



IWA World Water Congress and Exhibition



Elisabeth von Münch

Sanitation and related sustainability criteria –

How to indicate the quality of sanitation?

Institutional partner



Principal sponsors



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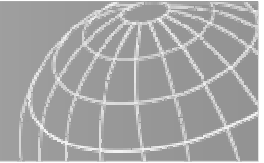
Organisers



GTZ Germany

www.gtz.de/ecosan and www.susana.org

VIENNA 2008

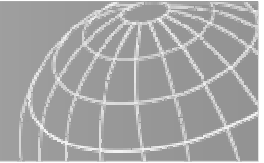


“Sanitation” includes:

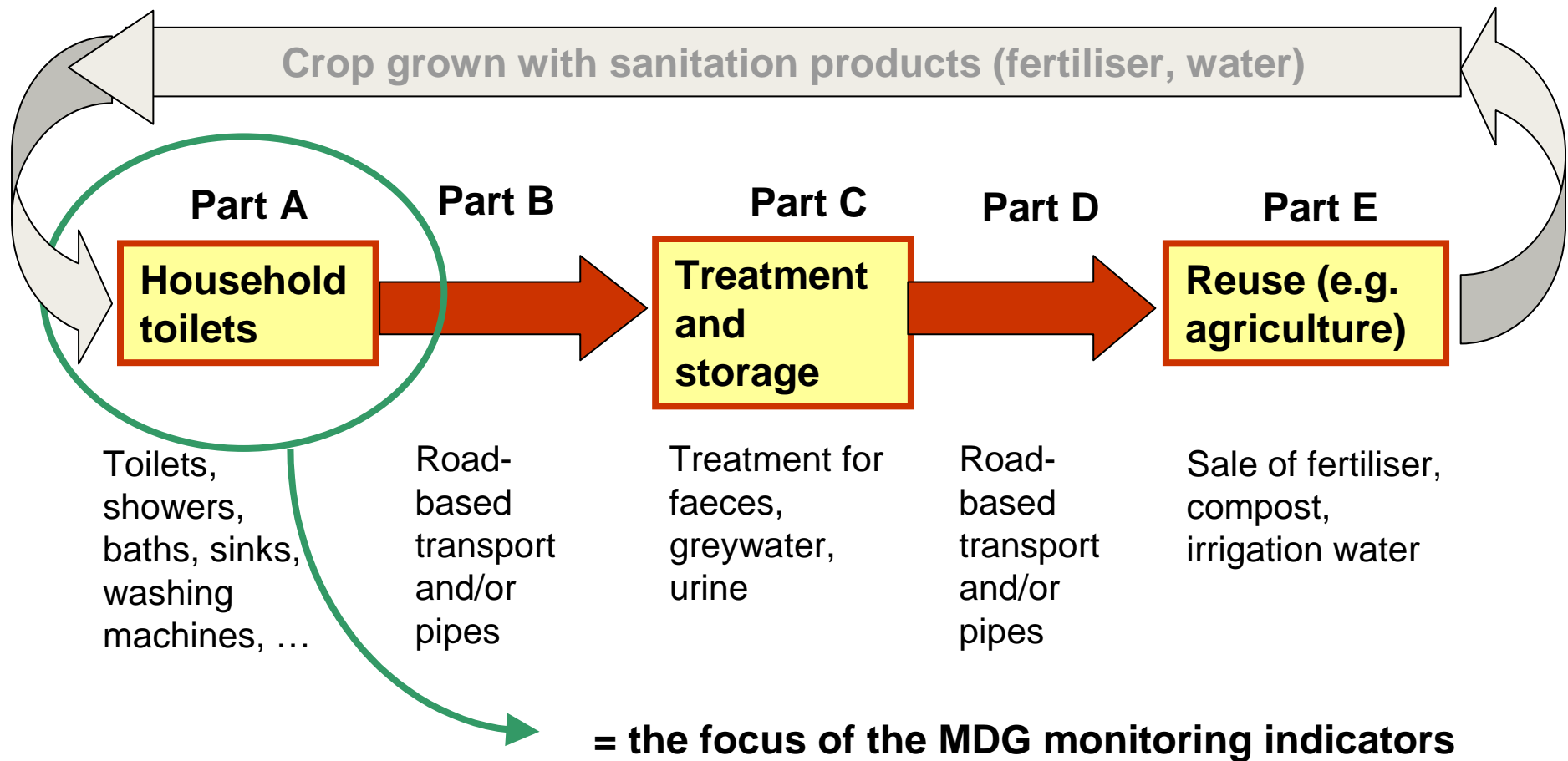
- Excreta management (faeces, urine)
- Greywater management
- Solid waste management
- Drainage (for rainwater / stormwater)

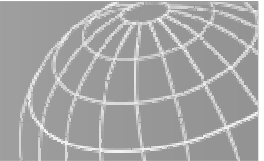


The main (the only) focus of the MDG indicator on access to basic sanitation



Sanitation should be understood as a system



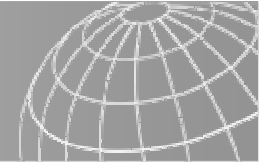


Why is it so difficult and important to indicate the **quality** of sanitation?

