



**PARLIAMENTARY ASSEMBLY OF THE MEDITERRANEAN**  
**ASSEMBLEE PARLEMENTAIRE DE LA MEDITERRANEE**  
طسوت ملا ضدي بلأارح-ول قد بين-ملر-لا قد يعمجلا

**2<sup>nd</sup> Standing Committee on Economic,  
Social and Environmental Cooperation**

“The Water issue in the Mediterranean: challenges and recommendations”

**Special Rapporteur on Water: Hon. Jacques Blanc (France)**

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during the V<sup>th</sup> Plenary Session, Rabat*

1. Our Assembly, which decided to remain continuously informed on the water issue, pledged to continue its work. Last October in Istanbul I have submitted a report to make a general point on the issue of water in the Mediterranean. We then completed our discussions and after its adoption, agreed that a new exercise was necessary, focused on your thoughts and expectations.
2. Following these commitments, I have proposed a questionnaire aiming at extending and enriching our work with your analysis and contributions. Thus we can deepen our study by focusing more on issues relating to water in all the countries we represent, that appear more prominent.
3. It is therefore necessary to present the lessons that can be learned from your contributions and put them in perspective with the conclusions we drew from our first report. Reflection and the analysis of these contributions invite us to articulate our work around four distinct themes relating to water resources, actors, technical and management tools, and perspectives.

**I. Water resources in the Mediterranean**

4. In our previous report we emphasized the data Statistics on Water in the Mediterranean. We shall recall the most important elements that were presented at that time. Starting with the general data across the planet, a Report of the United Nations Program for Development (UNDP) in 2006 indicated that by 2025, 90% of the population of the Middle East and North Africa would live in countries suffering from water shortages. And for the Mediterranean area, which concerns us more specifically, the Blue Plan, that you all know now, underlined in 2007 that *"The Mediterranean includes 60% of the world's population suffering from water poverty, with less than 1000m<sup>3</sup> per capita per year.*

5. Given this, one particularly disturbing indicator seemed very relevant to us: the water available to each country per year per capita in m<sup>3</sup>. The threshold of 1000 m<sup>3</sup> per capita per year represents the level below which one can speak of Water Poverty.

6. Once this preliminary finding has been established, which highlights the tension of water supplies in the Mediterranean, your contributions stressed in particular the disparities of access to water for your populations. Whether we talk about resources, or water consumption of your fellow citizens, very large disparities exist in the 25 countries that constitute our Assembly.

7. A statement to this effect will draw our special attention. The amount of water consumed per day per capita in countries of our Assembly, ranges from less than 50 litres to 300 litres. And yet 50 litres of clean and consumable water is the threshold that a human being must have to live decently. The fact that some of our people barely live with that amount of water is an issue of great concern.

8. Furthermore, we must always bear in mind that the data presented are indicators that aim at helping our reflection, but that can sometimes hide regional disparities for some members of our Assembly. Within a single country some regions may experience plenty of water while others are experiencing chronic drought. The issue of regional solidarity then takes its entire dimension.

## **II. The actors of the Mediterranean**

9. The contributions that have been submitted allow us to identify some trends in how we manage water. While some States have passed the distribution of their water to companies which have been granted concessions or to public institutions under the direct control of the state, others have largely opted for a system giving local authorities the upper hand in water distribution. If this distribution seems mainly to be granted to public entities or parastatal ones, it would be interesting that we learn lessons from our respective experiences in terms of service quality and cost for the consumer.

**10. Indeed, the cost of water that each one of you stressed out varies considerably from one country to another, from less than 10 cents to over \$ 4 per cubic meter, as these figures must be related to the living standards of populations of our respective countries.**

**11. In respect to the United Nations Development Program (UNDP), the share of expenditure on water and sanitation in household income should not exceed 3%, because beyond that it becomes unaffordable.**

12. Nevertheless, these data allow us to come back to the issue of the actors. **It would seem interesting to me that we share our experiences on the costs that may represent different distribution systems:** public or private, assigned to each municipalities or more centralized. The price of water can vary consistently from one municipality to another within the same country. Thus we should focus on the topic of efficiency on the part of the actors to bring to our people quality water.

13. Moreover, the issue of actors involves knowing who owns the. With few exceptions, water in the member countries of our Assembly is considered as a public asset, belonging to the community, and whose use can only be decided by the state itself. This legal data can inform our discussions and debates on the idea that water is, apart from being the property of each State, a common good of humanity.

### **III. Techniques and tools for water resources conservation in the Mediterranean**

14. Our thinking on how to achieve water resources conservation and to provide quality access to the largest number, can follow two routes. On the one hand, to reflect technical challenges we must increase the supply and reduce waste. On the other hand, we need to debate the legal and practical means to make water conservation an attainable target for each of our member states.

