

Welcome!

Training Course in Practical Project Design in Sustainable Sanitation

Qellaya (caza of West Bekaa) and Dlafy (caza
of Hasbaiya), Lebanon

Monday 8th to Thursday 11th of October 2018
(9:30 a.m. – 5:00 p.m.)

cewas



www.SSWM.info





- Bridge the entrepreneurship and water sector to create more sustainable solutions in water, sanitation and resource management
- Support water and sanitation actors in the Middle East to improve the sustainability of their services
- Development of innovative Resource Recovery and Reuse (RRR) projects



Components of the cewas ME Programme:



Business/Start-ups
in SSWM



Business Network
in SSWM

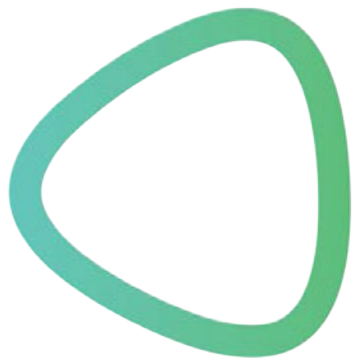


Translation of key
materials



SSWM in
Humanitarian
Crisis





sustainable sanitation
& water management
Toolbox

SSWM.info

Sustainable Sanitation and
Water Management

SSWM Global Program



SSWM Toolbox

Search SSWM... Home Perspectives About the Toolbox Product & Services

Sustainable Sanitation and Water Management Toolbox

Linking Up Sustainable Sanitation, Water Management & Agriculture

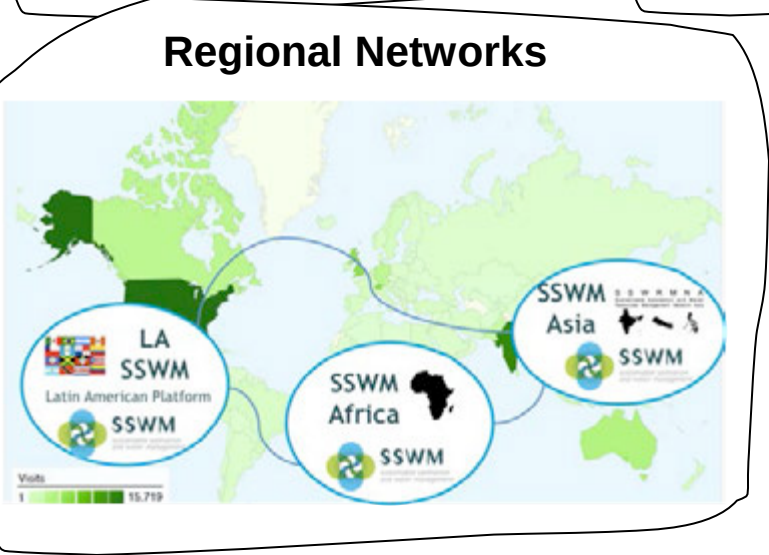
Get Started

 **Solution Finder**

Browse Handbook / SSWM Catalogue

Hot Topics:

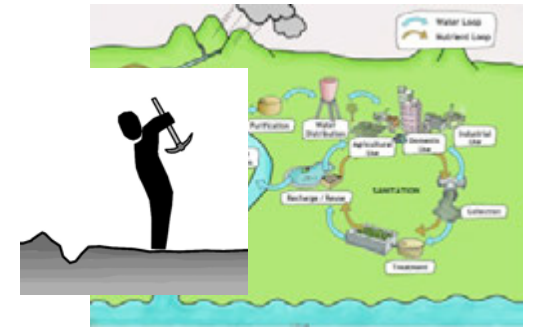
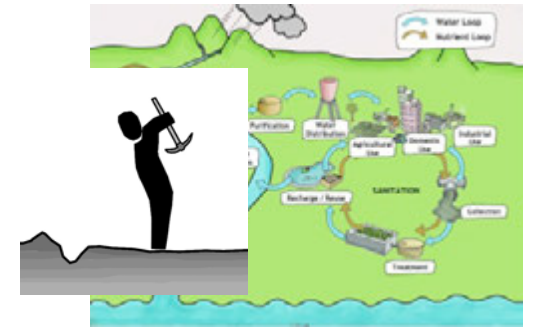
Fulltext **News** **Fulltext**



A world map with three callout bubbles. The first bubble, labeled 'LA SSWM Latin American Platform', points to South America and includes a flag mosaic and the SSWM logo. The second bubble, labeled 'SSWM Africa', points to Africa and includes a silhouette of the continent and the SSWM logo. The third bubble, labeled 'SSWM Asia', points to Asia and includes a silhouette of the continent and the SSWM logo. A legend at the bottom left shows a color gradient from light green to dark green, labeled 'Visits' with values '1' and '15.719'.



Training Courses



45 Training courses in:

- Filipinas
- Senegal
- Peru
- Brazil
- Lebanon
- India
- Namibia
- Bolivia
- Switzerland
- Jordan
- Nepal
- South Africa
- Nicaragua
- Italy
- Afghanistan
- Zambia
- Tanzania
- México
- Slovenia
- Iraq



More than 725 participants!



English, French, Spanish, Portuguese,
Arabic, Kurdish and Swahili



**LEbanese Water
Actors Platform**

LEWAP

Recherche ...

Accueil

La plateforme LEWAP

Nos activités

Ressources documentaires

Base de données

Contactez-nous

 Français



Actualités

Contactez-nous

contact@lewap.org

Calendrier des rendez-vous à venir

Mois

Liste

Semaine

Journée

2017



Sep. 2018



2019



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Ateliers et groupes de travail

Conférences et formations

Accompagnement de la
coopération internationale



Cadre institutionnel

Cadre légal

- Décret-loi sur les Municipalités N°118 du 30 juin 1977 et ses amendements
- Loi N°221 du 29 mai 2000 et ses amendements
- Code de l'eau _ Loi N°77 du 19 avril 2018

Stratégies nationales

- Stratégie nationale pour le secteur de l'eau (Résolution N°2 du 9 mars 2012)
- Stratégie nationale pour les eaux usées (Résolution N°35 du 17 octobre 2012)

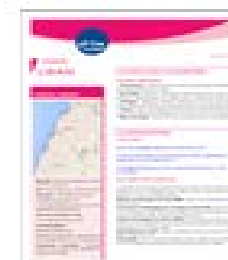
Master Plans

- Master Plan Etablissement des Eaux de Beyrouth et du Mont Liban
- Master Plan Etablissement des Eaux du Liban-Nord
- Master Plan Etablissement des Eaux de la Bekaa
- Master Plan Etablissement des Eaux du Liban-Sud

Stratégies de réponse à la crise syrienne

- Plan libanais de réponse à la crise- 2017-2020 (LORP)

Fiche pays



Sites ressources

[Site du Ministère de l'Energie et de l'Eau](#)

[Site du Conseil de Développement et de Reconstruction](#)

[Site du Ministère de l'Environnement](#)

[Site de l'Office National du Litani](#)

[Etablissement des Eaux de Beyrouth et du Mont Liban](#)

[Etablissement des Eaux du Liban Nord](#)



**LEbanese Water
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Recherche ...

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Atlas des actions

Annuaire des acteurs du secteur

Les documents du secteur

Les documents du secteur

Recherche de documents

Filtrer les documents

Titre

Mots-clés:

accès à l'assainissement
accès à l'eau
Afrique
alimentation en eau saine
aménagement de surface



Supports:

affiche, aide visuelle
appli téléphonique
article
article de presse
audio



Éditeur:

A Rocha_ Conservation et Espoir
ACF
ACTED
AFD
Agence Suisse pour le Développement et la Coopération



Réinitialiser

Filtrer

Date d'édition: 1^{er} Janvier 2018

Pages: 12

Éditeurs :

- ACH
- ACF



[Plus de détails](#)

A clean and decent life without WaSH? The impacts and risks of reduced WASH funding for Syrian refugees in Bekaa, Lebanon

rapport

accès à l'assainissement, accès à l'eau, humanitaire, urgentiste

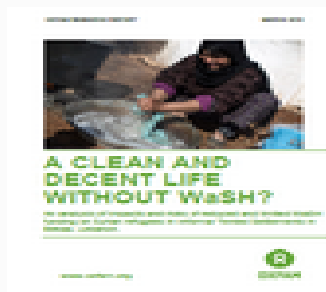
Date d'édition: 1^{er} Mars 2018

Pages: 60

Éditeurs :

- Oxfam
- OXFAM UK

Résumé: This study addressed the following problem statement: substantial cuts in funding for WaSH services for Syrian refugees living in ITS in the Bekaa are likely to produce a range of negative impacts in the areas of public health, livelihoods, protection and social stability. These negative impacts will affect not only Syrian refugees but also Lebanese communities. The impacts related to WaSH will create an additional burden for other sectors of assistance that are also weakened by funding constraints and less able to respond effectively. The findings of the study substantially confirm this statement.