- Whilst someone can have “no water”, there is no such thing as “no sanitation”
- Even in the absence of any infrastructure, we still excrete urine and faeces → we always “have sanitation”
- Sanitation of low quality causes:
 - Pollution of drinking water sources
 - Spread of diseases
 - High under-5 child mortality
 - Intestinal worms
 - Low school attendance (especially girls)
 - ... needless suffering!

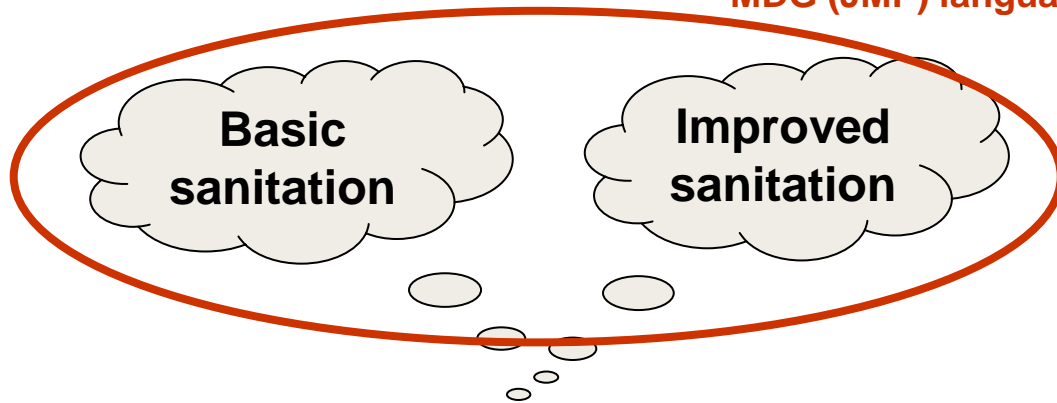


Child defecating in a canal in the slum of Gege in the city of Ibadan, Nigeria
(Photo: Adebayo Alao (Nigeria), Sept. 2007)

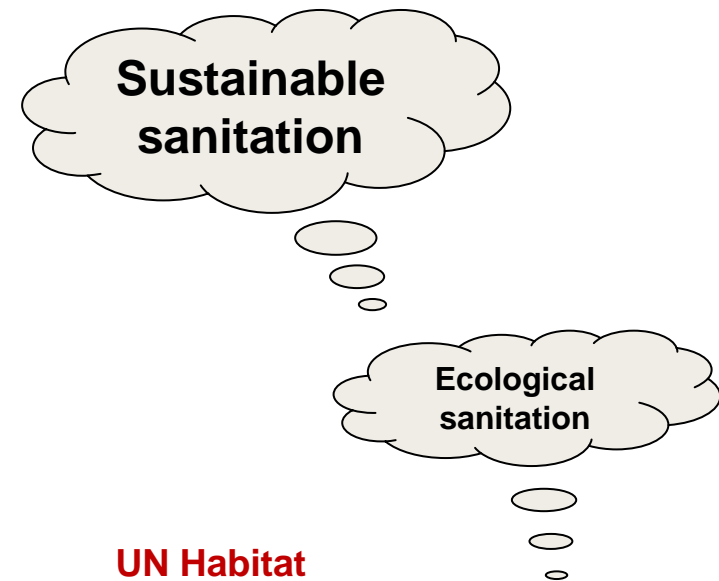


How can we measure the **quality** of sanitation?

