

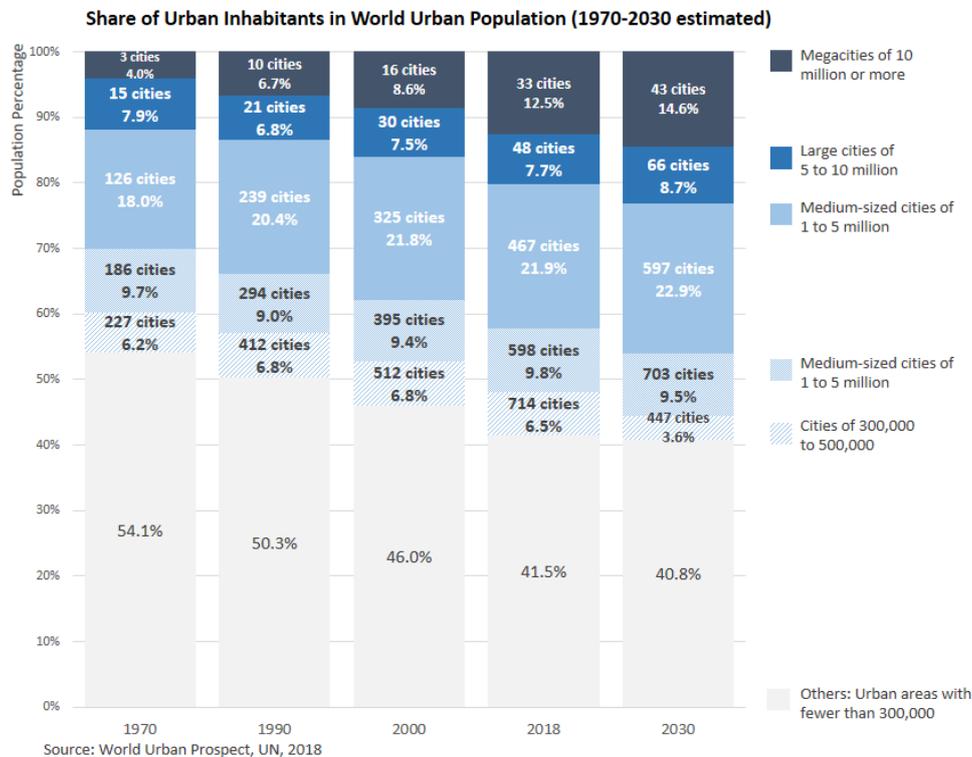
MEGACITIES ALLIANCE FOR WATER AND CLIMATE

Concept note

1. CONTEXT

Megacities are found on all continents except Oceania. They cover diverse geographical areas with a wide range of climates and are generally located close to rivers, lakes or seas (from plains to deserts, from mountains to seashore). Megacities depend on legislations from their own country with particularities often specific to their state or to their local government. Their administrative borders are generally complex due to the past urbanization that has created a continuous urban environment where several different cities existed in the past. Social inequalities are somehow particularly visible in Megacities between rich quarters and poor quarters. It is no wonder then that in most cases, Megacities' borders do not fit with administrative maps, as they artificially put together a patchwork of entities.

