

Under the high patronage of the President of the Lebanese Republic
H.E General Michel Sleiman

At the initiative of
The Lebanese Ministry of Energy and Water (MEW)

2nd Beirut Water Week

**Meeting of the Experts and Water Directors in the
Mediterranean Basin**

Organised by
Lebanese Ministry of Energy and Water
and
Global Water Partnership - Mediterranean

With the support of
Mediterranean Component of the EU Water Initiative
MEDA Water Programme
French Government

**February 4 -8, 2009
Metropolitan Palace Hotel
Beirut - Lebanon**

DRAFT PROGRAM

Wednesday February 4

17:00 – 18:00 *Registrations*

18:00 – 19:30 *Opening: Metropolitan Palace Hotel - Beirut*

1. **Mr. Fadi Comair, General Director of Hydraulic and Electrical Resources – MEW**
2. **MED EUWI: Representative of the Greek Ministry for Environment, Physical Planning and Public Works**
3. **GWP-Med: Prof. Michael Scoullou, Chairman**
- 4 **BLUE PLAN: Mr. Henri - Luc Thibault, Director**
5. **AFD: Mr. Christian Szersnovicz, Director**
6. **IPEMED: Mr. Jean Louis Guigou, President represented by Mr. Hervé Lainé**
7. **RED Ethique: Mr. Herve Lainé, President**
8. **OIEau: Mr. Jean Francois Donzier, General Director, Office International de l'Eau**
9. **IME: HE. Mr. Mohamed Ennabli, President**
10. **FAO: Mr. Ali Moumen, Representative of FAO in Lebanon**
11. **THE WORLD BANK: Mr. Demba Ba, Representative of the World Bank in Lebanon**
12. **EU: Mr. Patrick Laurent, Representative of EU in Lebanon**
13. **SEMIDE: Mr. Walter Mazzitti, President**
14. **NDU: Rev. Père Walid Moussa - Chancellor of NDU**
15. **UNESCO: Mr. Abdel Moneim Osman, Representative of UNESCO in Lebanon**
16. **ESCWA: Mr Bader Al Dafa, Executive secretary of South-East Asia**

HE. Mr. Serge Telle, Ambassador, Union for the Mediterranean

HE. the Minister Mr Jean-Louis Borloo MEDATT, guest of honor

HE. the Minister of Water and Energy Mr Alain Tabourian, representative of HE. the President of the Lebanese Republic General Michel Sleiman

19:30 *Gala Dinner, Metropolitan Palace Hotel - Beirut*

Thursday February 5

08:00 – 08:45

Registration

08:45 – 09:15

The context: Towards a new Strategy for Water in the Mediterranean, on-going regional water initiatives and processes and international water milestones

09:15 – 11:00

Theme I: Water Governance in the Mediterranean

11:00 – 11:15

Coffee break

11:15 – 13:00

Theme II: Water Demand Management, with an emphasis on irrigation and water pricing in the Middle East and North Africa

13:00- 14:30

Lunch

14:30 – 16:00 Theme III: Water Financing, with an emphasis on Public-Private Partnership for the management of the hydraulic infrastructures (contract and regulation)

16:00 – 16:15 *Coffee break*

16:15 – 17:30 Theme IV: Regional cooperation for the management of transboundary water courses: the role of hydrodiplomacy in the Middle East and North Africa

17:30 – 18:00 Conclusion and recommendations from discussions of Themes I to IV

18:30 *Departure and Visit of Beirut Down Town*

20:30 *Dinner Lebanese Restaurant Karam Down Town*

Friday February 6

08:30 – 10:00 Theme V: Role of the education for sustainable development in developing a water culture

10:00 – 11:30 Theme VI: Climate change adaptation and water resources management in the Middle East and North Africa

11:30 – 11:45 *Coffee Break*

11:45- 13:00 Conclusions and follow up steps

13:00 -14:00 *Lunch at the Metropolitan Palace Hotel*

14:00- 15:00 **Activities of the Mediterranean Component of the EU Water Initiative in Lebanon** : Presentation and Discussion of the Results of Phase I of MED EUWI Country Dialogue on Reviewing the Lebanese 10-year Water Strategy and Launching the Drafting of the Lebanese IWRM Plan

