World Overview in Key Areas

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Essential components of life

- Food
- Water
- Shelter
- Sanitation
- Health
- Safety
- Education
- Environment

Maslow’s Hierarchy of Needs

Food

- Hunger and malnutrition are the #1 risks to health worldwide
  - Greater than AIDS, malaria, tuberculosis combined
  - 1.02 billion undernourished people in the world → One in nearly six people do not get enough food to be healthy and lead an active life
    - In 2007, 36.2 million Americans lived in food insecure households, 23.8 million adults and 12.4 million children
  - 25,000 people (adults and children) die every day from hunger and related causes
- Key causes for hunger
  - Natural disasters, conflict, poverty, poor agricultural infrastructure, over-exploitation of the environment

Source: WFP, http://www.wfp.org/hunger, Feeding America

Food

- 148 million children are underweight in the developing world
- Poor children more than twice as likely to be underweight as rich children

Source: UNICEF
Food

Food Force: The First Humanitarian Video Game

http://www.wfp.org/how-to-help/individuals/food-force

- Hunger assessment
- Balance between nutritional needs, local diet and total cost when designing food rations
- Ability to airdrop food to communities isolated by war and/or geography without endangering lives
- Focus on the vital, first step in delivering food aid: buying the food. Players must calculate how and where to purchase food in order to satisfy immediate and longer-term needs
- A key link in the WFP food supply chain that stretches from donor nations via planes, lorries and ships to the mouths of the hungry. The player is responsible for ensuring the safe arrival of a convoy of food trucks, and, like WFP trucks in the field, must negotiate obstacles including land mines, fallen bridges and local rebel forces.
- Longer-term development challenges which follow an emergency, when the hungry and homeless must rebuild their lives and communities.

Vitamin A Deficiency

- Vitamin A essential for eye health and the proper functioning of the immune system
  - Milk, liver, eggs, red/orange fruits, red palm oil, green leafy vegetables
- Vitamin A deficiency
  - Leading cause of preventable childhood blindness
  - 23% greater risk of dying from ailments such as measles, diarrhea or malaria
- 100 -140 million children under the age of five may be living with dangerously low vitamin A stores
- More than 4 million children worldwide exhibit signs of severe deficiency
- Supplementation, food fortification, dietary diversification

Source: UNICEF, WHO
Water/Sanitation

- Each person requires 20-50 liters of clean water daily for drinking, cooking, etc.
- More than a billion people lack access to clean water, and four out of every five live in the rural areas of the developing world.
- Lack of **safe water and poor sanitation** are important risk factors for mortality and morbidity
  - Diarrheal diseases, cholera, worm infestations, hepatitis
  - Some 1.8 million people die every year of diarrheal diseases like cholera. Tens of millions of others are seriously sickened by a host of water-related ailments—many of which are easily preventable.

Source: www.drinking-water.org

World Water week August 16-22, 2009

Water/Sanitation

- The world’s population is growing
- Much of the world’s freshwater is contaminated by natural or human causes
  - Lack of basic knowledge about sanitation and hygiene practices
  - Industrial pollution
  - Natural disasters
  - Wars, terrorism, disputes over water supplies, etc.
- Inadequate distribution systems in many parts of the world
- Farming/water management

Source: www.drinking-water.org
Shelter

- About 1.6 billion people live in substandard housing and 100 million are homeless
- Increasingly urban residents
- Every week more than a million people are born in, or move to, cities in the developing world
- A billion people — 32 percent of the global urban population — live in urban slums.
- The number of slum dwellers worldwide will increase over the next 30 years to nearly 2 billion.
- In the United States alone, 95 million people, one third of the nation, have housing problems
- Inadequate housing can lead to:
  - Children that suffer from asthma, viral infections, anemia, stunted growth and other physical, mental, or behavioral health problems.
  - About 21,000 children have stunted growth attributable to the lack of stable housing; 10,000 children between the ages of 4 and 9 are hospitalized for asthma attacks each year because of cockroach infestation at home; and more than 180 children die each year in house fires attributable to faulty electrical heating and electrical equipment. (Sandel, et al: 1999)
  - ~ 25% greater risk of disability or severe ill health across a person’s lifespan.

Source: United Nations, Habitat for Humanity

Health

<table>
<thead>
<tr>
<th></th>
<th>African Region</th>
<th>Americas Region</th>
</tr>
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<tbody>
<tr>
<td>Life expectancy</td>
<td>52</td>
<td>76</td>
</tr>
<tr>
<td>Mortality (per 1000 live births)</td>
<td>145</td>
<td>19</td>
</tr>
</tbody>
</table>

- A child born in a least developed country is almost 14 times more likely to die during the first 28 days of life than one born in an industrialized country.
- In 2007, 9.2 million children died before age five. Africa and Asia together accounted for 92% of these deaths.
- Annually 536,000 women die of complications during pregnancy or childbirth, 99% of them in developing countries. (WHO, 2009)
- 57 countries - 36 in sub-Saharan Africa - have less than the WHO minimum threshold of 2.28 health workers per 1,000 population that would provide adequate skilled assistance at delivery.

