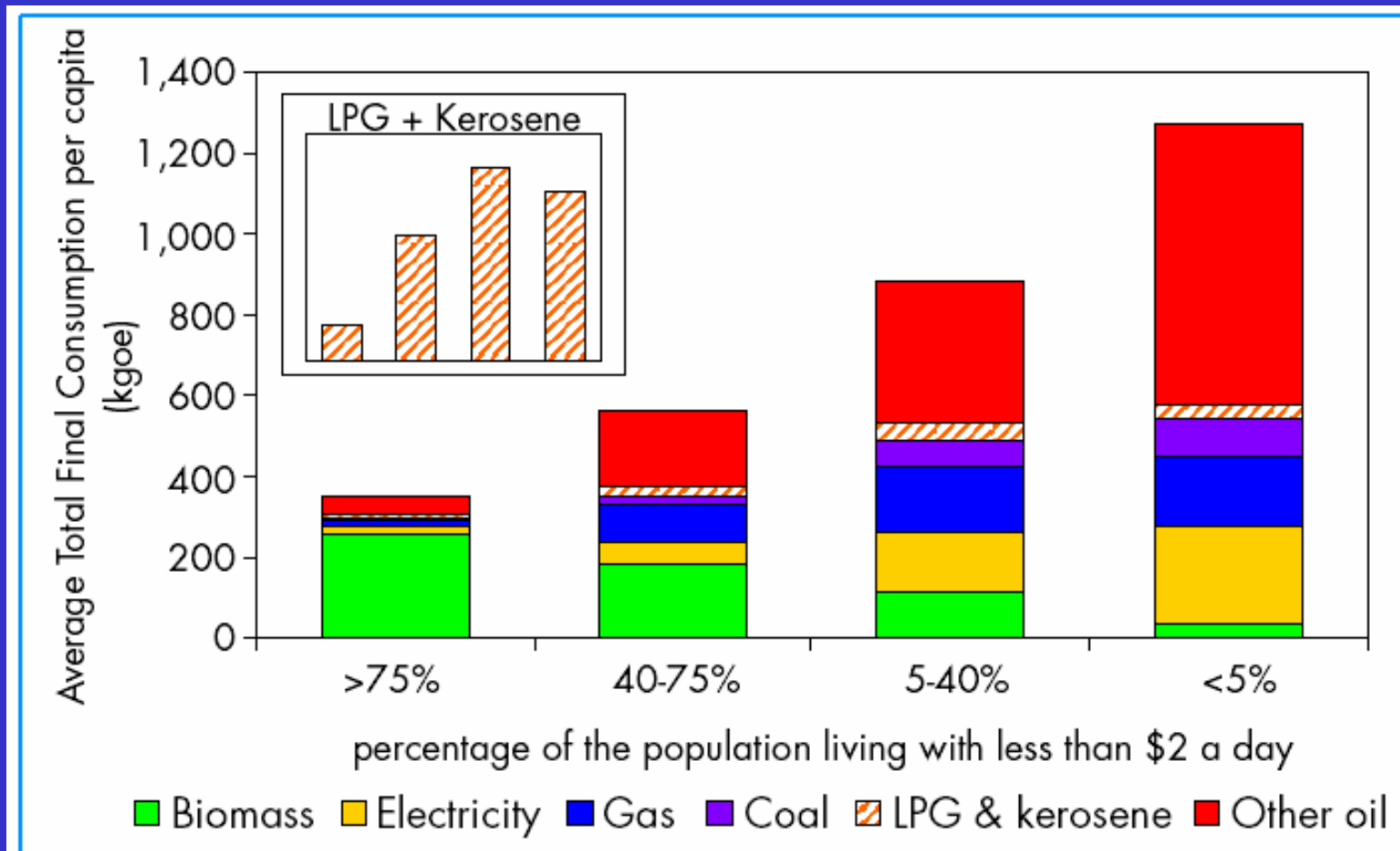
Energy and the MDGs: Gender

- Frees girls from survival activities and cooking
- Provides time for home study & distance learning
- Facilitates home enterprises

