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1st

WASAG

International Forum on Water Scarcity in Agriculture

Celebrating
World Water Day 2019

19–22 March 2019 | Praia, Cabo Verde



executive summary

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on **Water Scarcity**
in **Agriculture**

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Food and Agriculture Organization of the United Nations
Rome, 2021

Required citation:

FAO. 2021. *1st WASAG International Forum on Water Scarcity in Agriculture - Executive summary. Celebrating World Water Day 2019: 19–22 March 2019 | Praia, Cabo Verde*. Rome, FAO.

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Introduction

From Rome to Praia, the Global Framework on Water Scarcity in Agriculture (WASAG) has brought together many partners across the globe and across sectors to tackle pressing water issues related to agriculture and food production. WASAG's vision is of a world whose food systems are secure and resilient to increasing water scarcity in a changing climate.

WASAG was established during a first partner's meeting on 19–20 April 2017 in Rome. Since then, partners have increased from 34 to more than 65, and the work of WASAG has gradually focused on six thematic areas. Endorsed by key international meetings, WASAG has participated in the Stockholm World Water Week of 2017 and 2018 as well as during the World Water Forum of 2018 in Brasilia, Brazil, mobilizing partners and gaining more and more support.

WASAG's 1st International Forum held in Praia, Cabo Verde from 19 to 22 March 2019, aimed at identifying concrete - practical, innovative and collaborative - solutions to address water scarcity in agriculture in a changing climate. With a focus on Cabo Verde, Small Island Developing States (SIDS) and West African countries, the Forum was organized around the following six main thematic areas, which coincide with the six WASAG working groups:

- 1. water and migration**
- 2. drought preparedness**



“JUST LIKE WATER, WE NEED TO FLOW FORWARD – TO LEAVE NO ONE BEHIND”

- MARIA HELENA SEMEDO, FAO DEPUTY DIRECTOR-GENERAL, CLIMATE AND NATURAL RESOURCES, FAO

- 3. financing mechanisms
- 4. water and nutrition
- 5. sustainable agriculture water use
- 6. saline agriculture

The **Objectives** of the Forum were to:

- Raise awareness about the impacts of climate change, the importance of sustainable management on water in agriculture and of healthy ecosystems and their services.
- Identify the specific needs and agree on priority actions to address water scarcity in agriculture, focusing on SIDS and West African countries.
- Share experiences in addressing water scarcity in agriculture in the context of climate change.
- Establish collaboration between partners and stakeholders to ensure their commitment to finance priority actions.
- Mobilize resources to address the growing issues of water scarcity in agriculture in SIDS and the West African countries.



“ADOPTING A COMMON APPROACH AMONG ALL PARTNERS IS THE KEY TO TACKLE WATER SCARCITY IN AGRICULTURE. WASAG PROVIDES THIS FRAMEWORK”

– RUHIZA JEAN BOROTO, WASAG TEAM LEADER

Under the patronage of the Government of Cabo Verde, a WASAG Partner in collaboration with the Food and Agriculture Organization of the United Nations (FAO), the Ministry of Agricultural Food, Forestry and Tourism Policies of Italy (MIPAAFT), also a WASAG Partner, and the Swiss Federal Office for Agriculture (FOAG), the Forum was organized to coincide with the celebrations of the World Water Day 2019, which this year adopted the theme of “Leaving no one behind”. It enjoyed the highest level of political ownership by the Government of Cabo Verde.

Following an opening speech from H.E. Ulisses Correia e Silva, Prime Minister of Cabo Verde, the WASAG Partners with more than 300 delegates from 48 countries assembled for various technical sessions.

This executive summary presents the key issues raised during the Forum’s technical sessions and side events, as well as key messages from these sessions. As a result, these discussions which were led by the six working groups of WASAG were synthesized in a set of 17 commitments, called the Praia Commitment which was adopted by the Partners at the conclusion of the Forum. This important milestone will now translate the work of WASAG into actions that can be monitored. The Praia Commitment is an achievement and an undeniable call for action through the Global Framework.