20:30 Dinner

Saturday February 7

09:00 – 16:00 *Field Visit to Chabrouh Dam (1700m alt.)*
Visit of Mzaar 2000 ski station and Mzaar Intercontinental Hotel
Lunch
Return to Metropolitan Palace Hotel - Beirut

21:00 *Dinner: L'Apicius Restaurant – La Cigale - Zalka*

**Among the supporters, invited speakers and
participants are:**

EC- UPM- MEDATT- AFD – EUWI- ARAB LEAGUE

INTERNATIONAL AGENCIES:

**GWP-MED - UNESCO- ESCWA-FAO-PLAN BLEU-BANQUE MONDIALE-IME-OIE –
SEMIDE - RED ETHIQUE-VERSEAU-CIGB-IRIS-FRS**

NON GOVERNMENTAL ORGANIZATIONS

AVSI– MIO-ECSDE- IPEMED, AMBASSADE DE L’EAU

PRIVATE COMPANIES:

**SUEZ ENVIRONNEMENT-VEOLIA-BCEOM-COYNE ET BELLIER LIBANCONSULT
CORAIL-KHATIB ALAMI-SOGREAH- DAR AL HANDASA TALEB-ACE-VINCI
MOUAWAD EDDE -STUCKY-CCC-PFE**

UNIVERSITIES AND SCHOOLS OF ENGINEERING:

**NDU WEERC-AUB-USJ –ESIB-UL- LA SAGESSE-LAU
ENGREF-ENPC- PANTHEON SORBONNE PARIS1**

AND

L’ORIENT LE JOUR

Thursday February 5

08:45 – 09.15 The context: Towards a new Strategy for water in the Mediterranean, on-going regional water initiatives and processes and international water milestones

09.15 – 11:00 Theme I : Water Governance in the Mediterranean

Sustainable development and good management of water resources in the South-Eastern Mediterranean countries cannot be applied without adequate governance. This concept requires that the exercise of water management be based on participation, responsibility, effectiveness and coherence. States in the South-eastern banks of the basin must start applying the concept of Integrated Water Resources Management (IWRM) within the framework of National Water Codes and the Water Framework Directive (WFD) of the European Union, according to which hydraulic, environmental, social and economic policies must be implemented.

The purpose of this session is to present the concept of effective water governance in the South-eastern Mediterranean countries, which must be articulated around the following objectives:

- To support the equitable share of water and the policy of preserving the resource
- To improve the income of the agencies of water through the training and the sense of responsibility in the employees of the agencies by applying a system of evaluation based on criteria of productivity.
- To apply the concept of the IWRM within the framework of the national dialogue between the main actors of water (EUWI)
- To promote the local participation and the partnerships in the definition of management policies of the water resources
- Activities of the SEMIDE on the Mediterranean basin
- Activities of [the Mediterranean institute of water \(IME\)](#)
- Formation with the water job

I-Speakers:

I-I-Country:

- Greece (5min)
- Lebanon (5min)
- Palestinian Authority (5min)
- France (5min)

I-II-Organization EURO_MED

- EUWI - Mediterranean component (10min)
- SEMIDE (10min)
- OIE (10min)

II-Discussions and criteria of choice of the projects

11:15 -13:00 Theme II: Water Demand Management with an emphasis on irrigation and water pricing in the Middle East and North Africa

In the Mediterranean basin, water resource is rare, fragile and unequally distributed in space and time. Moreover, the population growth as well as the climate change should decrease the volume of renewable water resources and transform the countries located on South-eastern side of the basin increasingly arid.

The water supply constitutes a major constraint for the economic development of the countries in the Middle East and North Africa that belong to the nations with arid or semi-arid climate.

It is expected that in 2025, the share of the water resource per capita in Africa and the Middle-East will have decreased by 80%, from 3400 m³ to 650 m³. The volume of water consumed by the Arabic Peninsula, Jordan, Palestinian territories, Malta, and Syria, exceeds the quantity of renewed water each year. While in Egypt, in Sudan, in Algeria, in Morocco, in Tunisia, in Cyprus, in Lebanon, in Syria, this one evolves quickly in the same direction. Moreover, the agricultural sector is the largest consumer of water and accounts for 60 to 80% of the renewable water resources in the South-eastern Mediterranean countries.

Currently in this area, the management of water concerns mainly the offer but also the water demand which needs to be fulfilled. We usually use for that high scale hydraulic engineering techniques that are very expensive. The pricing doesn't cease to increase as long as the water becomes rare and that we are obliged to seek new sources of provision in regions increasingly far away from the inhabited areas.

