



INTERNATIONAL NETWORK OF BASIN ORGANIZATIONS

WORLD GENERAL ASSEMBLY
MERIDA, YUCATAN (MEXICO)
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MERIDA DECLARATION

"TAKING ACTION"

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Taking into account the Dakar Declaration adopted in Senegal in 2010 organized by the active contribution of INBO member organizations in the efforts to adapt to the effects of climate change in the basins of rivers, lakes and aquifers;

Considering the Fortaleza Declaration 2013, which requires an unprecedented institutional mobilization of public authorities, economic stakeholders and citizens to win "the water battle" today and for the future and the subsequent ones coming to the most recent: the Paris Pact launched on the occasion of the COP21 on 2 December 2015;

This *Merida Declaration* calls for action in the context of the High Level Panel Water; the Post 2015 Agenda, especially Sustainable Development Goal (SDG) 6;

The following should be considered:

The importance of water management at the river basin level increases with the challenges of adaptation to climate change and the challenges that the Sustainable Development Goals represent, particularly SDG 6.

Water security in the basins is a great challenge as scarcity and floods trends are compounded by the increased intensity and frequency of extreme hydrometeorological events affecting the quality of life and safety of communities, economic development, and natural heritage conservation that cause occurrence of new diseases and plagues as well as conflicts between users and even migration.

Population growth, even faster than initially foreseen, entails stronger demands from the population on water supply and sanitation in rural and urban areas.

This gives meaning to embarking on a new path to channel global and effective policies on integrated water resources management at the river basin level.

Greenhouse gas emissions have strong consequences on freshwater in basins, impinging on the rainfall distribution, water cycle, levels of terrestrial and marine evaporation, water temperature and water risks impacting water quality and availability, which influence economic development and the conservation of aquatic ecosystems.

This call aims to provide some of the key elements to strengthen action and position the importance of the Integrated Management of Water Resources at the Basin level as a nexus.

Water resources availability and quality, are key elements to all processes related to life that in turn require processes to adapt to the challenges of sustainable development, from the environmental, social, political and economic perspectives, focusing on the physical and planning unit called basin.

Undoubtedly, climate change is the most important challenge facing society in the 21st Century and implementing adaptive strategies should be strengthened considering the importance of integrated management of water resources either national or transboundary basin, since their increasingly intense impacts in human activities jeopardize the natural balance of the basin and hence of survival.

Changing weather patterns affect both the quality and quantity of water available in the basins for humans and the environment; the expected impact on island countries or communities living in vulnerable areas, have inevitable repercussions to be further considered in detail in all dimensions, and is derived from the migration of entire populations to other territories to ensure water and food security as well as a decent living place with better conditions, representing socio-economic and political costs in adaptation processes of catchment basins.

Incorporating adaptation into planning and decision-making of basin management can generate synergies to improve the protection of vulnerable groups, support economic diversification, provide information to define policies and legal frameworks, coordinate financial support and reduce disaster risks in basins. It is equally important to incorporate adaptation into planning of the provision of public water and sanitation services, as well as the productive uses particularly the agricultural use.

Planning and implementation of adaptation at all governance levels depend on social values, objectives and risk perception. Recognizing the social capital of a basin regarding the various interests, circumstances, sociocultural contexts and expectations can encourage the decision-making processes.

Economic tools can generate incentives and resources for water management at basin level, most notably the implementation of user-polluter-payer principles, public-private partnerships, payment for environmental services, establishment of efficient and equitable tariffs, optimization of subsidies, adequacy of rules and regulations, as well as compensation mechanisms for overexploitation and pollution.

Innovation is essential to foster stability, sufficiency, equitability, integrity and transparency in the definition and implementation of financial resources in the sector.

Decision implementation is more effective when multiple interests are incorporated in development; therefore encouraging organizations that bridge the different partners, science and policy to facilitate decision-making, will transcend in better communication, acquisition, transfer and evolution of knowledge in water management at basin level.

Food security

Meeting food needs of present and future generations also involves strategies for preserving soil quality and of large quantities of water for production.

At the basin level, water for food production in the agricultural sector has major losses due to evaporation and infiltration, inadequate management systems, lack of infrastructure and efficient technologies, as well as lack of knowledge about the consequences and risks that pollution, waste and overexploitation generate.

A fourth of arable land is affected by serious degradation problems from overexploitation due to monoculture plantations, deforestation, land use changes, use of agrochemicals and toxic substances in agriculture, extensive cattle raising, mining activities, displacement of communities to new urban areas with no planning and land management systems, among others, affecting the production capacity of ecosystems and basins.

