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GLOBAL WATER STRATEGY of the Kingdom of Spain

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Plaza de San Juan de la Cruz, 10
28003 Madrid
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GLOBAL WATER STRATEGY
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PREFACE

Water is essential for life. Human life depends on water as well as almost all the ecosystems that comprise the planet. The world, as we know it, cannot be understood without water. The hydrological cycle is the natural engine that makes it possible for us to have fresh water. Water manifests itself in its solid, liquid and gaseous states, throughout the different phases of the hydrological cycle. Each and every one of them is important: evaporation, transpiration, precipitation, storage, infiltration and runoff. The alteration of any of them can unbalance the cycle and lead to the lack of renewable water resources in the form of storage and runoff, both superficial and underground, which are the ways that man has to get hold of these resources. Likewise, the alteration of any of the components of the hydrological cycle affects ecosystems, and therefore, the water regulation and treatment services that they provide us.

COVID19 has underscored the importance of water access in preventing the spread of the pandemic. Access to water and sanitation is a right that implies a rational and sustainable management of water resources. Without water, poverty eradication and development are simply not possible. An efficient use of water resources and the preservation of their quality make it possible to ensure access to water, both for supply and for other dependent economic uses. The effects of the pandemic have offered the opportunity to reflect deeply on the real challenges that governments face when managing water, set the main milestones to rise above them and identify required reforms.

Even so, there is still much to be done to achieve water security and full access to water and sanitation in the world. There are still a multitude of hurdles at the national and regional levels, such as different lacks: data, governance, financing, capacity building, and technological development, which all thwart this access from being achieved. Recognizing the fact that the water stress is one of highest risk factors to a global world crisis, the political impact of water issues in the international arena is not fully compensated by decisive events that prompt action.

The pandemic has had a great impact on the mobility of people around the world. The face-to-face became, overnight, and thanks to digitization, virtual. International activity has not been an exception, and practically all forums have continued to work in virtual format. This fact, far from distancing people, has brought the international water community closer. Virtual meeting, paradoxically, has led to a higher level of international debate on water issues, has facilitated meetings that would have been unthinkable before the pandemic, and has highlighted the need for greater action. When the pandemic subsides, virtual meetings, quite positive in many aspects, should not be completely discarded.

In this state of affairs, we cannot sit idly by; action is required. It is necessary that we contribute with our experience and resources, and from our posts, to the international actions underway, with a strategic vision, defined objectives and identified actions. It is in this sense that this document is written.

This "Global Water Strategy" is structured in two parts: a first one intended to expose the axis which will direct Spain's global strategy on water issues addressing its vision, mission and strategic objectives; the latter defined by five specific goals, two common cross-cutting themes, and two key principles. The second part synthesizes the experience of Spanish foreign action, altogether with the strengths of the Spanish water management framework and the key regions of Spain foreign action on water issues as set by the foreign action strategy of the Spanish Ministry of Foreign Affairs - MAEUEC[1].

[1] http://www.exteriores.gob.es/Portal/es/SalaDePrensa/ElMinisterioInforma/Documents/ESTRATEGIA%20ACCION%20EXTERIOR%20ENG.pdf

VISION

Spain's Global Water Strategy envisions ***a water secure world and with global access to water and sanitation.***

A water secure world, concurrent with UN's definition, *"the capacity of people to safeguard sustainable access to adequate amounts of water of acceptable quality to sustain livelihood, human well-being and socioeconomic development; to guarantee protection against water-borne pollution and water-related disasters, and for the conservation of ecosystems in a climate of peace and political stability as a key to achieving these objectives"*. Likewise, UN-Water has a strategic vision of a prosperous world based on universal access to water and sanitation.

To achieve this vision in the long run, information and knowledge breaches are to be reduced thanks to the digitization of water resources management and the adoption of new technologies. Detailed information will be available on all the components of the hydrological cycle and its regimes, both ordinary and extraordinary, including the forms of transport of pollutants, water uses, and water regulation and provision services offered by ecosystems.

Sufficient financial resources are to be mobilized to build, maintain and operate the necessary infrastructures to be able to meet the needs of storage, supply, treatment and floods protection, combining grey and green infrastructure solutions. Technologies will be adopted to reduce water pollution and recover nutrients and other materials present in wastewater, and unconventional resources developed and managed in an integrated way with conventional ones.

Water governance will adapt to the challenges of climate change, promoting circular economy and efficiency in the use of resources and making a fair and equitable recovery of environmental and resource costs for all society, respecting the human right to water and sanitation. In such a world, the value of water would become an integral part of decision-making in economic sectors.

This vision shares the long-term visions of the main international organizations and institutions dedicated to water. In all of them, water security and global access to water and sanitation are essential elements to face the impacts of climate change, the loss of biodiversity, the protection of human health and that of ecosystems, offering food security, boosting gender equality, improving livelihoods and ensuring sustainable economic growth.

MISSION

The General Directorate of Water has among its entitlements[2] to represent the Spanish Government in the international organizations regarding water issues to follow-up any international agreements in the matters of its competence, as well as to coordinate any technical contribution to any water-related European Union discussions on water legislation.

The undertaking of this mission is carried out jointly with the other related Spanish Government departments, liaised through the General Sub Directorate of International Relations and with the representations abroad. Action will also be coordinated with the Ministry of Foreign Affairs, through its units, the Permanent Representations and the Spain's Cooperation Agency - AECID.