Moreover, the surface and underground water are more and more contaminated (pollution and salinity), which means there is less and less water available, except if we decide to increase the expenses of water treatment.

The Management of the Water demand can represent a viable option of management and a complementary element to the management of provisioning, allowing to decrease the problems related to the pressure exerted on the water resources. It is a management tool of the demand which can be modified by various means. These means can be non-financial (sensitizing) or financial (incentive measures) or optional (systems of markets).

The majority of the South-eastern Mediterranean countries are thus confronted simultaneously with several questions related to the exploitation of the water resources: How to manage the hydraulic resources durably? How to ensure the access to drinking water for the populations not yet served? How to ensure water irrigation in sufficient quantity and quality to the populations of the rural areas? How to accustom the users to save water in their practices and behaviors?

The water management must allow practices aiming to:

- **Increase the economy of drinking and irrigation water by ensuring a maximum utilization**
- **Protect and improve the quality of the distributed water to fulfill the demand**

- **To increase the availability of water by using non conventional sources**
- **To consider a differentiated water provision according to the use and to the various degrees of quality of water available.**

Although it's a thorny question in the region, the Water pricing is an important tool in the water management. This concept includes the question of water pricing, in all the sectors including the irrigation, the cleansing and the re-use and constitutes a vital subject for the rural populations. A certain number of countries in the region apply the Water pricing according to a gradual process more adapted for the most sensitive countries. This theme examines also the implications of pricing on domestic use (drinking water) as well as the incidences on the agriculture.

The goal of this round table consists in encouraging the debate on the questions related to the management of the water resources demands and those concerning the pricing in general and more particularly, in the following fields:

- **Management of the demand for drinking water**
- **Management of the demand for irrigation water**
- **Re-use of waste water**
- **Consideration of the economic Value of water and its pricing**
- **Guarantee of an integrated management of the basin slopes including surface and underground water.**
- **Application of a management approach for the demand aiming to improve the effective use of water, to reduce the losses in the networks, to implement practices of economy for the irrigation water and to involve the sectors of industry, tourism and the municipalities in the control of the wasting.**
- **Satisfaction of the economic and social requirements by adopting an equitable territorial policy**
- **Increase in the volume of the water masses by using non conventional means of provision**
- **Establishing the criteria of choice for the programs of water demand management**

This topic must be approached by the experts of the various countries, supported by backers, decision makers and other agents of the development who take part in the exchange of information and the awareness in favor of adopting of various measures of the water management, which should lead to criteria of choice of the action plans.

I-Speakers:

I-1-country:

- Algeria (5min)
- Egypt (5min)
- Jordan (5min)
- Morocco (5min)
- Palestinian Authority (5min)
- Tunisia (5min)
- Syria (5min)
- Lebanon (5min)

I-2 - Mediterranean organizations

- Blue plan (8min)
- EUWI - Mediterranean component (8min)
- SEMIDE (8min)
- IME (8min)
- CORAIL (8min)

II-Discussions and criteria of choice of the projects

14:30 -16:00 Theme III: Water Financing, with an emphasis on Public-Private Partnership for the management of the hydraulic infrastructures (contract and regulation)

In the various countries of North Africa and the Middle East, the economic and financial contexts are marked by increased requirements in equipment in particular in hydraulic infrastructures.

The installation of these projects and their satisfaction run against several brakes namely:

- The limitation of public finances
- The politico-institutional and legal systems (lack of equitable control, corruption, defective technical follow-up in the management and maintenance...).

At the same time, the concern remains in answering the needs of the users by ensuring a better management of the water distribution while keeping in mind the quality of service and the productivity.

This theme aims to present the various experiments of the PPP in the field of water management at various levels:

- Design
- Implementation
- Exploitation
- Infrastructure in the support services
- Integrated engineering service

- Dealers who can be:
 - Public
 - Private
 - Mixed

The French experience revealed bright successes in the field of water.

These dealers should really allow to assume the risks and to constitute sustainable partners.

The deciding factors of success cannot exist without:

- A sustainable partnership between the conceding and the dealer.
- A balanced division of the risks and results according to the nature of the projects and their economic and financial balance

The contractual provisions constitute a code of conduct to establish trust relationships on the long term.

