



## DECLARATION OF MALTA

11<sup>th</sup> GENERAL ASSEMBLY OF THE  
MEDITERRANEAN NETWORK OF BASIN ORGANISATIONS

22<sup>nd</sup>-24<sup>th</sup> March 2017  
St. Julians, Malta

PERMANENT TECHNICAL SECRETARIAT  
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## 1. Introduction

Over 50 delegates coming from 10 Mediterranean Countries (Spain, Malta, Portugal, Italy, France, Slovenia, Greece, Cyprus, Morocco, Jordan), representatives of governmental administrations in charge of water management, of basin organisations, of interested bi and multilateral cooperation agencies, donors, water users, as well as numerous observer organisations, met in Malta from the 22<sup>nd</sup> to the 24<sup>th</sup> of March 2017, on the occasion of the 11<sup>th</sup> General Assembly of the Mediterranean Network of Basin Organisations (MENBO). The event took place at the invitation of the Maltese government, with the sponsorship of the EU FP7 Be-Water Project and the collaboration of Global Water Partnership-Mediterranean (GWP-Med) and the International Network of Basin Organisations (INBO).

The Júcar River Basin Authority (JRBA) hosts the Permanent Technical Secretariat of MENBO and held the Presidency of the MENBO network during the period 2003-2005. During the initial assembly of MENBO celebrated in Valencia (Spain) in 2003, the EURO-INBO group, dedicated to the implementation of the EU Water Framework Directive (WFD, D2000/60/CE), was created. This EURO-INBO group has led the water policy in Europe since its creation and is still operational with the participation of users, such as the Euro-Mediterranean Irrigators Community (EIC), who was also represented at the MENBO General Assembly.

At this point, during this 11<sup>th</sup> General Assembly of MENBO, the Presidency of the network was transferred from Portugal (2011) to Malta (2017), who will hold this position for the next two years. In this regard, the delegates of this 11<sup>th</sup> General Assembly of the Mediterranean Network of Basin Organisations in Malta were requested by the New Maltese President of MENBO, with the support of the Spanish Permanent Technical Secretariat, to report these conclusions to the UfM Water Experts Group, on the occasion of the upcoming Ministerial Conference that will be held in Malta next 27<sup>th</sup> April 2017.

During the assembly, the participants reaffirmed that Mediterranean area is one of the most vulnerable areas to climate change (CC). In the Mediterranean region, climate change has been proved to be already affecting water resources availability and increasingly affecting freshwater quantity and quality of the aquatic ecosystems. Climate change is the main threat for environmental protection, agricultural production and economic and social development of the region where countries suffer from water resources restrictions. According to several researchers and organisations, such as the UN Intergovernmental Panel on Climate Change (IPCC), temperature and precipitation will suffer variations in their historical behaviour in the Mediterranean region. Temperature will increase and precipitation will decrease, so the availability of water natural resources could be halved by the end of the XXI century. Also, droughts will increase in number (doubling in the next decades) and intensity, the water irrigation requirements will increase around 40% for the same crops and the number of wildfires will also be doubled by the end of the century.

Due to these affections, better governance at basin scale is required in the Mediterranean region where freshwater is essential to sustain life and the health and socioeconomic progress of our societies. In this line, governance must consider the implementation of mitigation measures, respectful with the environment, as a key to adaptation and sustainable development.

In terms of water, humanity has many aims to achieve until complete access to drinking water supply and sanitation, as a fundamental right, is achievable for everyone. In the 17 UN Sustainable Development Goals (2015), the sixth group titled “clean water and sanitation” underlines the significance of the accessibility to water supply in the world. Hence, water will be part of the new agenda assumed by the UN for sustainable development, which will establish a reference for the Mediterranean region.

It is estimated that in 2050 one in four people will live in a country affected by permanent water scarcity. That is why it is so significant to share experiences and knowledge in regards to water management within different regions, organisations and regional networks, in a common forum such as the 11<sup>th</sup> General Assembly of MENBO.

The Paris Pact (2015) on water and climate change adaptation in the basins of rivers, lakes and aquifers supports as well the integration of freshwater into the Global Climate Action Agenda, especially for initiating or strengthening necessary adaptation actions in the basins of rivers, lakes, aquifers and large wetlands as well as coastal areas. This Pact has been recently brought back to the limelight on the occasion of the UN COP-22 that took place in Marrakesh last November 2016.

According to these ideas, the thematic axes in which the 11<sup>th</sup> General Assembly of MENBO is divided are relevant for the Mediterranean Region and summarised in three sessions dedicated to:

1. Water and Climate change Adaptation at River Basin Level
2. Water and agriculture in the Mediterranean
3. Non-conventional water resources: Water Reuse and Desalination

In general terms, water stress will be exacerbated by the impacts of CC in the Mediterranean. Hence, it is essential to improve water savings in uses, water demand management, and the mobilisation of non-conventional water resources, both water reuse and desalination.

Under the umbrella of the Water Strategy for the Western Mediterranean (2015), framed within the 5+5 Dialogue, and its Action Plan (2016), the implementation of mitigation measures against CC in some representative countries of the Western Mediterranean region could become a reality if adequate financing is provided in the near future.

