World Facts

Teaching Note

This exercise serves as an engaging and interactive introduction to a class on international development and/or appropriate technology. It brings issues to the students attention in an extremely interactive way and allows you to focus on topics of particular interest to your class.

The order in which you answer the questions is very important (when there are several countries). Always end with the most surprising answer.

Additional information for each question is included with each answer, to expand the discussion on each point.

An example follows. Unless stated otherwise, the information comes from the World Development Indicators by the World Bank [WDI 2004].

A good follow up reading is the New York Times article *Kofi Annan's Astonishing Facts*, Barbara Crosette (September 27, 1998).

D-Lab

World Facts Quiz

Teaching Note

1. What percent of the world's population live on less than $1 per day? ~20%

In India? 34.7%
In Mexico? 9.9%
In Zambia? 63.7%

The bottom line: cost of things is of utmost importance.

2. How many people in the world do not have access to safe drinking water?

~1,600,000,000. Note that many statistics look at so-called "improved" water sources. Many improved sources are not actually safe.

Many people expect water access and water quality will be among the biggest issues in this century.

3. What is the leading cause of death in children under 5? (excluding neo-natal deaths)

Acute respiratory problems due to burning poorly-combusting fuels and poor ventilation, plus related diseases, cause 2x as many deaths as the next largest cause (diarrhea) and over 3x the deaths caused by malaria.

Source: ITDG's report *Smoke: The Killer in the Kitchen* (www.itdg.org).

This is a remarkable statistic that almost no one gets right. Many people believe that water-borne disease is the leading cause. It is all the more shocking because it seems like it is so preventable, based on locally available materials.

4. What was the average life expectancy in Lesotho in 1990? _57_ **In 2002?** _37_

This is almost entirely due to AIDS/HIV and is a striking statistic for the effect of the disease in Southern Africa. Approximately 1 in 4 is infected, and it disproportionately affects the young and most active.

5. How much does it cost to light a household for a year in the developed world (using mains electricity)?

$82

Source: Mills, Evan. *The $230-billion Global Lighting Energy Bill*. Proceedings of the 5th International Conference on Energy-Efficient

Lighting, June 2002.
http://eetd.lbl.gov/emills/PUBS/Global_Lighting_Energy.html

6. How much does it cost to light a household for a year in the developing world, (using kerosene)?

$96 -- and it only produces about 1/10 the amount of light compared to electric lighting.

Source: ibid.

7. How many computers are there per thousand people in each of the following countries?

US: 656/551 India: 7/16 Mexico: 82/98 Haiti: <1/10

The number under the line is the number of internet users per 1000 people, which indicates that Information Technology (IT)-based projects for education and dissemination won't reach many people, especially those in greatest need.

India's urban centers are becoming centers of software development and service industries. But the rest of the country is predominantly rural, so the net result is very low Internet availability.

8. How many radios are there per thousand people in each of the following countries?

US: 2,117 India: 159 Mexico: 330 Haiti: 18

Radio is the dominant mode of communication in many countries.

9. What percent of the population lives in urban areas in each of the following countries?

US: 77.7 China: 37.6 Brazil: 82.2 Haiti: 37.0

10. What it the rural population density in each of the following countries?

US: 37 China: 561 Brazil: 54 Haiti: 664

Brazil is dominated by its two urban centers (Sao Paulo and Rio de Janiero), while its large rural area is harder to live in.

Haiti's high rural population density points to tremendous competition for land resources.

11. What percentage of the population works in the agricultural sector in each of the following countries?

US: 2 India: 60 Mexico: 16 Haiti: 66

In Mexico, ~40% of population works in the service sector.

The high percentages in India and Haiti suggest that even the simplest improvements in agriculture can have a dramatic effect on the population. For instance, in Senegal, where a woman typically spends 2 – 4 hrs/day pounding grains for her family's daily meals, a better grain mill opens up all sorts of possibilities – especially time for education.

12. How many tractors are there per thousand agricultural workers are there in the following countries?

US: 1,586 / 272 India: 6 / 94 Mexico: 37 / 131 Haiti: <1 / 2

Numbers under the line are the number of tractors per 100 sq km of arable land. Thus, even though India has fewer tractors per worker, on a per area basis it's about the same as Mexico.

Lower numbers point to food production being highly labor-intensive. The more time spent growing food, the less time for education.

13. What percentage of crop yields are lost due to post-harvest storage issues?

About 20% -- so improvements in storage can provide a strong benefit.

14. What is the unemployment rate in each of the following countries?

US: 5.8 China: 3.1 Brazil: 9.4 Zambia: 42.2

Of course, employment can be hard to define, and thus hard to count. Generally, these numbers favor "money making endeavors" and tend to ignore subsistence farming and micro-enterprise, odd jobs and occasional work as employment.

15. How many years of schooling does the average boy have in each of the following countries?

US: 12.1 Brazil: 5.4 India: 6.3 Haiti: 3.5

16. How many years of schooling does the average girl have in each of the following countries?

US: 12.0 Brazil: 4.4 India: 3.7 Haiti: 2.1

Studies have shown that the single most important thing you can do for development is to improve the education and empowerment of women.