[Plus de détails](#)

Bailleur, instit. financière

Agence Française de Développement



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Fax: +961 1) 611 099

Courriel: afdbeyrouth@afd.fr

<http://www.afd.fr/home/pays/mediterranee-et-moyen-orient/geo/liban>

[Voir les contacts de l'organisme](#)

[Voir les documents de l'organisme](#)

[Voir les actions de l'organisme](#)







Assurer l'acheminement d'eau potable pour les populations touchées par la crise syrienne au Sud du Liban X

Lieu: Loubie, Liban

Dates: 2015

Partenaires: CARE (Beirut); Commission Européenne (Bruxelles); Fédération des municipalités de Sahel Al Zahrani (Sahel Al Zahrani); Municipalité de Bayssarieh (Bayssarieh); Municipalité de Ghaziyeh (Ghazieh); Municipalité de Loubieh (Loubieh); South Lebanon Water Establishment (Nabathieh);

Sous-secteur: eau potable

Activité principale: infrastructure/équipement, renforcement des capacités

Milieu: péri-urbain, urbain

Fiche détaillée





Lieu: Ghaziyeh

[Sud-Liban / Jezzine] - Liban ,

Lieu: Loubie [Sud-Liban / Sidon] - Liban

Dates: 2015 : 24 mois (En cours)

Partenaires

CARE Beirut

Commission Européenne Bruxelles

Fédération des municipalités de Sahel Al

Zahrani Sahel Al Zahrani

Municipalité de Bayssarieh Bayssarieh

Municipalité de Ghaziyeh Ghazieh

Municipalité de Loubieh Loubieh

SLVE Nabatieh

Budget global:

2 074 956 €

Contexte:

La municipalité de Ghazieh est l'une des plus vulnérables selon le Haut Commissariat aux Réfugiés de l'ONU. Ghazieh accueille à peu près 12 000 réfugiés syriens.

La municipalité de Bissariyeh est également extrêmement vulnérable, en effet selon la municipalité le nombre de réfugiés syriens (6000)

est sur le point d'atteindre le nombre d'habitants dans la ville (6500). De plus, la ville accueille également 1500 palestiniens, 800 nomades et 7000 libanais déplacés.

La ville de Loubiyeh est très petite et accueille 151 syriens enregistrés (pour 700 habitants). Sa population souffre d'un manque d'eau potable.

Enfin, Salda est l'une des plus grandes villes du Sud, elle est composée de Salda city, Kinnarit, Ain al Mir, Hilaily, une partie d'Aabra ainsi qu'une partie du camp d'Ain al Hilwi (contenant 110 000 personnes dont 25% sont réfugiés).

Description de l'action:

- Améliorer l'acheminement d'eau potable et s'assurer d'une meilleure gestion des déchets
- Réhabiliter et étendre le réseau d'acheminement de l'eau existant afin de procurer de l'eau potable aux communautés hôtes et réfugiés vivant dans les zones ciblées. (16 000 mètres)
- Réhabilitation de 8 puits
- Renforcement des capacités des équipes de l'Établissement des Eaux du Sud Liban (Analyse de leurs capacités, sessions de formation du personnel).
- Améliorer la résilience et la cohésion sociale à travers la promotion de petites ou moyennes entreprises de recyclage
- Aider les municipalités ciblées à une meilleure gestion des déchets.
- Renforcer la gestion du recyclage des PME

Bénéficiaires: 101 000 bénéficiaires dont 21 000 réfugiés syriens et 80 000 libanais.



Practical Project Design in Sustainable Sanitation

Hands-on development of smart solutions

3-day workshop + field visit



Is a cooperation between:

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Actors Platform**

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Schweizerische Eidgenossenschaft
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Confederazione Svizzera
Confederaziun svizra

With the support of:

Swiss Agency for Development
and Cooperation SDC

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Consultancy Opportunity in Sustainable Sanitation – We are looking for you!

We are currently recruiting a consultant to join us in designing a consortium-based approach to creating a sustainable sanitation system for the two neighbouring villages Qellaya and Dlafeh.

Requirements:

- A minimum of 5 years of consulting experience, 3 of which should be in the environmental sector.
- Grounded knowledge in sustainable sanitation and water management.
- Experience handling complex projects with a broad range of stakeholders.
- Previous work experience and a solid network in Lebanon.
- Working proficiency in Arabic, fluency in English.

You should bring:

- proactivity and practicality, with a good understanding of how to address challenges and transform them into opportunities,
- a high degree of flexibility,
- willingness to travel and aptness for field visits,
- interpersonal communication and negotiation skills.

This training is organized by:

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**LEbanese Water
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LEWAP

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Schweizerische Eidgenossenschaft
Confédération suisse
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On behalf of
Federal Ministry
for Economic Cooperation
and Development

Cap-Net



Initiated and developed by:

seecon

Introduction to Sanitation

*Leonellha Barreto Dillon,
cewas Middle East*





SUSTAINABLE DEVELOPMENT GOALS

1 NO POVERTY



2 ZERO HUNGER



3 GOOD HEALTH AND WELL-BEING



4 QUALITY EDUCATION



5 GENDER EQUALITY



6 CLEAN WATER AND SANITATION



7 AFFORDABLE AND CLEAN ENERGY



8 DECENT WORK AND ECONOMIC GROWTH



9 INDUSTRY, INNOVATION AND INFRASTRUCTURE



10 REDUCED INEQUALITIES



11 SUSTAINABLE CITIES AND COMMUNITIES



12 RESPONSIBLE CONSUMPTION AND PRODUCTION



13 CLIMATE ACTION



14 LIFE BELOW WATER



15 LIFE ON LAND



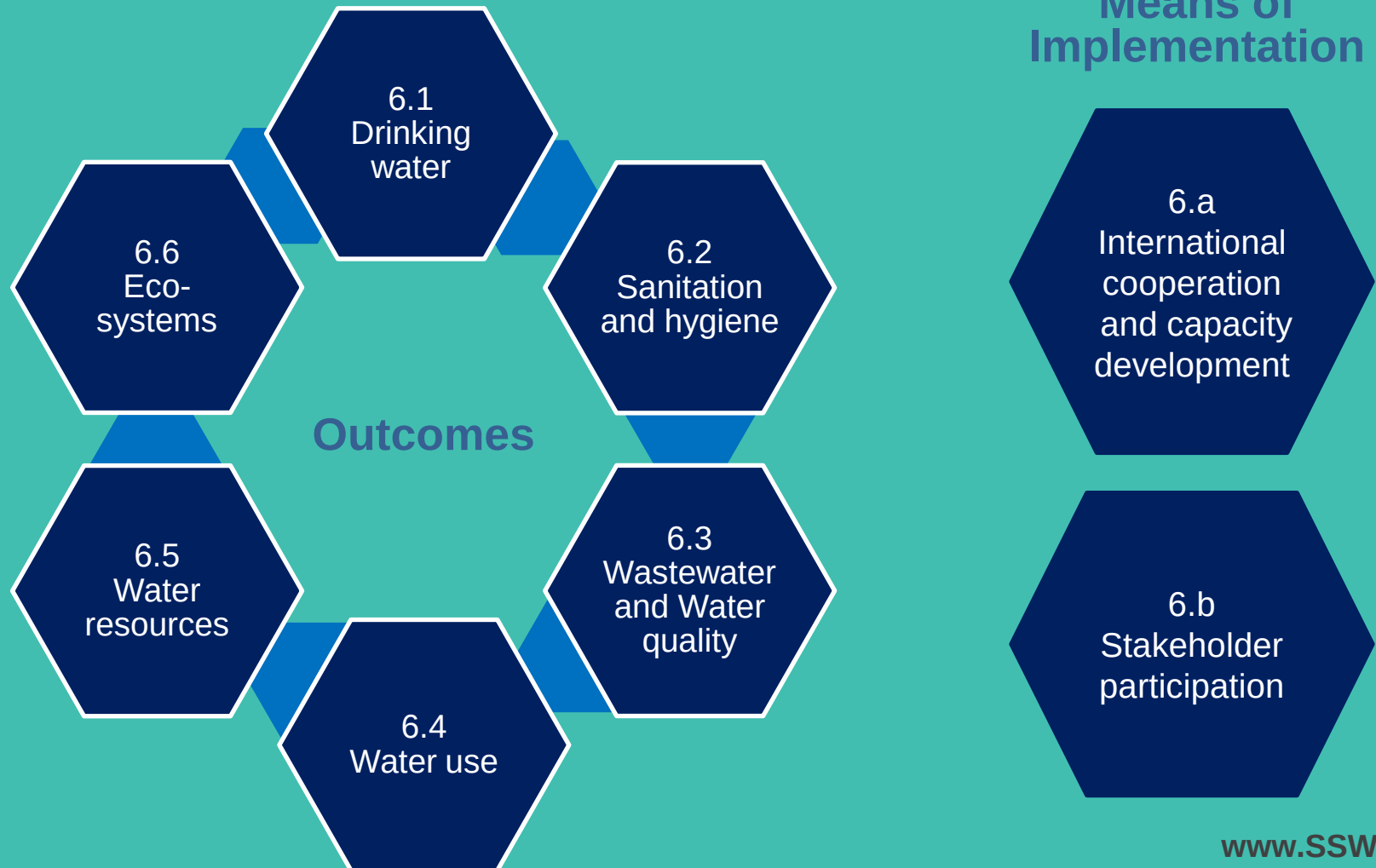
16 PEACE, JUSTICE AND STRONG INSTITUTIONS



17 PARTNERSHIPS FOR THE GOALS



SDG6: Sustainable Water and Sanitation



SDG Target 6.3

“By 2030, improve water quality by reducing pollution, eliminating dumping and minimizing release of hazardous chemicals and materials, halving the proportion of untreated wastewater [excreta] and substantially increasing recycling and safe reuse globally”

Indicators:

1. Proportion of **wastewater** [excreta] safely treated
2. Proportion of bodies of water with good ambient water quality



SDG Target 6.2

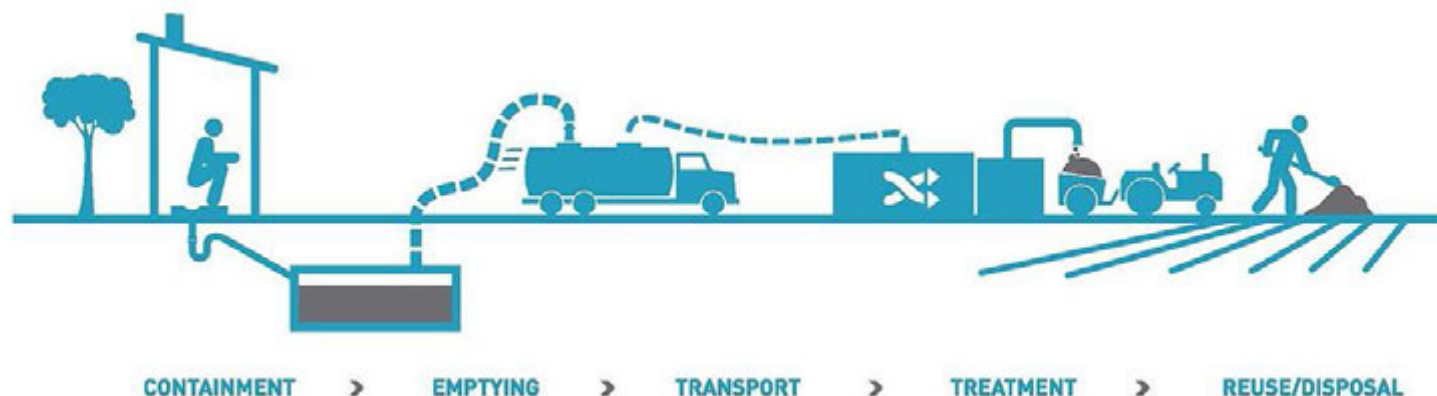
“By 2030, achieve access to adequate and equitable sanitation and hygiene for all and end open defecation, paying special attention to the needs of women and girls and those in vulnerable situations”

Indicator:

Proportion of population using **safely managed sanitation services**, including a hand washing facility with soap and water.



- Indicator:
- 6.2.1 Proportion of population using safely managed sanitation services, including a handwashing facility with soap and water



% of population using an **improved sanitation** facility (flush or pour-flush toilets to sewerage systems, septic tanks or pit latrines, improved pit latrines and composting toilets).

+

at the household level that **is not shared** with other households

+

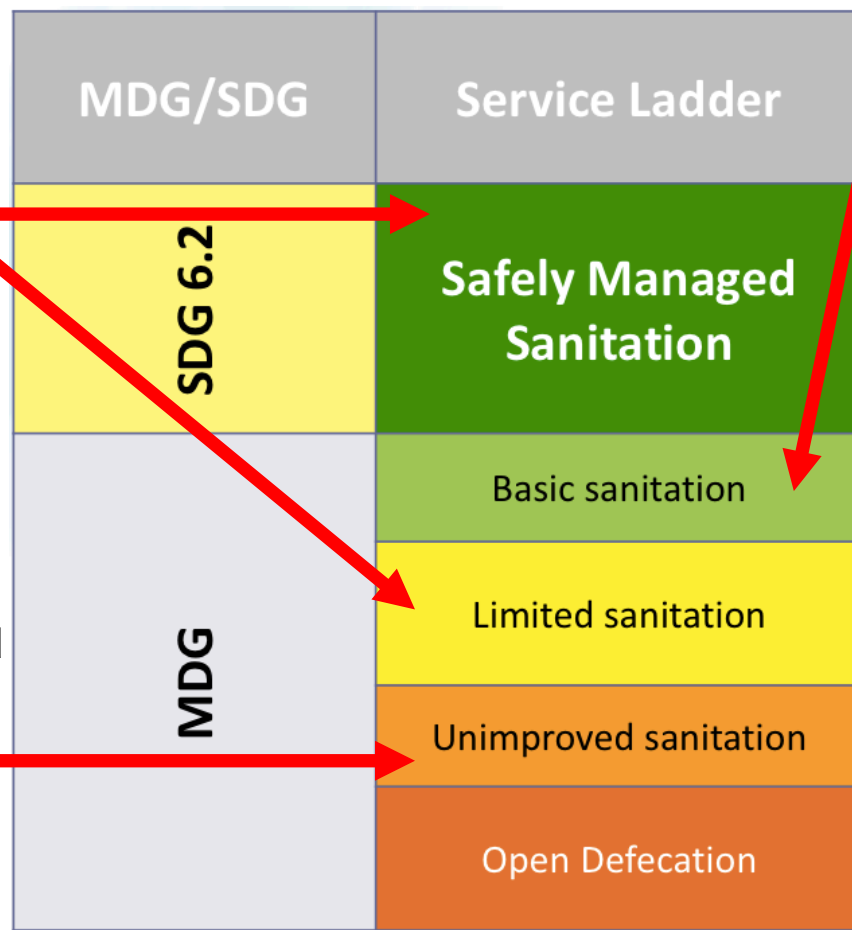
and where **excreta are treated and disposed** of in situ or transported and treated off-site.

A new rung on the sanitation ladders

There are three main ways to meet the criteria for having a **safely managed sanitation service**. People should use improved sanitation facilities that are shared between two or more households. Shared facilities include public toilets and are not considered improved. excreta produced should either be:

Unimproved sanitation facilities do not ensure a hygienic separation of human excreta from the rest of the community and include:

- pit latrines without slabs or platforms or a covered pit with hanging latrines
- buckets or
- treated off-site.

