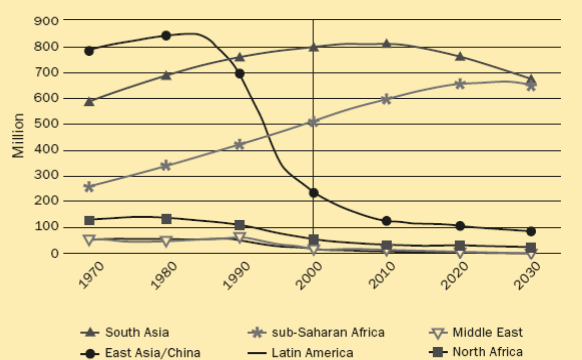


Hundreds of millions are still shut of the modern energy sector.

Figure 2.
Number of people
(actual and projected)
without electricity,
1970–2030, by region

Source: IEA 2002b.



Source: World Bank et al (2005) *Energy Services for the MDGs*

The majority in developing countries still rely on biomass for cooking and heating.

Table 1.
Number of people
relying on traditional
biomass for cooking
and heating in
developing countries,
2000

Source: IEA 2002b

	Million	% of total population
China	706	56
Indonesia	155	74
Rest of East Asia	137	37
India	585	58
Rest of South Asia	128	41
Latin America	96	23
North Africa/Middle East	8	0.05
sub-Saharan Africa	575	89
Total, Developing Countries	2,390	52

Source: World Bank et al (2005) *Energy Services for the MDGs*

... and are projected to continue to do so.

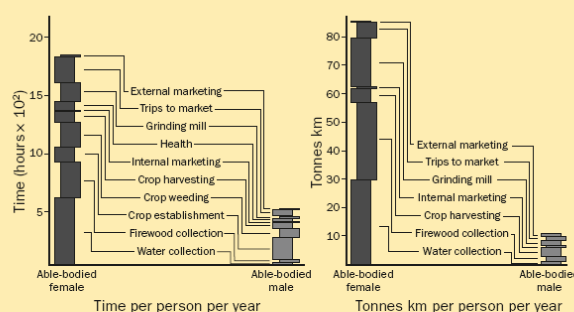
	2004	2015	2030
Sub-Saharan Africa	575	627	720
North Africa	4	5	5
India	740	777	782
China	480	453	394
Indonesia	156	171	180
Rest of Asia	489	521	561
Brazil	23	26	27
Rest of Latin America	60	60	58
Total	2,528	2,640	2,727

Source: World Health Organization (2007)

Women pay the price.

Figure 6.
Time spent (in hundreds of hours) and the transport burden (measured in tonnes km), in Tanzania, per person and per year, disaggregated by gender and tasks

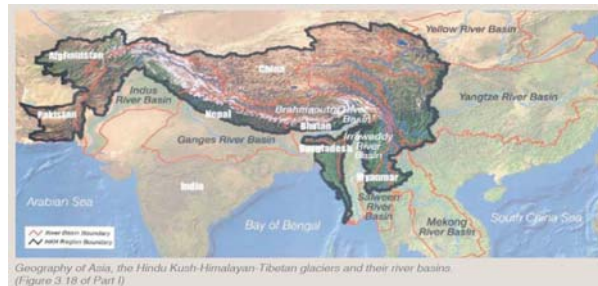
Source: UNDP 1997



Source: World Bank et al (2005) *Energy Services for the MDGs*

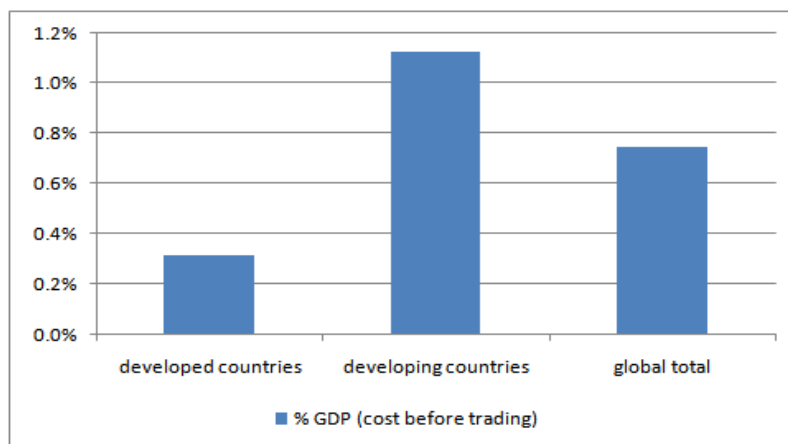
So does the environment.

- 800,000 deaths in China and India combined are estimated to be caused by biofuel combustion indoor air pollution *annually*.
- Biofuel combustion also responsible for Himalayan glacial melting.



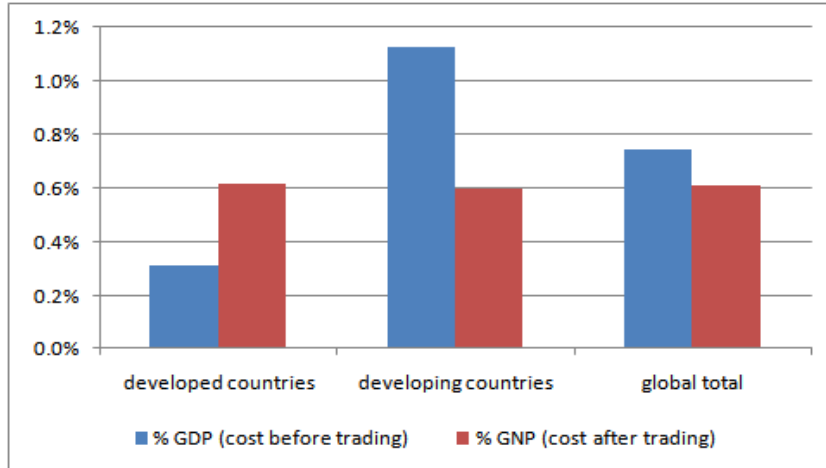
Source: UNEP Atmospheric Brown Clouds Regional Assessment Report with Focus on Asia 2008

The cost of mitigation (2020 estimates).



Source: Treasury modelling. Own estimates

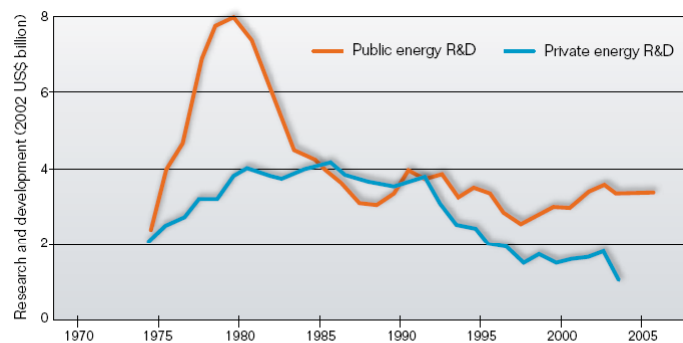
Trading could help offset part of the developing country cost burden



Source: Treasury modelling (for 2020) Own estimates

Energy R&D spending has stagnated since the 70s

Figure 10.1 Energy research and development expenditure by the public and private sectors in the United States



Source: Kammen & Nemet (2005a).

Source: Garnaut Review Ch 10