[2] Royal Decree 500/2020, of April 28, which develops the basic organic structure of the Ministry for the Ecological Transition and the Demographic Challenge, and modifies Royal Decree 139/2020, of January 28, by which the basic organic structure of the ministerial departments is established.

STRATEGIC OBJECTIVES

According to UN data, if the degradation and pressure on natural resources, mainly on water, continues at the current rate, by 2050, 52% of the world's population will be at risk of water scarcity, being most affected by far the poorest and most marginalized populations, and in this way exacerbating inequalities already on the rise.

Such reduced water availability will increase tensions at the local, regional, national and global levels, especially impacting the most vulnerable populations and groups. If a balance is not established between the limited supply of renewable water resources and the demand, the world will have to face an increasing and severe water deficit that will surely lead to conflicts of all kinds.

The objectives set for this Strategy are inspired on those stated by EU's European Green Deal and its environmental regulation[3], UN's Sustainable Development Goals (SDGs), and especially on SDG6, on clean water and sanitation. They are also aligned with OECD's principles on water governance and the main lines of water policy developed by the Spanish Government through its Water Directorate.

Promote the efficient use of water in order to reduce the risk of water stress

The spatial and temporal distribution of rainfall patterns together with surface and underground runoff define the availability of renewable water resources in the territory. Contributions from runoff are in turn determined by land uses and the geographic and geological characteristics of the basin. Economic activities originate demands for water with a spatial and temporal distribution that must be endowed with a guarantee of supply. Water balances at the appropriate scale allow simulating the operation of the system under different scenarios based on reliable and accurate information, in order to efficiently and equitably allocate available resources to different uses and reduce water stress in the basins.

Adequate water management must promote the efficiency of water use, so that resources are allocated according to quantifiable criteria that indicate the reduction of consumption and efficient use of water in a circular economy environment. The Spanish Circular Economy Strategy emphasizes that

> *"[…] More than ever, it is necessary to work towards improving the efficiency of water use in production cycles to reduce its demand through the instruments of water policy, such as hydrological planning and sustainable management of water resources, [….]. And, in this way, address the loss of biodiversity in aquatic ecosystems, avoid their contamination and reduce the impacts associated with climate change".*

Water stress is defined as the proportion of water extracted by all sectors in relation to available water resources. According to UN-Water data, water stress is 13% as a world average. Water stress affects all continents, compromises sustainability and limits economic and social development. More than 2 billion people live in countries that suffer from a considerable lack of water.

[3] Article 191 of the Treaty on the Functioning of the European Union - TFEU: The Union's policy in the field of the environment will contribute to achieving the following objectives: the conservation, protection and improvement of the quality of the environment, the protection of the human health, the prudent and rational use of natural resources, the promotion of measures at the international level to deal with regional or global environmental problems. and in particular to fight against climate change.

Although the world's water stress index average is only 13%, 32 countries suffer indexes between 25% (minimum value from which scarcity comes into play) and 70%, and 22 countries exceed this figure and are considered to be under serious stress. The Basin Plans address, through the water balance and the water allocation and reserve systems, certain measures to promote sustainable use of water, in order to avoid shortage situations in the long term, delivering higher water stress overall.

Regarding such topic, Spain's global strategy will address the following targets:

- Experience sharing on resource allocation processes to identify opportunities to act both on the demand side (through technical improvements and user governance), as well as supply side (through improvements in the storage capacity or regulation in the basin or the promotion of unconventional resources, such as reuse and desalination).
- Promotion of water balance assessments, based on the sound knowledge of the components of the hydrological cycle, its influencing factors and the real demands in each use, in order to allocate resources efficiently.
- The inclusion of efficient water use in hydrological planning processes, circular economy plans and in general in plans related to environmental policy and sustainable development.

Improving the conservation of aquatic ecosystems by setting ambitious and achievable environmental goals

According to UN-Water reports, water-related ecosystems provide numerous benefits and services to society and are essential to achieving several of the SDGs. Water-related ecosystems, such as lakes, rivers, and vegetated wetlands, are some of the most bio diverse environments in the world, providing many products and services on which human well-being depends. Although these ecosystems represent only 0.01% of the world's water and cover approximately 0.8% of the earth's surface, they constitute a habitat for almost 10% of known species. In arid climates, springs represent less than 0.01% of the earth's surface but contain more than half of the species in those regions. According to estimations, over the past 100 years, the planet has lost half of its natural wetlands and, with them, a significant number of freshwater species.

The availability of water, safe and sufficient, is inextricably linked to the way wastewater is managed. Rising untreated wastewater flows, combined with agricultural runoff and industrial discharges, have degraded water quality and polluted water resources around the world.

Globally, 80% of wastewater returns to the ecosystem without being treated or reused, contributing to a situation in which around 1.8 billion people use a contaminated drinking water source, which puts them at risk of contracting diseases such as cholera, dysentery, typhoid fever, or polio. Wastewater treatment should play an important role in narrowing the growing demand for water in rapidly expanding cities, improving energy production and industrial development, and supporting sustainable agriculture.

The promotion of wastewater treatment produces a clear improvement in the quality of the waters, which allows the maintenance of aquatic ecosystems in good condition and the protection of areas with high environmental value, due to their status as water catchment areas. Control of diffuse pollution originated from agriculture, as well as the implementation of environmental flows, are measures that clearly favour the good state of water bodies.