This session will tackle the below subjects:

- **Important clauses contained in the partnership contract**
- **Advantages and constraints of the concession of public service on a general level**
- **Successful PPP experiences in the water management field**
- **The various aspects of the regulation which are:**
 - **Economic**
 - **Social**
 - **Legal**
 - **Political**
 - **Ethical**
 - **Continuous education for the water jobs**

I-Speakers

I-1-Country:

- Morocco (5min)
- Lebanon (5min)

I-2- Mediterranean organizations

- AFD (8min)
- EUWI - Mediterranean component (8min)
- Institute of deputy management (8min)
- OIE (8min)

I-3- Private sectors

- SUEZ ENVIRONNEMENT (10min)
- VEOLIA (10min)
- IPEMED (10min)

II- Discussions and criteria of choice of the projects

16:15 -17:30 Theme IV: Regional cooperation for the management of transboundary water courses: the role of hydrodiplomacy in the Middle East and North Africa

Since the beginning of the 21st century, we note that the water resources are at the center of the political scientific and human news in the world. We find the problems related to the equitable share of the transboundary rivers, the quality of the resource and the availability of the quantity which becomes increasingly rare.

The lack of fresh water which characterizes the Mediterranean countries would be related to several causes namely:

- Population growth
- Food safety
- Climate change and the environmental pollution
- The difficult access to the resource in the areas with arid climate
- The inequitable division of the transboundary rivers between bordering countries
- The fragmented and not integrated management of the resources.

The impact of this situation on the South-eastern Mediterranean basin countries characterized by a food policy based on a non sustainable management of the demand will compromise more and more the socio-economic development of the emergent countries of the area. This region will be submitted to conflicts which will intensify more and more among the users of the transboundary basins. This situation leads us to distinguish two approaches in the management of international rivers:

- **Management with a security concept**
- **Management by regional cooperation**

The Hydraulic Diplomacy in the Middle East is based on the application of the concept of management by regional cooperation which creates a dynamic of economic development on the transboundary basin. Based on this fact, the bordering countries would be motivated to be considered by the international authorities as "catalysts for peace" and to benefit therefore from the financing programs intended for the development of the economic sectors on the basin.

The Hydraulic Diplomacy must define the framework of this cooperation in order to lead to a situation of "mutual success" "Win- Win" type for the bordering countries sharing the same course of international water.

The required final objective would be to form a "transboundary organization of basin" or a "commission of river basin" who will guide the efforts of planning in a climate of "cooperation - coordination".

This concept of "cooperation - coordination" transboundary can create synergies for economic development and promote the profits beyond the water rivers in order to apply "agreement - cadre between the Coastal states".

This theme must direct the thinking on the following points:

- What are these benefits of a regional cooperation for a given basin?
- Why are these benefits important for the development of the country?
- How these benefits can be favored and divided?
- The capacity to apply the **agreement- cadre** according to the concept of the "equitable division" of water resources of the basin and the "reasonable use" between bordering countries.

This implementation will apply to all the technical, socio-economic fields with a broad participation of the parties concerned.

- The capacity to acquire competences for the management of the basin and on the administrative, technical and financial levels
- The possibility to take rights, to obtain subsidies and loans for the development of the basin
- A Fast decision making as well as effective solutions to the serious and recurring problems
- The application of effective information systems between bordering countries with an accessible database.
- The development of research program related to the themes of resources, the socio-economic and cultural aspects of the basin
- The organization of national and regional forums on water to share knowledge and the present research programs in the basin
- The Definition of a New Water Mass for the Mediterranean South-eastern countries while considering conventional and non-conventional water.

I-Speakers:

I-1-Country

- Lebanon (5min)
- Egypt (5min)
- Syria (5min)
- Palestinian Authority (5min)

I-2- International organizations

- RIOB (5min)
- The Arab League (5min)
- GWP - MED (5min)

II-Discussions and criteria of choice of the projects

III- 17h30-18h00 Conclusions and recommendations from discussions of Themes I to IV

Friday February 6

8:30 -10:00 Theme V: Role of the education for sustainable development in developing a water culture

Do the problems related to the climate change and which affect the water resources such as floods, dryness, adductions prevent our countries from facing their economic and social development objectives? Are the current approaches on rural poverty, food safety, the infant mortality and the environmental pollution failing? The adoption of a strategy of research and development as well as a sensitizing on the need for an integrated Management of the water resources through university support can be of a great help to consolidate a sustainable approach of the exploitation of the water sector in the technical, economic and social development of our society.