#### A. Technical challenges

15. Several options arise before us, mainly two. One, quite old, is to increase water resources. The second one, more recent, is to limit water consumption and save its use by many means aiming at making the use of water more efficient.

16. In the coming years we have to articulate those levers in order to reach our primary goal, which means to ensure that everyone in the Mediterranean gets a fair and equitable access to water.

17. During our meeting in Limassol, several delegations mentioned one solution that consist in finding more water resources to face up chronic drought in the Mediterranean. Those situation will tend to increase in the coming years because of climate change and the demographic growth in the region.

18. We mentioned in our last report that for many years now, many countries that encountered massive hydro stress (Cyprus, Malta), used water desalination to cope with their peoples needs and those of several economic activities, such as industry and tourism. These tools improved thanks to the development of new techniques, but remain quite energy intensive and need to keep on improving to reduce their financial cost and ecological footprint.

**19. I want to mention that this very objective of improving energy saving in water desalination was mentioned by many of your answers to the questionnaire.** Our friends from Cyprus pushed forward the need to use more green energy such as solar energy to produce drinking water. Research and innovation give us the opportunity to build hybrid desalination plants producing both drinking water and energy, and using rejected liquids to produce more energy.

20. Our Spanish neighbours for instance succeed in producing 200 000 m<sup>3</sup> of drinking water per day with just one plant in the Canary Islands, only working thanks to wind energy.

**21. These innovative examples invite us to consider such solutions as a means to reduce the ecological footprint of water desalination.** This tool is more and more used in

the Mediterranean, where it represents more than one quarter of all water desalination in the world. In Malta for instance, 60% of drinking water is produced that way. In Israel 800 000 cubic meters of drinking water per day come from this transformation.

22. But we need to keep in mind that increasing our resources in water can not and must not be the only axis of our approach to solve the issue of hydro stress. The reason is that we are all accountable for natural resources that do not belong to us and that we need to share both with our neighbours and with the coming generations. Increasing resources must not come without saving these very same resources.

**23. Therefore, among all technical difficulties that our states may encounter, many of your answers mention the efforts that must be done to improve our fresh water distribution network.** In fact we can regret that a large amount of water is wasted because of poor networks, which deprives our people of an already scarce resource.

24. In our last report we reminded everyone that in the Mediterranean strategy for Sustainable development adopted in Athens in 2005, one of the main objectives was to stabilize the water demand thanks to a limitation of waste and to increase the added value of one cubic meter of water. The blue plan was in charge of developing an indicator of water efficiency. A first study revealed that this efficiency in the Mediterranean countries could fluctuate from 50 to 85 percent.

25. Leakages and waste in our distribution network must be solved. It is imperative that we propose concrete initiatives to reduce these leakages. Some countries underline in their answers that an effort has to make in terms of infrastructures renewal.

26. Lebanon for instance runs an eight years rehabilitation program for its distribution network, starting this year, to reduce leakages and waste. These initiatives must be encouraged because even if they appear quite expensive, they consist in a long time necessary investment in terms of water saving.

## B. Legal and practical challenges

27. The technique alone cannot allow making all the water savings needed by our states in order to improve the efficiency of their water resources use. Indeed, the idea of the necessity of water savings must become inculcated in the views of resident citizens of the Mediterranean region.

28. To do this, all the countries surveyed say they conduct awareness campaigns to save water. These are mainly communication programs in the media, but also lectures in schools, especially in primary classes. Yet some of these states recognize the inadequacy of efforts in this area and complain that the campaigns take place too periodically, especially in times of shortages, which reduces the scope of the message.

29. In fact, the water shortages we suffer from in the Mediterranean are not chronic but are now a central fact of the Mediterranean situation. In fact, we must understand this and consider communicating more to the people that we represent.

30. We could therefore consider measures to improve communication in favour of

saving water and agree on the importance of aligning our education systems so that they all integrate in their education system an information program for the youth on the vital issue of water conservation.

31. In addition, the legislation protecting water is relatively well provided in the countries of our Assembly. Our laws punish misuse, or pollution or diversion of water.

32. **Nevertheless it appears necessary that these laws get more important and aligned with the more advanced ones so that a real corpus of legal dispositions allows to efficiently protect this resource.**

33. But for these laws to be fully effective, it is necessary that their application is full. **But many of us complain that these legal provisions sometimes remain at the stage of legal fiction.** Therefore, some **countries like Algeria have set up a water police** which is composed of administrative officials responsible to punish the violation of the Algerian water protection legislation. **Other states advocate for the establishment of control agents and effective inspections, with an arsenal of coercive measures to fully enforce legislation protecting water resources.**

#### C. The case of agriculture: a sector requiring important attention

34. On the distribution of water consumption, it is necessary to observe that agriculture in the Mediterranean is extremely water-intensive and represents for the majority of us an area where special efforts must be made. Although the figures provided by the various members of PAM also reflect strong disparities, agriculture in itself can absorb up to about 85% of the water available to some countries like Greece and Jordan.