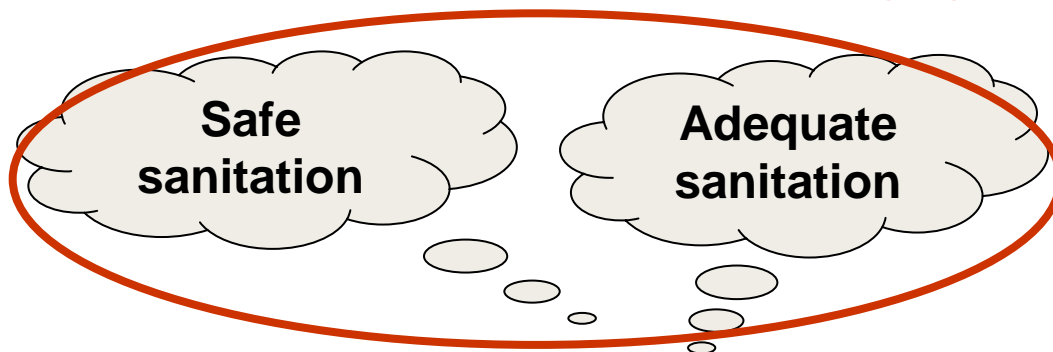
MDG (JMP) language



SuSanA language

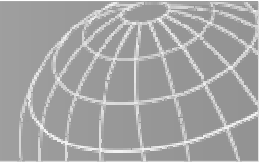


Human right to water and sanitation language



UN Habitat





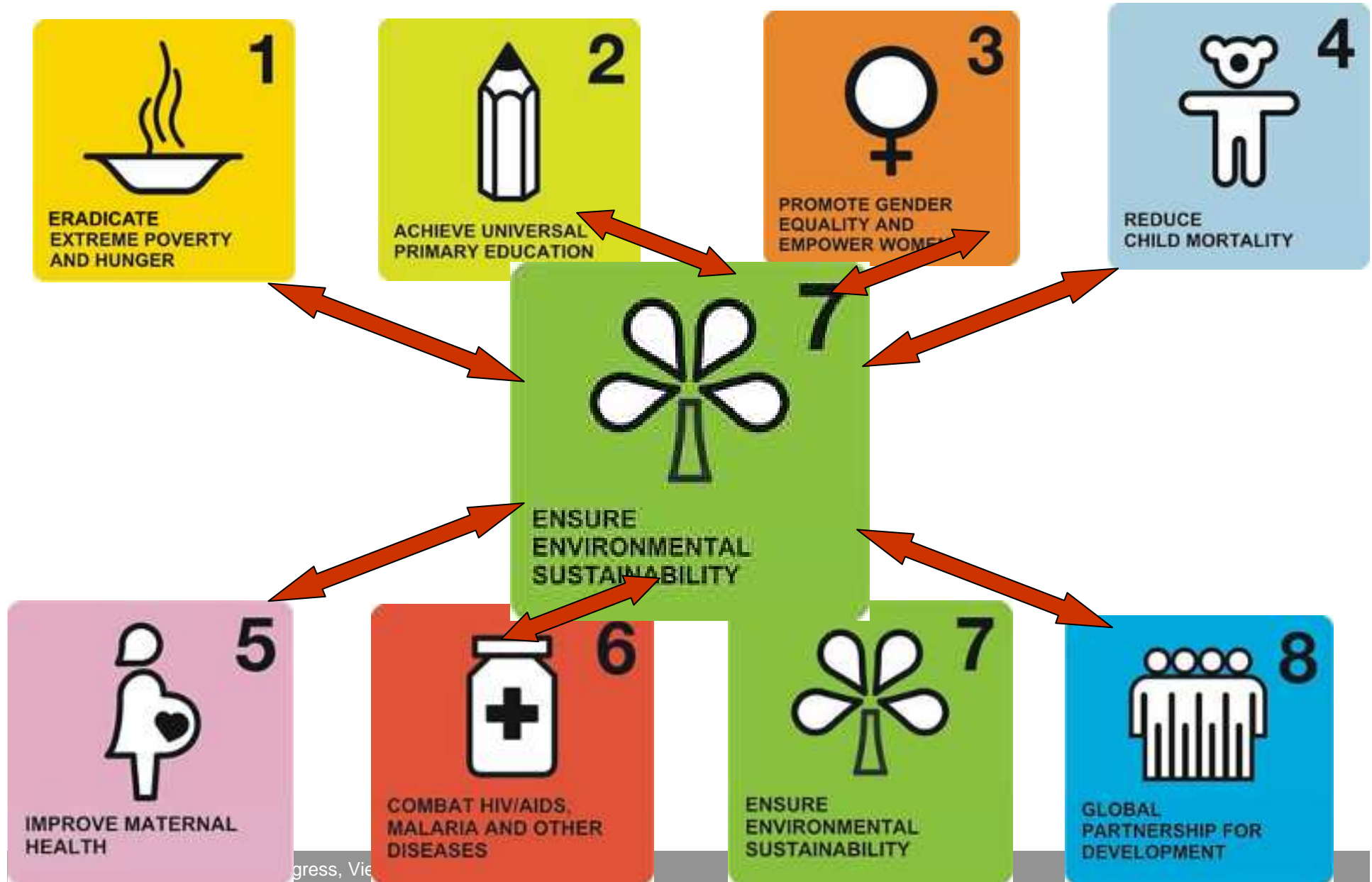
General Comment 15 on the International Covenant on Economic, Social and Cultural Rights (ICESCR)

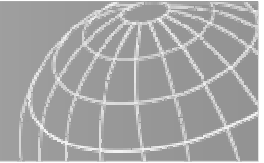
“Ensuring that everyone has access to adequate sanitation is [...] a fundamental for human dignity and privacy [...]”:

Requirements to be considered in human right to sanitation:



Reminder: 8 Millennium Development Goals (MDGs), with targets and indicators





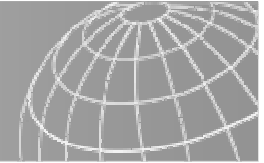
Reminder: MDG Water and Sanitation Monitoring: Targets and indicators

MDG 7 Target 7c

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

Indicator for this access:

- Proportion of population using an improved sanitation facility, urban and rural



Categorisation of sanitation facilities

(according to JMP, the joint monitoring program of WHO and UNICEF)

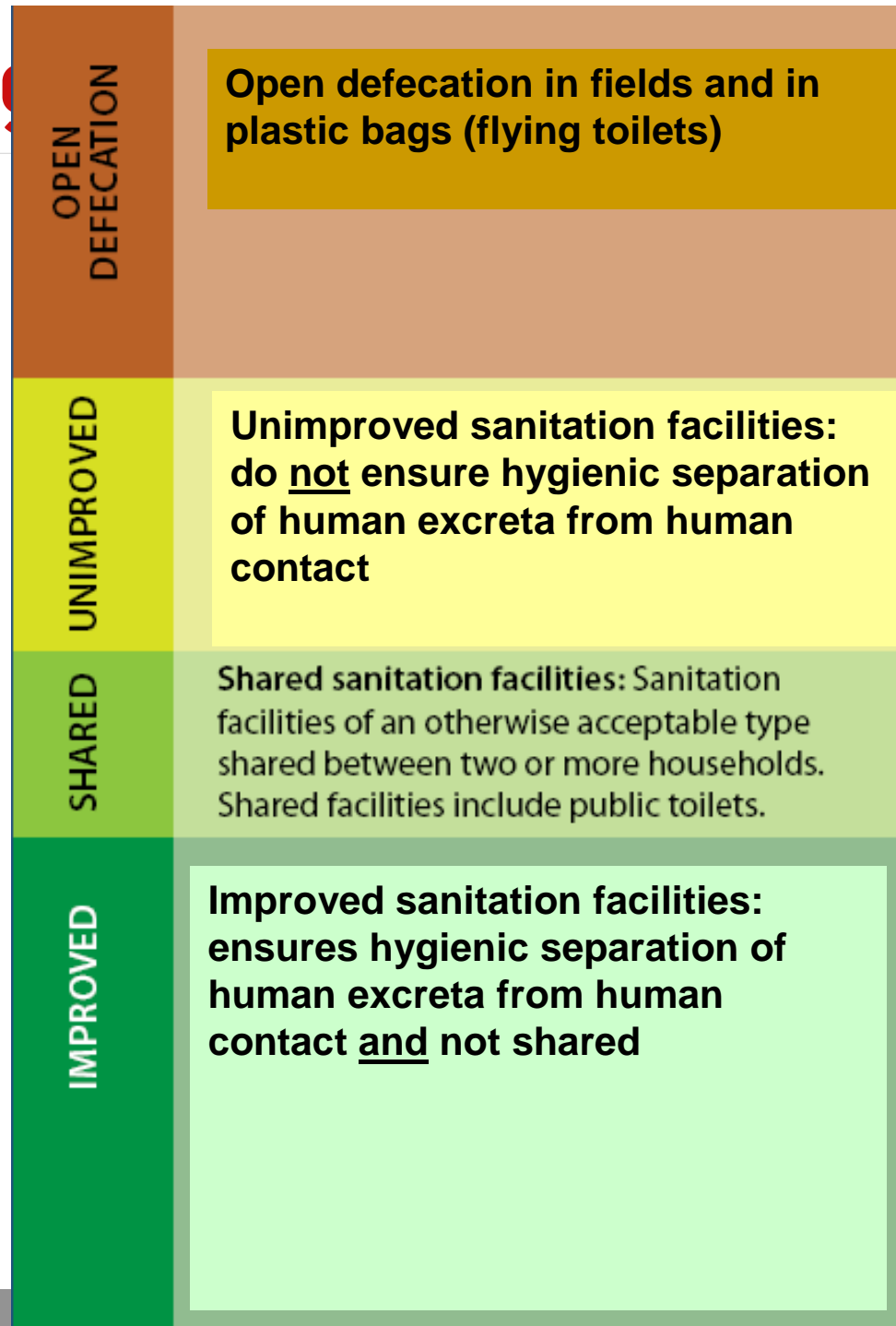
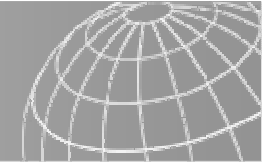
(these indicators refer only to the toilets, not to the rest of the sanitation system)

IMPROVED

- **Flush/pour flush toilet to:**
 - **piped sewer system**
 - **septic tank**
 - **pit latrine**
- **Ventilated improved pit (VIP) latrine**
- **Pit latrine with slab**
- **Composting toilet**

