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Value-based water education project in Ghana

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The paper reports on a Value-Based Water Education (VBWE) project implemented to develop a new water-use ethic in Ghana and some other African cities. The overall goal of the project is to facilitate changes in behaviour and personal attitudes among water consumers and to promote better understanding of the environment in a water context. The project implementation strategies among others include collaborative adaptation of existing educational material (curriculum) to incorporate VBWE, training of formal and non-formal educators to form a core of trainers in VBWE; and integration of universal values with those of early childhood peer group values. The project had organized workshops, prepared an action plan, trained teachers, developed a teaching manual, carried out internal monitoring and on-the-job training of teachers. Lessons from the project included the realization that all the project implementers should have a basic understanding of human values; education is a process and regular monitoring is imperative for project success. The project will expand to cover all schools in Ghana, integrate the VBWE into the school curriculum, establish water classrooms, conduct water audits and water quality education in the schools.

Background

Value-Based Water Education Project is one of the components of a programme called ‘Managing Water for African Cities Programme’. The other components of the programme include Water Demand Management, Environmental Mitigation and Public Awareness. The programme is a collaborative initiative of the United Nations Centre for Human Settlements (Habitat) and United Nations Environment Programme (UNEP) within the framework of the United Nations System-wide Special Initiative on Africa, and is a direct follow up of the Cape Town Declaration (1997) adopted by African Ministers addressing the urgent need for managing water for African Cities.

The programme intervention, which began in October 1999, is the first regional initiative of its kind to support African cities to manage the growing water demand and protect their freshwater resources from the increasing pollution loads. The programme receives funding support primarily from the United Nations Foundations for International Partnerships (Turner Foundation). Other agencies supporting the programme include: the World Bank, UNDP/UNV, The Governments of Germany, Sweden and Finland and the European Union.

The programme receives matching counterpart support from the participating cities/countries—namely Abidjan (Cote d’Ivoire), Accra (Ghana), Addis Ababa (Ethiopia), Johannesburg (South Africa), Lusaka (Zambia) and Nairobi (Kenya). A High-level (Ministerial) Advisory Group comprising of responsible Ministers from the seven participating countries provides oversight and guidance to the programme

implementation.

At its second meeting held in the Hague in March 2000, the High-level (Ministerial) Advisory Group adopted a resolution requesting the implementing agency to widen the scope of the programme and introduce water education in the participating cities with a view to develop a new water-use ethic in African cities.

The first step in launching of the water education project in the African cities was the development of a broad consensus among all stakeholders with regard to the most effective strategy for the introduction of the project. An Expert-Group meeting was held from 30 April to 02 May 2001 in Johannesburg, South Africa to arrive at a consensus and to determine the way forward.

The need for value-based water education (VBWE).

The Expert Group realized that water education is a fundamental prerequisite for sustainable human development. Water education should aim at promoting a better understanding of water as a key social, economic and environmental resource and should facilitate the emergence of a new water management ethic in the continent. The introduction and implementation of Value Based Water Education through formal, non-formal and in-formal channels of learning especially the curriculum is a promising strategy to bring about a positive and lasting change in attitude and behaviour towards water, at all levels of society.

The Value-Based Water Education is an innovative approach of using human values as a complement to the existing tools in water management in African cities. Value-Based Water Education is neither an educational philosophy nor methodology that is being imposed on the seven African countries. The Value-Based Water Education is expected to inform and make people aware about water and to link water literally to the country's cultural values such as prudent and honest behaviour (e.g. paying water bills, abstaining from illegal connections); proper utilization of resources through the efficiency and responsibility of citizenship (e.g. reporting or stopping water leakages); sharing and caring for the environment (e.g. avoiding pollution); compassion and helpfulness for the needy. It is believed that emphasizing these values during teaching process would help transform the attitudes and behavioural patterns of pupil and students towards water supplies and uses.

Therefore Value-Based Water Education strives to assist pupils/students and the public at large, to conserve water and protect the environment through teaching them to understand the critical roles that water and the environment play in human development and survival. The integration of the Value-Based Water Education into the school curriculum and informal teaching techniques cannot be overemphasized.

Overall goal and objective

The overall goal of the water education project is to facilitate changes in behaviour and personal attitudes among water consumers and to promote better understanding of the environment in a water context.

Implementation strategies

The strategies recommended by the Expert Group to guide the implementation of the Value-Based Water Education project in the country include the following:

- Sensitizing of stakeholders to create awareness on the important role of Value-Based Water Education;
- Introduction of extra-curricular activities to facilitate and promote Value-Based Water Education;
- Collaborative adaptation of existing educational material (curriculum) to incorporate Value-Based Water Education;
- Training of formal and non-formal educators to form a core of trainers in Value-Based Water Education;
- Recognition and incorporation of existing cultural values in water education;
- Collaborative policy development with the relevant government authorities on Value-Based Water Education;
- Consideration of the role of women in the introduction of Value-Based Water Education.
- Integration of universal values with those of early childhood peer group values

Project area and pilot schools

The project area for the Value-Based Water Education pilot

project is the Densu River Basin. The Densu River Basin is located to the immediate east of the national capital, Accra and has the advantage of easy accessibility and availability of information on its characteristics. The river, which runs through the basin is 116 km long and has a drainage area of 2564 km². The mean annual rainfall in the basin is 900–1,200 mm.