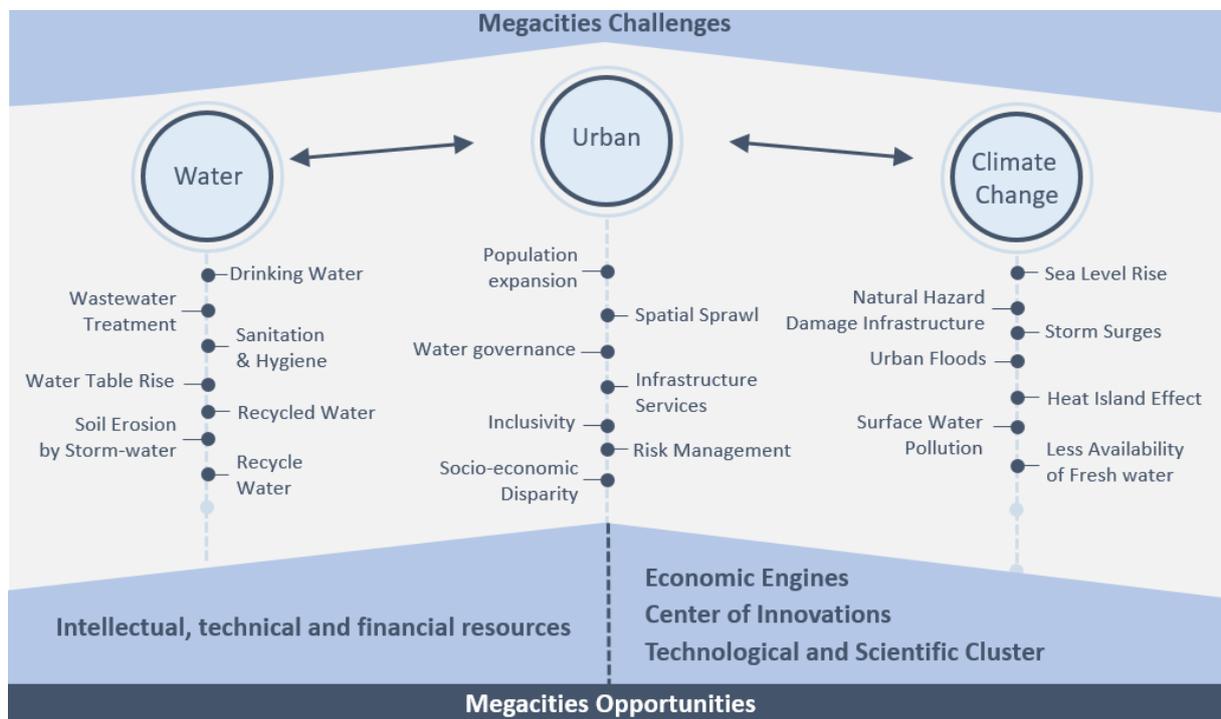
Paris, New York, Beijing, Mumbai, Tokyo, Buenos Aires, Mexico, Lagos... Since 2008 and for the first time in history, the majority of the world population is concentrated in urban centers (United Nations Statistics Division). By 2030, more than one billion people will live in around one hundred very large cities. Megacities, which accommodate more than 10 million inhabitants each, are growing fast, with significant disparities between historical Megacities and the more recent ones. There is no unique development model for Megacities, as they evolve based on different processes (consolidation, sprawl) and this explains their varied governance characteristics. The new Megacities that will emerge between 2018 and 2030 will all be located in developing countries.



Distribution of the world's urban population by size class of urban settlement and number of cities, 1970, 1990, 2018 and 2030 (World Urbanization Prospects, UN, 2018)

These Megacities have one thing in common. For example, a major issue related to water for their inhabitants: drinking water, wastewater, stormwater, recycled water. The characteristics of Megacities, population concentration, services and goods as well as territorial expansion amplify the consequences of water-related risks in a context of global fragility due to the effects of climate change, such as large-scale floods, water-related diseases, water scarcity, pollution of aquatic environments and soils, etc.

Nevertheless, faced with these challenges, these territories, which are exceptional in terms of size, concentrate a multitude of intellectual, technical and financial resources in order to respond to the specific water-related challenges caused by the effects of climate change. It is imperative to mobilize these resources so that innovative solutions emerge and guarantee access to water and sanitation for all populations, equality of services, economic viability, resilience of systems, flexibility of solutions, and the protection of the natural environment. These solutions are intended to be shared and deployed by these mega-urban centers, in terms of hydrological, health, environmental, and economic and socio-political aspects.