UN-IMPROVED

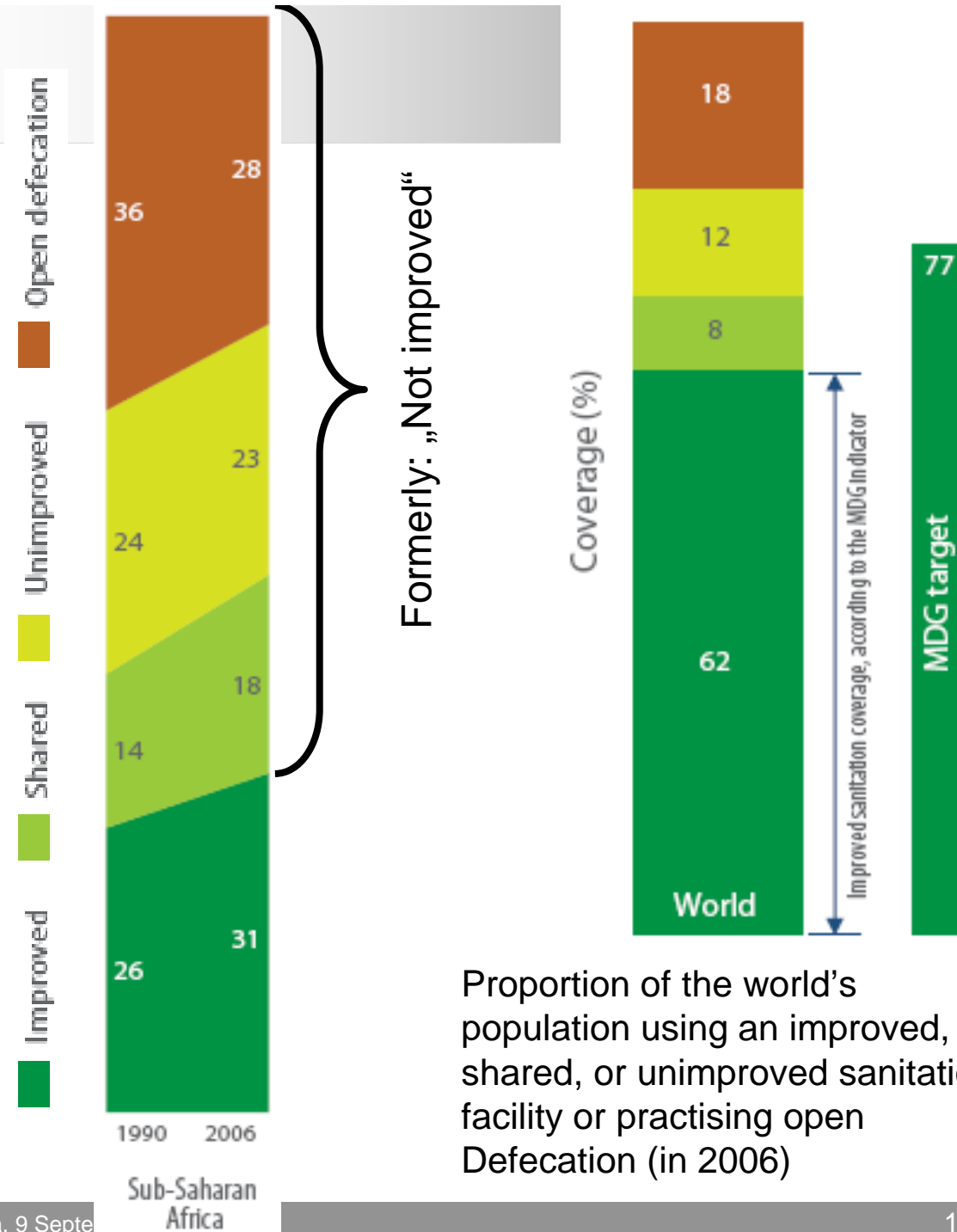
- **Flush/Pour flush to elsewhere**
- **Pit latrine without slab/open pit**
- **bucket latrine**
- **Hanging toilet/hanging latrine**
- **No facilities, bush or field**
- **Shared facilities**



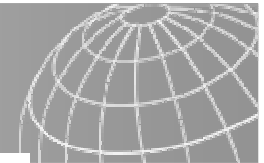
The “ladder approach” to improved sanitation

World Health Organization and United Nations Children’s Fund Joint Monitoring Programme for Water Supply and Sanitation (JMP). Progress on Drinking Water and Sanitation: Special Focus on Sanitation. UNICEF, New York and WHO, Geneva, 2008.

