



**International Symposium on  
Isotopes in Hydrology, Marine Ecosystems, and  
Climate Change Studies**

**Oceanographic Museum  
Monaco  
27 March–1 April 2011**

*Organized by the*  
International Atomic Energy Agency (IAEA)

*Hosted by the*  
Government of the Principality of Monaco

The symposium is organized on the occasion of the 50th anniversary of the IAEA Marine Environment Laboratories established in the Principality of Monaco on 10 March 1961.

*Advisory Committee*

H.S.H. Prince Albert II, Honorary President  
D. Allemand, Scientific Director, Centre scientifique de Monaco (CSM), Monaco  
F. Briand, Director General, Mediterranean Science Commission (CIESM), Monaco  
W. Burkart, Deputy Director General, IAEA, Vienna  
R. Calcagno, Director, Institut Océanographique, Fondation Albert 1er, Monaco  
B. Fautrier, Vice-President, Fondation Prince Albert II de Monaco, Monaco  
A. Maratos, Vice Admiral, President of the International Hydrographic Bureau (IHB)  
F. Quevedo, Director, International Centre for Theoretical Physics (ICTP), Trieste  
P. Rampal, President, Centre scientifique de Monaco (CSM), Monaco  
A. Steiner, Executive Director, United Nations Environment Programme (UNEP)  
P. Van Klaveren, Ambassador, Permanent Representative to Scientific, Environmental and Humanitarian International Bodies, Monaco  
W. Watson-Wright, Executive Secretary, Intergovernmental Oceanographic Commission of UNESCO (IOC/UNESCO), Paris

**ANNOUNCEMENT AND CALL FOR PAPERS**

## **1. INTRODUCTION**

### **Objective**

The principal objective of the symposium will be to exchange recent research achievements in the use of isotopic techniques in hydrology, climate change studies, marine and terrestrial ecosystems.

### **Background**

Human activities have had a far-reaching impact on the aquatic environments — both marine and freshwater systems. The protection of these systems against further deterioration and the promotion of sustainable use are vital. In order to deepen understanding about the main processes affecting the present situation, as well as possible developments in the future, further investigation is required. The oceans play a major role in climate change, for example, and ocean acidification by increased CO<sub>2</sub> release is one major threat to the world's oceans. Isotope methods can play a critical role in identifying and quantifying key processes within aquatic environments.

Addressing the problems of global water resources has become a matter of urgency. Water resources are subject to multiple pressures for various reasons, including increasing populations, climate change, rising food and energy costs, the global economic crisis and pollutant loading. Isotope hydrology provides the unique and critical tools required to address complex water problems and helps managers and policy makers understand the closely intertwined relationship between water resources and the various pressures affecting them, as well as the issue of sustainability.

The symposium will be an important forum for the exchange of knowledge on the present state of marine and freshwater environments, use of isotopes in water resources investigations and management, and climate change studies. The meeting will involve leading scientists in the field of climate change and hydrology, as well as representatives from other United Nations bodies and international organizations that focus on climate change and other important environmental issues.

## **2. TOPICS**

- The role of isotopes in understanding and modelling climate change, marine ecosystems and the water cycle;
- Carbon dioxide sequestration and related aspects of the carbon cycle, such as ocean acidification;
- Isotopes in groundwater flow modelling for large aquifers;
- Analytical methods and instrumentation for the application of isotopes in environmental, climate and hydrological studies.

## **3. AUDIENCE**

The symposium is aimed at professionals involved in a broad spectrum of disciplines, including marine sciences (ocean, seas, coastal zones), water resources management, hydrosphere, atmosphere, climate change, environmental modelling, protection of the environment, GIS, emergency response, development of isotopic techniques and quality assurance/quality control. Government officials, including policy makers and individuals responsible for the assessment of environmental contamination would also benefit from attending the symposium.

#### 4. PROGRAMME STRUCTURE

The **opening session** will include welcoming addresses by H.S.H. Prince Albert II of Monaco and representatives of the IAEA and will be dedicated to the 50th anniversary of the IAEA Marine Environment Laboratories founded on 10 March 1961 in the Principality of Monaco.

A series of four **plenary sessions** will address the topics mentioned. Each session will consist of:

- An overview presentation and summaries of the relevant contributed papers;
- Invited keynote paper(s);
- Panel discussion.

**Poster sessions** will be organized for all accepted contributed papers and will include ample time for discussion and interaction with colleagues.

A **final roundtable session** will include presentations by the session chairpersons of the main conclusions drawn in their respective sessions and of the recommendations for the future development of international cooperation, including IAEA activities.

#### 5. PAPERS AND POSTERS

Contributed papers on the topics described in Section 2 as well as contributions on all aspects of isotope applications relevant to water resources management, terrestrial and marine environments and climate studies are welcome as poster presentations. Poster sessions are being used to promote more interactions among symposium participants. Abstracts will be distributed to all participants upon registration. Full papers will be published in the symposium proceedings which will be published after the symposium. Comments or questions on contributed papers can be raised at the appropriate topical session. All papers must present original work and should not have been published elsewhere.

##### (a) Submission of abstracts

Abstracts must be sent electronically (no paper copies) in Microsoft Word format to [Monaco-Symposium@iaea.org](mailto:Monaco-Symposium@iaea.org) by **1 October 2010**.

The abstract should not exceed 150 words. The abstract must be in English and give sufficient information on the contents of the proposed paper to enable the Selection Committee to evaluate it. Introductory and general matters should not be included.

