BACKGROUND DOCUMENT

WORLD WATER FORUM TARGET 1.3.1
EDUCATION: THE KEY TO
ENGAGEMENT AND EVIDENCE-BASED
DECISION MAKING

United Nations University Institute for Water, Environment and Health; SARAR Transformación SC; Uganda Christian University; WASH Advocates; Water Center for the Humid Tropics of Latin America and the Caribbean
**Target and Solutions Group 1.3.1**

“By 2015 develop ten modular education programmes, based on harmonized communication strategies, that foster a better understanding of linkages between water, sanitation, hygiene, food security and health to consumers, practitioners, policy/decision-makers and health promoters, and to deliver these programmes in 30 countries by 2018”

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Introduction

The goal of this target is to empower stakeholders through access to information that supports decision-making at all levels. Modules must include awareness, advocacy and evidence based information that facilitate uptake and implementation of safe drinking water and sanitation use to improve health and well-being. Pathways include understanding linkages between water, environment and health; linking secure water supplies to food security; understanding the importance of hygiene for food safety and the spread of disease more generally; and, linking environmental stewardship and ecosystem services to economic activity, water security, food security and well-being (green economy).

The link between access to water and sanitation and uptake of good hygiene practices has been demonstrated in the literature\(^1\), as have the health benefits associated with these hygiene practices\(^2\,^3\,^4\). Furthermore, access to safe water and adequate sanitation alongside hygiene have direct linkages to improved health\(^5\).

In order to facilitate behavior change for sustainable water and sanitation interventions, it is essential to engage and empower individuals and communities to own solutions. Education accrues health and other benefits through more rapid uptake of solutions at the community level. At the professional level, access to appropriate and validated information facilitates evidence-based decision-making, especially for policy-makers. Moreover, mobilizing communities and individuals through education and awareness can lead to grass roots advocacy and action.

An essential pillar of ownership (of issues, of solutions and of actions) is communication; communication of what is needed, why it is needed and how this can be achieved. However, not all communication

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strategies are equal and not all communication strategies are appropriate for different groups and in different social and cultural contexts.

Thus, in addition to determining content of education/training and public awareness tools, it is important to examine delivery mechanisms for different stakeholders and identify fundamental principles of successful education programmes, including the needs to be integrative, inclusive and interactive. This document will explore these issues and provide a context and rationale for the target session held at the World Water Forum in Marseille in March 2012.

There is a need to increase public sensitivity to environment and development problems and involvement in their solutions and foster a sense of personal environmental responsibility and greater motivation and commitment towards sustainable development. 

Agenda 21 Chapter 36 2002

Context

We currently sit in the middle of the International Decade of Education for Sustainable Development (2005-2015), led by UNESCO. This decade is driven by “the need to integrate sustainable development into education systems at all levels in order for education to be a key agent for change.”6 It is based on the outcomes of the Johannesburg Summit (2002) and the need to balance economic growth with social development and environmental protection; pillars of a green economy. UN-Water’s recent statement for the Rio+20 Summit has emphasized that success of a green economy depends on sustainable, integrated and resource-efficient management of water resources and on safe and sustainable provisioning of water supply and adequate sanitation services.”7

Specifically, Target 1.3.1 builds upon the action items identified under Agenda 21. While not directly targeting sustainable development, the topics and stakeholders identified in target 1.3.1 are an essential underpin: “the linkage of health, environmental and socio-economic improvements requires intersectoral efforts”8 (chapter 6). Chapter 25 is more specific in its reference to promotion of “primary environmental care activities that address the basic needs of communities, improve the environment for children at the household and community level and encourage the participation and empowerment of

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local populations, including women, youth, children and indigenous people, towards the objective of integrated community management of resources, especially in developing countries"9.

Furthermore, the importance of education in this context, not only for sustainable development but for human health and well-being, was made explicit in Agenda 21 Chapter 6, the goals of which include: “to achieve environmental and development awareness in all sectors of society on a world-wide scale as soon as possible” and, “to strive to achieve the accessibility of environmental and development education, linked to social education, from primary school age through adulthood to all groups of people”10. Other references (e.g. chapters 6, 24, 25, 26) recognise the needs and opportunities of individual groups such as females11, youth12, communities13 and indigenous peoples14.

