Human Right to Water, Drinking-water Policy Framework and Health Aspects

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Conference on Water Law Reforms and the Right to Water
IELRC - SOAS
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Outline

- Health rationale and the Right to Water

- WHO, Right to Health, Right to Water

- Technical issues on health and RtW
Outline

- Health rationale and the Right to Water
  - WHO, Right to Health, Right to Water
  - Technical issues on health and RtW
Q: How much disease could be prevented by better managing water, sanitation and health?

A: 10%

"Almost one tenth of the global disease burden could be prevented by improving water supply, sanitation, hygiene and management of water resources"
Diarrhoeal diseases 39%
Consequence of malnutrition 21%
Malnutrition (only PEM) 5%
Lymphatic filariasis 3%
Schistosomiasis 1%
Intestinal nematode infections 2%
Malaria 14%
Drownings 6%
Others 7%

PEM: protein–energy malnutrition

* In disability-adjusted life years, or DALYs.
Diseases with largest WSH contribution (2002, fraction of global burden of disease/DALYs)
Distribution of WSH burden

- 38% of all WSH deaths occur in children under age 5
- Improved WSH could reduce child mortality by 28%
Annual cost of not dealing with water and sanitation

Lives lost

- 1.6 million annually due to diarrhoea alone

Health care costs:

- USD7 billion per year to health agencies
- USD340 million to individuals

Value of time lost

- USD 63 billion per year
Outline

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UN & WHO commitment to health-related human rights

- **UN Charter (1945)**
  - Member States of the United Nations set forth human rights as one of the United Nations' key purposes (Art. 1(3))

- **WHO Constitution (1946)**
  - WHO Member States recognized "the enjoyment of the highest attainable standard of health" as "one of the fundamental rights of every human being without distinction of race, religion, political belief, economic or social condition" (Preamble)
What is the right to health?

- …does not mean the right to be healthy
- …

- …is a claim to a set of social arrangements – norms, institutions, laws, an enabling environment – that can best secure the enjoyment of this right…
“The right to health”

Underlying determinants

Health-care
The legal bases of the right to water

- Right to an adequate standard of living, including…
- Right to life & human dignity
- *Right to health*
- Right to housing
- Right to food
Outline

- Health rationale and the Right to Water
- WHO, Right to Health, Right to Water
- Technical issues on health and RtW
  - 'access'
  - 'sufficient'
  - 'equity'
General Comment 15 on the Right to Water:

- The human right to water entitles everyone to sufficient, safe, acceptable, physically accessible and affordable water for personal and domestic uses."

- An adequate amount of safe water is necessary to prevent death from dehydration, to reduce the risk of water-related disease and to provide for consumption, cooking, personal and domestic hygiene requirements.
Figure 2.2: Graph of travel time (in minutes) versus consumption (taken from WELL, 1998)
**Table S1: Summary of requirement for water service level to promote health**

<table>
<thead>
<tr>
<th>Service level</th>
<th>Access measure</th>
<th>Needs met</th>
<th>Level of health concern</th>
</tr>
</thead>
<tbody>
<tr>
<td>No access (quantity collected often below 5 l/c/d)</td>
<td>More than 1000m or 30 minutes total collection time</td>
<td>Consumption – cannot be assured Hygiene – not possible (unless practised at source)</td>
<td>Very high</td>
</tr>
<tr>
<td>Basic access (average quantity unlikely to exceed 20 l/c/d)</td>
<td>Between 100 and 1000m or 5 to 30 minutes total collection time</td>
<td>Consumption – should be assured Hygiene – handwashing and basic food hygiene possible; laundry/bathing difficult to assure unless carried out at source</td>
<td>High</td>
</tr>
<tr>
<td>Intermediate access (average quantity about 50 l/c/d)</td>
<td>Water delivered through one tap on-plot (or within 100m or 5 minutes total collection time)</td>
<td>Consumption – assured Hygiene – all basic personal and food hygiene assured; laundry and bathing should also be assured</td>
<td>Low</td>
</tr>
<tr>
<td>Optimal access (average quantity 100 l/c/d and above)</td>
<td>Water supplied through multiple taps continuously</td>
<td>Consumption – all needs met Hygiene – all needs should be met</td>
<td>Very low</td>
</tr>
</tbody>
</table>
Millennium Development Goals:

- Goal 7, Target 10: "Halving, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation."
Mandated by UN to monitor progress towards MDG 7 Target 7c:

- Halve, by 2015, the proportion of people without sustainable access to safe drinking water and basic sanitation

- Through national data sources:
  - National censuses
  - Household sample surveys (DHS, MICS, WHS, LSMS, CWIQ etc.)

