

The water challenge in Latin American and Caribbean megacities

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In May 2019, with the support of the Brazilian National Water and Basic Sanitation Agency (ANA), the First Regional Meeting of the Megacities Alliance for Water and Climate in Latin America and the Caribbean (MAWAC-LAC) was held, attended by around 100 participants from Bogota, Buenos Aires, Rio de Janeiro, Sao Paulo and Santiago. Despite restrictions due to the pandemic, the online format has been advanced in 2021, which aims to bring together members and experts from Latin American megacities on 26 May, and to strengthen the regional MAWAC-LAC chapter. The objective of this event is to exchange experiences among members of the Regional Megacities Alliance LAC, and to advance with preparations for the region's participation at the 2nd International Conference "Water, Megacities and Global Change" (EauMega 2022). Lidia Brito, Director of UNESCO's Regional Bureau for Science in Latin America and the Caribbean, claimed that "in the region, almost 80% of the population is urban," stressing the importance of this initiative. Considering the river basin as a management unit, Carlos Beroeta, coordinator of the IHP-LAC Urban Water and Human Settlements Working Group, highlighted the importance of moving towards the Sustainable Development Goal (SDG 6). He also noted the need to address climate change, which is increasingly affecting the region, through droughts and floods for instance. He also stressed the urgency of implementing Integrated Water Resources Management. In this regard, it is important to have representatives from each of the four areas involved in urban water management (decision-makers, water and sanitation utilities, academia and basin authorities) for each of the megacities. The challenges in each city:

BogotÃ¡ - Luz Amparo Medina, District Director of International Relations of the Mayor's Office of Bogota, said that Colombia is focusing on climate action and water resources management, through the SDGs and with the commitments made internationally. He mentioned that in order to place Latin America as a region committed to water conservation and environmental action, the Alliance could contribute to identifying risks for megacities in the provision and improvement of public services, the consolidation of a community of practice of water operators, the creation of a platform for the exchange of information and knowledge, and the creation of a platform for the exchange of information and knowledge.

Buenos Aires - Juan Carlos Bertoni, President of the National Water Institute, Argentina, commented the experience of the Buenos Aires Metropolitan Area (AMBA), the challenges presented by floods in this area and the actions taken for their management (construction of large tunnels, radar system, use of nature-based solutions). AndrÃ©s Dos Santos (from the City of Buenos Aires) provided information on the projects to renaturalise piped streams, and AndrÃ©s Carsen (from ACUMAR) spoke about the objectives and lines of action of the Integrated Environmental Sanitation Plan for the Matanza Riachuelo Basin and the monitoring network of groundwater and surface water quality.

Lima - Diana Porles Hurtado, Climate Change and Water Resources Management Specialist of the Municipality of Lima, spoke about the current and future challenges of water management and the effects of climate change in her city, where the Metropolitan Environmental Commission (CAMES) has been created, a space for coordination and agreement that brings together the Municipality of Lima with the National Water Authority (ANA), the water and sanitation operator SEDAPAL and the National Service of Meteorology and Hydrology of Peru (SENAMHI). In this regard, Luis Metzger Terrazas, Deputy Director of Hydrological Forecasting of the National Service of Meteorology and Hydrology of Peru (SENAMHI), pointed out the need to strengthen alliances between institutions to reduce the gap between services and information related to water resources.

Mexico City - Claudia Hernandez, General Director of the Mexico City Water System, on behalf of Rafael Carmona, General Coordinator of the Mexico City Water System, made a presentation on the main characteristics of the city and the main challenges faced by the water supply and sanitation system operator: insufficient investment, limited citizen participation for the care and preservation of water resources, insufficient operational staff, limited applicability of water resource management models. Ms Claudia Hernandez also presented the Integrated Water Resources Management

Programme (2019-2024) implemented in Mexico City.

RÃ³ de Janeiro - Lucas Padilha, representative of Eduardo Cavaliere, Secretary of Environment of the Municipality of Rio de Janeiro, presented the concern of the increase in ecological imbalances in the region. Meteorological phenomena affect the safety of the city, and specific actions are needed. He also mentioned the monitoring operation centres, and the challenge of improving energy efficiency and water economy, as well as increasing the coverage of drinking water and sanitation. Paulo Canedo, Professor at the Federal University of Rio de Janeiro (UFRJ), highlighted the importance of considering the existing cross-connections between rainwater and domestic wastewater, and their implication in the contamination of water resources; while Rosa Fomiga, Professor at the State University of Rio de Janeiro (UERJ), stressed the need to achieve water security in urban supply.

SÃ£o Paulo - Thor Ribeiro, representative of the Mayor's Office of SÃ£o Paulo, presented the challenges they face in the region, in terms of freshwater supply and what the new law on basic sanitation supply entails. He mentioned the formation of a Water Security Commission that helped to implement emergency infrastructure during the COVID-19 situation, and has brought together companies, members of civil societies, the State, the Municipality, members of academia and the regulatory body. Mara Ramos, an engineer of SABESP, presented the company that provides water and sanitation services. This company has a Master Water Plan until 2045 and an Adaptation Plan for Climate Variations for the management of Water Resources in the Metropolitan Region of Sao Paulo. Andreza de AraÃºjo, the representative of the President of the Alto TietÃ© Basin Committee, pointed out that a collaborative space for dialogue, conflict mediation and the construction of pacts between Civil Society, State and Municipalities on water resources.

Santiago - Carlos Berroeta presented the city of Santiago on behalf of Oscar Cristi Marfil, Director General of Water of the Ministry of Public Works. He mentioned the important development of water and sanitation in Santiago.

During this meeting, the participants decided to collaborate to realize a series of products, among which the important items are the elaboration of technical papers and regional session for EauMega 2022, and the preparation of seminars on water in megacities.

EauMega 2022