2. PROJECT BACKGROUND

2.1 Founding Members

Four actors are working towards establishing the Megacities Alliance for Water and Climate because of their consciousness of water-related challenges affecting Megacities as highlighted above, and their capacities to find solutions. These organizations are:

- 

- **The International Hydrological Programme of UNESCO** is the only intergovernmental programme of the United Nations system devoted to water research, water resources management, and education and capacity building. Its eighth phase (IHP-VIII, 2014-2021) is devoted to "Water security: Responses to local, regional and global challenges." Using an interdisciplinary approach, it addresses among others the topics the adaptation to climate change impacts, the management and protection of groundwater resources and water resources management for human settlements of the future.
- 

- **ICLEI - Local Governments for Sustainability** is the leading global network of over 1,500 cities and regions committed to building a sustainable future. Water management is an essential aspect of ICLEI's work to help cities become low-carbon, resilient, biodiverse, resource-efficient, ecomobile, healthy and happy, with a green economy and smart infrastructure.
- 

- **SIAAP** is the public service that daily treats the wastewater of 9 million inhabitants in Paris and its region, as well as rainwater and industrial water, in order to make the Seine and the Marne water fit for the development of the natural environment. SIAAP is engaged in institutional partnerships and technical exchanges with numerous operators and local governments throughout the world.
- 

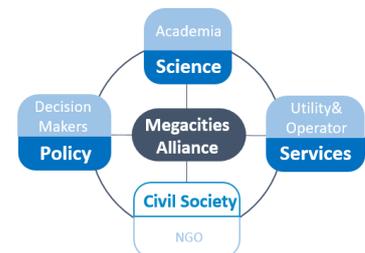
- The NGO **ARCEAU-IdF**, created in 2013 by the main local authorities that are responsible for water management in the Paris region, brings together, in an original way, political, operational, academic and associative actors, all engaged in concrete actions in order to guarantee the quality and sustainability of water and sanitation services.

ARCEAU Model for Megacities Stakeholders

In the vision developed under the Megacities' Alliance for Water and Climate, the different water stakeholders are associated – i.e. among city councils, operators, academy and NGOs etc. Each of them, together or separately, can partially or totally represent the Megacity.

In Paris, water stakeholders have joined within ARCEAU regrouping 3 boards respectively for:

- i. political representation and decision makers,
- ii. the utilities, and
- iii. the researchers.



ARCEAU acts as a catalyst for enlarging the vision of water management at the Megacity level, and provides opportunities for discussions and the development of common strategies and/or researches that take into account all aspects of water in large urban centers.

ARCEAU and its members are a good example of Founding Members upon which the Megacities' Alliance for Water and Climate (MAWAC) aims at building its network. The ARCEAU model is seen as a good one capable of developing common research oriented for solving problems and spreading the innovations.

The particular relations that each member of ARCEAU and its likes has with its peers in other Megacities (directly from decision maker to decision maker, from utility to utility, and from research center to research center) will help develop and strengthen the MAWAC network.