- Using Indicators:
  - Proportion of the population that has access to an **improved** drinking water source (urban and rural)
  - Proportion of population that has access to an **improved** sanitation facility (urban and rural)
Use of improved drinking water sources, 2006
Progress towards the MDG drinking water target, 2006

- **On track**: Coverage in 2006 was less than 5 per cent below the rate it needed to be for the country to reach the MDG target, or coverage was higher than 95%.

- **Progress but insufficient**: Coverage in 2006 was 5 per cent to 10 per cent below the rate it needed to be for the country to reach the MDG target.

- **Not on track**: Coverage in 2006 was more than 10 per cent below the rate it needed to be for the country to reach the MDG target, or the 1990 - 2006 trend shows unchanged or decreasing coverage.

- **No or insufficient data**: Data were unavailable or insufficient to estimate trends.
Sanitation: Countries that are "not on track"

<table>
<thead>
<tr>
<th>Country</th>
<th>Proportion of the population that gained access to improved sanitation since 1990 (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yemen</td>
<td>39</td>
</tr>
<tr>
<td>Benin</td>
<td>30</td>
</tr>
<tr>
<td>Cameroon</td>
<td>29</td>
</tr>
<tr>
<td>Comoros</td>
<td>29</td>
</tr>
<tr>
<td>Mali</td>
<td>29</td>
</tr>
<tr>
<td>Zambia</td>
<td>27</td>
</tr>
</tbody>
</table>
Comparing JMP and National definitions

**MDG Definition**
- **With access**
  - Sewer connection
  - Septic tank
  - VIP/improved pit
- **Without access**
  - Shared facilities
  - Unimproved facilities
  - Open defecation

**National Definition**
- **With Access**
  - Sewer connection
  - Septic tank
  - VIP/improved pit
  - Shared facilities
  - Unimproved facilities
- **Without Access**
  - Open defecation

**Differences due to differing definitions**

Progress in Sanitation

- 1990
- 2006

- 0%
- 20%
- 40%
- 60%
- 80%
- 100%

- Open defecation
- Unimproved
- Shared
- Improved pit
- Septic tank
- Sewer
New features in 2008:

The Drinking Water Ladder

- Improved drinking water sources
- Piped water on premises
- Other improved sources

Unimproved drinking water sources
Access can be represented through an access “ladder”

- Rungs represent a sequence of benchmarks.
- Population groups / size situated on the rungs.
"...any discrimination on the grounds of race, colour, sex, language, religion, political or other opinion, national or social origin, property, birth, physical or mental disability, health status, (including HIV/AIDS), sexual orientation, civil, political, social or other status, which has the intention or effect of nullifying or impairing the equal enjoyment or exercise of the right to water”.

(General comment 15)
Disparities Masked by National Averages:
Rural versus urban sanitation (2004)

Meeting the MDG Drinking Water and Sanitation Target – The urban and rural challenge of the decade
WHO and UNICEF, 2006
Urban-Rural disparities

Urban-Rural (percentage)

Urban-Rural (Millions)

Legend:
- Improved
- Shared
- Unimproved
- Open Defecation
Urban-Rural disparities
The **richest** are three times more likely to use improved sanitation than the **poorest**.

Source: Based on data drawn from Multiple Indicator Cluster Surveys (MICS) and Demographic and Health Surveys (DHS) in 38 developing countries in 2005 and 2006.
New data presented in the 2008 report

- Time to source
- Disposal of children's faeces
- Household water treatment/storage
- Gender and water collection

Distribution of those who usually collect water
GLAAS Pilot study: some solid data sources

Six of the 10 countries with more than 50% of the population living on less than US$ 1 per day receive less than the median aid per capita for sanitation and drinking-water.
Outline

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Thank You!