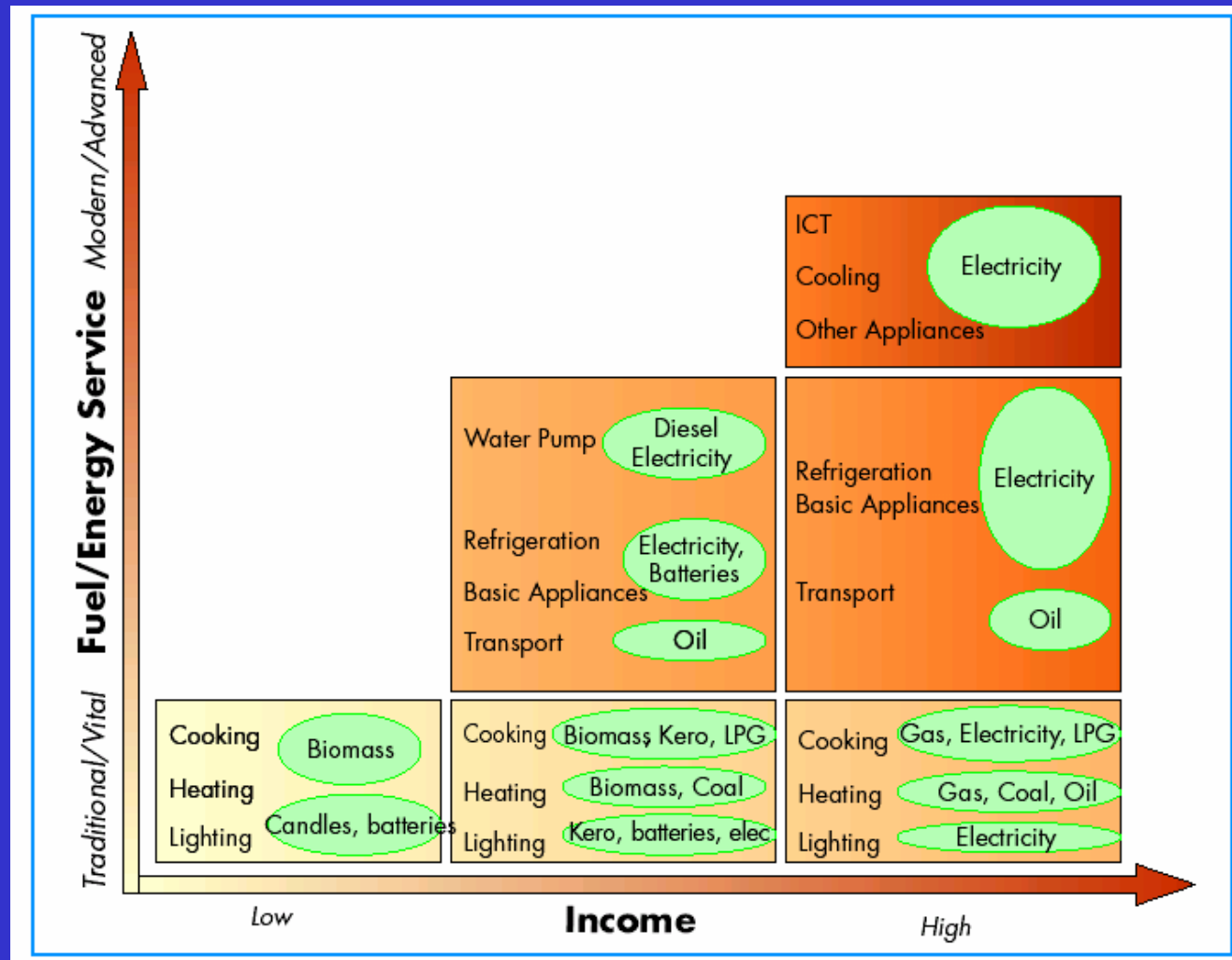
Some key facts

- Some 1.6 billion people – one-quarter of the world population – have no access to electricity. In the absence of vigorous new policies, 1.4 billion people will still lack electricity in 2030.
- Four out of five people without electricity live in rural areas of the developing world, mainly in South Asia and sub-Saharan Africa. But the pattern of electricity deprivation is set to change, because 95% of the increase in population in the next three decades will occur in urban areas.
- Some 2.4 billion people rely on traditional biomass – wood, agricultural residues and dung – for cooking and heating. That number will *increase* to 2.6 billion by 2030. In developing countries, biomass use will still represent over half of residential energy consumption at the end of the *Outlook* period.
- Lack of electricity and heavy reliance on traditional biomass are hallmarks of poverty in developing countries. Lack of electricity exacerbates poverty and contributes to its perpetuation, as it precludes most industrial activities and the jobs they create.
- Investment will need to focus on various energy sources, including biomass, for thermal and mechanical applications to bring productive, income-generating activities to developing countries. Electrification and access to modern energy services do not *per se* guarantee poverty alleviation.
- Renewable energy technologies such as solar, wind and biomass may be cost-effective options for specific off-grid applications, while conventional fuels and established technologies are likely to be preferred for on-grid capacity expansion.