Disaggregated data on types of sanitation facilities used



Proportion of the world's population using an improved, shared, or unimproved sanitation facility or practising open Defecation (in 2006)



Globally, 1.2 billion people practise open defecation, 83 per cent of whom live in 13 countries

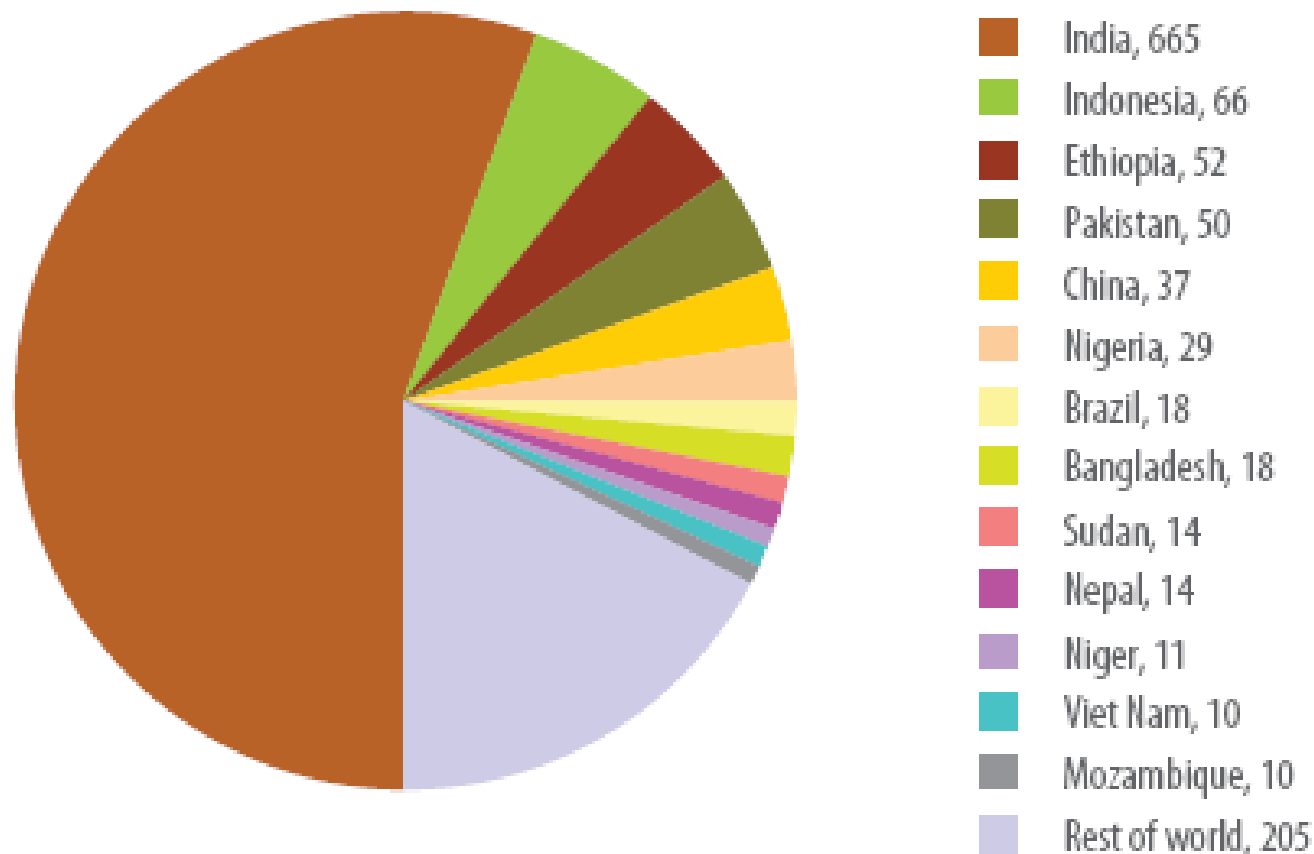
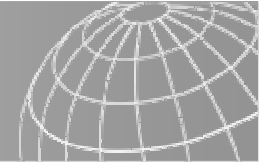


Figure 18 Population practising open defecation, by countries with highest prevalence in 2006 (millions)



Are the challenges the same in urban as in rural areas? Are all “improved” facilities adequate for densely populated urban areas?

