
SIXTH WATER INFORMATION SUMMIT: BREAKING THE BARRIERS LET WATER INFORMATION FLOW!

**WATERWEB CONSORTIUM AND IRC INTERNATIONAL WATER AND SANITATION CENTRE
SEPTEMBER 9-12 DELFT, THE NETHERLANDS**

2003

EXPERIENCES WITH KNOWLEDGE MOBILIZATION: THE VALUE OF LOCAL LEARNING AND ADAPTION

Edgar Quiroga Rubiano¹ and Alberto Rodríguez²

INTRODUCTION:The Millennium Development Goals (MDG) established a crucial challenge to the water and sanitation sector with the proposal to halve the number of people without access to a safe water and sanitation supply system by 2015. However, this challenge becomes even more complex if as well as raising coverage rates, the systems must give an adequate service and be sustained by their users with a minimum of external support.

Several evaluations have shown that there are still a high number of systems that do not provide an adequate service, this leads to inadequate functioning and eventually to abandoning of systems, representing a considerable loss of investments and efforts put in. Although many aspects influence this situation, the greatest limitations are related to the approaches that have been taken. These approaches have been focused on constructing new systems for the short term success linked with their inauguration, and have also had limited participation of communities in each phase of the whole project cycle, in particular they have been still excluded from the decision making process.

Amongst the multiple initiatives and components that are being developed or strengthened in the sector, priority has been given to each aspect that concerns offering timely and reliable access to quality information and knowledge, useful in the decision making process, to each of the various stakeholders.

This document describes experiences and lessons learned by the Cinara Institute at the Universidad del Valle in Cali, Colombia, which have been generated from 20 years of systematic work with communities in several countries in the Andean Region and Central America. Cinara is an academic organization that has directed its work towards generating, adapting, circulating and mobilising scientific and technological knowledge, which is centred on finding solutions to specific problems in the field of water supply, sanitation and hygiene. It concentrates in

¹ Sanitary Engineer MSc. Director of the Cinara Institute, Faculty of Engineering, Universidad del Valle.

² Educator. Member of the Cinara Communication Research Group for Development.

particular on the problems faced by people in rural areas, small and medium-sized towns, and marginal urban settlements.

These experiences are the product of many projects that have been carried out with community participation. They have been systematized and presented in international forums and in national and international short courses. At the same time, they have been an essential base for enrichment of the academic curriculum of both degree and post-graduate programmes offered at the university in this field.

THE TRANSCOL PROGRAMME AS AN EXPERIENCE

There have been several projects carried out by Cinara with the support and financing of both Colombian and international organisations. One of the projects that could be mentioned as an example of knowledge mobilization is the Technology Transfer Programme in Water Supply Treatment in Colombia (TRANSCOL), which was implemented between 1989 and 1996.

The TRANSCOL programme was aimed at introducing research developments and experiences on a real scale achieved with a water treatment technology known as Multiple Stage Filtration (MSF), in eight regions of the country. It also introduced an active participation methodology for institutions and communities in each of the phases of the project cycle. The programme, which was coordinated by Cinara, with the support and participation of the IRC and the Department for Development Cooperation of the Government of the Netherlands, involved around 600 staff members of 86 national, regional and local institutions, as well as 1500 persons from the eighteen communities, selected as demonstration projects, who included community leaders, members of Water Committees and system operators. The following can be highlighted as the Programme's most important achievements:

Replication of the technology option which lowered treatment costs by around 40%, and which can be easily adapted to local conditions. Its requirements and simplicity made it affordable according to user capacities, needs and interests.

A new technology transfer method was developed, centred on a capacity building approach which was based on the Joint Learning Projects concept. This methodology left local and regional multipliers able to support the selection, design, construction, operation and management of MSF systems.

Cinara was strengthened as a sector resource centre facilitating and supporting the social mission of local, regional and national institutions. The support and collaboration of the IRC and other national and international institutions allowed access to information, and to a peer network with experience and knowledge to update and extend work programmes.