Twenty years later, these principles are still relevant and essential for sustainability of water and sanitation projects, environmental integrity and sustainable development. Water comprises the fabric of our environment, lives, societies and livelihoods; as such, everyone needs core competencies to be able to understand the impact of their decisions and actions, whether at the local, regional, national or global scale. Increasingly, this is being recognised and identified as a priority for investment.

As identified by the GLAASS Report (2010)15, human resources development is an essential element sustainable and secure water and sanitation provisioning: “even where national strategies are developed, government institutions are well coordinated and adequate financing is available, progress in sanitation and drinking-water may still be limited by the lack of adequately trained, capable staff and a work environment conducive to effective outputs.”

Similarly, Stockholm World Water Week 2010 emphasized the need for investment in both software and hardware. More specifically, the overarching conclusions note that: “Education and participation of all involved stakeholder groups in potential options that provide benefits for all actors (increasing the size of the pie) is vital to encouraging cooperation, buy-in, equity and engagement” as well as the importance of supporting “grants for further education and investments to help facilitate a more enabling environment, including the political landscape”16.

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10 Ibid.
11 Ibid. Ch 24
12 Ibid. Ch 25
13 Ibid. Ch 25
14 Ibid. Ch 26
Moreover, this target will build on the commitments made at the 5th World Water Forum in Istanbul. In the Istanbul Declaration by the Heads of State, it was noted that “water resources cannot be managed without appropriate capacity” and that investments in appropriate capacity and designing and maintaining infrastructure “should be given the highest priority”\(^{17}\). The Istanbul Water Consensus called on national governments and on international institutions to provide “incentives for the transfer of education, training and technology in order to assure sustainable water management and economic development”\(^{18}\).

Within the context of globalization, skilled professionals are emigrating from developing countries at increasingly rapid rates, making it difficult for many countries to maintain the human resources necessary to address their water-related issues. Therefore, building local capacity and engaging stakeholders at all levels has never been more important.

**WASH Activities in Formal Education**

Formal education provides an ideal platform in which to promote broad awareness of water issues to students from a variety of disciplinary backgrounds. In this context, WASH activities are conducted through structured and certified programs to equip students with knowledge, skills and attitudes to take care of their own health and to influence home communities, with families as the targeted end-users of WASH outreach materials and resources. Such programmes can be particularly effective within post-secondary institutions.

These initiatives aim to create critical mass, an energetic and innovative cadre of WASH practitioners and advocates. These programs are most effective when they offer multidisciplinary integration, incorporating future lawyers, mass-communicators, educators, environmentalists, health specialists, natural scientists and business students; all of whom combine their skills to promote WASH.

Based on a psycho-social approach towards behaviour change, peer influence and social expectations can enforce compliance to ideal practices. Formal learning environments optimize peer-influence and education, as students with sufficient training are likely to influence each other to adopt ideal behaviours and practices.

Linking educational institutions which offer WASH activities to local communities can be a practical way for students to learn while also developing solutions to local WASH challenges. Taking students on tours, field studies and outreach trips to these communities can develop stronger linkages. Creating “class-school” awareness activities through awards for debates, quizzes, drama, exhibitions, essay writing, fine-art and other creative activities, can engage and interest students in WASH. Inviting guest speakers from varied professional backgrounds can also provide new insight and different perspectives for students.


Mobilizing existing student organizations or establishing staff WASH committees can promote activities and build capacity. Workshops and leadership courses can be used to develop communication skills of students and teach participatory methods to equip students to engage communities. Involvement of multiple stakeholders in the development and monitoring of WASH activities will improve results.

Communication tools are integral to successful WASH advocacy. Educational entertainment is particularly useful in addressing issues which are constrained by socio-cultural values, attitudes and perceptions, as using role models can help to expose negative practices and illustrate ideal behaviour. Videos can also help to ignite discussion on WASH and provide narrative content for curriculum. Furthermore, they can be disseminated through web-based tools such as YouTube for wider uptake.