2.2 Water, Megacities and Global Change Conference – Eaumegea2015

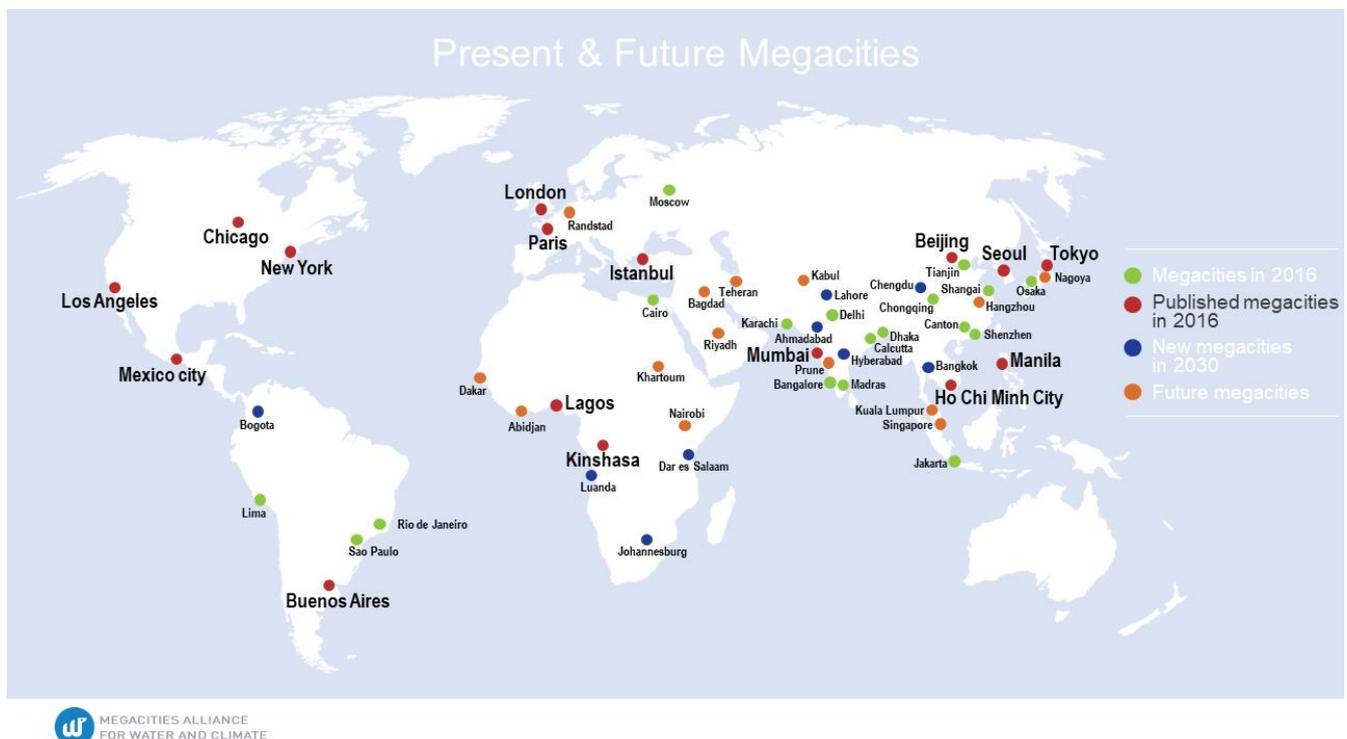
ARCEAU-IdF and UNESCO-IHP co-organized during COP21 an international conference on Water, Megacities and Global Change (EAUMEGA2015).

EAUMEGA2015 took place at UNESCO Headquarters in Paris on 1-4 December 2015 and brought together three types of partners: researchers, representatives of technical services as well as political and civil society representatives. It also brought together regional, global, environmental and societal perspectives, different economic models, technological aspects and politics, management and innovation issues as well as information on hydrographic and urban systems. This event thus made it possible to draw up an inventory of issues at stake and to discuss the solutions in order to support urban public policies. The conference was a success, bringing together more than 380 people from all over the world: scientists, utilities, politicians and NGOs.

2.3 Publication Water, Megacities and Global Change: Portraits of 16 Emblematic Cities of the World

The first version of publication¹ was launched during Habitat III in Quito in October 2016, while its second edition is the result of the collective work of 34 authors and co-authors. It contains summaries of monographs on 16 Megacities: Beijing, Buenos Aires, Chicago, Ho Chi Minh City, Istanbul, Kinshasa, Lagos, London, Los Angeles, Manila, Mexico, Mumbai, New York, Paris, Seoul, and Tokyo.

The digital version of this publication will be enriched continuously both by improving existing monographs and summaries and also new ones. Megacities that wish to contribute to the project can submit and share their summaries and monographs that will be made available on the publishers' websites.