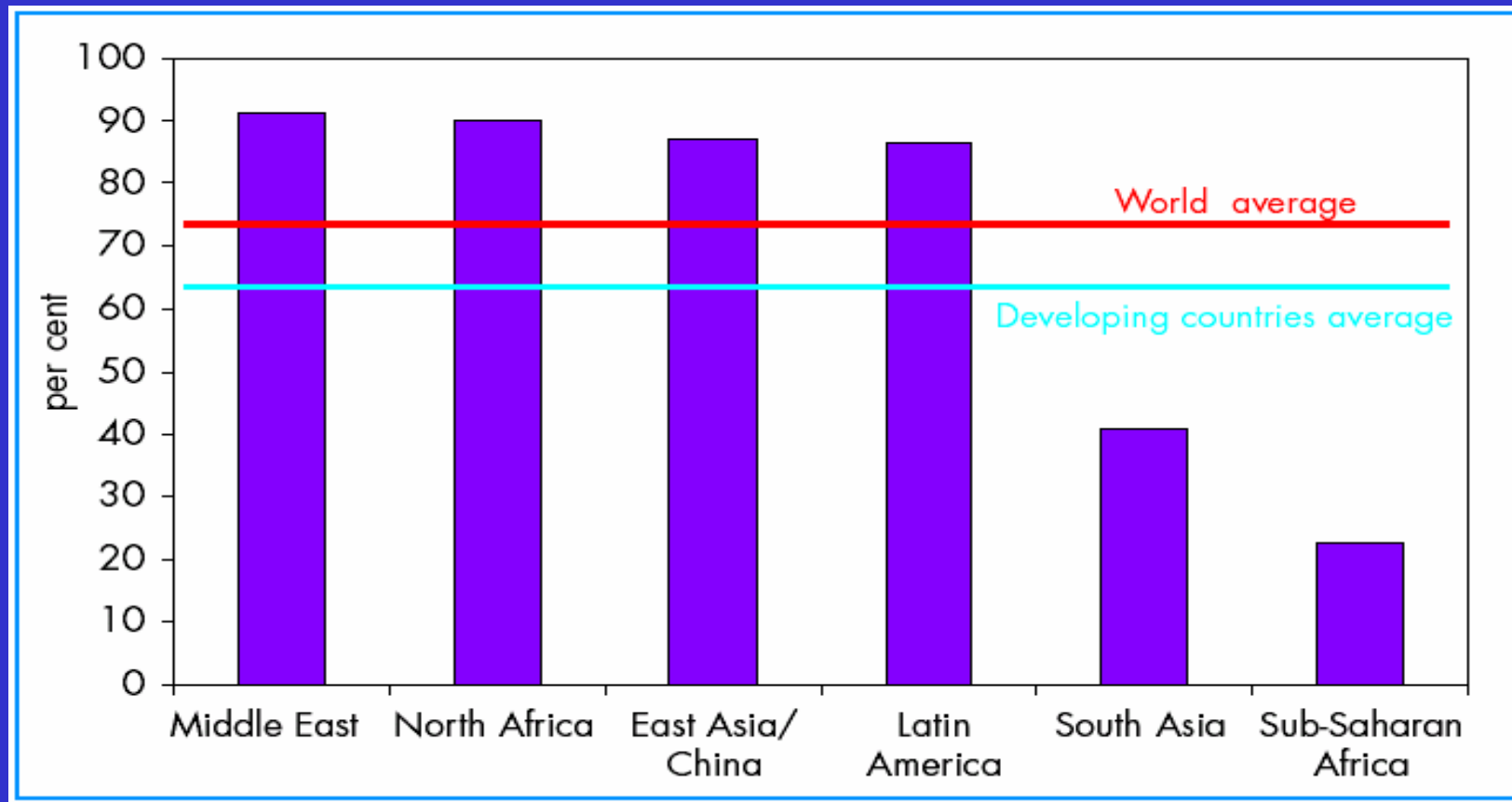
Patterns of energy consumption by poverty levels