Web-based materials can allow students to produce their own WASH materials and easily share them with their peers around the world. Forums such as radio or television call-in programmes can provide students, teachers, professionals and communities with a platform to share information and ideas for new WASH activities. This method is particularly effective to integrate rural institutions into activities and requires only basic technology. Resource centres can be created at institutions as a place where print and electronic materials can be stored to be easily integrated into a variety on curriculum frameworks.

Many of the described methods can be easily integrated into existing curriculum. In doing so, youth from all sectors can be made aware of local water issues and integrate that knowledge into their careers.

**Community-Based Education**

Less formal community-based education is of particular importance for strengthening understanding of water-health linkages and improving public health. Unless there is a major shift in priorities of water and sanitation programs towards investing in and supporting community-based education, communication and empowerment, we will continue to see the enormous waste in resources investment to infrastructure that has little or no lasting positive impact in improved health and well-being. User involvement is essential in the selection of appropriate technological approaches and the ultimate care and maintenance of the systems. Similarly, sustainable hygiene improvement requires a clear and holistic understanding of the linkages between water, sanitation, health, nutrition, food production and environmental protection. Empowerment at the individual level is an essential building block for achieving a positive cultural paradigm shift.

The target session will share some of the underlying principles and trends in community-based participatory education, and argue that this is the sine qua non of sustainable water and sanitation programs and essential for assuring a lasting positive impact in health and a safe and healthy environment. We will also share ideas and recommendations on what steps need to be taken in order to achieve a more equitable shift in priorities towards assuring universal access to safe water and sustainable sanitation.
Professional Development

While it is extremely important to focus on the next generation through school and university programmes, the urgency of the global water and sanitation crisis demands action now and not just preparation of future professionals. People currently working in the water and health sectors require core knowledge of the interaction and positive synergies in order to start addressing issues now. Not only do capacity demands in many countries exceed the supply through traditional education systems, many water professionals, especially in developing regions, do not have sufficient training to address the complex water issues faced in their country. Current practitioners need to understand and be educated in holistic, transdisciplinary approaches at the water-health nexus in order to be able to deal with complex systems and future consequences of global environmental change.

For practicing professionals, it is essential to design and deliver programmes that can be combined with employment activities. This requires flexibility in terms of when work is undertaken and either local or e-learning access to materials. However, networking and peer to peer learning are essential elements and provide support once the programme is complete. As such, it is important to have a residency component within any programme, while recognising that this must be short and intensive to provide minimal disruption to the working environment. Advances in both information communication technologies (ICTs) and internet access are facilitating increased local access to accredited post graduate opportunities for professional development while minimising time away from the workplace and ensuring locally applicable content.

Capacity Development and Advocacy

Many efforts are underway to solve the global safe drinking water, sanitation, and hygiene challenge, but not at the scale needed to meet the needs of each of the 884 million people who remain without safe drinking water, and of the 2.6 billion people without adequate sanitation. The level of political and financial resources dedicated to the WASH challenge pales in comparison to the amount dedicated to solving other important development challenges.

Interested parties often ask “Why is there still a WASH problem?” A recurring answer from the WASH sector is “lack of political will,” but then the conversation dies. The answer to this challenge lies in increased education and advocacy efforts for WASH throughout the developed and developing world.

Most political leaders throughout the developed and developing world (national, provincial, and municipal levels) want to prioritize safe drinking water and sanitation for their citizens. Those political leaders want to improve policies and increase budgets for WASH in their countries and communities, but are often unable to do so in the face of so many competing interests.

In order to be empowered to prioritize WASH, political leaders need two things: They need to hear about the WASH challenge from their own people, and they need to see how the WASH challenge is solvable, and being solved, in their countries and communities. Those political leaders need to know that they can make a tangible difference in people’s lives with their policy and budget leadership.
Successful education and advocacy work therefore relies heavily on the citizens of each country telling their governments that WASH is important, and asking their governments to prioritize WASH in their policies and budgets at national and subnational (provincial, municipal) levels. Successful advocacy also depends on an in-depth knowledge of the local political scene and communicating the right messages at the right time to the right individuals and institutions.