¹ The publication is available in digital version and in open access on UNESCO-IHP webpages: <https://en.unesco.org/mawac/resources>

3. TOWARDS THE MEGACITIES ALLIANCE ON WATER AND CLIMATE – EAUMEGA 2020

Supported by representatives of the Megacities that were present at the EAUMEGA2015 conference and other participants, this alliance was included in the Climate Agenda, and it was presented at both COP 21 and COP 22 during the Adaptation and Water Days. Significantly, in collaboration with the relevant international institutions in this field, MAWAC is committed to establish a cooperation platform in 2020 (Eaumega2020) to establish dialogue on water, adaptation and mitigation of the water-related effects of climate change in Megacities. This Conference is scheduled to take place **from June 30 to July 3 in 2020 at UNESCO Headquarters in Paris**. The First General Assembly of MAWAC is expected to happen on the last day of EAUMEGA 2020, 3 July 2020.

To gear towards EAUMEGA2020, the four actors will provide a framework for cooperation among Megacities in order to facilitate dialogue on urban water and climate. To this end, the creation of two temporary structures has been proposed. These two structures are intended to establish the network of Megacities and to mobilize the funding essential to the functioning of the platform:

- A **Support Unit** working at the level of Megacities and aimed at establishing the platform;
- A **UNESCO-IHP Working Group**, at the level of Member States, implemented in order to facilitate the creation of the platform.

3.1. Support Unit (Secretariat)

The Support Unit will work in conjunction with the IHP Working Group for a specific period of time, of two years, until the platform is set up. Its aim is to:

- Recruit the founding Megacities with which the Unit will work;
- Create and coordinate a network of scientific, operational, and political actors (individuals and structures) involved in the creation of the platform;
- Identify and validate the hosting structure of the platform and specify the practical conditions;
- Propose the governance documents for the platform;
- Propose a strategic plan for the platform;
- Obtain financial commitments for the platform in the medium term;
- Establish means of communication and information, including a website;
- Organize and participate in symposia and conferences in order to raise awareness on the Alliance.

A **steering committee** has been established within the Support Unit to monitor the progress of the project. It includes the initial four actors, and will incorporate other international organizations interested in the platform, and the founding Megacities. The four types of stakeholders involved in water governance in cities (decision makers, service providers, scientists, and associations/civil society) are represented.

The Support Unit needs financial support to cover a permanent secretariat and the specific actions listed above. The Support Unit will also support the organization of the second international conference Water, Megacities and Global Change (EAUMEGA2020).

The Secretariat of the Support Unit is hosted at UNESCO-IHP Headquarters in Paris, and has already received external funding from SIAAP.

The Support Unit will take an active part in the organization of the EAUMEGA2020 conference in Paris.

3.2. UNESCO-IHP Working Group

The Working Group has a two-year mandate and terms of reference complying with UNESCO standard rules for composition and working condition. The objectives of the Working Group as stated in the resolution are the following ones:

- to help recruit Megacities for joining the network;
- to define and promote the interactions between the future Platform, and UNESCO, UN organizations and their traditional partners;
- to identify and develop synergies with UNESCO-IHP activities;
- to propose a governance model for the Platform that will have to be endorsed by the Megacities;
- to formulate, in consultation with the IHP Bureau and the IHP Intergovernmental Council, a Strategic Plan for the establishment and development of the future relations between UNESCO-IHP and the Water and Megacities International Cooperation Platform.

Permanent Delegations of Member States at UNESCO have identified and proposed national experts from their country for joining the IHP Working Group. Up to June of 2018, the UNESCO-IHP has received nominated Working Group Members from 11 cities and member states (Paris, Mexico City, Lagos, Istanbul, Jakarta, Lima, Karachi & Lahore, Ho Chi Minh City, Bangkok, Bogota, Tehran), including 22 focal points.

Background of setting up MAWAC Working Group

During the 22nd session of the Intergovernmental Council of the International Hydrological Programme held at UNESCO-HQ, on 13-17 June 2016, Resolution XXII-5, submitted by Japan and supported by the Republic of Korea, was adopted, aiming at the creation of a Working Group for the establishment of the Megacities Alliance for Water and Climate.