Urban (unplanned)



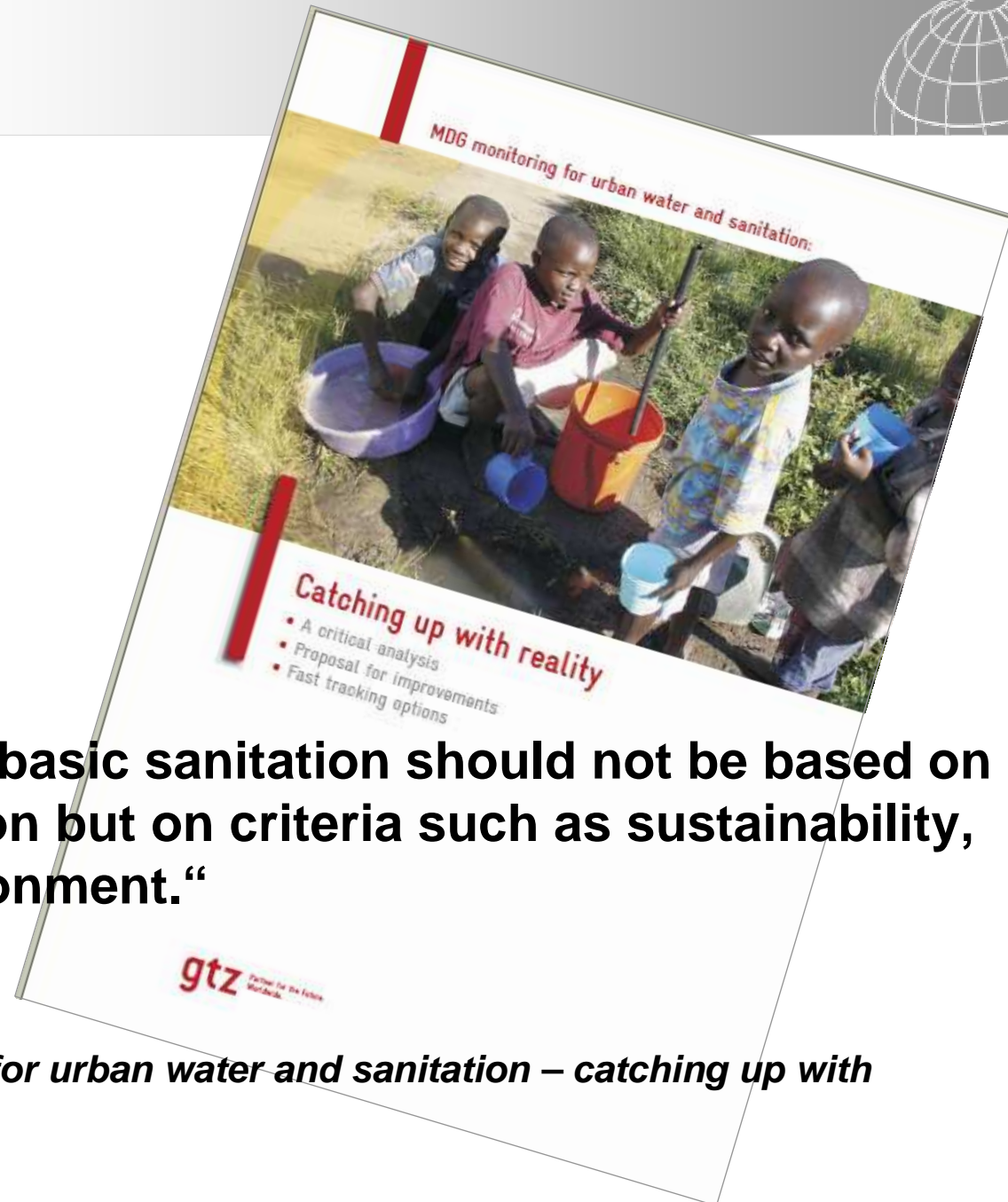
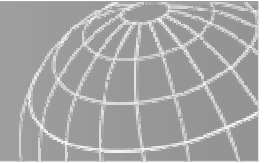
Peri-urban



**If not, why apply the same definitions for “improved” sanitation for urban and rural?
Monitoring needs to address the differences of urban and rural realities**

Gege slum in the city of Ibadan, Nigeria
(photo: Adebayo Alao, Sept. 2007)

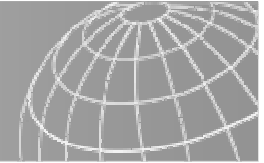
Pit latrine in Maseru, Lesotho
(E. v. Münch, Dec 06)



„The assessment of basic sanitation should not be based on the type of installation but on criteria such as sustainability, health and the environment.“

GTZ (2007) *MDG monitoring for urban water and sanitation – catching up with reality*, Eschborn, Germany

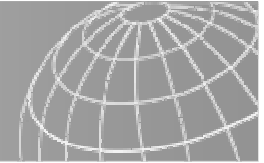
(slide courtesy Dirk Schäfer, gtz)



“Improved sanitation” is not always equal to sustainable sanitation:

1. Systems which use flush toilets that deliver excreta to a piped sewer connection, but where the generated wastewater is not treated at all, and contributes to downstream environmental pollution and health risks
2. Pit latrines (with a slab) if they obviously contribute to groundwater pollution with nitrate and pathogens (for high population density)
3. Septic tanks where faecal sludge is dumped indiscriminatorily into the environment

Are counted in MDGs but are not sustainable



What is “sustainable sanitation”?