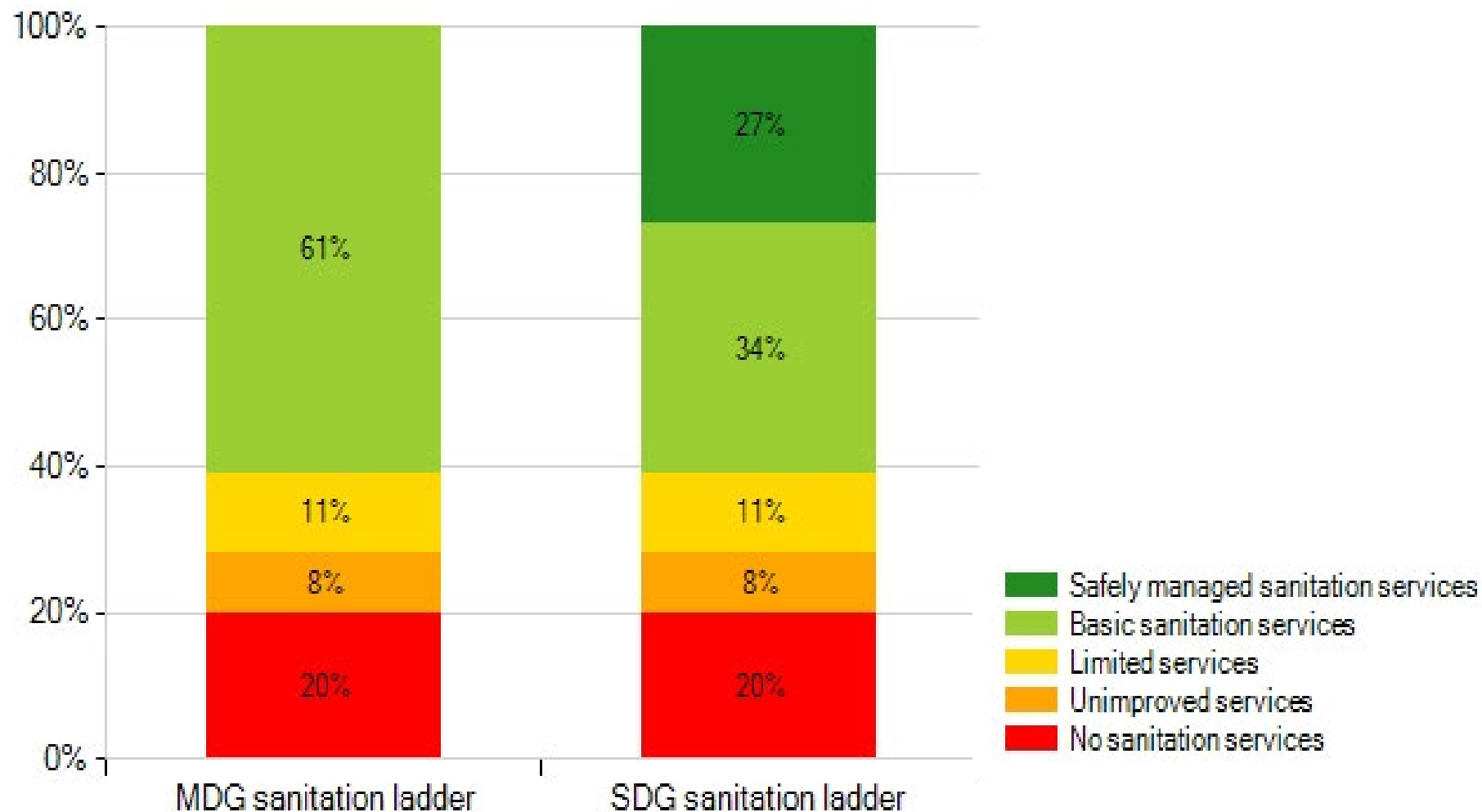


Access to basic sanitation is measured as the proportion of people using improved sanitation facilities:

- sewer connections
- septic system connections
- pour-flush latrines
- ventilated improved pit latrines
- pit latrines with a slab or covered pit.

Improved sanitation includes sanitation facilities that hygienically separate human excreta from human contact.

How does “safely managed change national estimates?





Sanitation

World



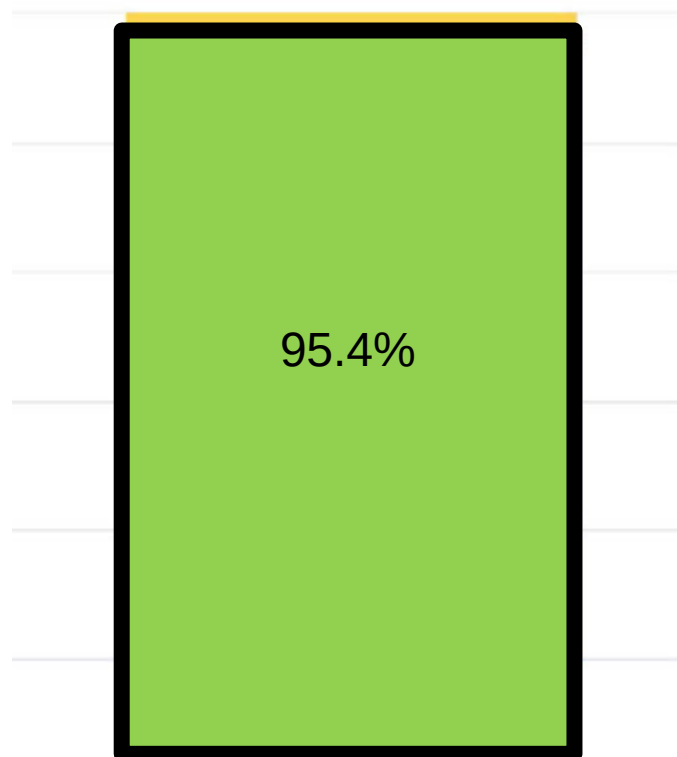
Situation in Lebanon: (MDGs vs SDGs)



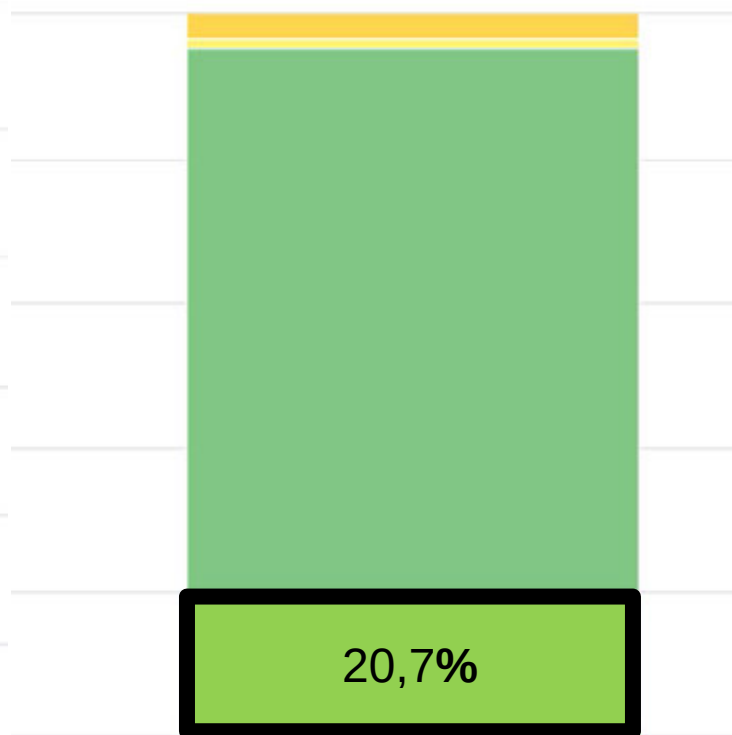
Sanitation



Lebanon - 2015 - Service Levels



...had access to
basic sanitation
services in 2015



...have access to
safely managed
sanitation
services

- Open defecation
- Unimproved
- Limited
- Basic
- Safely managed

Sanitation

Did you know that...