Opening ceremony

On the morning of 20 March 2019, the Forum opened with speeches from:

- H.E. Ulisses Correia e Silva - Prime Minister of Cabo Verde
- H.E. Gilberto Correia Carvalho Silva - Minister of Agriculture and Environment of Cabo Verde
- Mr Torkil Clausen, WASAG Chair
- Ms Dani Galliard-Picher, Director, World Water Council (WWC) and WASAG Vice-Chair
- Mr Eduardo Mansur - Director, Land and Water Division, FAO
- Ms Ana Laura Touza - FAO Representative in Cabo Verde
- Mr Lisandro Martin - Director, West and Central Africa, International Fund for Agricultural Development (IFAD)

Some key issues raised during the opening ceremony were:

- There is increasing water scarcity in agriculture, exacerbated by a changing climate, calling for a concerted effort to adopt innovative and sustainable practices.
- No one must be left behind, especially with increasing demand on water due to growing populations.
- Cabo Verde needs to reduce its dependency on fossil fuels and on rainfed agriculture. It needs to treat waste water. Better solutions must be found to alleviate the effects of water scarcity exacerbated by a prolonged drought on agriculture in Cabo Verde.
- Better financing mechanisms, political will and, concrete commitments and cooperation between countries are needed to increase the resilience of countries to climate change.



“WE JOIN ALL OF OUR EFFORTS TO WELCOME THE 1ST WASAG INTERNATIONAL FORUM, BECAUSE WE ARE CONVINCED THAT OUR COUNTRY REPRESENTS THE BEST EXAMPLE OF A REALITY AFFECTED BY WATER SCARCITY IN AGRICULTURE, WITH A FIRM POLITICAL CONVICTION TO ACHIEVE THE CHALLENGES AND TO DEAL WITH IT”

- H.E. ULISSES CORREIA E SILVA,
PRIME MINISTER OF CABO
VERDE



Technical sessions

Cabo Verde

Cabo Verde addressing water scarcity

This session focused on the responses that Cabo Verde is developing to address the challenges posed by water scarcity in agriculture with the intervention of several key players, including the private sector. The following institutions participated in this session: Government of Cabo Verde; Agência Nacional de Água e Saneamento, Cabo Verde (ANAS); Instituto Nacional de Investigação e Desenvolvimento Agrário, Cabo Verde (INIDA); FAO; Instituto Tecnológico de Canarias (ITC); Genius Watter.

KEY ISSUES RAISED

- Water scarcity is not just a result of climate change in Cabo Verde, as the country is already located in an arid zone.
- Cabo Verde has had several experiences, which may be of interest to other countries. However, there is now a need to speed up actions towards increasing resilience in response to the needs of key economic sectors, such as the tourism sector, which consumes a fair proportion of water and generates 22 percent of Cabo Verde's Gross Domestic Product (GDP).



KEY MESSAGES

- There is a need to improve governance and support policy reforms, to ease importation of green technologies and reduce taxes on blue investments.
- There is an urgent need to reduce water losses in agriculture production and value chain processes. We need to promote and adopt efficient irrigation methods such as drip irrigation.
- Improvements are needed in efficient planning of water and financial resources management, incapacity building, in groundwater management and recharge, and in desalinization.
- Investments are required to tackle water scarcity, including by fostering public-private partnerships.
- Water has to be a bankable and an affordable commodity, with a willingness to pay by consumers.
- In addition to high-tech solutions, low-tech long-term existing technologies need to be promoted.

**WATER AND MIGRATION****Dialogue for interlinkages assessment of the water-migration nexus in rural environments**

Water scarcity and droughts, which result in the decline of smallholder agricultural production, can be a driver of migration. Populations in rural areas should be afforded the choice to remain where they live or to migrate, but should not be forced to move due to the impossibility of sustaining their livelihoods. Providing alternatives to migration includes creating stronger rural communities that are more resilient to water stress and other environmental and non-environmental risks, as well as investing in local diversification.

The following institutions contributed to this session: United Nations Convention to Combat Desertification (UNCCD); Global Water Partnership (GWP); Italian Agency for Development Cooperation (AICS); Centre for Resource Management and Environmental Studies of the University of the West Indies (CERMES); Water Youth Network; International Organization for Migration (IOM) Regional Office for West and Central Africa; GWP-Caribbean.

