

# How to ensure environmental sustainability of WASH programs?

*A training manual to build capacity in WASH program planning*

## "We never know the worth of water, till the well is dry"

In large parts of the world clean and sufficient water resources are becoming scarcer as increasing pressure is placed on them by agriculture, industry and local communities. Climate change is serving to amplify problems in many parts of the world. In places with high population density, discharge, untreated (domestic) wastewater and non-sustainable disposal of solid waste put ecosystems at risk. As an example wetlands, as natural regulators, and aquifers with fresh water, are degrading dramatically. Additionally, non-sustainable waste management may lead to public health risks. Collectively this is directly contributing to water and environmental insecurity, risking that investments in WASH facilities are only effective in the short-term.



### The need for a landscape specific approach

Adopting environmental sustainability approaches in WASH is one of the answers to this global risk. Environmental sustainability in WASH ensures the management of water and sanitation services for current and future generations without degrading the environment. Such a definition relates to Sustainable Development Goal (SDG) 6 which aims for reaching access to water and sanitation for communities while sustainably managing land, water and ecosystems. To reach this goal a landscape specific approach is needed.



### What does this mean for WASH programs?

A landscape specific approach in WASH projects requires a thorough survey of the area involved. How does the water flow through the area and where does it go? What are the characteristics of the local ecosystem? Which water resources, ecosystem services and waste flows are present in the area? How does the local community relate to these resources, services and flows? And what are the specific problems related to water supply, sanitation and hygiene? (WASH Alliance International, 2016). When put together, the answers to these questions result in an integrated catchment assessment.

### WASH organisations need to develop capacity

During the planning phase WASH organizations should assess the environmental impact of their program to the environment. The characteristics of the ecosystem determine the WASH options and the development possibilities for the local community. The guiding principle is always that water, land and other resources are part of a single ecosystem, and cannot be dealt with separately. This needs a mind-shift for most stakeholders, because most are not used to assess the integrated impact of their programs on the environment (yet). Therefore awareness and capacity needs to be built within these stakeholders.

**“This training on environmental sustainability should be undertaken at all levels, since it is a very crucial ingredient for any meaningful WASH programming”, quote from a trainee**

### Training on environmental to sustain WASH programs

A training manual is meant to serve as a guideline for trainers (and trainees), aiming for building capacity on environmental sustainability, particularly in the setup and implementation of WASH programs. An environmental sustainability approach is part of the training manual. The approach looks at environmental sustainability from a practical perspective. The approach, that has been tested during trainings in Ethiopia, Nepal and Kenya, consists of 3 crucial elements to be addressed.



#### 1. Understand relations within a catchment

The most important learning objective of the training is to show participants how to map and understand relevant relations within the catchment. These water relations are multi-dimensional: in place – up/downstream – in time (history, now, future), between different water resources and water users, or different stakeholders working in the same catchment. When catchment boundaries are followed in WASH program planning, positive and negative impacts of WASH interventions to the environment can be evaluated better understood and acted upon.

#### 2. Keep it simple

When performing environmental sustainability assessments in WASH program planning the following principal questions need to be answered:

- Where is the water coming from and where is it going? (related to quantity / water)
- What pollution am I creating or finding in my project? (related to quality / sanitation)

One could argue that these

principal questions are too obvious, but in order to understand complex subjects like the environment and the human impact on it, simplification is necessary.

#### 3. Field exercises and tools to visualise relations

Field exercises are important in the learning of the participants. During field exercises the relevance of up- and downstream relations in the catchment, the competition between water users (domestic, agriculture, livestock, nature, including wild life) and the current and future challenges related to the availability of water becomes clear. During field exercises, also best- or worse practises can be evaluated. Next to the field exercises the use of Google Earth software is an important tool in the training to assess the up- and downstream relations in a catchment and to help evaluate environmental challenges and opportunities. 3D visualisation of the catchment area in Google Earth helps much in understanding the relations. Other tools and approaches such as [the FIETS sustainability tool](#), [3R waste](#) (reduce, re-use, re-cycle) and [3R water](#) (re-charge, retention, re-use), water demand and supply assessment are also used to address the issues related to environmental sustainability.

#### Interested in reading more?

Download the “Environmental Sustainability in WASH Training Manual” on [www.wash-alliance.org](http://www.wash-alliance.org). Contact [Arnoud Keizer](mailto:Arnoud.Keizer@aidenvironment.org) or [Robert Meerman](mailto:Robert.Meerman@aidenvironment.org) to find out what we can do for you.

Aidenvironment, Barentszplein 7  
1013 NJ Amsterdam, The Netherlands  
+31 (0)20 686 81 11  
[keizer@aidenvironment.org](mailto:keizer@aidenvironment.org)  
[www.aidenvironment.org](http://www.aidenvironment.org)