## 2. Summary of the thematic sessions

### *2.1 Water and climate change adaptation at river basin level*

In the coming years, the Mediterranean Region will be one of the most seriously affected by the impact of CC on fresh water resources. Hence, the adaptation of water management to climate change is required. The foreseen climate change consequences are:

- Natural fresh water will be progressively reduced to half by the end of the XXI century
- Droughts will increase in occurrence and intensity. The number of droughts will be double in the next decades
- Water irrigation requirements for crops will be increased by around 40% to maintain the current agricultural production
- Wildfire risks will increase and the number of wildfires per year will double by the end of the XXI century
- The increase of sea level could drown coastal lowlands, as well as river deltas and mouths, and cause inland salt water intrusion.

The demographic, economic and ecological consequences are likely to be very significant. It is thus essential to adapt water resources management policies to prevent the consequences of climate change. According to various scenarios, it is especially necessary to assess the hydrological and agronomic consequences of this change and to coordinate the work with the already existing national adaptation plans for climate change, the river basin management plans approved in accordance with the WFD and the floods and droughts management plans elaborated at basin scale.

### *2.2 Water and Agriculture in the Mediterranean basins*

The results of modelling climate predictions have proved the existence of strong constraints in the Mediterranean agriculture sector, which will be subjected to a range of variability and low availability of water resources, and seriously aggravated in the Southern countries of the region, where the worst scenarios are expected.

In this vulnerable region, where agriculture represents a significant socio-economic sector, apart from the alteration in the water resources availability, climate change will cause the degradation of arable lands and the decrease in soil fertility, a rise in erosion, the loss of biodiversity, and it might favour potential development of parasites and spread health risks.

These restrictions compromise the capacities of the agricultural sector to meet simultaneously the stakes of food security and demographic growth in the region and the natural resources protection. In this context, the speakers highlighted that biotechnology might be the solution for increasing agricultural production in the Mediterranean region and at the global level. A very high level of technification of irrigation systems and an optimal regulation of river basins will partially contribute to supporting water availability for a better adaptation to CC.

Various examples of efficient water management in agriculture were presented, such as the aquifer of La Mancha Occidental, the Spanish National Park of Doñana, or the cases of agricultural water use in Morocco and Malta.

### *2.3 Non-conventional Water Resources: Water reuse and desalination*

Due to the fragile imbalance between water resources and water demands in the Mediterranean region, non-conventional water resources are considered a key issue for adaptation to CC. In general, these technologies offer the possibility of meeting water demands and resolving environmental problems. For example, they could improve the quantitative status of overexploited groundwater bodies, which sometimes can also avoid water intrusion in coastal areas.

The mobilisation of reused and desalinated resources should be considered only when being ecologically acceptable and economically reasonable. Nevertheless, the speakers emphasised that the feasibility of non-conventional resources could be improved by applying economical incentives in their use. The optimisation of existing infrastructures and water savings should also be considered before opting for the mobilisation of new resources.

During the Assembly, some examples of the utilisation of reused and desalinated water resources were presented by the different countries' representatives of the Mediterranean region. This type of water resources are partially used for improving water guarantee in urban areas and mainly for the irrigation of green areas and leisure spaces when it comes to reutilisation. In some cases, reused water resources are also used in agriculture where a high control of water quality, both for microbiological and physico-chemical parameters, is required.

## **3. Conclusions and recommendations**

The following needs and recommendations for the Mediterranean Region were emphasised:

- It is necessary to support the creation and strengthening of Basin Organisations in the Mediterranean area to reinforce their institutional, organisational and technical capacities.
- Monitoring and research on the impacts of climate change on the water cycle are needed, as well as the mobilisation of necessary means at Mediterranean scale.
- Integrated solutions have to be found in order to improve water efficiency, by prioritising measures that allow the rationalisation of water uses, a better demand management and water savings.
- Coherence among various socio-economic sectors in relation with climate change adaptation and sustainable management of water is highly required. Also it is important to reinforce international cooperation, communication exchanges and the sharing of information.

- Due to the increase of water demands and the decrease of availability, the future of agriculture is uncertain. Hence it is essential to establish relevant regulations and to improve management for practical solutions to general constraints.
- It is necessary to consider the diversity of realities depending on countries, and to adapt crops and modernise irrigation techniques so as to save water.
- To fight against drought non-conventional water resources help facing water scarcity problems and might result in environmental benefits.
- An extraordinary increase in the use of non-conventional water resources has been experimented in recent years and will continue in the future in Mediterranean countries.
- The use of non-conventional water resources is mainly focused on the reuse of waste water (for agriculture and garden irrigation in urban areas) and water desalination (for urban water supply).
- In coordination with national climate change strategies, CC adaptation measures and non-conventional water resources availability should be integrated in river basin management plans in which the involvement of users and stakeholders is important and the cost-recovery must be guaranteed.

The participants thanked Mr. André MATOSO, representative of the Portuguese President of MENBO for having fulfilled with determination and success this period of the MENBO Presidency. Mr. Daniel Azzopardi, was appointed new President of MENBO for the period 2017-2019, until the next General Assembly of the Network takes place.

All the delegates thanked the Maltese authorities and the local organisers for their magnificent hospitality and for the excellent organisation of this 11<sup>th</sup> General Assembly of MENBO.

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