KEY ISSUES RAISED

- Water can be a driver of migration, both as a push and pull factor.

- Linkages between water and migration are complex and call for deepened analysis and holistic approaches.
- Understanding the values of water and education on water use is important in managing water more sustainably.
- Gender issues in rural migration have to be recognised.

KEY MESSAGES

- Migration is a known adaptation strategy to climate and environmental changes and water is one of the drivers of migration.
- The water–migration nexus in agriculture must be addressed more systematically with a focus on inclusion and interconnections to build resilience, support economic development, equity and fair employment, and give opportunities and choices to populations.
- A combination of interventions is needed, including improved policy coherence, planning and implementation, place-based and context specific interventions, better mechanisms for research and knowledge-sharing, multi-disciplinary and inter-sectoral collaborations and partnerships at all levels.



DROUGHT PREPAREDNESS

Drought as an opportunity

Droughts have affected more people worldwide in the last 40 years than any other natural hazard. They are expected to further increase in frequency, severity, duration and spatial extent, affecting family farmers living in rural areas who depend on agriculture for their livelihood. Managing droughts by reducing risk and increasing the capacity of rural communities to cope with is key to prevent droughts from turning into famines.

The following institutions contributed to the session: FAO; University of Nebraska; World Meteorological Organization (WMO) /GWP Integrated Drought Management Programme – West Africa; GWP West Africa; Water Youth Network; Government of Cabo Verde; Caribbean Institute for Meteorology and Hydrology; UNCCD.

KEY ISSUES RAISED

- Meteorological and hydrological data networks are often inadequate in terms of the density of stations for all major climate and water supply parameters. Data quality is also a problem because of missing data or an inadequate length of record.
- Data sharing is inadequate between government agencies and research



institutions, and the high cost of data limits their application in drought monitoring, preparedness, mitigation and response.

- Drought indices are sometimes inadequate for detecting the early onset and end of drought.
- Delivery systems for disseminating data to users in a timely manner are not well developed, limiting their usefulness for decision support.



KEY MESSAGES

- There should be an integrated drought monitoring system, coupled with multiple climate, water and soil parameters.
- There is an urgent need of provision of storage of flood water in river basins to cope with drought disasters.
- The youth are the future owners of soil, land and nature. They are at the forefront of innovation and it is time to connect them in meaningful ways to the implementation of the drought pillars for sustainability and greater impact.
- Agriculture is the socio-economic sector most prone to impacts from drought and demands political will and strategic planning to mitigate the impacts from this hazard.
- Integrated drought management requires a collaborative approach within and between levels of government and with the private sector and various stakeholders (no silos!). Drought needs to be very much a part of any water, food, health, planning and national security conversations.
- The right mix of policy instruments, investments and incentives are required to promote the involvement of the private sector in the endeavour to reducing the impacts of droughts.



FINANCING MECHANISMS FOR SUSTAINABLE MANAGEMENT OF WATER RESOURCES

Unlocking finance for water and agriculture

Opening opportunities for smallholder farmers to become more resilient in a changing climate requires more investments to improve access to water and manage water in a more efficient way. There is a need to facilitate farmers' access to innovative financing mechanisms to boost these investments. Such mechanisms include new funds targeting climate change adaptation and mitigation, co-financing and the provision of insurance or guarantees by financial institutions.

The following institutions contributed to this session: World Bank; International Fund for Agricultural Development (IFAD); Consiglio per la ricerca in agricoltura e l'analisi dell'economia agraria, Italy (CREA); International Commission on Irrigation & Drainage (ICID).

KEY ISSUES RAISED

- There are various successful examples regarding the mutualisation of resources. All financiers are convinced that no one single financier will be able to resolve challenges alone. Mutualisation is very important in this regard.
- We need to work on innovative forms of funding, moving beyond state funding, to achieve more resilient, mixed financing mechanisms, which allow for a better way to share risks. We need a one-stop shop for information on financing, so that stakeholders are more aware of the possible types of financing.
- There is a need to find more effective ways to involve the private sector in tackling water scarcity, through PPPs, knowledge sharing, or other innovative approaches. There needs to be collaboration with the financial sector to discuss opportunities and accountability for water costs, possibly through existing investor platforms.

