# Module 15

# Step-by-Step

# 10 Suggested Practical Activities for Developing a WSP

## Summary

This Module gives some practical guidance for the step-by -step development of a Water Safety Plan for local small-scale water supply systems. The list of activities is a suggestion and can be extended and adopted to the local situation. The most important modules related to the activities are mentioned.
This module includes an overview of the suggested activities with their input and output. It also includes the tools and stakeholders needed to achieve estimated results.
Furthermore, some input is given for the stakeholder analyses and visualise their relationships and interactions

## Objective

The leader or facilitator, responsible for the local WSP project, will obtain guidance and suggestions for the implementation of a Water Safety Plan for a small -scale water supply system.

# Step-by-Step

## 10 Suggested practical activities for developing a WSP

### 1. Relevant practical activities

In the following, 10 suggested activities and several sub-activities, and the most important related modules are presented:

1. Cooperation with the local water authorities and other stakeholders (citizens, schools, Ngo´s) and set up a WSP working team and identify the tasks (see also module 1 and 2).
2. Collection of information about the local drinking water system (see also module 1, 2, 18 and 19), for example:
   - Getting an overview of the public network, obtaining, e.g., a map with the location of pipes, reservoirs, pumps or wells, etc.
   - Number of connected and unconnected households/inhabitants
   - Quantity and quality of the local supplied drinking water, also from official analyses reports (see also module 7 and 8)
   - Identification of the raw water sources and treatment system (see also module 3,4 and 5)
   - Type of used distribution pipes within the public network and in the houses (see also module 6)
   - Identification of the water protection zones in the catchment area and related regulations (see also module 10)
   - Financial aspects of the system: water price for the consumer, income and costs of the supply etc. (see also module 13)
   - Challenges and positive aspects of the water supply system
   - Wishes and planning for the future;
3. Identification of needs, and of relevant stakeholders for action, to improve the water quality, through observations, communication and doing interviews (see also module 19).
4. Practicing simple water tests and developing a village map (see also module 16 and 17)
   - Obtain or draw a village map, including the locations of the water sources, pipes etc.
   - Exercises on reporting the monitored results.
   - Monitoring of drinking water: Nitrate ($NO_3$), turbidity, colour, odour, pH.
   - If available, selection of some public and individual wells or springs for monitoring every 2 or 3 weeks and over a period of several months;
   - Collecting water analyses results or other important information from the water provider.
   - Request for special water analyses of the water supply system.
   - Insert the results of the water quality monitoring in the map.
5. Conducting risk assessment of the water supply system (see also module 8, 10, 18)
   - Assessment of the water quality perception: interviews with the water users.
   - Assessment of the provided water health risks: interviews with health authorities.
   - Risk assessment for several public and/or individual wells or springs (using the WHO form
   - Risk assessment for piped water (using the WHO forms and cooperating with the supplier, e.g. are there leakages and where; is there wastewater infiltration or unused pipe lines?)
   - Excursions to the sanitary zones, to the locations of water extraction and treatment and to the water supplier.
   - Mapping activities in the protection zone; e.g. type of agriculture/usage of pesticides or nitrogen, fertiliser, fuel pump or industry.
6. Sharing information, mobilising communities, for example, via exhibitions, meetings, seminars, working with the media.

7. Development of an action plan to minimise the risks related to the water supply by involving the community and relevant stakeholders (community mobilisation; see also module 15) .
   Identify the time frame, the responsible persons/institutions of the actions and estimate a budget or other possible financial resources.
8. Report and share the planned action to improve the water quality with citizens and other stakeholders. Exchange experiences with project partners from other villages and regions. See also module 17)
9. Implementation of the action plan.
10. Report and share information about the findings and progress of the planned actions, and the impact on the water supply system. And continue to adjust the local water safety planning activities!
    - Monitoring of water quality and the risks, reporting and communicating with all stakeholders, informing citizens about on-going activities for an adequate water safety plan.

# 15a. Scheme of activities

## input and output for the implementation of WSP for a small-scale water supply system

| Step | Activity | Input/Tools | Output (Results) |
|---|---|---|---|
| 1. | Set up a WSP- working team and identify the tasks | Sharing information and discussing them with local authorities and school staff | Work plan of team |
| 2. | Describe a water supply system | Secondary data from governmental bodies, interviews with stakeholders, surveys, etc. | Description of a water supply system, sources of water and its state, maintenance and operation |
| 3. | Identify stakeholders | Secondary data from governmental bodies, structured interviews with stakeholders | Stakeholder analysis |
| 4. | Draw the situation of the area (village map) with water points or a water network and add results of water quality monitoring (e.g. nitrate) | Local maps. Secondary data from governmental bodies, local and regional water authorities, structured interviews with stakeholders. Field visits and water analyses. | Map of village with water points and nitrate results. Knowledge on water quality (nitrate), other analyses-results |
| 5. | Conduct hazard assessment; insert the locations/points with risks in a village map | Local map, input from experts, field visits, checklists and questionnaires. Secondary data from governmental bodies, structured interviews with stakeholders (authorities, experts) | Map of village with risks points,<br>Identification of water related health risks and causes |
| 6. | Report and share information of findings on local and regional levels | Meetings, exhibition, media. Involvement of community and pupils | Awareness of the situation. Maps, poster, leaflets, articles |
| 7. | Discussions with stakeholders and action planning | Action planning with stakeholders, community mobilisation | Description of action and actors. Timetable and financial plan |
| 8. | Report and share information on conclusions and plans on local and regional level | Meetings, exhibition, media. Involvement of community and schools | Awareness of the situation and plans. Maps, poster, leaflets, articles |
| 9. | Implementation of an action plan | Input of all stakeholders, authorities, community, pupils | Start of improvement of the system |
| 10. | Report and share information of findings and progress on local and regional level. Review, adjustment of the WSP | Meetings, exhibition, media<br>Input of all stakeholders, authorities, community, pupils. Start at step 1 and work to words step 10 | Awareness of the situation. Maps, poster, leaflets, articles<br>No-ending WSP activities |

# 15b. Water network diagram

## Identifying stakeholders of the water supply system

Important stakeholders involved in a water supply system should be identified and collected. Of course other stakeholders, such as school or farmers, can be added. Please set the relevant stakeholders into the right boxes, and visualise their relationships and interactions by lines and arrows. The network diagram clarifies the main responsibilities and connections of the different stakeholders for the provision of a safe water supply in a community. In the diagram below, possible stakeholders at different levels and/or positions are presented in different colours. However their relationships and interactions are not (yet) made visible.