

NASAC/IANAS: SCIENCE for the WORLD

SCIENCE FOR URBAN WATER SECURITY



October 15-18, 2014 • Panama City, Panama



**INTERAMERICAN NETWORK OF
ACADEMIES OF SCIENCE (IANAS)
&
NETWORK OF AFRICAN ACADEMIES
OF SCIENCE (NASAC)**

**BRIDGING SCIENCE AND POLICY TO ENHANCE
WATER SECURITY IN AFRICA AND THE
AMERICAS**

WORKSHOP # 1: Panama City, Panama

October 15th thru 18th, 2014

Findings and Recommendations

I. Framing the Problem

- Poverty-stricken and Peripheral Areas are where the most problems can be found in Water Supply and Sanitation
- Solutions: Increased Efficiency, Soft Water provides new resources for supply, conservation pricing. (see III)
- Storm water and reform of drainage systems associated with climate change events.
- Deteriorating water quality is a transcending problem needing better management.
- The problems of urban water security extend to cities in all countries along the economic continuum.
- Issues of resilience are pervasive in urban areas and will increase with growing climate change events.
- Inadequate funding to support infrastructure renewal and future needs including growth.

- Adequate data and monitoring systems are insufficient.
- Better management of urban watersheds and surrounding areas. Necessary integrated watershed management.

II. Bridging Science and Policy: Prospects and Limitations.

- Integrated Management of water is necessary to close the loop of the water system: Watershed, Use and Recuperation of used water.
- Connecting this science into policymaking. Translating scientific findings into the policymaking process through continuous dialog between science and policymaking.
- Science and technology are global. Specific applications of science are local and scientific networks provide the connection.
- Science provides sufficient information.
- Capacity building to enhance management capacity.

III. Facilitating the Development of Policies to Enhance the Use of Existing and Appropriate Sanitation and Drinking Water Technologies.

- There are many good technologies existing but they need better dissemination.
- Insufficient institutional support leads to failures of solutions of existing technology.
- A soft path for water is needed, including both supply and demand use management, matching water quality to needs, the use of economic tools that satisfy equity and financial needs, and improved institutions.
- Appropriate systems for water and sanitation should be both flexible and resilient.
- Policies focused on poverty stricken and peri-urban areas are necessary.

- Sanitation needs more innovation to address unserved population to basic sanitation and wastewater treatment.
- Design should be adapted to local context and conditions.
- Include ecosystem based management and adequate land and watershed planning tools.
- Water management involves choices among competing values and must compete with other societal priorities.
- Crisis is the mother of change and offers unique opportunities.
- Reframe human wastes as a resource.
- The implication of any action should take into account equity.

IV. The Role of Outreach

- Only through education can a knowledgeable public be transparently informed about problems and solutions.
- In order to secure public acceptance, transparency must characterize science, education and policymaking.
- Design, production and delivery of educational material must be targeted according to public: community, schools, politicians or managers.
- Emphasize effective communication skills to convey science to the non-scientific community.
- To promoting dialog, it is important to have openness and accountability.
- The importance of transdisciplinarity and integration in research and educational outreach is essential.
- Promote consensus between research, divulgation and participation.
- Importance of public engagement and consultation from project planning, through to implementation. The importance of participatory engagement and stakeholder, knowledge generation, dissemination and co-management.
- Ensure solutions that take into consideration gender differentiated role and appropriate scale.