KEY MESSAGES

- If we come together and have good governance, we can achieve stronger results.
- We need to leverage all sources of financing, as no single financier will resolve the challenges alone.
- We need to discuss national priorities with governments in order to facilitate mutualisation of funds. We need a common vision of goals and strategies.



WATER AND NUTRITION

Achievements so far and prospects with specific reference to West Africa

Each drop of water used for agriculture should also contribute to produce more nutritious food, providing a healthy and balanced diet. Water management strategies in the face of climate change should not only increase food productivity but also improve food security while decreasing malnutrition. For example, introducing irrigation to rainfed crops during dry spells gives farmers the possibility to grow new crop varieties. This contributes to diversify and expand availability of more nutritious food that can positively impact food security and nutrition.

The session was organized by: Swedish University of Agricultural Science; International Crops Research Institute for the Semi-Arid Tropics (ICRISAT); Politecnico di Milano; North Western University; Instituto de Tecnologia Química e Biológica António Xavier of the Universidade NOVA de Lisboa (ITQB NOVA); John Paul II Foundation for the Sahel; CERMES.

KEY ISSUES RAISED

- Addressing water scarcity and nutritional linkages requires multi-disciplinary expertise and inter-sectoral collaboration.
- There is potential to maximize new knowledge and innovation as well as existing available practices to improve water security as well as nutritional benefits from farm to diets.
- To meet the SDGs and climate resilience objectives, waste solutions and knowledge need to be accelerated in regards to enhancing water –and nutrition, from production to consumption.

**KEY MESSAGES**

The WASAG working group on water and nutrition will commit to:

- Develop a framework to link water and nutrition security approaches through multi-disciplinary (multi-sectorial) partner input.
- Assemble pilot examples of water and nutrition cases, as a “source of knowledge” for lessons learned.
- Build a community of practise (network of expertise) to support development and advise on water and nutrition security at global, regional and national levels.

**SUSTAINABLE AGRICULTURE WATER USE**

This theme was discussed in one plenary session and two parallel sessions addressing respectively the subthemes of (I) Instruments and technologies for sustainable agriculture, (II) Addressing water scarcity: lesson learned from countries, (III) A water secure world free of hunger and poverty: the way ahead.

Sustainable management of water in agriculture is critical to increase agricultural production. There is an urgent need to improve water use efficiency. This is not only about ‘more crop per drop’, but also about ensuring that the water savings are used effectively at farm, catchment, national or transboundary levels, taking into account a fair allocation among other competing sectors - domestic needs, industries, energy, etc. -as well as the environmental flow requirements.

The following institutions contributed to these sessions:(I) International Water Management Institute (IWMI); Government of Italy; Water Academy SRD; Massachusetts Institute of Technology (MIT); Fraunhofer Institute for Interracial Engineering and Biotechnology (IBG); Irritec; Universidad de Las Palmas de Gran Canaria; Agritechnovate Solutions Enterprises; (II) CREA; IWMI; United Nations University Institute for Integrated Management of Material Fluxes and of Resources (UNU-FLORES); Ghana Irrigation Development Authority; Water Research and Technologies Centre, Government of the National Capital Territory (NCT) of Delhi; Government of Saint Kitts and Nevis; (III) CREA; ICID; Polytechnique Montréal; Università per Stranieri di Perugia, Italy (Univ. Str.

Perugia); FreshMinistries; John Paul II Foundation for the Sahel; Universidad de Las Palmas de Gran Canaria; Universidade de Cabo Verde; Istituto Superiore per la Protezione e la Ricerca Ambientale, Italy (ISPRA).

KEY ISSUES RAISED

- What legislative package should we use to assist in the promotion of sustainable water use?
- We are seeing great use of technology, and adaptation to local conditions. This needs to be encouraged / promoted.
- How do we ensure that all the innovations are captured and that the benefits are usable at the relevant scale?
- Research and data have to be developed and used with a common objective: to fulfil people's need. Otherwise, sustainability will not be achieved and resource mobilization in terms of funding will be more difficult to obtain.
- Models to assess water scarcity effects on population have to be available and shared in order to increase participation from all sectors of the society (including private sector) and to spread sensitization on water use for consumption and agriculture purposes.