One of the priority strategies for the water sector is change in the patterns of water extraction and consumption in each of the basins.

Water extraction volumes are considerably higher than those of recorded consumption, which indicates that it is necessary to implement strategies to control and reduce extractions and consumption losses through stricter management mechanisms in the different economic sectors of the basins, particularly in the agricultural sector.

Such strategies must include both technical and institutional reforms through innovations in the financing, social organization and capability development mechanisms.

Health security

Changing rainfall, economic and population growth, pollution and/or snow and ice melting, and the destruction of ecosystems are altering the hydrological systems, impacting water resources and aquatic environments of the basins in terms of quantity and quality.

These impacts affect the health of populations and ecosystems in the basins, deteriorating the quality of life due to the onset of new and epidemic diseases that fuel the proliferation of new invasive species.

Health impacts in basins are already evident in the increased number of deaths from heat waves, disease impact variations from the proliferation of microorganisms transmitting infections due to contaminated water consumption, increasing temperature that increases evaporation, reduced productivity, and agricultural losses, which directly affect the quality of life of communities.

The increasing rainfall variability in the basins affects freshwater supply, and its scarcity jeopardizes hygiene and increases the risk of diarrheal diseases each year, causing 600,000 deaths of children under five years old. In extreme cases, water scarcity causes droughts and famine.

In contrast, floods originate many losses of human and animal life and damages to the collective and individual goods are estimated at one billion dollars per year

Problems in the access to clean water are originating over 3.350 million disease cases a year; 80% of the most common diseases in the basins of developing countries (diarrhea, fever, dengue, malaria, etc.) are related to water quality.

The accelerated development process, increasing population concentration, and discharges of industrial, urban and agricultural pollutants are creating delicate situations in the basins, which are detrimental to human health.

The SDG 6 is a major challenge, since the sanitation target agreed upon for the Millennium Development Goals was not achieved.

In this case it is also needed to simultaneously drive the development of new technologies and institutional innovation.

Water security

The complexity of river basin management is increased by higher water consumption in agricultural activities. Economic development, population growth, tourism, and energy production are major water consumers generating high pollution levels with inefficient and insufficient treatment systems.

Over 80% of wastewater in the basins of developing countries is discharged untreated, affecting social groups that have lower coping capacities.

Use, treatment, pollution and depletion trends in aquifers are hardly encouraging and in a few years will face major problems due to their implications in the water cycle and their impact from climate change.

There are considerable differences coexisting in the availability of water for human consumption, based on inequality gaps and consumption patterns, thus water security must be considered a crosscutting topic in the agendas of integrated water management at basin level, in attaining sustainable development.

Water stress is a primary factor for management at basin level models, since derived from population growth, a third of the world basins are overexploited due to the high human consumption, which does not consider the available and regenerating volumes, losing recharging capacity at high speed.

Sustainability as a model for future development and basis for water management can only be achieved in a water secure world, which is why it requires an effective governance scheme at the basin level to ensure reliable water supply. Development should be consistent with the limits of nature taking into account aspects such as ecological land-use planning, water resources management, restoration of ecosystems, ecological flow and recharging capacities, among others.

Designing management at the basin level should ensure quantitative and qualitative water security of populations and ecosystems, and the participation of all stakeholders involved in sustainable development.

A world where water security is ensured reduces poverty, promotes education and increases living standards. A substantial improvement in knowledge of the water cycle, uses, means, and climate variables, the use of systems supporting the collaborative decision, transparent and adaptive implementation of integrated management policies and effective mechanisms for benefit and cost allocation are prerequisites for achieving a higher level of water security.

Water Governance

It is necessary to maintain the proper operation of the hydrological cycle in the basin and create technical alternatives for a more equitable access in the specific socio-political context that implies an actual involvement of all social stakeholders to build decision-making under an unrestricted respect of local traditions and needs.

The productive activities developed in each basin are diverse and define their economic structure and social context. Based on their socio-environmental characteristics, some basins have agricultural, industrial or services vocations. However, all economic activities are directly dependent on the availability and quality of water, therefore it is very important to analyze usage patterns impacting on each production water footprint. This indicator is the benchmark for designing new sector strategies and integrated management systems for national or transboundary basins.

Water scarcity is one of the major challenges of the century, the problem already affects every continent, one-fifth of the world's population lives in basins of physical water scarcity, while 500 million people approaches this situation. Another one-fourth of the world's population faces economic water shortages because they lack the necessary infrastructure to take water from rivers and aquifers. By 2025, two-thirds of the world population will live in water-stressed basins. It is therefore important to foster a new culture that requires less water volume for production, along with optimal integrated management and sanitation systems.