The environmental acquis of the European Union has provided a set of common standards for the establishment of environmental objectives in water bodies that has enabled to make considerable progress in reducing water pollution. Setting ambitious and commonly agreed standards becomes a significant lever to mobilize the necessary resources for wastewater treatment. The High Level Panel on Water and Peace[4] in its final report *"A matter of survival"*", presented in 2016 during the opening of the UNGA[5], concluded the need for application and further development of international water quality standards, both regionally and globally.

Regarding such topic, Spain's global strategy will address the following targets:

- Establish common environmental objectives based on ambitious quality standards, but in line with local context, which will facilitate the implementation of cost-effective treatment technologies at the basin scale ensuring proper operation and maintenance.
- Capacity building for the operation and maintenance of treatment plants.
- Promote the safe reuse of reclaimed water.
- Disseminate and apply whenever possible of EU's Water Framework Directive[6] principles to achieve the good state of water bodies.
- Promote the restoration and recovery of rivers and wetlands and the implementation of environmental flows.

Enhance sustainability and resilience of infrastructure promoting the use of Nature-Based Solutions

To match water demands while strengthening resilience against disasters and the effects of climate change (floods, draughts), infrastructure is developed in order to catch, store, regulate and transport water resources. Such "grey infrastructure" includes dams, weirs, irrigation canals, infrastructure for supply and sanitation and wastewater treatment, as well as others specific to groundwater resources. Infrastructures need to be adapted to address climate change and the maintenance of ecosystems. Water monitoring networks (both quality and quantity), together early warning systems and information systems, should not be side lined, taking advantage of the advances of digitalization in water systems.

On the other hand, Nature-Based Solutions such as floodplains, land management and forests may also contribute to the supply of clean and safe water and protect against floods and droughts.

The European Commission defines Nature Based Solutions – NBS as

> *"Solutions that are inspired and supported by nature, which are cost-effective, simultaneously provide environmental, social and economic benefits and help build resilience. Such solutions bring more, and more diverse, nature and natural features and processes into cities, landscapes and seascapes, through locally adapted, resource-efficient and systemic interventions"*

[4] The High Level Panel on Water and Peace was promoted by the Government of Switzerland in order to promote the peaceful resolution of conflicts associated with water management. Chaired by Slovenia's President, Danilo Turk, the Panel comprised high-level representatives from 15 countries, with "Geneva's Water Hub" as secretariat.
[5] United Nations General Assembly
[6] Directive 2000/60 / EC of the European Parliament and of the Council, of October 23, 2000, which establishes a Community framework for action in the field of water policy. In general, the principles of this Directive will apply wherever possible to all strategic objectives.

In many circumstances, the use of Nature Based Solutions, in combination with traditional grey infrastructure can provide solutions that improve system performance and better protect communities. Specifically, in relation to water, NBS produce better protection against: point sources of pollution, such urban sanitation overflows; storm water quality and control of urban diffuse pollution; agricultural pollution, drainage and erosion of soil in rural watersheds; hydro morphological alterations of the channels. Nature-based solutions foster biodiversity and enable the provision of a range of ecosystem services.

In addition to this, Spain will support the integration of natural capital into national accounting, in order to visualize society's dependence and impact of natural resources consumption.

On such grounds, Spain's global strategy will focus on the following specific targets:

- Capacity building on maintenance and operation of infrastructures to enhance its resilience and safety, taking into account the impacts of climate change.
- Sharing best practices regarding water information systems (monitoring, acquisition, analysis) on supply and sanitation systems.
- Improve the resilience of water systems through a balanced use of grey (traditional) and green (nature-based solutions) infrastructure.
- Integration of water accounting as part of the accounting of natural capital within the non-financial economy.

Promote integrated water resources management (IWRM) as a cornerstone governance framework to achieve water security

UN's SDG6 states the need ensure the availability and sustainable management of water and sanitation for all. It includes eight targets that address: access to drinking water and sanitation, water quality improvement, efficient use of water resources in all sectors, IWRM implementation at all levels, protection and restoration of water-related ecosystems, expansion of international cooperation and support provided to developing countries for capacity-building in water and sanitation and the support and strengthening of the participation of local communities in improving water and sanitation management.

SDG Target 6.5 focusing on water resources management states "*By 2030, implement integrated water resources management at all levels, including through transboundary cooperation as appropriate*". IWRM allows adequate attention to demands while compliant with an adequate state of the water environment.

Consequently, it can be said that the implementation of water resources adequate management is a necessary instrument to achieve the rest of SDG 6 goals. The implementation of IWRM requires the following elements:

1. **Enabling context:** addresses the creation of conditions that contribute to supporting the IWRM implementation including its main legal, policy and strategic planning tools.
2. **Institutions and participation:** assesses the scope and functions of the political, social, economic and administrative institutions and other stakeholders which support the implementation of IWRM.
3. **Management Instruments:** assesses the tools and processes which allow managers and users to make decisions and choose rationally and soundly through different alternatives.
4. **Financing:** assesses the budgets and financing available from various sources used for the development and management of water resources.

IWRM facilitates coordination on water matters with other sectoral policies, such as energy, agriculture and the environment. Through IWRM, adaptation measures against climate change can be incorporated. Spain's hydrological planning process and governance framework are patent IWRM examples.

Regarding such topic, Spain's global strategy will focus on the following specific objectives:

- Promote IWRM globally as a key necessary instrument to achieve any objectives conducive to water security and guarantee access to water and sanitation.