70+%

**of natural water sources in Lebanon are
bacterially contaminated?**

Definition of sanitation:

“Multi-step process (including software and hardware) in which human excreta and wastewater are managed from the point of generation to the point of use or ultimate disposal”

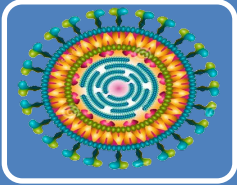


**Why do we
manage
excreta?**



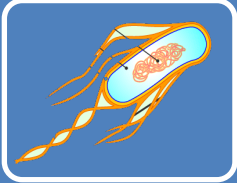
**Why do we
manage
wastewater?**

Pathogens found in human excreta



Viruses – example associated diseases:

- Rotavirus & norovirus diarrhoea, Hepatitis A & E



Bacteria - example associated diseases:

- Typhoid, Salmonellosis, *E. Coli* diarrhoea



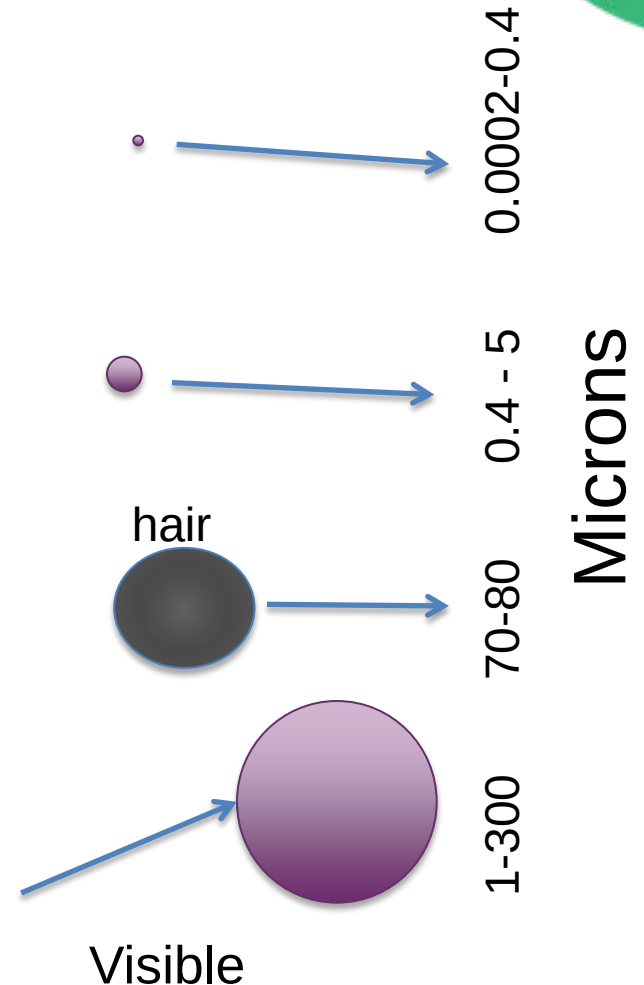
Protozoa - example associated diseases:

- Amoebic dysentery, Giardiasis



Helminths (soil-based and water-based worms). Example diseases:

- Ascariasis, hookworm infections



6 exposure & transmission routes



Ingestion
(unintentional) after
contact with
wastewater/excreta



Ingestion of
contaminated
water



Consumption of
contaminated
produce



Dermal (skin) contact
with excreta and
wastewater



Vector-borne with
flies/mosquitoes



Inhalation of aerosols
and particles

Survival of excreted pathogens

Type of pathogen	Survival times in days			
	In faeces, nightsoil and sludge	In fresh water and sewage	In the soil	On crops
Viruses				
<i>Enteroviruses</i>	<100 (<20)	<120 (<50)	<100 (<20)	<60 (<15)*
Bacteria				
Faecal Coliforms	<90 (<50)	<60 (<30)	<70 (<20)	<30 (<15)
<i>Salmonella</i> spp.	<60 (<30)	<60 (<30)	<70 (<20)	<30 (<15)
<i>Shigella</i> spp.	<30 (<10)	<30 (<10)	-	<10 (<5)
<i>Vibrio cholerae</i>	<30 (<5)	<30 (<10)	<20 (<10)	< 5 (<2)
Protozoa				
<i>Entamoeba histolytica</i> cysts	<30 (<15)	<30 (<15)	<20 (<10)	<10 (< 2)
Helminths				
<i>Ascaris lumbricoides</i> eggs	Months	Months	Months	

Why survival? How do they die?

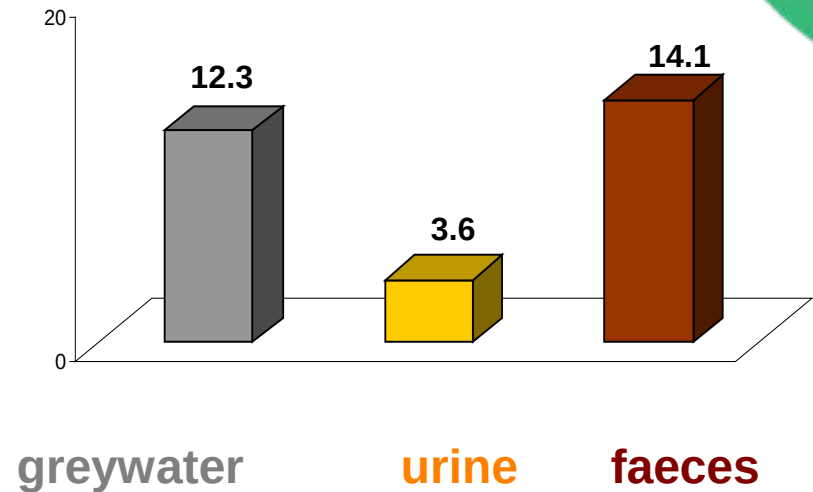
How pathogens die?



- Dehydration (reducing moisture)
- Temperature (heating/boiling)
- UV Radiation
- Disinfection with chemicals
- Change in pH
- Removal by filtration
- Encouraging predation between microorganisms

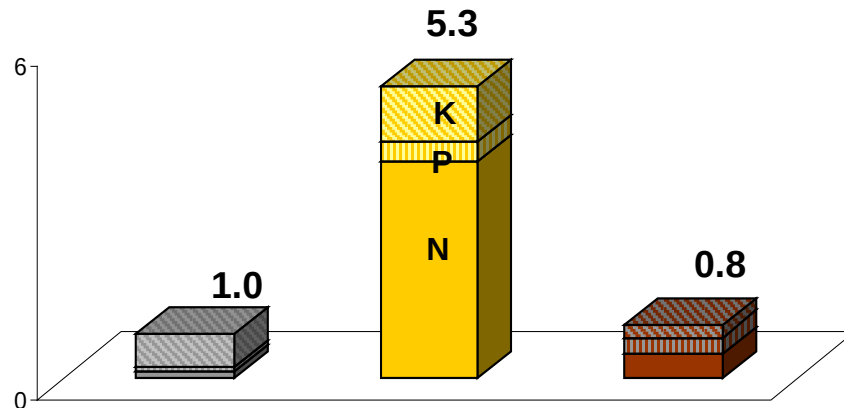
Composition of Wastewater

Organics
kg COD/ (Person*year)



COD: Chemical Oxygen Demand: amount of organic pollutants

Nutrient content
kg N,P,K / (Person*year)



Source: WERNER et al. (n.y.)

