Project outline – developing the Blue School 2.0 concept

Swiss Water and Sanitation Consortium

Lucie Leclert, Caritas Switzerland

Daya Moser, Helvetas Swiss Intercooperation

John Brogan, Terre des hommes

Background and rational of our 'project'

The Blue School concept is a promising approach to improve and raise awareness about the link between water, waste, food and environment among children. It has been pioneered by the International Rainwater Harvesting Alliance and further developed by the Swiss Agency for Development and Cooperation (SDC) and partners. The Blue School concept complements the usual WASH in Schools (WINS) activities with a school garden as practical place to show relationships between food production and an efficient management of water; and a demonstrative place for watershed and land management practices. Blue School consists in the following four components[1]:

- Component 1: Sustainable access to safe drinking water,
- Component 2: Sustainable access to sanitation and hygiene,
- Component 3: A school garden as practical place to show relationships between food production and an efficient management of water,
- Component 4: A demonstrative place for watershed and land management practices, wherever it is suitable (depending on the surrounding of the schools).

From Phase 1 (2011-2014) of the Swiss Water and Sanitation NGOs Consortium (SWSC), a number of projects focused on improving WASH in schools. The Blue School concept was also introduced by a few project teams. By the end of Phase 2 (2014-2017), Consortium members (Helvetas, Fastenopfer, Caritas, Terre des hommes and Swiss Red Cross) will have piloted and implemented the Blue School in nearly 200 schools. During various workshops in East and West Africa and Asia, the Blue School concept was presented as a good practice and caught the interest of other members.

From the exchange of experiences and feedback among teams during the regional workshops, a number of lessons and areas for improvements regarding the actual implementation of the components of the Blue School were identified. Among them:

- While field teams have focused on what they know best, i.e. implementing WASH and setting up a school garden: what technologies or practices can be demonstrated to put more focus on the environment component (component 4) of Blue School?
- The Blue School as a 'learning experience' to better understand the environment and show relationships between water, waste, food and environment was misunderstood/misinterpreted in some cases in the interest of producing vegetables to generate income for the school. Instead of doing each component in isolation (for example, letting pupils produce vegetable with the only aim to

[1] SDC Factsheet *Towards a common understanding of the Blue School Concept*

generate considerable income for the school which go beyond purchasing sanitation materials such as soap, sanitary pads or cleaning material) what approaches, technologies and practices can be implemented in a school setting to demonstrate the link between water, waste, food and environment (example can include the 'keyhole garden' or EcoSan latrines)?

- Methodologies (such as CHAST) exist to train pupils in hygiene and sanitation in classrooms (covering component 1 and 2 of a blue school), however there is often little relevant training materials/kits to introduce component 3 and 4, (agriculture/food and environment) and help students visualize the link between the four components.
- There is a need to provide clarification on school selection criteria, roles and responsibilities of different school stakeholders, how best to involve the local government, how to ensure that financial mechanisms are in place to refurnish WASH or agricultural items and how water is shared between school and the community… in other words, what are the different steps in the blue school intervention to ensure that that the school is a sustainable blue school?

The above was the basis for the rational of the present project, whose objective is to refine, in consultation with experts from various countries, the Blue School concept, to put more focus on the environmental component of blue school and to optimise pupils' learning experience related to the link between water, waste, food and the environment.

The Blue School 2.0 concept will be aimed at upper primary / secondary school pupils.

Deliverables

The main deliverable is the **Blue School concept 2.0** that will be composed of:

- A **concept brief**, defining objective of a blue school, key principles and components (similar to the current factsheet of SDC)

- **A catalogue,** that will contain two parts:
  - Part 1. A compilation of technologies and practices to illustrate what can be done in practice for the environmental component of blue school (component 4). This will contain good practices for several ecoregions[2] in terms of watershed management or environmental conservation that can be demonstrated in/downscaled to a school compound. Technologies or practices will vary among the ecoregions.
    → A minimum of 3 technologies or practices per ecoregion should be documented.
  - Part 2. A compilation of approaches, technologies and practices that can be implemented in schools to demonstrate the link between water, waste, food and environment (such as EcoSan or key hole garden)

[2] Brunckhorst (2000), describes an ecoregion as a "recurring pattern of ecosystems associated with characteristic combinations of soil and landform that characterize that region." Omernik (2004), elaborates on this by defining ecoregions as: "areas within which there is spatial coincidence in characteristics of geographical phenomena associated with differences in the quality, health, and integrity of ecosystems" "Characteristics of geographical phenomena" may include geology, physiography, vegetation, climate, hydrology, terrestrial and aquatic fauna, and soils, and may or may not include the impacts of human activity (e.g. land use patterns, vegetation changes)."