Coordinated work with the Spanish Office for Climate Change on the advances on water adaptation

Although currently adaptation to climate change is widely integrated into policies and planning around the world (*"2020 Adaptation Gap Report"*[7], UNEP's), the levels of commitment and the quality of the instruments differ greatly from country to country. Adaptation measures are essential so that stakeholders, both in the public and private sectors, can be prepared and respond to the effects of climate change. As part of the Paris Agreement, countries agreed to report on their progress in the adaptation planning processes at the national level, thus highlighting its importance.

EU's new Strategy for Adaptation to Climate Change, "*Building a Europe Resilient to Climate Change*[8]", proposes a set of actions regarding different water issues and includes specific action for the protection of water resources. The proposed actions are concurrent with the strategic objectives expressed in this document, although it also adds the need to improve the knowledge of the impacts of climate change on water resources. The adoption of adaptation measures is a must "without excuses", makes necessary a better impact assessment.

Since Spanish adaptation to climate change policies are developed jointly with the OECC, specific actions will be carried out on water and climate change. The National Plan for Adaptation to Climate Change (PNACC) 2021-2030[9], declares:

> *"Essential to respond to the new pressures derived from climate change […]. Saving, reusing reclaimed water and desalination together with the use of renewable energies, can facilitate adaptation to climate change ".*

Spain's global strategy will focus on the following specific objectives:

- Sharing best practices regarding the adoption of specific adaptation measures for water resources to reduce the vulnerability to climate change.
- Promote the inclusion of water-related measures in Nationally Determined Contributions, climate change adaptation plans and river basin management plans.

[7] https://wedocs.unep.org/bitstream/handle/20.500.11822/34726/AGR_en.pdf
[8] COM(2021) 82 final
[9] https://www.miteco.gob.es/es/cambio-climatico/temas/impactos-vulnerabilidad-y-adaptacion/pnacc-2021-2030-en_tcm30-530300.pdf

MAIN CROSS-CUTTING THEMES

Water security as an engine for peace and stability

During the 67th session of the United Nations General Assembly (UNGA) in September 2012 it was highlighted that water security is key for human development but also to guarantee peace and security. Water security offers opportunities through cooperation and collaboration to address challenges in a multidisciplinary and cross-sectoral manner in order to reduce the risks of potential conflicts and manage continued sustainable development and growth. Threats to water security are amplified by unequal and difficult access to water and sanitation, which can aggravate existing social fragility, tensions, violence and conflict. The elements that contribute to achieving water security are reflected in UN's SDG 6 targets, so that the achievement of these goals will ensure water security. On November 19th, 2018, the EU Council adopted a motion on water diplomacy intending to strengthen the EU's diplomatic engagement on water as a tool for peace, security and stability[10]. The Council noted the potential for water scarcity to affect peace and security, as water-related risks can have serious human and economic impact, all of which may have direct implications for the EU such as the increase on migratory flows.

Cooperation on water

The cooperation between stakeholders is essential and necessary to achieve water security and guarantee access to water and sanitation, both in national and transboundary waters. Globally, 153 countries share rivers, lakes, and aquifers. Transboundary basins cover more than half of the earth's surface, account for approximately 60% of the world's freshwater flow, and are home to more than 40% of the world's population. Cooperation on transboundary waters is necessary for the integrated and sustainable management of international waters. In turn, the achievement of IWRM in transboundary waters involves achieving it previously in each riparian country. UNECE, under the framework of the 1992 Convention on the Protection and Use of Transboundary Watercourses and International Lakes, identifies among the benefits of cooperation those related to peace and security, such as the increased geopolitical stability and consolidation of diplomatic relations, the increased trust and reduced risk of conflict, which may create new opportunities for joint initiatives and investments.

UN's High Level Panel on Water and Peace report "*A matter of survival*[11]", concludes on its later action plan, the need to promote and strengthen cooperation on water, recognizing that water it is a shared resource that requires strong international cooperation, thereby helping to avoid tensions and conflicts and to consolidate peace.

[10] https://data.consilium.europa.eu/doc/document/ST-13991-2018-INIT/en/pdf
[11] https://www.genevawaterhub.org/sites/default/files/atoms/files/a_matter_of_survival_www.pdf

KEY PRINCIPLES FOR THE ACHIEVEMENT OF THE OBJECTIVES

The achievement of the objectives recalls the following internationally recognized principles:

Human right to water and sanitation

The human right to water and sanitation was recognized by resolution 64/22 of the UNGA of July 28, 2010, and must comply with the requisites of availability, affordability, quality, accessibility and acceptability developed under international human rights law as a basis to provide these rights. In 2014, the European Union recognized the right to water and sanitation as a human right (*"Water is a public good, not a commercial commodity"*) through the first European citizens' initiative *Right2Water*,[12] which has become part of the new EU water and sanitation legislation.

Polluter Pays principle

Firstly hinted in the recommendation on the guiding principles related to international economic aspects that should guide environmental policies, later adopted by the EU in its first environmental action plan in 1973, it was finally formulated by principle 16 in the Declaration of Rio de Janeiro on the environment and development in 1992. The Treaty on the Functioning of the European Union - TFEU[13] sets out in article 192.1 the Polluter Pays principle, as a cornerstone of EU's environmental policy, together with principles of precaution and preventive action, and on the principle of correcting attacks on the environment, preferably at the source itself.