Didactic material adapted to potential user requirements and their different levels of education was produced. These materials included manuals, posters, videos, workshop guides, a book and several articles and papers published in international and national events, as well as in accredited journals.

In the year 2003, seven years after finishing the programme activities, it is known that members of the working groups who participated in the process are still replicating the experience with

other communities. According to information from the Colombian Economic Development Ministry, more than 100 systems with MSF use have been built, and the systems promoted in the TRANSCOL Programme framework are still functioning, providing an adequate service sustained by their users. For example, one of the localities involved (Cerinza in the Boyaca Department) received a national prize in 2002, awarded by the Colombian General Directorate of Water Supply and Sanitation. The prize was granted for the excellent work of the community based service supply and administration entity, which was organized and trained its leaders in the TRANSCOL Programme.

CHALLENGES AND OPPORTUNITIES

The valuable experience and lessons learned from the TRANSCOL Programme have allowed for one concept to be validated: social appropriation of knowledge is the key to improving service provision and achieving adequate functioning and sustainability for a technological or methodological solution option for a problem.

Nevertheless, it is important to point out that although they achieved very important results for the country, there are known cases of failed projects using MSF technology. This is because, on the one hand, the consultants who did not participate in the TRANSCOL knowledge mobilization process, have restricted themselves to just mechanically copying the suggestions and recommendations proposed in the materials produced, and on the other hand, the communities do not have external support which allow them to develop their capacities to overcome the limits imposed on them by the leadership and staff changes in the administrative entities.

These experiences mean that it can be reaffirmed that a knowledge mobilization process carried out as just information sharing without educational support, is an incomplete and risky way of putting an institution's information and knowledge assets on the market. In this context, there is an important challenge, in addition to those set out in the Millennium Development Goals, which is widening the knowledge of the societies with which interaction is made.

The challenge consists of having precise and operative answers to some of these questions: How can we find out if the information and knowledge offered are relevant to the needs of the society? How is the social demand for information and knowledge formed? How can social imaginations which promote, delay or make information and knowledge consumption impossible be dealt with? Given the development conditions in our countries, can we talk about a market for information and knowledge with any degree of certainty?

In a context in which information connections technology win more and more territory each day, the challenge is equally complex to obtain wider and more aware audiences, particularly in poorer and less advanced regions and areas where water supply, sanitation and hygiene problems are concentrated. For example, in Colombia, there are currently no more than 850,000 Internet subscribers, and almost all of them are from the middle or upper class, private and State agencies and institutions. There are equally significant restrictions in the accessibility and reliability of the

connexion, as well as in taking advantage of the information as the majority of the documents are in English.

In Latin America, Cinara has developed some experience in virtual forums and sector discussion lists. The importance of this is that a directed conversation is a virtual learning scenario, where agility of points of view, information assets, and oral and written speed are factors that give credit to participation for exchange.

These experiences allow for it to be pointed out that in the learning/teaching process changes must be introduced, so that the competitive advantages offered by virtual communication technology development can be exploited to the maximum. To this effect, we are participating in some national and international initiatives, among which the following could be mentioned: Development of a pilot information and support exchange project at the local level in the framework of the Rural Water Supply Plan for the Valle del Cauca (PAAR), which is a departmental government initiative. This project has the support of the IRC through the Resource Centre Development Programme, RCD.

Carrying out a small research project on Local communities' cultural obstacles to information and knowledge consumption in the water and sanitation sector, which we hope will bring us closer to understanding the cultural imaginations of three diverse rural communities, in order to comprehend their beliefs, their general knowledge, and particularly, what they know and do not know as regards their information and knowledge demand. This project has the support of Garnet and the participating communities.

Structuring and execution of virtual education activities in the POWER project framework, with the support of UNESCO-IHE.

Systematizing and organized circulation of information products accumulated by Cinara which can contribute to development of the WASH Campaign, which has the support of the WSSCC, the STREAMS of KNOWLEDGE coalition and the IRC.

Editing and distributing the SOURCE bulletin in Spanish, which currently has some 2,500 subscribers in Latin America, an activity supported by the IRC and the WSSCC.