A sustainable sanitation system is one which:

- is economically viable,
- is socially acceptable,
- is technically and institutionally appropriate,
- protects the environment and natural resources

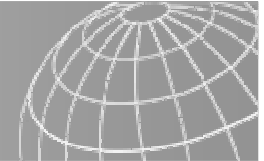
There is probably no system which is absolutely sustainable.

The concept of sustainability is a vector (direction).

Source: Vision document 1 of Sustainable Sanitation Alliance “Towards more sustainable sanitation solutions”, Feb. 2008

SuSanA is a loose network of 91 organisations with common goal
 Started Jan. 2007, open to others, 12 thematic working groups
 Website: www.susana.org





Goal of the SuSanA

- to contribute to the achievement of the MDGs by promoting sanitation systems which are taking into consideration all aspects of sustainability

sustainable sanitation alliance

Towards more sustainable sanitation solutions
Version 1.1 (November 2007)

Introduction

The urgency for action in the sanitation sector is obvious, considering the 2.6 billion people worldwide who remain without access to any level of improved sanitation, and the 2.2 million annual deaths (mostly children under the age of 5) caused mainly by sanitation-related diseases and poor hygienic conditions.

The United Nations, during the Millennium Summit in New York in 2000 and the World Summit on Sustainable Development in Johannesburg (WSSD) in 2002, developed a series of Millennium Development Goals (MDGs) aiming to achieve poverty eradication and sustainable development. The specific target set for the provision of water supply and sanitation services is to halve the proportion of people without access to safe drinking water and basic sanitation by 2015.

As the Joint Monitoring Programme of WHO/UNICEF and the UNDP Human Development Report (2006) have shown, the progress towards meeting the MDG sanitation target is however much too slow, with an enormous gap existing between the intended coverage and today's reality, especially in Sub-Saharan Africa and parts of Asia.

The reasons for this are numerous. A major issue is the fact that sanitation rarely receives the required attention and priority by politicians and civil society alike despite its key importance for a society. Political will has been largely lacking when it comes to placing sanitation high on the international development agenda. This has pushed sanitation into the shadows of water supply projects, for example, and limited innovation in the sector.

Motivated by the UN's decision to declare 2008 as International Year of Sanitation (IYS), a core group of organisations active in the field of sanitation took the initiative to form a task force to support the IYS. In January 2007, a first meeting resulted in a large number of commitments by the participants from various organisations, and in drawing up a first draft of a 'joint road map for the promotion of sustainable sanitation in IYS 2008'. During a second meeting which took place mid April, the goal

and the objectives of this global competence network were clarified and the joint road map was reviewed.

In order to have a joint label for the planned activities, and to be able to align with other potential initiatives, the group formed the 'Sustainable Sanitation Alliance (SuSanA)'.
Austria

What is sustainable sanitation?

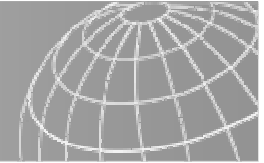


The main objective of a sanitation system is to protect and promote human health by providing a clean environment and breaking the cycle of disease. In order to be sustainable a sanitation system has to be not only economically viable, socially acceptable, and technically and institutionally appropriate, it should also protect the environment and the natural resources. When improving an existing and/or designing a new sanitation system, sustainability criteria related to the following aspects should be considered:

(1) **Health and hygiene:** includes the risk of exposure to pathogens and hazardous substances that could affect public health at all points of the sanitation system from the toilet via the collection and treatment system to the point of reuse or disposal and downstream populations. This topic also covers aspects such as hygiene, nutrition and improvement of livelihood achieved by the application of a certain sanitation system, as well as downstream effects.

SuSanA
Towards more sustainable sanitation solutions
Version 1.1 (November 2007)





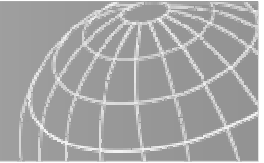
Sustainability criteria:

to be considered when improving an existing or designing a new sanitation system



1. health and hygiene
2. environment and natural resources
3. technology and operation
4. financial and economic issues
5. socio-cultural and institutional aspects

Source: Vision document 1 of Sustainable Sanitation Alliance “Towards more sustainable sanitation solutions”, Feb. 2008



Conclusions

- Measuring the quality of sanitation is a difficult task
 - Most attempts overly simplify the issue to toilets alone
 - Sanitation is a system (transport, treatment, reuse; excreta, greywater, solid waste, drainage)
- Indicators used in MDG programme are very simplistic but presumably “fit for purpose” (?)
- Assessing the sustainability of sanitation as promoted by the SuSanA is difficult to do in household surveys
- We need to communicate regarding the quality of sanitation: JMP, SuSanA, UN-HABITAT, human rights approach group, advocacy groups, the media, ... → can we speak with one voice?