OECD's *"Council Recommendation on Water"*[14] proposes subscribing countries to apply cost-effective measures to address pollution problems by applying the polluter pays principle, promoting it in their regulatory frameworks, as well as combining voluntary and economic regulatory instruments to continue promoting incentives for polluters to reduce and control contamination of water resources.

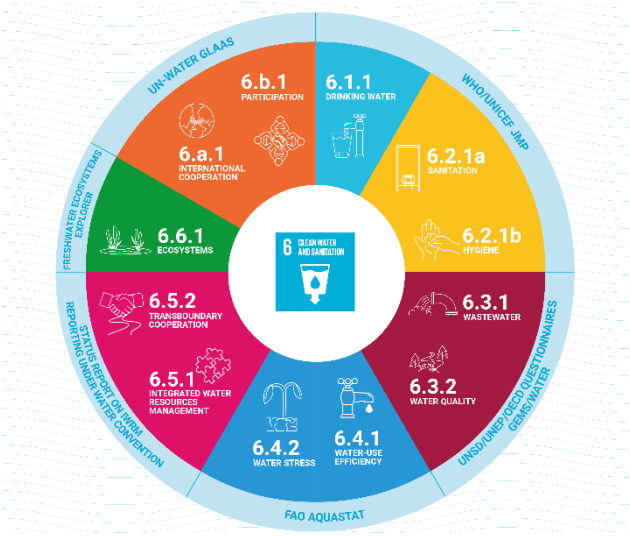
The recommendation also invites the **promotion of incentives for efficient water use, including economic instruments for the management of water resources**, such as the introduction of water extraction rates. This recommendation is reflected in the provisions of the Water Framework Directive's article 9[15] to follow the "*3Ts*" (tariffs, taxes and transfers) elements for the "*sustainable cost recovery*" initially promulgated by the Camdessus panel on the "*Financing Water for All*" in 2003 and later adopted by OECD.

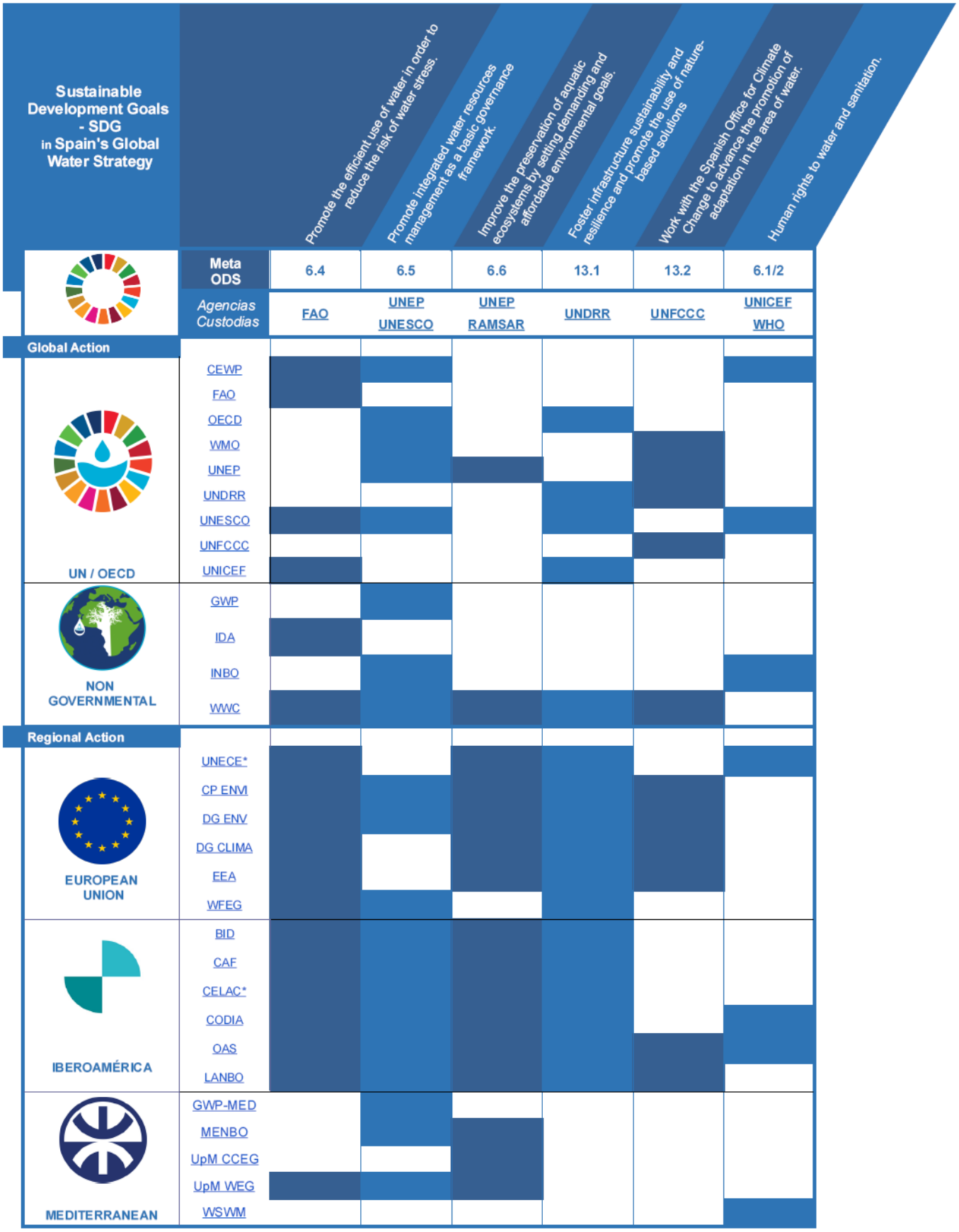
[12] https://europa.eu/citizens-initiative/water-and-sanitation-are-human-right-water-public-good-not-commodity_en
[13] https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:12012E/TXT&from=EN
[14] https://www.oecd.org/environment/resources/Council-Recommendation-on-water.pdf
[15] Article 9: Member States shall take into account the principle of cost recovery for water-related services, including environmental and resource costs, […]