KEY MESSAGES

- There is a need for innovation platforms bridging the gap between researchers, innovators and users and identifying bottlenecks in the enabling environment to upscale.
- Advocate integrated planning processes, involving the different stakeholders and institutions bringing together their needs, expectations and perspectives resulting in better decision making.
- Promote a culture of sustainable water use in agriculture through better data on water resource availability and water use, awareness creation and capacity development.
- Provide policy makers with the tools to appreciate the impacts of technology choice and investment decisions through our knowledge products, technical assistance and information campaigns.



SALINE AGRICULTURE

Saline agriculture - A means to improve food and nutrition security in vulnerable areas; opportunities, challenges and prospects for future development

With sea level rise due to climate change, saline water intrusion will increase that will not only affect agricultural production, but also the living conditions of farmers, the quality of

natural resources and the whole ecosystems. It is therefore important to support innovative and sustainable food production systems in increasingly saline soil and water environments.

The following institutions contributed to this session: International Center for Biosaline Agriculture (ICBA); FAO; INIDA; The Salt Doctors; Consorzio di Bonifica di Secondo Grado per il Canale Emiliano Romagnolo; University of Science in Vietnam.



KEY ISSUES RAISED

- Globally, 1 billion hectares of land are salt-affected.
- The estimated annual rate of soil salinization ranges from 250 000 to 500 000 ha.
- The future food systems will have to come-up with strategies to either avert this trend or develop efficient technologies for saline lands.
- Biosaline agriculture is one of these strategies and it is important that we discuss this in the context of WASAG.
- We have to discuss the advancement of technology for saline agriculture in areas where salinity has become a pressing challenge.
- Technological options such as desalinization technologies have been increasingly available, but its access to farmers is not guaranteed because of cost and other barriers.
- Currently, only 2 percent of desalinized water is used for agriculture – this has to increase with parallel efficient ways to reduce the environmental impact of the reject brine produced.

KEY MESSAGES

- Since more and more lands are turning into marginal areas, it is imperative to secure the food, nutrition and livelihoods security in these areas fostering the agriculture sector with climate-smart technologies and resilient crops.
- It is possible to get more food from salinized areas.
- There are tailor-made farming solutions for salt-affected areas, including crop selection, social innovation, technological innovation and land management.
- We must link intergenerational knowledge and experience on saline farming through training and capacity building programs.
- We must preserve and enhance agrobiodiversity within saline ecosystems.
- As salinity is increasing around the world, we must manage water scarcity issues with the threat of salinity and climate change. We must then see salinity not as a threat but as an opportunity.



Side events

1. Approaches and technologies for efficient use of water for sustainable cropping systems: field experiences from West Africa

Cabo Verde addressing water scarcity

(FAO; Burkina Faso; Environnement Développement Action pour la Protection Naturelle des Terroirs (ENDA Pronat); African Development Bank (AfDB))

KEY ISSUES RAISED

- Financing is crucial for water resource development for agriculture and the African Development Bank has made financial commitment to current and future projects.
- Smart forestry could be crucial to protecting land and mitigating water scarcity.
- Agro-ecological approaches are promising in reclaiming degraded lands, but this should be coupled with technical support for productive use of reclaimed land to moderate the impacts of water scarcity in agriculture.

2. Towards the 9th World Water Forum, Dakar 2021

(World Water Council (WWC); Preparatory Committee for the 9th World Water Forum; African Ministers' Council on Water (AMCOW))

The 1st WASAG Forum was also an occasion to engage with Cabo Verde and WASAG stakeholders for the preparation of the 9th World Water Forum, to be held in Dakar, Senegal

in March of 2021. Through a side event organized by the World Water Council and its Senegalese partners, in the presence of the Ambassador of Senegal to Cabo Verde, the organizers called for contributions, in particular, related to the Forum's priority on rural development.

3. Innovations

(World Resource Institute; Genius Watter; Sun Fresh Water LLC)

This session illustrated how innovation can contribute to addressing water scarcity in agriculture through three presentations by the World Resource Institute, Genius Watter and Sun Fresh Water LLC.