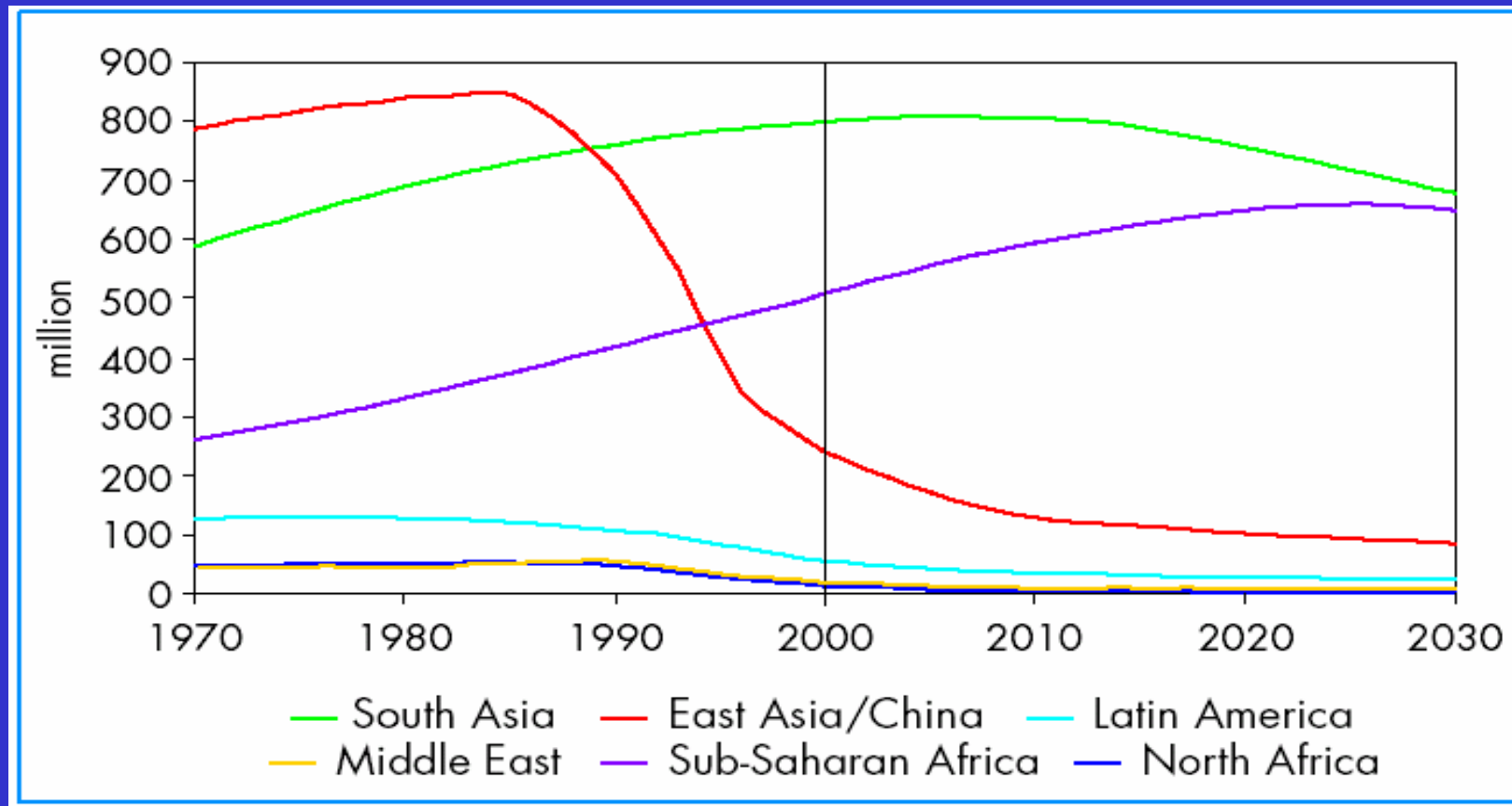
Household fuel transition



Electrification rates by region



Number of people without electricity 1970 - 2030



Urban and rural electrification rates by region, 2000

	Urban	Rural	TOTAL
South Asia	68.2	30.1	40.8
East Asia/China	98.5	81.0	86.9
Sub-Saharan Africa	51.3	7.5	22.6
North Africa	99.3	79.9	90.3
Latin America	98.0	51.5	86.6
Middle East	98.5	76.6	91.1
Developing countries	85.6	51.1	64.2
World	91.2	56.9	72.8

Poverty and % of biomass in household energy consumption