The text of the resolution points out that the expected population growth in the coming decades will be higher in urban centers and particularly in metropolitan areas with over 10 million inhabitants. It also states that by 2030, over a billion people will live in approximately 100 very large cities and 60% of the world's population will live in urban areas. At the same time, it considers the adverse effects that climate change is expected to have on urban water resources, both quantity and quality wise.

The text also refers to the UNGA Resolution 64/292 on the human right to water and sanitation; and to the 2030 Agenda for Sustainable Development, which includes two dedicated goals:

- One on water and sanitation (SDG 6) that aims to “ensure availability and sustainable management of water and sanitation for all” as well as targets of other goals related to water.
- One on Resilient Cities (SDG 11) that aims to “Make cities inclusive, safe, resilient and sustainable”.

Member States recognized the need for an international platform for cooperation to facilitate dialogue on urban water and climate, with the aim of helping Megacities to adapt to and mitigate the effects of climate change on water. They decided to establish an IHP Working Group for helping the establishment of the MAWAC, and for proposing mechanisms to promote international synergies between Megacities at the local level and Member States at the national level.

The resolution encourages Member States to take an active participation in the aforementioned Working Group. The purpose of the working group is to help build the enabling conditions for the creation in 2019 of the platform, and to create the links and interactions with the UNESCO Water Family, IHP National Committees, and other UN agencies, especially UN-Water and UN-Habitat.

4. PLATFORM OF THE MEGACITIES ALLIANCE FOR WATER AND CLIMATE

The platform will be created to coordinate the network of Megacities according to practical modalities that will have to be proposed both by the Support Unit and the Working Group, and will be endorsed by the Megacities.

4.1. Objectives

The main objective of this platform will be to build solidarity between Megacities in their adaptation to climatic disruption in the water sector (drinking water, sanitation, rainwater, protection of the aquatic environment) while promoting original and effective local solutions.

Overall Objectives include:

- Collect and disseminate information at a worldwide scale on strategies and operational plans developed by local authorities and their water operators as well as results achieved by their implementation;
- Facilitate experience sharing between the academic community and water operators in improving adaptation through best practices assessments;
- Identify means and mechanisms for funding the adaptation of Megacities to the impacts of climate change on urban water.

Specific Objectives include:

- Collecting global data on strategies developed at the Megacities scale;
- Developing the sharing of experience between academics and operators through technical exchanges or training and improving adaptation through the evaluation of experiments and good practices;
- Sharing research and studies on similar topics to build technical and governance tools and train potential users on these tools;
- Measure the results achieved by Megacities according to indicators to be defined;
- Identify the means and mechanisms for financing the adaptation of Megacities to the impacts of climate change on water in urban areas.

4.2. Regional platforms

The creation of regional platforms (as per UN definitions) is encouraged in order to take into account cultural, legal, environmental, climate and institutional diversity and/or common points.

These regional platforms will benefit from the existing networks available to Alliance members: IHP regional offices, ICLEI local government network, ARCEAU-IdF network of scientists, and SIAAP operators' network.

The process of establishing these regional platforms is already under way in LAC countries (May 6-7 2019, Sao Paulo), South-East Asia (Wuhan, Oct 2019) and in Europe & North America (Istanbul, early 2020).

4.3. Results

The platform will report on its activities, in particular:

- The increased awareness of water and Megacities at an international level through the promotion of cross-sectoral participation in various forums, debates and international conferences, with emphasis on climate change, water, habitat or urbanism, and by organizing exchanges between Megacities on common themes.
- The international conference on water in Megacities (EAUMEGA) will be organized every three or four years in order to update knowledge and examine progress in both research and operational areas. It should also allow the follow-up, from COP to COP, of post-2015 commitments made in Paris during COP21.