

الجمهورية الجزائرية الديمقراطية الشعبية REPUBLIQUE ALGERIENNE DEMOCRATIQUE ET POPULAIRE وزارة الموارد المائية و الأمن المائي

Ministère des Ressources en Eau et de la Sécurité Hydrique

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The proposed theme for interactive dialogue: how to ensure water security and good water governance in a context of climate change inducing ever-increasing levels of water stress.

Introduction

New temperature records have been recorded every year in recent years, according to the World Resources Institute (WRI), 17 countries, where a quarter of the world's population lives, have been suffering from extremely high levels of water stress, while 44 countries, where a third of the world population lives, experience a high level of water stress.

Currently, due to the adverse impact of climate change (increase in temperature, decrease in precipitation, etc.) and despite all the efforts made for the mobilization, distribution, and protection of the resource, there is an ever-increasing in withdrawals from water resources with increasingly high costs, a worrying increase in pollution aggravated by the reduction in the resource.

The irreversible character of the scarcity of water resources will be further deepened if no action is taken. Ensuring water security does not only mean having sufficient quantities of good quality water resources, it is, also, necessary to have strong policies and institutions, legal and regulatory frameworks as well as sustainable financial resources whose objectives are:

Ensure sustainable water security across the national territory;

Diversify sources of supply by integrating non-conventional water resources;

Work for rational, effective, and integrated management of water resources;

Mitigate the effects of climate change and adapt to their impacts;

Transform management methods towards smart management based on research and innovation.

Furthermore, to be able to ensure water security within the framework of sustainable development, a paradigm shift is necessary for the entire system.

This should necessarily go through:

- ✓ Rehabilitation of institutional and regulatory instruments, as well as reforms of the way of governance and management of the water sector at the central and local level;
- ✓ Meaningful involvement of all stakeholders, to achieve the Sustainable Development Goals;
- ✓ Ownership and assimilation by all of the challenges related to water.

It is crucial to identify the actions to be carried out on several axes:

- 1. water security and institutional and regulatory reform,
- 2. water security, strategy, and planning,
- 3. water security and investment,
- 4. water security and water-saving,
- 5. water security and management,
- 6. water security and digitization,
- 7. water security and innovation,
- 8. water security and communication.

Algerian context

Due to its geographical location, located in a semi-arid and arid zone, Algeria is classified in the category of countries poor in water resources. Water in Algeria is scarce, fragile, and unevenly distributed.

The national water potential is 18 billion m3/year authorizing a per capita endowment of 420 m3/year. This potential should fall below 300 m3/year/inhabitant by 2050, due to expected population growth.

The acceleration of the effects of climate change, combined with the constant increase in demand, is severely impacting the national water potential and making Algeria the 29th country in the world suffering the most from water stress, according to the latest World Resources Institute (WRI) Report.

Drought episodes have become much more recurrent and prolonged while the rainy seasons have shifted towards spring (March, April, and May) and sometimes impact rain-fed agriculture. Aware of the challenges to be met in the management of water resources and the need to implement a new policy in the water sector, with the aim for ensuring access for all to drinking water and sanitation, Algeria has decided to move, towards a new paradigm of water security.

National Water Conferences were organized for the first time in Algeria in 1995 whose resulted in:

- An inventory and diagnosis of the drinking water and sanitation distribution systems which identified the reasons for the difficulties in fully ensuring access to water and sanitation for the populations;
- The development of a new policy based on 5 new principles, namely the unity of the resource, consultation, economy, universality (water is the business of all users), and ecology, while

elaborating new instruments (water code, master plans for the development of water resources (PDARE) and national water plan (PNE), river basin agencies, etc.).

This water policy is aimed at integrated and sustainable management on a national and regional scale.

A series of reforms followed that rethought the mobilization, management, and use of water resources, taking into account three key points:

- 1. The principles (regulatory framework, integrated management, agricultural water efficiency, pricing policy);
- 1. Institutions (creation of the Ministry of Water Resources, river basin agencies, and restructuring of national and regional agencies);
- 3. Identification of priorities (ensuring access for the entire population to drinking water and sanitation regardless of their geographical and social position). The development of the National Water Plan to provide the sector with a planning tool.

These reforms have made it possible to achieve connection rates of 98% for drinking water and 91% for sanitation in 2020, compared to 35% for drinking water and 20% for sanitation in 1962. Thus, the Millennium Development Goals related to drinking water supply and sanitation were achieved in 2010, before the deadline set by the United Nations for 2015.

Faced with an ever-increasing demand for water, Algeria suffers from the effect of climate change. In this regard, waterer stress is felt and risks settling and worsening. In addition to water shortage, we face other disorders such as flooding of urban and agricultural areas, the destruction of ecosystems, salinization problems, pollution by urban and industrial wastewater, etc.

Recommendations

Thus, water security must translate the capacity to adapt to the effect of preserving the sustainable availability of access, the safe, reliable, and resilient use of water in quantity and quality to safeguard public health, ecosystems, and productive economies.

To ensure water security, it is necessary to carry out a transformational strategy at the managerial level, based on new management way to achieve concrete results and establish a real transition from supply-based management, where the infrastructural aspect dominates, towards water resource management within the framework of sustainable development that guarantees lasting water security.

It is important to carry out a radical shift in the way of designing, carrying out, managing, and operating water-related projects.