Typical components of wastewater

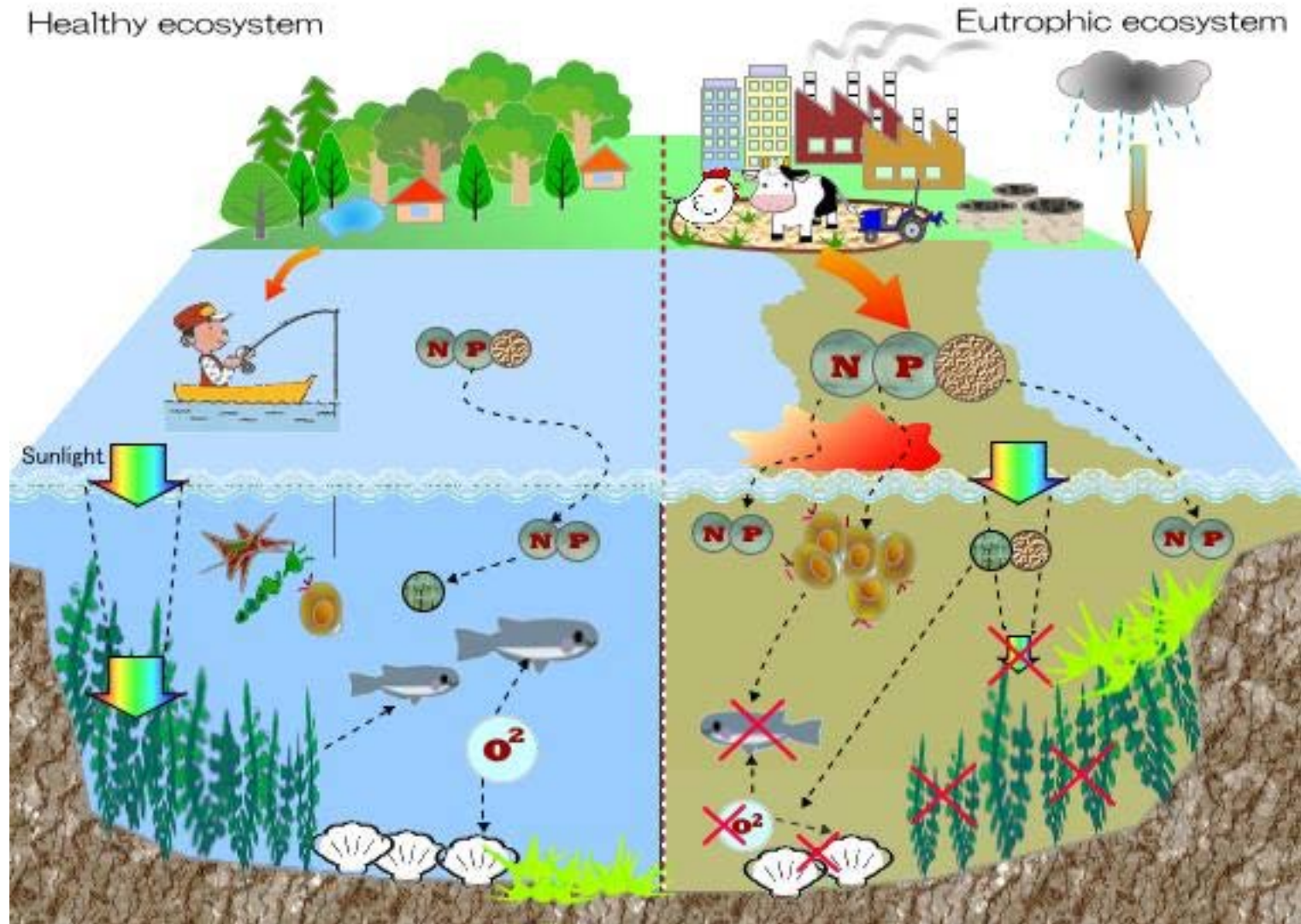
Constituent	Concentration, mg/l
-------------	---------------------

	Strong	Medium	Weak
Total solids	1200	700	350
Dissolved solids (TDS) ¹	850	500	250
Suspended solids	350	200	100
Nitrogen (as N)	85	40	20
Phosphorus (as P)	20	10	6
BOD ₅ ²	300	200	100



URL: <http://www.fao.org/docrep/t0551e/t0551e03.htm>

Eutrophication: depletion of oxygen in a water body



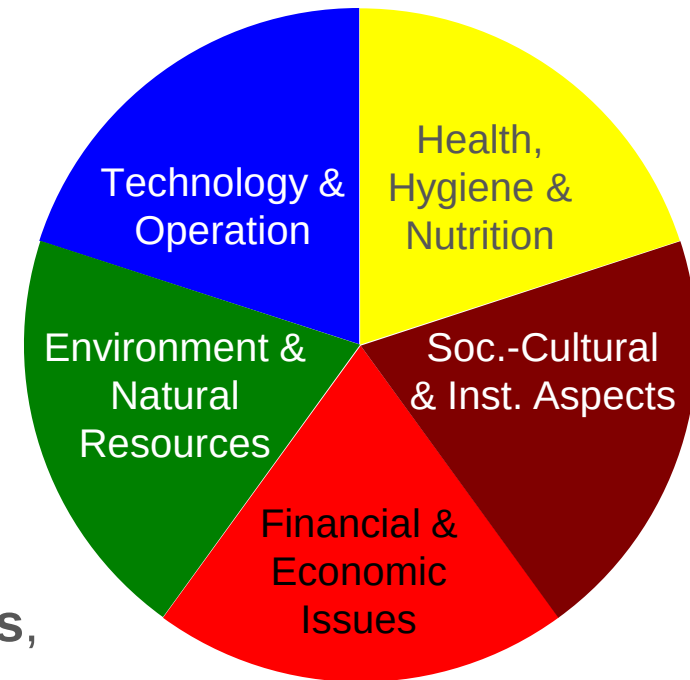


What is Sustainable Sanitation?

22

Sustainable sanitation systems:

- protect and promote **human health, hygiene & nutrition** for all,
- are **socially acceptable & institutionally appropriate**,
- **financially & economically viable**,
- protect the **environment & natural resources**,
- are **technically & operationally appropriate** in the long term.





“Linking up Sustainable Sanitation, Water Management & Agriculture”

23

This training was organized by:

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Schweizerische Eidgenossenschaft
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Federal Department of Foreign Affairs FDFA
Swiss Agency for Development and Cooperation SDC

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On behalf of
Federal Ministry
for Economic Cooperation
and Development



Initiated and developed by:

seecon

www.SSWM.info

Introduction to the SSWM Toolbox and participatory approaches

*Leonellha Barreto Dillon
cewas Middle East*



Sustainable Sanitation and Water Management Toolbox

Linking Up Sustainable Sanitation, Water Management & Agriculture

Get Started



Solution Finder

[Browse Perspectives](#) / [SSWM Catalogue](#)



Hot Topics:

Factsheet

Safe water. Use drip

News

Become a water

Factsheet

Understand the Nutrient

1. The SSWM Toolbox

The SSWM Toolbox...

- It is an online open-source capacity development support tool:
 - looking at the whole water and nutrient cycle
 - considering a sound **participatory planning and process approach**
 - and **both hardware and software implementation tools**



Sustainable Sanitation and Water Management Toolbox

Linking Up Sustainable Sanitation, Water Management & Agriculture

Get Started



Solution Finder

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Hot Topics:

Factsheet

Safe water. Use drip irrigation.

News

Become a water, sanitation & waste entrepreneur

Factsheet

Understand the Nutrient Cycle

[Home](#) » [Perspectives](#)

Perspectives



Sanitation Systems Perspective

Find technologies and socio-economic approaches to optimise your local water management and sanitation system. What is the

[View in English](#) [العربية](#)



Planning and Programming Perspective

Explore concrete tools that help you to better plan and execute sustainable water management and sanitation solutions. There is

[View in English](#)



Water & Nutrient Cycle Perspective

Find technologies and socio-economic approaches to optimise your local water management and sanitation system. This perspective

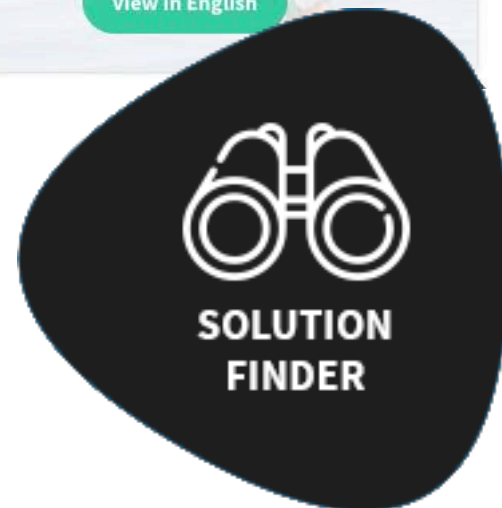
[View in English](#)



Humanitarian Crises Perspective

Discover tools and approaches that help you promote sustainable sanitation and water management in humanitarian crises settings

[View in English](#) [العربية](#)



2. Introduction to Participation

How can I plan
and implement
my water and
sanitation
initiatives in a
more sustainable
way?