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<table>
<thead>
<tr>
<th>Disease or injury</th>
<th>Afghanistan</th>
<th>Albania</th>
<th>Algeria</th>
<th>Andorra</th>
<th>Angola</th>
<th>Antigua and Barbuda</th>
<th>Argentina</th>
<th>Armenia</th>
<th>Australia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Total DALYs</td>
<td>17 011.0</td>
<td>502.8</td>
<td>5 499.8</td>
<td>8.5</td>
<td>10 757.1</td>
<td>13.3</td>
<td>6 293.3</td>
<td>516.2</td>
<td>2 153.9</td>
</tr>
<tr>
<td>Total WSH-related</td>
<td>2 691.8</td>
<td>5.8</td>
<td>520.0</td>
<td>0.0</td>
<td>2 593.0</td>
<td>0.2</td>
<td>96.4</td>
<td>5.7</td>
<td>9.5</td>
</tr>
<tr>
<td>% of total DALYs</td>
<td>15.8%</td>
<td>1.2%</td>
<td>9.5%</td>
<td>0.3%</td>
<td>24.1%</td>
<td>1.2%</td>
<td>1.5%</td>
<td>1.1%</td>
<td>0.4%</td>
</tr>
<tr>
<td>Diarrhoeal diseases*</td>
<td>1 192.4</td>
<td>0.9</td>
<td>250.1</td>
<td>0.0</td>
<td>1 437.1</td>
<td>0.1</td>
<td>41.8</td>
<td>3.1</td>
<td>3.9</td>
</tr>
<tr>
<td>Intestinal nematode infections*</td>
<td>13.0</td>
<td>0.0</td>
<td>76.1</td>
<td>0.0</td>
<td>40.3</td>
<td>0.0</td>
<td>5.9</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Malnutrition (only PEM)*</td>
<td>153.7</td>
<td>0.9</td>
<td>23.4</td>
<td>0.0</td>
<td>156.6</td>
<td>0.0</td>
<td>10.8</td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Consequences of malnutrition*</td>
<td>676.6</td>
<td>2.4</td>
<td>29.6</td>
<td>0.0</td>
<td>343.9</td>
<td>0.0</td>
<td>0.0</td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Trachoma*</td>
<td>5.3</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>4.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
</tr>
<tr>
<td>Schistosomiasis*</td>
<td>0.0</td>
<td>0.0</td>
<td>65.5</td>
<td>0.0</td>
<td>47.8</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
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<tr>
<td>Lymphatic filariasis*</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>17.9</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Subtotal water supply, sanitation and hygiene</td>
<td>2 041.1</td>
<td>4.3</td>
<td>444.7</td>
<td>0.0</td>
<td>2 047.6</td>
<td>0.1</td>
<td>58.5</td>
<td>3.6</td>
<td>4.0</td>
</tr>
<tr>
<td>Malaria*</td>
<td>23.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>283.3</td>
<td>0.0</td>
<td>0.2</td>
<td>0.3</td>
<td>0.0</td>
</tr>
<tr>
<td>Dengue*</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.1</td>
</tr>
<tr>
<td>Onchocerciasis*</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.2</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Japanese encephalitis*</td>
<td>0.9</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
<td>0.0</td>
</tr>
<tr>
<td>Subtotal water resource management</td>
<td>24.1</td>
<td>0.0</td>
<td>0.1</td>
<td>0.0</td>
<td>283.6</td>
<td>0.0</td>
<td>0.2</td>
<td>0.3</td>
<td>0.1</td>
</tr>
<tr>
<td>Drownings*</td>
<td>57.5</td>
<td>0.9</td>
<td>25.9</td>
<td>0.0</td>
<td>52.5</td>
<td>0.0</td>
<td>20.6</td>
<td>1.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Subtotal safety of water environments</td>
<td>57.5</td>
<td>0.9</td>
<td>25.9</td>
<td>0.0</td>
<td>52.5</td>
<td>0.0</td>
<td>20.6</td>
<td>1.3</td>
<td>3.3</td>
</tr>
<tr>
<td>Other infectious diseases*</td>
<td>569.1</td>
<td>0.6</td>
<td>49.3</td>
<td>0.0</td>
<td>209.4</td>
<td>0.0</td>
<td>17.2</td>
<td>0.5</td>
<td>2.1</td>
</tr>
</tbody>
</table>
Core obligations (General Comment 15):

(a) non-discrimination

(b) minimum essential amount of water

(c) Access to water facilities or services that provide sufficient, safe and regular water; that have a sufficient number of water outlets to avoid prohibitive waiting times; and that are at a reasonable distance from the household

(d) personal security when physically accessing water
Core obligations cont. (General Comment 15)

(e) Equitable distribution of facilities & services

(f) A national water strategy and plan of action

(g) Monitoring

(h) Low-cost targeted programmes to vulnerable and marginalized groups;

(i) Measures to prevent, treat and control diseases linked to water, in particular ensuring access to adequate sanitation.
Improved Drinking Water: 
Trends in service levels

Meeting the MDG Drinking Water and Sanitation Target: Mid-term Assessment of Progress WHO and UNICEF, 2004
WHO's Constitutional Objective

"the attainment by all peoples of the highest attainable levels of health"