KEY ISSUES RAISED

- Aquifers can be recharged with fresh rain water as a resilience strategy in SIDS and saline prone areas.
- Sun can be used to produce fresh water with affordable solar technology.
- We need decision making tools integrating environmental change, demography and food security index.
- We need ways to bring solutions to end users.
- It is important to rely on low-cost long-lasting solutions.

KEY MESSAGES

- Everything is possible; the right innovation has to be found and made available to the user who needs it the most.
- The option to recharge aquifers with runoff from rainfall can help to cope with future droughts.
- Technology offers options to cope with water scarcity.



Field trip - 19 March 2019

More than 120 participants came together on the first day of the Forum for a field trip in Praia, Cabo Verde, which was an opportunity to have first-hand exposure to the issues of water scarcity in agriculture. This field trip was a setting scene for the Forum and acted as an ice breaker among participants, allowing them to interact informally before the technical sessions. The field trip also provided concrete illustration of why WASAG exists.

In the morning, the participants had the opportunity to visit *Ribeira Seca*, the largest stream of the island Santiago in Cabo Verde, and the *Poilão* dam, built in 2006, which allows the drip irrigation of approximately 100 farms. The visit continued at the small fishing village of *Pedra Badejo*, where an important wetland area called the *Lagoa de Pedra Badejo* is located.

Cabo Verde is a country that still has to deal with water scarcity, but also with



water quality which is the main factor limiting agriculture production. The participants visited the Waste Water Treatment Plant of *Tarrafal*, where the Ministry of Agriculture and Environment and the Food and Agriculture Organization of the United Nations aim to use pilot wastewater treatment technology.

In the afternoon, the participants observed the potential for exploring the fog water at one of the highest points of the island, in the *Serra Malagueta*. At Assomada, they had the opportunity to visit an irrigation system that can irrigate the forage plants for cattle and ornamentals using treated wastewater.

The field trip concluded with a visit of the Ethnographic Museum of *São Lourenço dos Órgãos* in *João Teves*. The important agrarian research institution of Cape Verde, the INIDA (National Institute for Agricultural Research and Development) is also located in the same municipality.





Poster exhibition

More than 20 posters from different countries, agencies, governments and other stakeholder were displayed during the Forum, sharing innovative knowledge or projects related to the six main topics of the Forum. They were selected by a Scientific Committee and some of them were presented during the different technical sessions.





Networking

A dedicated networking area was available at the Forum's venue. Participants also had the opportunities to network during the field trip and at the poster session area. Major strengths raised by surveyed attendees were the diversity of participants and the plurality of views.





Marketplace

An exhibition space, the Water Scarcity Marketplace, was set up outside the National Assembly of Cabo Verde for the duration of the Forum. More than 40 stands representing farmers, governments, research academia, the private sector and multilateral institutions and agencies were featured. Participants shared their knowledge with project videos and by distributing flyers, and could also share their products in this knowledge transfer environment. The Water Scarcity Marketplace provided an ideal opportunity for lively discussions and getting to know people in an alternative, less formal space, where people could meet, talk and get more creative without the formality of a conference session.



Conclusions and synthesis: The Praia Commitment

The following key steps led to the adoption of the Praia Commitment:

- Prior to the Forum, the preparation work for the technical sessions was led by organizational, technical and science committees. The latter included representatives of the six WASAG working groups. Leading to the Forum, these committees met several times in video conferences.
- The field trip in Cabo Verde took place before the technical sessions and inspired the rest of this Forum by illustrating the plight and the needs of the countries afflicted by water scarcity.
- During the Forum, each working group demonstrated they had made sufficient progress in their activities, and presented recommendations that fed into the Praia Commitment.
- A drafting committee was established during the Forum to synthesize the outcomes from each group and the technical sessions.
- As a result, the Partners adopted recommendations to guide actions in each working areas of WASAG, resulting in the Praia Commitment.

The 17 commitments are therefore a synthesis of the recommendations formulated during the differ-



“THERE IS A SAYING THAT ALL WE HAVE TO DO IS CROSS THE BRIDGE OVER TROUBLED WATERS. WE CANNOT DO THAT IN THIS CASE. WE NEED TO SOLVE SHORT-TERM PROBLEMS WITH LONG TERM PLANNING.”