**SOLUTION
FINDER**

Planning and Programming Perspective

Explore concrete tools that help you to better plan and execute sustainable water management and sanitation solutions. There is

[View in English](#)

What is participation?



2. Introduction to Participation

According to the World Bank...

“... Is the process through which stakeholders influence and share control over priority setting, policy-making, resource allocations and access to public goods and services”.

Source: WERNER, C.; PANESAR, A.; BRACKEN, P.; MANG, H. P.; HUBA-MANG, E. and GEROLD, A. (2003): „An ecosan source book for the preparation and implementation of ecological sanitation projects”. GTZ- ecosan program, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Eschborn, Germany.

2. Introduction to Participation

According to UNDP...

“... means that people ... are involved in economic, social, cultural and political processes that influence their lives”.

(United Nations Development Programme, UNDP)

SOURCE: WERNER, C.; PANESAR, A.; BRACKEN, P.; MANG, H. P.; HUBA-MANG, E. and GEROLD, A. (2003): „An ecosan source book for the preparation and implementation of ecological sanitation projects“. GTZ-ecosan program, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Eschborn, Germany.

2. Introduction to Participation

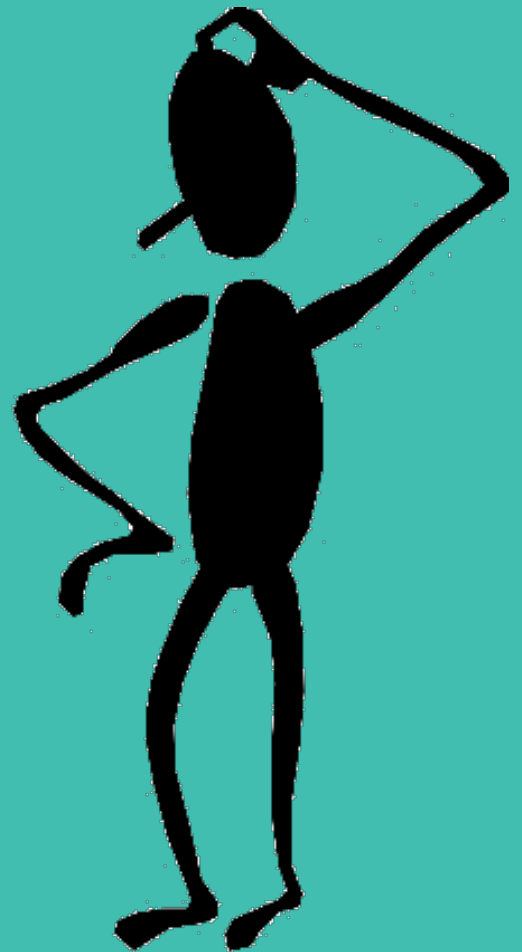
Participation is therefore not just a process where external agents “inform”, “instruct”, “motivate” and “educate” people to take what they believe to be the correct course of action.

SOURCE: WERNER, C.; PANESAR, A.; BRACKEN, P.; MANG, H. P.; HUBA-MANG, E. and GEROLD, A. (2003): „An ecosan source book for the preparation and implementation of ecological sanitation projects”. GTZ- ecosan program, Deutsche Gesellschaft für Technische Zusammenarbeit (GTZ), Eschborn, Germany.

**What are the
challenges of
implementing
participatory
processes?**



**What happens
if we don't do
it?**







ಸಂಪರ್ಕಿಸಿ
9845352973





3. Participatory Processes



Source: M. Masgon (2012)

It is a process that includes:

- Communication
- Decision making
- Action
- Management

That allows transforming the situation of a community in an fair, efficient and controlled manner.

What can we find in this perspective?



Planning and Programming Perspective

Explore concrete tools that help you to better plan and execute sustainable water management and sanitation solutions. There is

[View in English](#)



Planning and Programming Perspective



Exploring Tools

Summarises the activities at the beginning of a process, including

- the preliminary assessment of current status
- definition of boundaries
- and analysis of stakeholders.



Focus Groups

In a focus group discussion, people from similar backgrounds or experiences (e.g. young women, young men, handicapped, elderly etc.) are brought...

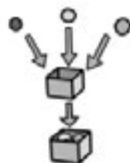
[View Factsheet](#)



Semi-Structured Interviews

Semi-structured interviews are conducted with a fairly open framework which allows focused, conversational, two-way communication. The interviewer...

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Rich Pictures

Rich pictures are pictorial representations of environmental or social systems. They can help to organise complex situations and identify underlying...

[View Factsheet](#)



Transect Walk

A transect walk is a systematic walk along a defined path (transect) across the community/project area together with the local people to explore the...

[View Factsheet](#)



Locality Mapping

Principally, locality mapping serves as a tool to provide a visual representation of information in a particular geographical context. It is based on...

[View Factsheet](#)



Baseline Data Collection

Within the planning process, it is of prime importance to collect baseline data in order to determine the requirements for an appropriate sanitation...

[View Factsheet](#)

Stakeholder Analysis ^



Stakeholder Identification

Participatory planning requires the involvement of concerned stakeholders. This includes identifying public concerns and values and developing a...

[View Factsheet](#)



Stakeholder Importance and Influence

Participatory planning requires the involvement of concerned stakeholders. This includes identifying public concerns and values and developing a...

[View Factsheet](#)



Stakeholder Interests

Participatory planning requires the involvement of concerned stakeholders. This includes identifying public concerns and values and developing a...

[View Factsheet](#)



Planning and Programming Perspective



Demand Creation Tools

If there is no demand, many approaches (e.g. [CLTS](#)) propagate the creation of demand in the first place, so that the request for solutions comes from the people, not the implementing agencies. Get to know how to

- [create demand in general](#)
- [and which awareness raising tools you can for this purpose.](#)



Empowering Young People as Promoters (DC)

Empowering young people as promoters in the field of water and sanitation is a way of assuring that a project or programme has a greater effect and...

[View Factsheet](#)



Media Campaigns - Internet and Email (DC)

The media (television, radio, print media, internet and email) play a significant role in spreading information and raising awareness on water and...

[View Factsheet](#)



Media Campaigns - Posters and Flyers (DC)

The media (television, radio, print media, internet and email) play a significant part in spreading information on Sustainable Sanitation and Water...

[View Factsheet](#)



Advocacy - Influencing Leaders (DC)

"Advocacy is the action of delivering an argument to gain commitment from political and social leaders and to prepare a society for a particular...

[View Factsheet](#)



School Campaigns (DC)

A school campaign on water and sanitation consists of two main components: one component is the provision of safe water and sanitation facilities in...

[View Factsheet](#)



SSWM in School Curricula (DC)

This tool involves the integration of relevant sustainable water, hygiene and sanitation topics into school education in order to increase knowledge...

[View Factsheet](#)

What are stakeholders?



Stakeholders

“Stakeholders are people, groups, or institutions which are likely to be affected by a proposed intervention (either negatively or positively), or those which can affect the outcome of the intervention”



Step 1: Identification of stakeholders

- Who are the people, groups and institutions that are interested in the intended initiative? What is their role (polluter, regulator, direct consumer, indirect consumer, etc.)?
- Who are the potential beneficiaries?
- Who might be adversely impacted?
- Who has constraints about the initiative?
- Who may impact the initiative?
- Who has the power to influence?

Step 2: Importance vs Influence

•**Importance:** priority given to satisfying stakeholders' needs and interests from being involved in the design of the project and in the project itself in order for it to be successful



•**Power/Influence:** refers to the ability of the stakeholder to affect the implementation of a project due to his or her strength or force. Power can be important in terms of supporting as well as in terms of constraining an initiative.



Step 2: Importance vs Influence

High Importance	A This group will require special initiatives to protect their interests.	B A good working relationship must be created with this group.
	C This group may have some limited involvement in evaluation but are, relatively of low priority.	D This group may be a source of risk and will need careful monitoring and management.
Low importance	Low influence	High influence

Step 3: Stakeholder Participation Matrix

- Inform:** To provide the stakeholder(s) with balanced and objective information to enable people to understand the problem, alternatives and/or solution.
- Consult:** To obtain stakeholder feedback on analysis, alternatives and/or decisions. It involves acknowledging concerns and providing feedback on how stakeholder input has influenced the decision.
- Collaborate:** To work as a partner with the stakeholder(s) on each aspect of the decision, including the development of alternatives and the identification of the preferred solution.
- Empower:** A process of capacitating the stakeholder(s) through involvement and collaboration so that they are able to make informed decisions and to take responsibility for final decision-making.