**In addition**, the abstract must also be submitted (either electronically or by paper copies) to one of the competent official authorities of the participant's country (e.g. Ministry of Foreign Affairs or national atomic energy authority) or to an organization invited to participate for subsequent transmission to the IAEA, together with a completed Form for Submission of a Paper (**Form B**) and the Participation Form (**Form A**), to reach the IAEA also by **1 October 2010**.

**IMPORTANT:** only abstracts that have been received by the above deadline and through the appropriate official authority will be considered.

Authors will be informed whether their papers have been accepted for inclusion in the book of abstracts and, as appropriate, for presentation as a poster. The IAEA, however, reserves the right to refuse the presentation or publication of any paper that does not meet expectations based on the information given in the abstract.

**(b) Submission of full papers**

Full papers must be sent electronically (no paper copies) in Microsoft Word format directly to [Monaco-Symposium@iaea.org](mailto:Monaco-Symposium@iaea.org) by **15 February 2011**.

The full paper should not exceed six pages except for invited papers that may be up to ten pages. Guidelines and a template for the preparation and submission of full papers will be available on the symposium website.

The deadline for revised papers to be sent to above email address is **10 March 2011**.

**(c) Presentation of posters**

Guidelines for the preparation of a poster will be available on the symposium website.

## **6. DISTRIBUTION OF DOCUMENTS/PROCEEDINGS**

Edited symposium proceedings will be published by the IAEA as soon as possible after the meeting. Selected papers will be considered for a special issue in the scientific journal 'Science of the Total Environment'.

A preliminary programme of the symposium will be available on the symposium website before the meeting. The final programme and the book of abstracts will be distributed upon registration at the symposium location.

## **7. PARTICIPATION**

All persons wishing to participate in the meeting are asked to **register on-line in advance** via the symposium web site (see Section 15). **In addition**, they must complete a Participation Form (**Form A**) and send it as soon as possible to one of the competent official authorities of the participant's country (e.g. Ministry of Foreign Affairs or national atomic energy authority) or to an organization invited to participate for subsequent transmission to the IAEA. **A participant will be accepted only if the Participation Form is transmitted through the competent official authority of his or her Member State of the IAEA or through an organization invited to take part in the symposium.**

**The maximum number of participants is limited to 300.**

Participants whose official designations have been received by the IAEA will be notified approximately three months before the meeting.

## **8. EXPENDITURES**

**No registration fee will be charged to participants.**

As a general rule, the IAEA does not pay the cost of attendance of participants (i.e. travel and living expenses). However, limited funds are available to help meet the cost of attendance of selected participants mainly from **developing countries with low economic resources**. Generally, not more than one grant will be awarded to any one country.

If governments wish to apply for such a grant on behalf of one of their participants, they should address specific requests to the IAEA to this effect. Governments' applications for grants must be:

- (a) Submitted by **1 October 2010**;
- (b) Accompanied by a duly completed, signed and stamped Grant Application Form (**Form C**).

Applications that do not comply with the conditions mentioned under (a) and (b) cannot be considered. The grants awarded will be in the form of lump sums usually covering **only part of the cost of attendance**.

## 9. DEADLINES

- **1 October 2010:** Submission of abstracts and grant applications
- **15 February 2011:** Submission of full papers
- **10 March 2011:** Submission of revised papers

## 10. WORKING LANGUAGE

The working language of the symposium is English. All communications, including abstracts and full papers, must be sent to the IAEA in English.

## 11. ACCOMMODATION

Detailed information on accommodation and other administrative arrangements will be sent to all officially designated participants well in advance of the meeting. This information will also be available on the symposium web site (Section 15).

## 12. VISAS

Should you require a visa for entry into Monaco, please contact the nearest consular representative of **France** as early as possible.

**Please be aware that when applying for a visa you may be asked to show evidence of personal insurance coverage valid during your travel. It is your responsibility to make arrangements for health insurance coverage.**

France is a Schengen State and therefore persons who require a visa will have to apply for a 'Schengen visa' *at least four weeks before entry into Monaco*. In States where France has no diplomatic mission, visas can be obtained from the consular authority of a Schengen State representing France in the country in question. At present, the Schengen States are: Austria, Belgium, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Italy, Latvia, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Slovakia, Slovenia, Spain, Sweden and Switzerland.

In exceptional cases only, the IAEA is able to assist participants who encounter difficulties in obtaining a visa. In this regard all necessary information (date of birth, nationality, type of passport, passport number, issuance and validity of the passport, length of stay, arrival date, flight details and a short description of the problem encountered) should be sent to reach the IAEA at the latest **four weeks** before the meeting. After that date the IAEA will not be able to assist participants due to Schengen regulations.

**Please be aware that the validity of a Schengen visa cannot be extended from within a Schengen State.**

### **13. SYMPOSIUM VENUE**

The symposium is being organized by the IAEA and hosted by the Government of the Principality of Monaco. It will take place at the Oceanographic Museum in Monaco from 27 March to 1 April 2011.

### **14. SYMPOSIUM SECRETARIAT**

Scientific matters and paper submission:

#### ENVIRONMENT PROGRAMME

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### **15. SYMPOSIUM WEB SITE**

Please visit the IAEA symposium web site regularly for any new information regarding this symposium:

<http://www-pub.iaea.org/MTCD/Meetings/Announcements.asp?ConfID=38297>