The role of the university can prove to be an important, useful and essential tool to face the specific challenges of sustainable development and to optimize the concept of an equitable use of this resource at the geopolitical level for the international rivers.

The role of the university in the framework of teaching and the applied research consists in establishing action targets in the hydraulic field in order to cause a positive change in the safeguarding of our resources. This process must include an engagement for support from high political level and an active participation within this sector. Therefore, the teaching of sustainable development within our universities is the best mean to invest in the improvement of the management of the existing water resources and in the search for new means of exploitation such as: pipelines, drillings, systems of sewage, systems of irrigation, treatment plants, hydroelectric stations and installations of storage. For the majority of the countries of the Middle East, the above accounts for crossing an enormous “financial gap”. The solution will be probably a combination between these two options, and an optimal technical and economical approach which will be very useful for the development of this sector. In fact, it will allow to get more benefits (social and economic) from the future and existing investments, and it can help the countries to attract the financing needed to improve the infrastructures and management.

The university can also work in elaborating a permanent and coordinated decisional mechanism through the sectors of education, research and the exploitation. It is the main method to solve the problems related to water that cannot be solved by conventional mono-sectoral approaches. This approach makes it possible to face these problems more effectively, by identifying the fundamental causes and the solutions apart from any mono-sectoral framework as well as the management of the transboundary river basins and the problem of the intensification of competition for water.

The university institutions will involve all the parties at key stages and will guarantee a realistic plan of implementation including a clear definition of the roles and the responsibilities for the various economic and social sectors in order to lead to a strategy for the reinforcement of the institutional capacities of the administration, as well as the role of the good governance.

To achieve this, the university can help in:

- **Formulating new strategies in teaching**
- **Including modifications in the programs of specialization**
- **Satisfying the needs of the industrial sector and our society**

This topic which will be presented by UNESCO and the universities will tackle the university education which is responsible to train the future leaders of water in the Mediterranean basin. It is the challenge which the universities of the Mediterranean basin must overcome in a concern of satisfying the objectives of the millennium (Summit of Johannesburg).

I-Speakers:

I-1-Universities and schools of engineering

- NDU WEERC
- AUB
- USJ- ESIB
- UL
- LAU
- La Sagesse
- ENGREF
- ENPC
- PANTHEON SORBONNE PARIS1

I-2- International organizations

- UNESCO

I-3- Non Governmental Organizations

- Ambassade de l'Eau
- GWP - MED
- MOI-ECSDE

10h00 -11h30 Theme VI: Climate change adaptation and water resources management in the Middle East and North Africa

The climate change could have a series of harmful effects on the hydraulic resources in the South-eastern Mediterranean countries and in particular on the provision of drinking and irrigation water for the population. This situation will affect 300 million people who will be submitted to a situation of hydrous stress in 2070.

The modifications of the climatic parameters and the chemical composition of the atmosphere will have a major incidence on the necessary volume of drinkable water intended for the population as well as on their food safety.

To deal with this phenomenon, the South-eastern countries could privilege the policy of surface storage by multiplying the infrastructures such as the dams and the hiles **collinaires** in order to store the maximum water possible in period of **flood**.

This topic consists in defining the effects of the climate change on the water resources in the Mediterranean countries in arid and semi arid climate. The subjects that will be tackled are the following:

- **Effects on the sector of drinking water and food security**
- **Management of dryness and floods**
- **Fight against the desertification**
- **Mobilization of the additional water resources (conventional and non conventional water, dams, sources of marine water, **grey water**, desalination re-use)**

I-speakers:

I-1- Country

- Morocco (5min)
- Spain (5min)
- Greece (5min)
- France (5min)
- Lebanon (5min)
- Cyprus (5min)

I-2- Euro Mediterranean organizations

- Blue plan (10min)
- EUWI - Mediterranean component (10min)
- UNESCO
- RED-Ethique (10min)

I-3 International organizations

- International committee of dams (10min)

II-Discussion and criteria of choice of the projects (20 min)

11:45 -13:00 - Conclusions and follow up steps

14:00 – 15:00 Activities of the Mediterranean Component of the EU Water Initiative in Lebanon:
Presentation and Discussion of the Results of Phase I of MED EUWI Country Dialogue on
Reviewing the Lebanese IWRM Plan