- MARIA HELENA SEMEDO, FAO
DEPUTY DIRECTOR-GENERAL,
CLIMATE AND NATURAL RESOURCES

ent sessions of the Forum, led by the WASAG working groups. They were endorsed by the participants on the last day, in the presence of the President of the National Assembly of Cabo Verde, the Minister of Agriculture and Environment of Cabo Verde and the FAO Deputy Director General, Natural Resources and Climate. Following the Rome Statement adopted during the first partners' meeting of 19–20 April 2017, the Praia Commitment constitutes a major milestone and a key document for WASAG.

The Praia Commitment

1st WASAG International Forum, 19–22 March 2019 in Praia, Cabo Verde.

Preamble

Addressing water scarcity in agriculture calls for a strong and active commitment by all, considering that agriculture accounts for 69 percent of all freshwater withdrawals. With the world population projected to reach 9 billion by 2050 and the added impact of climate change, producing more food will exert even greater pressure on already vulnerable water resources.

Since 2016, the **Global Framework on Water Scarcity in Agriculture (WASAG)** seeks to embody this active commitment as manifested in the adoption on 20 April 2017 of the **“Rome Statement on Water Scarcity in Agriculture.”**

In an effort to draw greater attention to the issue of water scarcity in agriculture in the context of climate change and to generate greater political will for overcoming the related challenges throughout the world, the members of WASAG, with the support of the Government of Cabo Verde, the Governments of Italy and Switzerland, the International Fund for Agriculture Development and the Food and Agriculture Organization of the United Nations, convened the 1st WASAG International Forum on Water Scarcity in Agriculture from 19–22 March 2019 in Praia, Cabo Verde. This Forum has enabled exchange between stakeholders who would not have otherwise had the opportunity to work together.

Point of Departure

Discussions during the 1st WASAG International Forum on Water Scarcity in Agriculture emanated from work produced by WASAG's six working groups (water and migration; drought preparedness; water and nutrition; financial mechanisms; sustainable agricultural water use; and saline agriculture). A certain number of observations formed the basis for further exchange:

1. Water scarcity, exacerbated by climate change, represents a serious threat to sustainable development, with impacts on the environment, human health, food security and nutrition, and economic activity.
2. Sustainable, equitable and effective management of water for agriculture, as well as the importance of healthy ecosystems and their services for sustainable agricultural systems, are key drivers for the achievement of Agenda 2030 and the Paris Agreement.
3. Agriculture is the economic sector most prone to impacts from drought. It demands

preparedness, political will, strategic holistic planning, and good management practices to mitigate its effects.

4. While agricultural-related activities currently use the most water, it is also the sector with the greatest potential for optimizing consumption. Adapted technical solutions can help not only to conserve water but to reduce costs and increase benefits directly to farmers. Water-scarce countries, especially, may turn to supplemental irrigation to ensure crop survival and increase productivity.
5. Overcoming these challenges will require espousing a holistic and multi-dimensional approach, as set forth in the WASAG Rome Statement. There is a need for innovation platforms bridging the gap between researchers, innovators and users, so as to identify and address bottlenecks. Youth, as future stewards for land and water, are at the forefront of implementing innovative solutions.
6. In line with the theme of the 2019 World Water Day on “Leaving no one behind”, specific attention must be garnered for the most vulnerable who suffer disproportionately in the face of water scarcity.

Commitments

The participants of the 1st WASAG International Forum on Water Scarcity in Agriculture, therefore, commit to:

1. Continue to **cooperate** within the framework of WASAG as a repository of knowledge and shared learning, and a catalyzer of multidisciplinary and multisectoral cooperation and research to tackle the many challenges of water scarcity in agriculture;
2. **Develop** understanding and insights on the linkages across technologies, institutions and policies to achieve transitions in sustainable agricultural water use, to enhance water-use efficiencies, and to close gaps in line with specific and varying local contexts;
3. **Advocate** for integrated planning processes, involving the different stakeholders and institutions bringing together their needs, expectations and perspectives, resulting in better decision making.
4. **Promote** water as a driver of development for all, addressing cross-sectoral trade-offs and maximizing synergies throughout Agenda 2030, while supporting national governments to reach their SDG targets;
5. **Support** farmers and farmers’ associations with improved access to financing, sound water management practices, and pertinent information, while recognizing the value of their local and intergenerational knowledge in increasing their resilience;
6. **Promote** good governance through sound policies and strategies, appropriate legislation, institutional frameworks and financial mechanisms, for all dimensions of water scarcity in agriculture, including for nutritional productivity of water across the food chain;
7. **Support** the institutionalization of a pro-active and risk-based approach to drought preparedness;

8. Through a “one-stop shop”, **provide** policy makers with guidelines and tools to appreciate the impacts of technology choices and investment decisions through knowledge products, technical assistance and information campaigns;
9. **Encourage** the mutualisation of resources and promote innovative financial mechanisms, including defiscalization and rotational funds, PPPs, and a circular economic approach to stimulate concrete actions on the ground and to promote private sector involvement and investment in capacity development;
10. **Encourage** innovative technologies adapted to local conditions, including those that limit losses and enable re-use of treated wastewater for agricultural production;
11. **Bring focus** on sustainable and efficient management of water resources in agriculture contributing to rural livelihoods, helping address root causes of water-related migration;
12. “More nutrition per drop!”: **Build** a community of practice to strengthen the multi-level knowledge base on the links between nutrition and water management, and develop a framework to link water and food security with nutrition approaches, accompanied by pilot examples;
13. **Propose** ways to live with salinity, particularly in the most vulnerable areas including Small Island Developing States, since it is possible to produce more food from salinized areas. This includes supporting national strategies and policies for tailor-made adaptive farming solutions for salt-affected areas and the implementation of sustainable saline farming systems, including agrobiodiversity, to enhance food and nutrition security and cash crops;
14. **Integrate** climate-smart agriculture and innovative farming systems adopting sustainable management practices and proper drought/salt tolerant crops, including in marginal areas, to enhance food and nutrition security;
15. **Promote** a culture of sustainable water use in agriculture through better data on water resource availability and water use, awareness creation and capacity development;
16. **Identify** criteria and indicators for sustainable agricultural water use measurement and monitoring that address water scarcity risks in agriculture;
17. **Encourage** the development of community-based approaches and people-centered policies, recognizing the essential role of women in small-holder farming and household water use and connecting youth in a meaningful way to the implementation of solutions for greater impact. Develop a better understanding of challenges and opportunities to reach women, youth, poor farmers to ensure that the invisible become visible and that we “leave no one behind.”

Countries and partners are invited to report back progress at the next edition of the Forum.

Further, the participants of the 1st WASAG International Forum on Water Scarcity in Agriculture call on countries and their stakeholders worldwide to urgently adapt their agricultural and food systems and to mitigate the impacts of water scarcity and climate change so as to improve global food and water security.



The way forward

With the 1st WASAG International Forum on Water Scarcity in Agriculture ending, there is a pressing need to translate the adopted Praia Commitments into actions and report back on progress at the next edition of the Forum. A new forum would maintain the momentum and energy to keep pace with the rapid changes and development in this field. In the meantime, other methods of communication during this interval, such as smaller meetings and technical sessions, would be greatly beneficial.



“THIS FORUM HAS BEEN AN AUTHENTIC AREA OF COOPERATION ON WATER SCARCITY IN AGRICULTURE AND I BELIEVE THAT THIS IS JUST THE BEGINNING OF A LONG SERIES. MANY MORE WILL COME, INVOLVING STILL MORE DECISION-MAKERS WITH RESPONSIBILITIES IN THIS AREA. WHAT HAS BEEN DISCUSSED HERE IN CABO VERDE SHOULD BE SCALED UP TO ENABLE JOINT ACTION AT GLOBAL LEVEL IN TERMS OF COOPERATION POLICIES TO PREVENT THE EFFECTS OF DROUGHTS IN AGRICULTURE.”

– HON. JORGE MAURICIO DOS SANTOS, PRESIDENT OF THE NATIONAL ASSEMBLY OF CABO VERDE