SPAIN'S GLOBAL WATER STRATEGY SUMMARY: OBJECTIVES AND PRINCIPLES OF ACTION

Objectives	Principles of Action
Promote the efficient use of water in order to reduce the risk of water stress. **SDG 6.4**	**Water security as an engine for peace and stability.** **Water cooperation** **Polluter pays principle**
Promote integrated water resources management as a basic governance framework to achieve water security **SDG 6.5**	
Improve the conservation of aquatic ecosystems by setting demanding and affordable environmental objectives **SDG 6.3 and 6.6**	
Promote the sustainability and resilience of infrastructures and promote the use of nature-based solutions **SDG 13.1**	
Work in coordination with the Spanish Office for Climate Change to advance the promotion of adaptation in the field of water. **SDG 13.2**	
Human right to water and sanitation. **SDG 6.1 and 6.2**	

SUSTAINABLE DEVELOPMENT GOALS





*: UN Regional Agencies with overarching scope

Figure 1 Intergovernmental stakeholders per SDG target

SPAIN'S GLOBAL ACTION REGARDING WATER

SPAIN'S FOREIGN ACTION REGARDING WATER

In the last 20 years, our country has been participating actively in international forums and has committed strongly to multilateralism and regional action. Spain holds a leadership position on development cooperation in Latin America. Likewise, it maintains a notable profile on the Mediterranean water agenda.

Spain holds an internationally recognized water governance system and a sound and solvent public water administration. Albufeira Convention, regulating half of the surface of Spain's River Basin Districts shared with Portugal is a worldwide reference accord on transboundary waters' management.

Spain's geographical and climatic diversity entails a great variability of rainfall (spatial and temporal) and an uneven distribution of renewable resources. Average annual rainfall is 650 mm, but rainfall figures differ over 90% between the northwest and southeast of the country, as well as seasonally in the same areas. In addition to this, the correlation between maximum and average rains in some areas may cause to flash flooding, especially in the Mediterranean area. The natural average supply does not reach 300 mm. These inequalities will be increased by climate change, which will also amplify the effects of extreme events (droughts and floods). Reductions of between 10% and 20% are expected in the second half of the 21st century, due to the effects of climate change.

On the demand side, Spain has 46.5 million inhabitants and host annually over 80 million tourists, which are guaranteed a quality water supply. Additionally, it is one of the agricultural powers of the European Union, with more than 3.7 million hectares of irrigated land. The total annual volume assigned to consumptive uses is 30,588 hm^3.

The strong seasonality of the highest demands, occurring in spring and summer, together with the irrigation campaign and the high tourist season, coincides with the time of less rainfall, which has required an important regulatory capacity in the basins, acquired through by dam building. The water storage capacity in Spanish reservoirs is 56,000 hm^3, with a total of 1,225 large dams. Should they not exist, Spain could only meet 15% of current demand for consumptive uses. Thankfully, additional resources are available from water reuse and desalination (about 900 hm^3) and water transferred between different river basin districts (700 hm^3).

The exploitation of water resources must be made compatible with the conservation of some 6,500 areas either environmentally protected or with aquatic or water dependant ecosystems. This high number of zones reflects the fact that Spain is the country in the world hosting the most Biosphere reserves world's third country with the most wetlands of international importance within the Ramsar Convention.

In this context, Spain pioneered back in 1926 a watershed management system currently recognized as the basis of water management, with the river basin district as the prime management unit of EU's Water Framework Directive. The management of resources based on hydrological planning, both in quantity and quality, ensuring supply to water demands while protecting the environment, makes our model attractive for many countries still in need to narrow important breaches in access to water and sanitation. Additionally, droughts and floods management based on prevention, preparation and planning leads to greater protection of people and property, which avoids resorting only to action under crisis scenarios.

The challenge of scarcity, intensified by the pressures associated with urban growth, increased demand for water for food production and energy generation, depletion of natural resources, all aggravated by the negative impacts of climate change, brings water in the scope of the international security agenda as a consequence of the potential conflicts associated with the competing access to water resources within countries and between riparian countries that share such resources (freshwater and groundwater). Such means that water management has become, today, risk management.

Throughout the last decades, Spain has a long record of participation in the international water agenda and in the efforts of the international community to face the challenges of water security in its different dimensions (development cooperation and technical collaboration), specifically in Latin America and the Mediterranean. Its action has mainly addressed water governance, the promotion of the human right to water and sanitation and the promotion of water diplomacy and the peaceful resolution of water-driven conflicts.

In parallel, the Spanish water business sector has undergone a growing process of internationalization in recent years that has enabled it to compete successfully in most international markets for infrastructure, equipment and services in all phases of the water cycle, offering comprehensive management of water resources based on the experience formerly acquired in Spain.