The target session will provide insight into the work of the many groups in the global WASH sector who aim to effect change by influencing global, regional, and national decisionmakers. Those groups include the Water Supply and Sanitation Collaborative Council, Freshwater Action Network and its regional subsidiaries (ANEW, FANSA, FANCA), WASH Advocates, and dozens of country-specific WASH coalitions.

Those advocacy efforts throughout the developed and developing world aim to make it possible for their political leaders to prioritize WASH by educating those leaders on the importance of safe drinking water and sanitation per se. Successful education and advocacy campaigns also focus on the vital contributions that WASH makes for sustainable progress across other important development challenges including health, education, nutrition, gender equality and poverty alleviation.

**Training the Next Generation**

In the 21st century, innovative training on water and sanitation demands a profound understanding of different sub-populations, worldviews and interests in increasingly diverse, multi-ethnic and multicultural societies. With the rapid development of Information and Communication Technologies (ICTs), training youth has become a particularly challenging and ever changing field of specialization.

Program administrators need to be aware that youth is not a homogenous category, except for the almost universal rule that new generations do not necessarily learn, understand, and react as their forebears to social challenges. Depending on the specific context, special programs and activities need to be designed for people between 15-35 years old in education programs.

To respond to this challenge, participatory planning represents an invaluable tool. In contrast with previous teaching methodologies, published materials and experiences do not necessarily reflect the expectations of younger audiences for specialized training. As ICTs become more affordable and multi-purpose, and distant societies further integrated by online global media, education designers are pressed to understand this new medium, and to produce communication strategies that echo the new times. For instance, the global explosion of social networks and online multimedia requires integrating web resources such as YouTube, Facebook, and Twitter in water and sanitation programs. However, no matter how current this approach may be today, it may be rendered obsolete in the next five years due to the rapid turnover in modern technologies and global culture.
In this regard, the administration of educational programs specialized on youth in the Information Age must not emphasize the contents, but rather the process by which new knowledge is acquired through different yet ever changing means of communication.\(^{19}\)

**Facilitating Change in Communities**

A large focus has been placed on water, hygiene and sanitation ‘hardware.’ This includes infrastructure such as toilets, pipes, sewers, taps, soap and related equipment such as pit-emptying. An equally large focus must be placed on successfully delivering WASH programs as provision of infrastructure alone is not enough. Evidence has shown that focusing on hygiene promotion and sanitation promotion is the most inexpensive way of reducing diarrhoeal disease amongst children\(^{20}\). Indeed, while it is far easier to build infrastructure than change behaviours, behaviour change is an imperative for sustainable solutions.

The term ‘software’ is used to describe activities that are designed to change behavior and involve WASH delivery and promotional programs. In addition to delivery, software also comprises steps such as policy development, training, monitoring, and evaluation\(^{21}\). Because software relates to human perceptions and practices, it is critical that WASH delivery mechanisms are culturally and socially sensitive and acceptable in order for uptake of hardware to occur and be sustained.

Education programs only promoting health benefits of WASH programs are not enough, and an ‘enabling environment’ must be developed\(^{22}\). An ‘enabling environment’ considers issues such as the level of government support for the project in terms of political support and favourable national policies and strategies; the legal framework; effective training and communications; credit and financial mechanisms; information management; rural or urban related considerations; and the socio-cultural context.

Table 1 (below) describes WASH software approaches which are grouped into those that primarily focus on hygiene promotion (red), those which primarily focus on sanitation promotion (green), general participatory planning tools (orange) and planning frameworks (blue).