Source: World Health Organization, UNICEF
Health

Source: World Health Organization, UNICEF

80% maternal deaths could be averted if women had access to essential maternity and basic health-care services

Figure 1.2
Regional distribution of maternal deaths*

Maternal deaths, 2005

80% maternal deaths could be averted if women had access to essential maternity and basic health-care services

Source: World Health Organization, UNICEF

Health

- In 2006, an estimated 3.3 billion people were at risk of **malaria** (1.200 billion in the high-risk category)
  - 85% of malaria deaths (748,850) occurred in children under 5 years
- Number of people living with HIV: 33 million
  - of the estimated 9.7 million people in developing countries that need treatment, only 3 million receive the medicines

Source: World Health Organization, UNICEF
Education

101 million children of primary school age are out of school

Number of primary-school-age children not in school, by region (2007)


- Excludes China.

Source: The State of the World’s Children 2009, UNICEF.

<table>
<thead>
<tr>
<th>Countries and Territories</th>
<th>Secondary school net enrolment rate (%)</th>
<th>Secondary school net attendance rate (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td>Sub-Saharan Africa</td>
<td>28</td>
<td>24</td>
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<tr>
<td>Eastern and Southern Africa</td>
<td>30</td>
<td>27</td>
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<tr>
<td>West and Central Africa</td>
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<tr>
<td>Middle East and North Africa</td>
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<td>62</td>
</tr>
<tr>
<td>South Asia</td>
<td>-</td>
<td>-</td>
</tr>
<tr>
<td>East Asia and Pacific</td>
<td>60e</td>
<td>62e</td>
</tr>
<tr>
<td>Latin America and Caribbean</td>
<td>69</td>
<td>74</td>
</tr>
</tbody>
</table>

- Educating a girl dramatically reduces the chance that her child will die before age five, and improves her prospects of being able to support herself and have a say in her own welfare and in society.

| Least developed countries                  | 30   | 26     | 26   | 24     |
| World                                      | 58e  | 57e    | 48e  | 44e    |
Environment

- Population growth: 6.7 billion $\rightarrow$ 9 billion by 2050
- Major energy sources: coal, oil, natural gas
- Industrialization $\rightarrow$ Urbanization $\rightarrow$ Suburbanization
  - A pound of CO$_2$ for every mile we drive
- Methane $\leftrightarrow$ Farming, petroleum drilling, coal mining, landfill sites, etc.
  - Methane's heat trapping power is 21 times that of CO$_2$
  - A cow expands 600 liters of methane per day
- Global energy consumption will double between now and 2050
- More than 80 percent of the Earth's natural forests already have been destroyed.

Source: Hot, flat, and crowded, by T. Friedman, National Geographic

Safety

- During 1946-2001
  - 225 armed conflicts (163 internal)
  - In 2001, 34 conflicts in 28 countries
  - Most conflicts in Africa (14) or Asia (13). Middle East is the most conflict-prone region, measured by the probability that a given country will be in conflict.
- Domestic violence is the most common form of violence against women
  - Half of girls and women aged 15–49 responded that a husband or partner is justified in beating his wife under certain circumstances (Household surveys in 67 countries)
  - A study of 400 villages in rural areas of an Asian country revealed that 16 per cent of all deaths among pregnant women were due to partner violence.

Sources: Armed Conflict: A New Dataset 1946-2001 Gleditsch, et al., UNICEF
Disasters

- They are not “rare” events
- 6,637 natural disasters between 1974-2003 worldwide
  - More than 2 million deaths
  - 5.1 billion cumulatively affected people
  - 182 million homeless people
  - Reported damage: US$1.38 trillion

- Only in 2005, over 180,000 deaths and over US$ 200 billion economic loss incurred

- Examples of the deadliest disasters in the last few years:

(2) http://www.weforum.org/en/initiatives/drn/index.htm

Impact of disasters on people

Number of people reported affected by natural disasters 1980-2009
Economic losses due to disasters

Millennium Development Goals

“This is the historic promise 189 world leaders made at the United Nations Millennium Summit in 2000 when they agreed to meet the Millennium Development Goals (MDGs). The United Nations Millennium Campaign supports and inspires people from around the world to take action in support of the MDGs.”

- End hunger, universal education, gender equity, child health, maternal health, combat HIV/Aids, environmental sustainability, global partnership
- Clear goals, achievable, progress monitored/measured

Source: http://www.un.org/millenniumgoals/
Questions

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