Recently, COVID-19 pandemic has highlighted the role of safe water access as the main bulwark to prevent the spread of the virus. During the crisis, the supply and sanitation services have been considered essential and supply has not been affected. An early warning system[16] has been put in place based on periodic wastewater sampling of virus particles, which allowed our health authorities to monitor potential outbreaks occurring throughout the Spanish territory. Those best practices were shared fully in various international forums.

Spanish Water Directorate

The Directorate liaises with the main international actors at the regional and multilateral level regarding water issues, such as:

Regional stakeholders in Latin America and the Mediterranean: SEGIB[17], UfM; Dialogue 5 + 5, MENBO

European Union: Water Expert Groups on the European Commission, Groups of the Common Strategy for the Implementation of the Water Framework Directive

United Nations and multilateral organizations: UNESCO, UNECE, WMO, UN- Water, UNDESA, OECD, OEA, IDB, CAF, INBO, WWC

UN activity is carried out in coordination with the Permanent Representations in Geneva, New York and in Brussels, as well as with the OECD and UNEP Councils and with Spain's Permanent Representation at UNESCO.

An important part of the foreign action developed both in Ibero-America and in the Mediterranean is promoted and undertaken with staff and resources from the General Water Directorate, which carries out the following secretarial functions:

[16] https://www.miteco.gob.es/es/agua/temas/concesiones-y-autorizaciones/vertidos-de-aguas-residuales/alerta-temprana-covid19/default.aspx
[17] Ibero-American General Secretariat - https://www.segib.org/en/

- Permanent Technical Secretariat of the Conference of Ibero-American Water Directors (CODIA), as a network attached to the Ibero-American General Secretariat.
- Permanent Technical Secretariat of the Mediterranean Network of Basin Organizations and of the Water segment of the 5 + 5 Dialogue - Western Mediterranean

Both Secretariats allow the General Water Directorate to closely monitor the international water agenda in the regional areas of Latin America and of the Mediterranean, respectively, providing a candid collaboration with most of the international organizations that work for water and with the national decision makers of the network's member countries (5 + 5 Water Group and CODIA at the level of national authorities, MENBO at basin level).

The Water Directorate also contributes to IAHR and ICOLD activity through its Spanish chapters (SPANCOLD). Regionally, contributes to the activities of the IME, SEMIDE, GWP Med in the Mediterranean area. To a lesser extent, Spain's Water Directorate liaises with China participating in the Steering committee of the CEWP.

Spain's Foreign Action Strategy 2021-2024[18] issued by the Ministry of Foreign Affairs, European Union and Cooperation is projected under the following lines of global environmental action:

Strengthened regional integration and multilateralism

The objective of developing a higher profile in a stronger leading Europe in terms of climate ambition and the defence of biodiversity will impregnate the program of the Spanish presidency of the Council of the European Union in the second half of 2023, boosting the development of the European Green Deal[19] and greater integration to facilitates the necessary digital, energy and environmental transitions in Europe.

On such grounds, Spain's Global Water Strategy will lead multilateral commitments (UN's SDGs, UNFCCC COPs) on water issues through integrated and effective multilateralism.

On the regional level, Spain will provide support and facilitate greater regional integration in Latin America, especially through the Ibero-American Summits; greater Mediterranean integration, through the Union for the Mediterranean and the 5 + 5 Dialogue; African integration and the strengthening of dialogue with Asian regional organizations (ASEAN) will also be a priority.

Last but not least, bilateral priorities established by the Foreign Action Strategy are developed based on two elements:

- **Trade interests**, as defined in the Internationalization Plan of the Spanish Company as PASE - Países de Acción Sectorial Estratégica[20] - Countries with Strategic Sectoral Performance, with a great impact on the integral water cycle sector in most countries, to be delivered through the Spain Water Partnership.
- **Cooperation**, as defined in the V Master Plan of Spanish Cooperation 2018-2021[21], being its main regions Ibero-America, Sub-Saharan Africa and Maghreb.

[18] http://www.exteriores.gob.es/Portal/es/SalaDePrensa/ElMinisterioInforma/Documents/ESTRATEGIA%20ACCION%20EXTERIOR%20ENG.pdf
[19] COM(2019) 640
[20] https://comercio.gob.es/en-us/estrategia_internacionalizacion/Paginas/Pase.aspx
[21] https://www.aecid.es/Centro-Documentacion/Documentos/Planificaci%C3%B3n/PD%202018-2021.pdf

Regarding Africa, the Ministry of Foreign Affairs, European Union and Cooperation is working on the **Focus Africa 2023 Program**, as access to water and sanitation are contemplated in the first objective of Africa's 2063 Agenda[22].

Such objective is dedicated to promoting the quality of life and well-being among all citizens, being access to drinking water and sanitation fundamental resources to guarantee the people's public health. This becomes especially relevant in urban nuclei with high population density and limited development of basic public services. According to the Agenda, actions in the field of water and sanitation will be a priority in Africa and will be harmonized with other initiatives in pursuit of climate change adaptation, economic development and improvement of public health systems.

Focus Africa 2023[23] Program

Spain's Ministry of Foreign Affairs, European Union and Cooperation is working on the Focus Africa 2023 Program. The African continent has become an increasingly priority area at the international level as it is experiencing strong transformations. As an example, the European Union has assigned Africa a leading role in the framework of the new multiannual financial perspectives for the period 2021-27. In March 2020, the European Commission presented the Communication "*Towards a global strategy with Africa*"[24]. On the other hand, the COVID-19 crisis has put at risk the fulfillment of UN's Sustainable Development Goals and the 2063 Agenda of the African Union. In this context, the "Focus Africa 2023" program defines Spain's swift to the transformations and challenges that Africa is currently facing.