35. In a context of scarce resources, this situation should be viewed as harboring a potential for water savings, based on new techniques, to make agricultural consumption more efficient, including irrigation, a major source of absorption of freshwater in agriculture (10% of water consumed in the world). **It would be important for us to think together, further, to new techniques to promote and share our experiences so that irrigation in the Mediterranean strives for efficiency.**

36. Furthermore, the daily water needs of a human being require an average of 300 liters of water. But it is also interesting to note that according to existing productions, the amount needed can vary up to three times as much, showing again the need to reflect on the type of agriculture and food that we want to encourage in order to take into account the amount of water needed to produce them.

37. Morocco indicates that its government has made particular efforts as far as new techniques are concerned, and that it has been promoting a drip irrigation system which is freely accessible for small and medium sized farms. However, Morocco also emphasizes the need for Northern countries to get involved in co-development programs in the South, in particular to fight against desertification.

## **IV. Perspectives**

38. During our last debates we committed that our next special report mentioned the issue of political tension linked to the difficulties of water access. I demanded that each country of

our Assembly answers to that question by mentioning if they were in conflict or in a situation of tension with one or several neighbours over problems related to water sharing.

**39. It appears that in several regions, tensions have been solved by the enactment of regional conventions or declarations of good faith by those countries, in order to address the strategic issue of water access and the preservation of water supplies in a spirit of cooperation.**

40. Thus Algeria in June 2008 mentions that it has signed a joint declaration with Tunisia and Libya to introduce a consultative mechanism for the management of the aquifer system of the northern Sahara. This agreement plans an exchange of data and information to allow the development of common strategies and policies for the management of water in the region.

41. On the same lines, Portugal and Spain, both sharing river basins, have signed an agreement to ensure sustainable management of water in the interest of both parties. For the concerned basins, measures in the Convention have been taken so that the flow of water arriving in Portugal is guaranteed for the present and for the future.

42. These two models of collaboration encourage collaborative approaches especially in areas of tension such as the Middle East. **The concept of integrated watersheds provides ideas on what should be regional cooperation to ensure access to water beyond the administrative boundaries of states.**

43. Several conflicts related to trans-boundary rivers and water shortage situations have emerged in the Middle East, particularly around the Jordan River. Legislation such as the Water Framework Directive (WFD) of the EU may constitute important tools for reliable and formulating agreements and treaties between nations, but they are rarely used.

44. We note that the side resident countries usually require guarantees for fair distribution of resources among users and prefer to apply the method for secure management of transboundary watercourses.

45. These would require technical assistance from international agencies that have a key role to play in training specialists in the field of conflict resolution. The training of negotiators in the technical and legal requirements for water resources is essential for the development of treaties on sharing, management and development of transboundary watercourses.

46. The Palestinian delegation to PAM was the first to return the completed Water questionnaire. The contribution was of high quality and has shed some light on the importance of the issues linked to the sharing of water resources in the Middle East. It is our duty, as parliamentarians, to address the challenges raised by the sharing of water resources from the Jordan River and the aquifer in the region. The Palestinian delegation has criticized the management of these resources by Israel, the Occupying power, and underlines, in particular, the interdiction to drilling imposed upon the territories by the State of Israel, as well as the

appropriation of the Jordan River waters by Israel.

47. Different studies show that, each year, out of the 640 million cubic meters flowing out of the Jordan River, only 200 million reach the Dead Sea, due to its collection, evaporation and diversion. It is estimated that Israel is collecting 3 quarters of the water from the Jordan River through the « National Water Carrier ».

48. The increased hydro stress in the region, as well as the gap in the daily quantities of drinking water available to the Palestinians on one side and to the Israelis on the other side , requires that all parliamentarians from the Mediterranean to work together towards an equitable repartition of this vital resource.

49. **In conclusion**, our proposals would mainly focus on these several objectives in order to continue our exchange of thoughts and experiences in coordination with the Blue Plan on:

- The tools to preserve the resource: new techniques of irrigation, desalination
- Ways to enhance the network of EPA and sanitation with a cost analysis
- The need to educate people to save water, especially younger generations
- The legal framework and enforcement of measures related to the protection of the resource
- The management of conflicts over water and in particular to its access.

50. The few recent difficulties that our governments faced in the evocation of the tensions over water sharing invite us to work in a spirit of dialogue and responsibility, sharing our experiences and trying to bring out elements of consensus on these sensitive issues.