→ A minimum of 15 approaches, technologies or practices should be documented in the catalogue

Note: Each approach/technology/practice should be described in a simple way and put in a predefined two-page template, that begins with a mention of contextual elements to take into account and the ecoregion(s) where it can be implemented.

- **A kit** (called Blue School Kit) that will provide teacher/project staff/local government experts with the necessary **step by step facilitation guide and materials** to introduce to pupils to the different components of the Blue School and the link between those components.

- **A road map** describing all the steps to undertake to transform a school into a blue school, including steps to build ownership of key stakeholders and ensure the sustainability of the activities.

Draft ideas on the Topics

Topic one: Looking outwards: my school and its surrounding environment

Pupils will be guided to produce a map, with their school in the centre, and around, the main geographic and environmental features such as rivers or other sources of water, mountains, sea, grassland, agricultural land, villages, sea etc. This map will be the basis for:

- Introducing the concept for watershed to pupils and explaining and displaying the water cycle.
- Discussions on the risks associated with hydrometeorological / manmade hazards related to water contamination/overexploitation; and opportunities for livelihood, natural resources, etc. within the surrounding environment: how to mitigate those risks and how to best make use of the opportunities. Based on this discussions, and depending on the ecoregion, technologies and practices to illustrate what can be done in practice for the environmental component of Blue School (component 4) will be introduced.

What materials to develop for topic 1:

- Pre-drawn cards with some key ecological features (during workshop)
- Step-by-step description including list of guiding questions to help the local facilitator/teacher work with students.
- Templates of the water cycle diagramme for several ecoregions representative of the participants' countries (i.e. arid, mountainous, coastal, flood plain and tropical settings)
    - Nepal → Himalayan forest
    - Bangladesh → Lower Ganges Plains
    - Madagascar→ Coastal mangroves
    - Ethiopia, → Savanna
    - South Sudan → Saharan steppe and woodlands
    - Benin -> forest-savanna
- Part 1 of Catalogue will also be used
- A compilation of exercise and practical games that can teach pupils on importance of the environment, managing water per watershed or the water cycle.

Topic 2: Looking inwards: My school environment

Pupils will be guided to draw their current school environment (water points, sanitation facilities, garden, garbage pit, trees, rivers, etc.). Then, they will be asked (and guided) to add in the drawing what is missing and would make their school environment better. If this topic is well facilitated, the missing elements will be ideas of technologies or practices that can be implemented related to water, sanitation, food or environment (for example, they might mention that they need water, latrines, food for the school kitchen, more trees, material for cleaning the compound etc.).

As a second step, based on the context, the facilitator will then suggest some additional technologies or practices that can show the link between water, sanitation, food and environment, using the catalogue.

Those technologies can be represented on pre-drawn cards and placed in the school environment map. The next step is to guide pupils to discuss and draw the links between all the elements. At the end, each school should come up to a similar drawing as the one from eawag. Eawag can provide input for this part.

What materials to develop for topic 2:

- Pre-drawn cards with some technologies/practices (during workshop)
- Step by step description including list of guiding questions to help the facilitator work with students on this topic.
- Inspired by the eawag drawing, a similar template diagram of the link between water, waste, food, environment will be developed
- Part 2 of Catalogue will be used

Note: Topic 3 to 6 basically go in the details on how to implement the practices or technologies agreed in topic 1 and 2.

Topic 3. "Boire de l'eau et pensez à la source" (where does our school water come from?)

- Introduce the importance of protecting/O&M of the water source (and acknowledging "upstream" communities who care for the source)
- Introduce aspect of water quality
- Introduce the multiple use of water: for drinking, for food, for hygiene

What materials to develop for topic 3:

- A drawing that explain how water sources can be contaminated (open defecation?)
- Other materials that can be decided during the workshop

Topic 4. The toilet and hygiene in my school

- Introduce the transmission routes (F diagramme)
- Introduce the different component of hygiene (environmental hygiene, water hygiene, food hygiene and personal hygiene/MHM)

What materials to develop for topic 4:

- Will be taken from the CHAST or other approaches

Topic 5. Our school garden

- Participative selection of crops
- How to grow the selected crop?
- Nutritional characteristics of each crop

What materials to develop for topic 5:

- Crops cards (for African and Asian context). One card per crop for 5 to 10 representative crops. In front, a drawing of the crop, in the back, simplified information on:
    - Agronomic characteristics: when to plan, how long before harvest, what to do (i.e. how often to water? Etc.)
    - Nutritional characteristics (for example: a tomato is rich is vitamin C that give me vitality and energy!)

Topic 6: Enhancing and protecting our environment

- Introducing technologies and approaches selected in Topic 1 for demonstration of measures to protect and enhance the local environment); and Topic 2 by demonstration of measures to protect and enhance the school environment). , and going in details on how to implement it in the school