Water scarcity is both a natural and human-made phenomenon, caused by a deficit of governance: Currently, 748 million people lack access to safe clean water with women, the poor and disadvantaged groups of people being the most affected... and probably two-thirds of the global population today lack access to drinking water services that are really safe and meet WHO guidelines.

Flood risks already causing devastations in some regions of the world will get worse and entail increasingly important human and economic losses.

A new governance system with all stakeholders' cooperation on Integrated Water Resources Management at the river basin level has broad potential to contribute meeting the Sustainable Development Goals adopted as part of the Post-2015 Development Agenda. Developing specialized human, institutional and technical capacities is central to achieving such cooperation, particularly in basins and aquifers.

The Call to Action!

Drawing up public policies and strategies for integrated water resources management of national or transboundary basin, a broad participatory process must be considered, given the diversity of interests and needs of each of the sectors comprising the basin community, including their institutional and governance aspects to generate consensus and the commitment of each of them to maintain the quality of life and the environment.

Cooperation among national or transboundary basin organizations in each region of the world must be strengthened so as to facilitate the implementation of the best alternatives, transfer experience and institutional, technical and environmental knowledge on the best practices in basin management and adaptation to climate change.

Integrated water resources management of national or transboundary basins must ensure meeting the present and future needs, reducing threats to survival. It requires a special approach from the standpoint of complex systems and close linkages among the factors involved, all interdependent.

For all this it is necessary to develop reform processes and institutional organizations that give genuine power of decision-making to new groups of stakeholders who can change relationships, customs and practices through an unavoidable mechanism: knowledge and information.

A world with water shortages is intrinsically unstable!

The economy of a basin depends on its natural capital that provides all the environmental and economic services, thereby generating its social capital.

Scientific efforts should highlight the problem solving processes, including participation and mutual learning among different stakeholders, developing technological but economic, social and environmental approaches.

INBO aims to shape this community of knowledge on integrated water resources management at the river basin level.

Given the pressing interrelation of specific data and foreseeable future scenarios henceforth, it is necessary to provide elements to decision-making. Thus, the focus should be on creating a special task force on water management at the river basin level, SDG6 and climate change, capable of delving into the topic with a water managers' vision and linked to the High Level Panel on Water, which has among its objectives:

- a) Integrate and strengthen water management at the river basin level focused on adaptation, emphasizing water security and the achievement of SDG6.
- b) International cooperation commitment to address the issues related to water security in high-level policy decision-making.
- c) Solidarity and Ethical commitment to ensure good water governance of the basins with increased exposure and water stress risk levels, some of them already under the weight of migrant populations in search of more stable areas in terms of climate risks.
- d) Create regional networks for sharing knowledge, innovations and technologies that provide the necessary scientific evidence for decision-making and foster effective participation of all stakeholders to yield rise to a new culture of efficiency and human right to water.
- e) Identify elements for drawing up public policies at the river basin level that promote innovative use and extraction patterns based on the rational use and awareness, education and dissemination of knowledge, comprehensive management, technological innovation and environmental conservation to meet future demands of all sectors and of a preserved environment, and reverse the alteration trends affecting the water cycle.

Participation and commitment of each and every one of the stakeholders are essential requirements that must be accompanied by feasible economic instruments.

It is desirable for the High Level Panel on Water to support them.

Economic and social development of populations and conservation of ecosystems should be the pillars underpinning integrated management policies at the river basin level.

In conclusion, the INBO General Assembly hopes for water resources management at the river basin level to be considered as a priority in both the Climate Change Adaptation Action Plan, adopted at COP21 Paris, and in the works of the High Level Panel on Water and Sustainable Development.

INBO proposes:

1. To strengthen its regional networks to become real resource centers supporting the professionalization of the technical and administrative staff of basin organizations and their partners, and to encourage adaptation to climate change studies at the river basin level aimed at implementing simulation and optimization models of physical, ecosystem and socio-economic processes to support collaborative decision-making processes.
2. Endeavor access to international resources linked to reducing gaps related to institutional development and infrastructure equipment towards increasingly sound basin management, strengthening alliances with other bodies such as the High Level Panel on Water.
3. Build national, regional and international capacities seeking the gradual implementation of new models of water resources and basin management, particularly on information management transparency and budgetary resources.
4. Promote the modernization and efficient operation of metering systems of the hydrological cycle and climatic variables and to a greater extent on formulating and creating Water Information Systems (WIS) and on the aquatic environment, at the river basin level and at national and transboundary levels.
5. Improve result indicators on sustainable basin management and water use systems, especially within the OECD Water Governance Initiative.

Adopted unanimously on 3 June 2016 in Mérida.