[22] https://www.un.org/en/africa/osaa/pdf/au/agenda2063.pdf
[23] http://www.exteriores.gob.es/Portal/es/SalaDePrensa/ElMinisterioInforma/Documents/ENG%20DOCUMENTO%20FOCO%20AFRICA%202023.pdf
[24] https://op.europa.eu/en/publication-detail/-/publication/55817dfb-61eb-11ea-b735-01aa75ed71a1

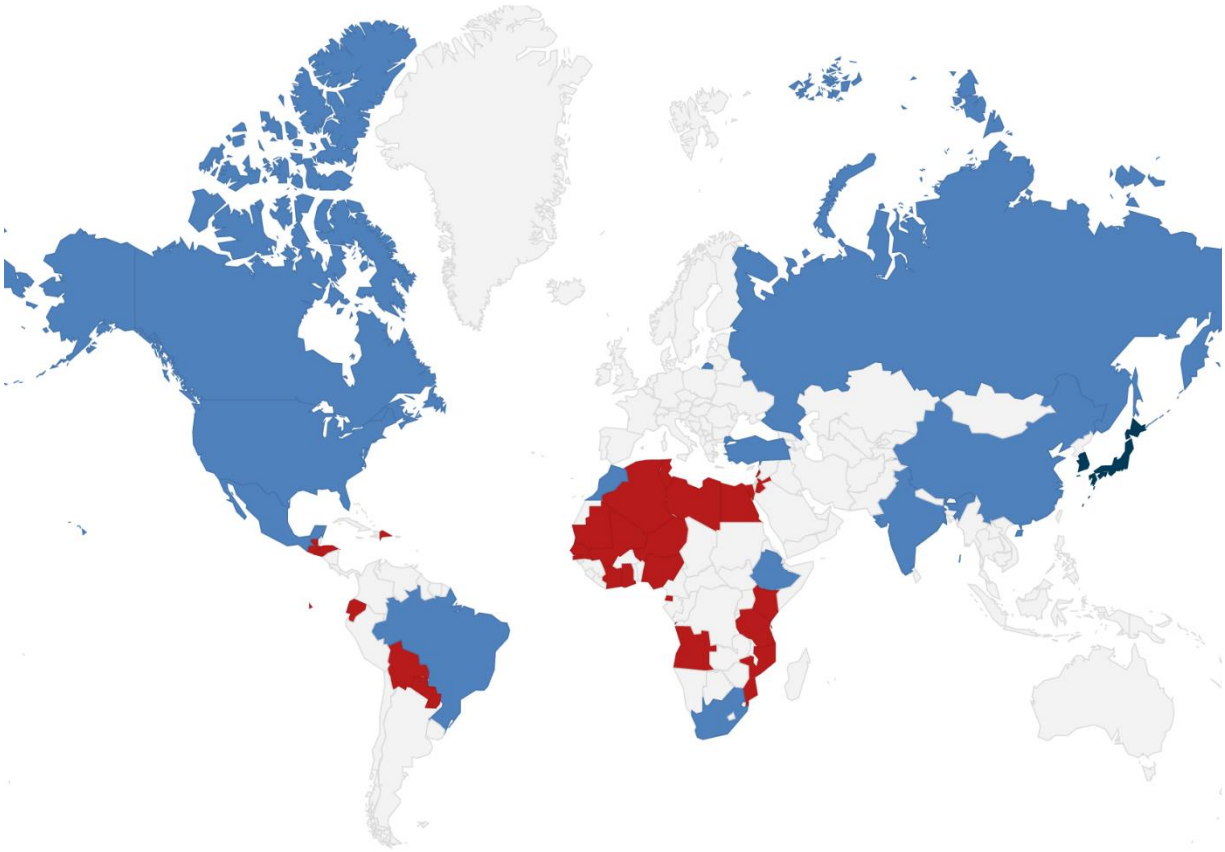


Figure 2 Priority countries

Trade Interests / Foreign Cooperation

America	USA and Canada
Iberoamerica	Mexico, Brazil, Bolivia, Ecuador, El Salvador, Guatemala, Honduras, Paraguay and Dominican Republic
Africa	South Africa, Angola, Ivory Coast, Ghana, Kenya, Tanzania, Nigeria, Cape Verde, Ethiopia Mali, Niger, Senegal,, Equatorial Guinea, Ethiopia, Mozambique
Mediterranean	Morocco, Turkey, Mauritania, Algeria, Tunisia, Libya, Egypt, Palestine, Jordan and Lebanon
Europe	Russia
Asia	China and India Potential Allies in other markets: Japan *, South Korea

Source: Internationalization Strategy of Spanish Companies, Master Plan for Spanish Cooperation

OTHER RELEVANT DOCUMENTS

Strategic Orientations on Water and Climate Change

Executive Summary

Full document

Orientaciones Estratégicas sobre Agua y Cambio Climático

Resumen ejecutivo

Documento completo

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DGA
DIRECCIÓN
GENERAL DEL AGUA

Plaza de San Juan de la Cruz, 10
28003 Madrid
Spain

www.miteco.gob.es