Step 3: Stakeholder Participation Matrix

Type of participation	Inform	Consult	Collaborate	Empower
Stage in cycle				
Exploring				
Demand creation				
Decision making				
Implementation				
Ensuring sustainability				



“Linking up Sustainable Sanitation, Water Management & Agriculture”

This training was organized by:

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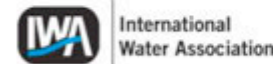
Federal Department of Foreign Affairs FDFA
Swiss Agency for Development and Cooperation SDC

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On behalf of
Federal Ministry
for Economic Cooperation
and Development

Cap-Net



cewas
international centre
for water management services

Initiated and developed by:

seecon

Baseline Study for Sanitation Projects

Leonellha Barreto Dillon
cewas Middle East



What is a baseline study?

The collection of information to establish a comprehensive knowledge base that outlines the current sanitation status of the local area.



**Which topics
should a
baseline study
cover?**



- 
- 1** Local conditions
 - 2** Technical information on existing systems
 - 3** Socio-economic situation of the settlement
 - 4** User priorities
 - 5** Institutional set-up

1

Local conditions

The evaluation of local conditions should cover issues such as:

- General characteristics of the area (rivers, forests, hills, lakes, empty spaces, etc.)
- Climate (temperature, humidity, rainfall and its variation, evapotranspiration)
- Soil/ground conditions (type of soils, infiltration capacity, geology, topography)
- Water related characteristics (flooding, source of water, availability of water, groundwater's risk of contamination)

2

Technical information on existing systems

The collection of technical information on the existing system should cover issues such as:

- Amount of wastewater produced
- Inventory of existing sanitation technologies (interface, onsite collection, sewer systems/transport, treatment, reuse and disposal)
- Description of the conditions of the existing sanitation system components
- Precedent sanitation projects and their outcomes

The assessment of the socio-economic situation of the area should cover issues such as:

- Demographics: population size, population density, number of households
- Literacy and education level
- Assessment of the community's resources
- Human activities: land use and ownership, occupation
- Gender, human dignity and health issues related to water and sanitation

The assessment of user priorities should cover issues such as:

- User's perception about the sanitation situation
- Hygiene practices, and their perceived benefits
- Practices/customs and traditions
- Knowledge about alternatives
- Resources/household income vs. cost of system
- Willingness to pay
- Willingness to reuse the treated wastewater or sludge



5

Institutional set-up

The institutional set-up should cover issues such as:

- Legal framework
- Institutional roles & responsibilities
- Operation & maintenance procedures carried out
- Decision making
- Existing sanitation service providers (business models, profitability and financing scheme, affordability for most customers, perception of providers)

**Which
information
sources should
we use?**



Primary Information



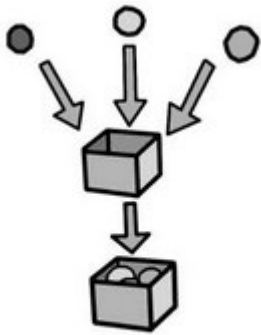
Collection of information through, for example, investigations to fill information gaps on the local infrastructure and water/sanitation environment, and discussions with the local community to highlight existing concerns, such as health problems, that might be related to local water resources and sanitation.

Secondary Information

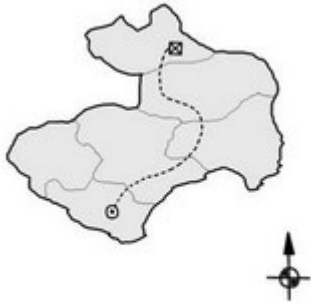


Collection of information that is already available from the archives and data stores of the municipalities as well as from identified external institutions and organizations. This should provide a good understanding of the current water resources and sanitation situation both physically, in terms of quality, quantity and patterns of demand, and legally, with regard to legislation and policy.

Example of tools for collecting information when exploring the sanitation system



Rich Pictures



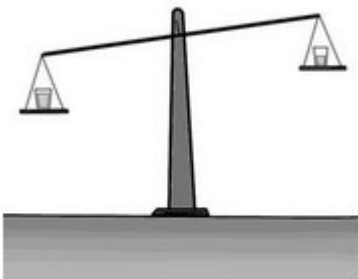
Locality Mapping



Focus Groups



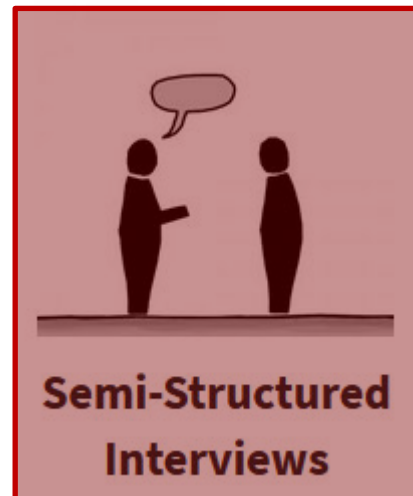
Water Resources Assessment



Water Balance Estimation



Problem Tree Analysis

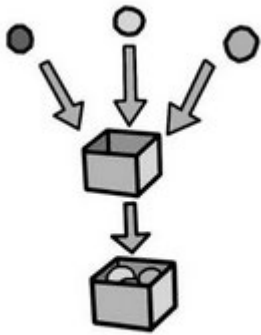


Transect Walk

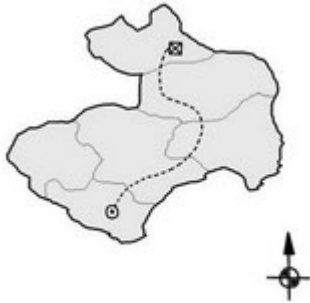
Now, it is your time to collect **secondary** data:

- ❖ Revise the documents provided
- ❖ Consult the maps
- ❖ Interview the officials of the Municipality
- ❖ Look for information online

Example of tools for collecting information when exploring the sanitation system



Rich Pictures



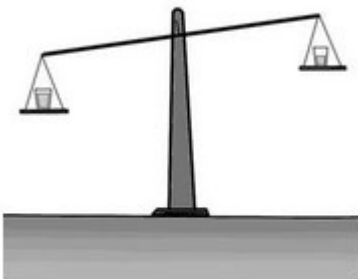
Locality Mapping



Focus Groups



**Water Resources
Assessment**



**Water Balance
Estimation**



**Problem Tree
Analysis**



**Semi-Structured
Interviews**



Transect Walk



A Transect Walk is...

“...a systematic walk along a defined path (transect) across the community/project area together with the local people to explore the water and sanitation conditions by observing, asking, listening, looking, ...”



A Transect Walk helps you to:

- Identify and explain the cause and effect relationships among use, collection, treatment and reuse of (waste)water
- Identify major problems and possibilities perceived by different groups of local analysts in relation to features or areas along the transect
- Learn about local technology and practices
- Contribute to the selection of adequate sites
- Triangulate data collected through other tools

Gender

In order to arrive at a thorough understanding of the local situations, we will have to ensure equal involvement of women and men in the process!

Measures:

- Include female participants
- Data should differentiate between men and women
- Consider language used during assessment
- Be observative
- Choose adequate times and places
- Use techniques that are equally appealing to men and women
- Include Items that are in primary interest of women
- Combine techniques



Now, it is your time to collect **primary** data:

In your group:

- ❖ Define the purpose of the walk.
- ❖ Define the pieces of information that you will collect.
- ❖ Decide on the path that should be taken to cover the full geographical variation in the area.
- ❖ Write down the key questions you will need to ask.

Expected outcome

- ❖ Detailed information about the sanitation situation and the settlement status of the project area.
- ❖ Knowledge about the population's priority concerns, perspectives on sanitation, and expectations from the project.
- ❖ Preliminary list of the requirements for a sanitation system in the settlement which will be used in for the identification of feasible sanitation systems.



We are not coming back to the room
We will meet tomorrow at 9:30 am



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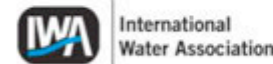
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