The southern part of the drainage basin is the low coastal plain, while the northern part consists of a dissected plateau which is 240 – 300 m in altitude. The existing vegetation towards the coast is characterized by strand vegetation, mangroves, scrubs and grassland. The upper reaches are essentially the area of moist deciduous forest that has now mostly turned into secondary forests due to intensive cultivation.

All the pilot schools have both girls and boys within or in the environs of the basin. The ten schools participating in the pilot project are: Nsawam Anglican Primary, Nsawam Anglican Junior Secondary, Weija District Assembly I JSS, Weija District Assembly II Junior Secondary, Manhean Anglican I Primary/Junior Secondary, Manhean Anglican II Primary/Junior Secondary, Naval Base Basic Primary/Junior Secondary, Manhean Tema 1 & 2 Junior Secondary, Ayikai Doblo Primary/Junior Secondary and Achimota Primary/Junior Secondary

Achievements

A sub-regional workshop on the project was held in Accra from 17-18 August 2001. The workshop exposed educators and those involved in the implementation of the project to the concept of Value-Based Water Education. One of the major outputs of the workshop was the National Action Plan for the implementation of the project in Ghana.

On the 6th of June 2002, the Steering Committee was inaugurated. Membership of the Steering Committee was drawn from various organizations including; Ghana Education Service (Curriculum Research and Development Division, Basic Education Division, Inspectorate Division, Science Education Unit, and GLOBE), Ghana Commission for UNESCO, Accra Technical Training Centre (ATTC), The African Institute of Sathya Sai Education (TAISSE), Council for Scientific and Industrial Research (CSIR, Environment & Health Sector, Water Research Institute), Ghana Water Company Limited (GWCL), and Water Resources Commission (WRC).

A workshop for training of trainers was organized by Habitat and TAISSE from 22-26 July, 2002 so as to help potential trainers to understand what VBWE is in relation to water education in general. Also, the workshop helped the trainees to acquire the knowledge and skills in integrating values into the school curriculum with special reference to water related topics

A baseline study was carried out in the selected pilot schools so as to have knowledge on the characteristics of the schools. Other data and information gathered from the baseline study included the level and type of school, loca-

tion, and number of pupils/students per school, number of teachers per school and sources of water for the respective schools involved in the project.

The Steering Committee of the project organized a 5-day residential training workshop for selected pilot school teachers from 17-21 March, 2003. The trainees were helped to understand what VBWE is in relation to water education. The focus of the training was to impart the required knowledge and skills for integrating values in teaching various lessons as well as in carrying out their non-formal activities. The trainees were also groomed to become VBWE trainers in their respective schools.

The Steering Committee with the assistance of the Ghana Education service developed a teaching manual for the project. The manual covered areas that are purported to assist the teachers in the adequate preparations of lesson plans and design of learner-centred practical activities.

The Steering Committee carried out an internal monitoring of the project from 7-9 July 2003 to assess the performance of the pilot school teachers and the non-formal sector facilitators in integrating values into lesson plans and carrying out non-formal activities using VBWE teaching techniques. The assessment revealed that the training workshop held for the teachers from 17-21 2003 was appropriate and relevant with respect to the perceptions and needs of the teachers and pupils/students in the pilot schools. In general, the hardware components of the project are very weak and the software aspects are very strong. The VBWE project is well established and functioning quite effectively although there is much potential for improvement in the timely and effective implementation of planned activities. It was also found that the enthusiasm of the teachers to see to the success of the project is very strong however; the Steering Committee has to organize further training for all the teachers and motivate the facilitators of the non-formal sector.

The Steering Committee carried out on-the-job training for the entire teaching staff of the pilot schools to ensure that they embrace the concept of VBWE and integrate values in teaching water-related topics. Also, selected teachers were trained by consultants from Swedish Water Development Agency on how to establish and run a water classroom and how to conduct water quality and quantity audits.

The schools focused on activities to facilitate changes in behaviour and personal attitudes among water users so as to satisfy the goal of the project and to promote better understanding of the environment in a water context. The project is expected to play an important part in bringing about a new water-use ethic in the African society.

Lessons from the project

In the course of implementation of the project, some lessons learnt that may guide future implementation of the project included:

- The effective Value-Based Water Education demands that all concerned with the project implementation should have a basic understanding of human values since the wise use of water is very much influenced by the values humankind place on conservation and protection of water.
- Education is a process not a product. Therefore the training of the teachers should focus on assisting them to inculcate in the pupils/students how to think rather than what to think about water conservation and protection.
- Systematic and regular monitoring and coordination of the implementation of the project activities is an essential requirement in ensuring the expected positive impact of the project on water supplies and water uses.

The way forward.

- The establishment of other water education classrooms in the country
- The development of an integrated Value-Based Water Education curriculum in the country.
- The need to conduct water audits in the schools and to use the results for decision-making and action for better water management.
- The need to conduct water quality education in all schools in the country.
- The incorporation of Value-Based Water Education through non-formal channels/community initiatives is imperative.
- The need to set up networks for schools to share experiences and resources
- The need to conduct monitoring and evaluation of the project.

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