WASH delivery programs which are participatory can significantly improve the planning and implementation of projects as the local context drives the format and execution of the delivery mechanisms. A diverse range of approaches can be implemented such as interactive workshops, participatory mapping of important WASH sites, community wall paintings of key messages, and data

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\(^{21}\) Ibid.

collection through qualitative research methods like photo voice. Working with community leaders and stakeholder can lead to identification of appropriate locations for delivery mechanisms to take place, such as schools, clinics or community centers. This process can also identify ways of ensuring social equity, through delivery programs that reach vulnerable and hard to reach groups, such as children, women or workers that may not have time to attend workshops.

A range of WASH delivery formats are available within these approaches, including forms of literature and performing arts. For example, comic books, posters, and manuals are common approaches. Programs like dramas, music performances or radio broadcasts are ways of introducing WASH programs in engaging and creative ways. Many of these approaches can be integrated with overarching health initiatives to address related challenges holistically. A common goal is that these delivery formats should empower individuals and communities with knowledge that can enable a change in behavior to improve water, sanitation and hygiene practices. These delivery formats should be designed to be line with the expected outcomes of the WASH initiative.

Table 1: Software approaches by category (based on Peal et al. 2010)

<table>
<thead>
<tr>
<th>WASH Approach</th>
<th>Examples</th>
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</thead>
<tbody>
<tr>
<td>Participatory Community Based “Total Hygiene”</td>
<td>Participatory Hygiene and Sanitation Transformation (PHAST), Child Hygiene and Sanitation Training (CHAST), Community Health Clubs (CHC), WASH in schools, Child to Child</td>
</tr>
<tr>
<td>Marketing of a Single Hygiene intervention</td>
<td>Saniya, Public Private Partnerships for Handwashing with Soap (PPPHWS), Household Water Treatment and Storage (HWTS)</td>
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<tr>
<td>Community-wide sanitation promotion</td>
<td>Community or School Led Total Sanitation (CLTS/SLTS)</td>
</tr>
<tr>
<td>Marketing of sanitation goods and services</td>
<td>Support to Small Scale Independent Providers (SSIPs), SaniMarts</td>
</tr>
<tr>
<td>Participatory planning tools</td>
<td>Participatory Rural Appraisal (PRA); Self-Esteem, Associative strengths, Resourcefulness, Action-planning and Responsibility (SARAR), Methodology for Participatory Assessment (MPA), Community Action Planning (CA P)</td>
</tr>
<tr>
<td>Programming frameworks</td>
<td>Strategic Sanitation Approach/Planning (SSA/SSP), Sanitation 21, Household-Centred Environmental Sanitation (HCES), Hygiene Improvement Framework, FOAM and SAniFOAM</td>
</tr>
</tbody>
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A Snapshot in Space and Time
A multiple choice survey was distributed to organizations who self-identified as conducting water-related education (n=33). Respondents identified sanitation as the most common focus of education and training. Hygiene education was identified as particularly important in coordination with sanitation education to take advantage of health improvements from increased sanitation usage. Drinking water storage and treatment and hygiene topics were further identified, although not as common.

Communities were identified as the most common target audience, whereas training for professionals was identified by the fewest number of people. Most respondents focus education programmes in Asia. Few programs were focused on developed areas (North America and Europe). The Middle East and North Africa had almost as few programs as Europe, and almost half the number of the other developing regions. Sub-Saharan Africa was not a high target for education by respondents, despite very high proportions of the population living without access to safe drinking water.

Participatory methods were the most common delivery method, with images, diagrams and posters the most common materials used. Online delivery was identified by very few respondents, probably because most target audiences were community-based. With the expansion and the increasing availability internet access and the increasing affordability of computers, online training is a method which has the potential to exponentially multiply the number of beneficiaries and provide more remote areas with access to training that they otherwise would not be able to access, especially for professionals and train the trainers.

Roadmap for Marseille

Key Messages

- Education, particularly for communities and decision-makers has been neglected in the drive to improve access to water and sanitation around the world
- Many successful approaches and curricula exist for all audiences, but a lack of co-ordination makes it difficult to know what resources exist, where

Key Gaps

- Education and awareness in developed regions
- Local / regional access to continuing professional development
- Tools to identify and support most appropriate delivery mechanisms