

## BIODIVERSITY PROJECTS

### UNIVERSIDAD DEL VALLE

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| Topic     | Water   |
| Project   | CINARA ( <i>The Interregional Center for Water Supply and Removal</i> ) is a research and development institution, part of the Engineering Faculty at the University of El Valle, recognized by the National System for Science and Technology in Colombia. CINARA enjoys wide recognition in water supply and environmental sanitation in Colombia as well as in other regions of Latin America. |
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#### Observations

CINARA offers technological transfer programs with application in rural and human settlement areas that have populations below 30,000, via technologies for superficial water treatment for human consumption using Multiple Stage Filtration (MSF) and domestic waste water treatment through the use of Ecotechnologies (high rate aerobic lagoons, improved optional lagoons, and sub-superficial wetlands). These programs are based on technological developments and innovative methodologies for the Institute and include planning, design, construction assistance and follow-up. The programs are implemented based on the unique problems of each context and the specific socio-economic, cultural and environmental conditions.

Taking into account that close to 4 million children die annually in the world due to diarrhea and pneumonia, CINARA, together with the UNICEF-Colombia team, has developed a school sanitation and hygiene education program that includes teaching and promoting hand washing. The program also includes methodologies to work on these topics in early childhood, primary school and adolescents. The program focuses on three areas: improvement of the physical infrastructure for educational centers in water supply and sanitation according to age, gender and biotype of the children; development of a teaching strategy with a focus on life-long abilities inserted into the school curriculum and which allows the strengthening of self-care, self-esteem, and self-image; elaboration of teaching support material and work with the school community (parents, teachers, children, administrative staff of educational centers), who participate in each of the program phases. There could also be participation in collaborative

research projects in the area of water management, including technology, applied research, costs, and social, institutional and governmental aspects.

CINARA works together with recognized institutions such as the International Water and Sanitation Centre (IRC), the UNESCO-IHE Institute for Water Education in the Netherlands, the Water, Engineering and Development Centre (WEDC), the University of Leeds and the University of Surrey (both in the United Kingdom), the Department of Water and Sanitation in Developing Countries (SANDEC), and the Federal Polytechnical Institute of Lausanne (EPFL) in Switzerland, and the University of Sao Paulo in Brazil, etc. In addition, it has conducted projects with the United Nations Children's Fund (UNICEF), the United Nations Education, Science and Cultural Organization (UNESCO), the World Health Organization (WHO), the Pan American Health Organization (PAHO), the World Bank and the Mexican Institute for Water Technology (IMTA), among others.

CINARA has been the coordinator of the Latin American components of important networks such as the Global Applied Research Network (GARNET), the Gender and Water Alliance (GWA), the South American Technical Committee of the Global Water Partnership (GWP), and the Water Supply and Sanitation Collaborative Council (WSSCC).