



Final Report of the XIIIth IWRA World Water Congress Montpellier, France, 1-4 September 2008



Introduction

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The Languedoc Research Institute on Water and Environment (ILEE) and the Association VERSeau Développement, together with Enjoy Montpellier under the auspices of the International Water Resources Association (IWRA), hosted the XIIIth World Water Congress in Montpellier, France from 1-4 September 2008.

The Congress of Montpellier followed those of Melbourne (2000), Madrid (2003) and New-Delhi (2005).

The challenge of organisation of the Congress goes back to November 2005, New Delhi when Ali Shady, President in exercise, entrusted the organisation of the next congresses to Montpellier in 2008 and to Recife (Brazil) in 2011.

At that moment, the persons in charge at the ILEE and VERSeau Développement imagined very imperfectly the challenge and the importance that the event would represent for themselves, but also for all French regional and national community implied in water



sciences, including not only scientists but also national and territorial authorities and small and big enterprises.

The preparation of the Congress was filled with rich and fruitful exchanges; it was a result of close collaboration between the IWRA board chaired by Ali Shady, then by Cecilia Tortajada, the International Scientific Committee chaired by Olli Varis, and the National Organising Committee co-chaired by Pierre Chevallier, Bernard Pouyaud and Eric Servat.

The members of the National Organising Committee (NOC) met every month during almost three years without interruption excepting August 2006 and 2007 for the summer break, in order to work together to ensure a successful event. There were difficult moments, but never insurmountable obstacles or disagreement. Among the guidelines of the NOC, it is important to underline very briefly three of them, on which the Committee had engagements to the IWRA, and which was the object of constant concern:

- special attention to welcome our scientific colleagues from developing and emerging countries and to offer a platform for all their debates and discussions on water resources management;
- strong vigilance on the quality of all forms of events at the Congress: keynote lectures, special sessions, oral communications, posters and side events;
- sharing our interest for a sustainable future for the water resources of our planet with the public and the inhabitants of Montpellier and its region.

This report confirms that the Congress was a successful event. Opinions and emails received during the few last weeks have been, in their great majority, positive, sometimes enthusiastic. But everything was not perfect and we also received some critical returns very few of which were severe.

We try to honestly and rigorously present in this report a general summary of all scientific, organisational and financial aspects.

To close this introduction, it is necessary to mention a point which we had underestimated: the media impact of the event greatly exceeded the expectations of an international scientific congress. Undoubtedly this is related to the reality of societies' universal interest in water, its availability and its management in a changing world where pressures on resources expand and diversify. This was the central theme of the Congress.

Our Montpellier community, scientists, public authorities and industry, wishes to extend this experience beyond the Congress in order to affirm its pertinence in constantly evolving national and international context.



Scientific Report

Olli Varis

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IWRA's 13th World Water Congress took place in Montpellier, France in 1 to 4 September 2008. This internationally leading event on water and global changes provided a broad supply of studies and experience on a broad spectrum of topics classified under eight main themes:

- Water availability, use and management
- Towards the future: water resources and global changes
- Climate change and disasters
- Development of water resources and infrastructure
- Water governance and water security
- Water conservation and demand management
- Financing water development
- Capacity building

Besides the ordinary oral scientific sessions, 14 special sessions and a rich variety of posters were presented. The special sessions included:

- Sustainable financing to ensure affordable access to water and sanitation: lessons from the OECD
- Assessment of climate change impact on the Arab Region
- Ten years of the Brazilian water law: achievements and new challenges
- Water in mountains
- Future trends of water and food security in Central Asia, with implications for reaching the millennium development goals
- Scientific and technological innovation in water management in Japan and promotion of international collaboration
- Challenge Program on Water and Food: water, agriculture and poverty alleviation in basin focal projects
- Training needs in the water sector in Sub-Saharan Africa
- Risk management for water in the Mediterranean region - an example of actions in research development
- Imagining future waterscapes in the Mekong region
- Challenges and current trends in agricultural research for improving water use and management in cropping systems
- Normalisation and innovation / research in the water sector - the bridges required in the European context
- Transboundary aquifers
- French Water Agency actions aligned with integrated water resources management and the European Water Framework Directive



As the scope of the congress was very broad, the findings were equally varied. The baseline is that water resources science today is at the intersection of natural sciences, environmental sciences, as well as of economics and finance. The social and political sciences have also entered into the picture with increasing weight. At the top of the agenda is the need to find solutions to problems and not just provide diagnostic studies. Engineering solutions, human capacity building, financial approaches and links to politics are instrumental parts of meaningful water research within the context of global changes.

In what follows, the main issues deliberated at the congress are summarized. The eight main themes are used as the starting point, although some of the themes are combined, and the outcomes of the Special Sessions are embedded under the main themes.

A. Water availability, use and management: past, present and towards the future

These topics ranged from diagnosis and forecasting of hydrological, ecological and water quality systems to integrated management of aquatic and socio-political systems. Methodologies and approaches of research and management played an important role in many of the presentations. Those included computational and statistic approaches as well as complex management schemes such as Integrated Water Resources Management and the European Water Framework Directive. A number of sessions were devoted to regional development in large geographic areas, many of them in a transboundary and international setting.

From optimal resource capture to political

In 1970s, the mainstream textbooks advocated the 'ideology' of optimal water allocation in which the costs and benefits were compared and optimization routines were proposed to search for the most economically profitable allocation of water. This approach was first challenged by rising environmental concerns, followed later by social concerns. The optimal allocation philosophy was often seen to favor those users whose activities can easily be measured in money and whose economic weight is large and visible. The environment, the poor and traditional societies had no place in this model.

Environmental values have been gradually incorporated into mainstream water resources management. The social concerns have followed but still have a long way to go before they are fully mainstreamed. But the relatively broad interest into social impacts at the presentations in Montpellier was a clear sign that certain progress is taking place.

The next wave – already in motion – is the political and governance dimension of water management. The current decade has seen a soaring interest in issues such as international water politics, transboundary water management, the political economy of water, and stakeholder dialogues. These concepts can evoke a great deal of emotion, while many links are being made between water politics, environmental concerns and social issues. This wave was much in evidence in Montpellier, where the number of special sessions and ordinary presentations related to water politics (in a broad sense) indicates that this topic is rapidly moving towards becoming a mainstream element in water resources management.



Large water systems, global changes

IWRA's Congresses have increasingly emphasized regional sessions and analyses of large river basins. In Montpellier, the variety and quality of such events and presentations was remarkable. In a related area, nationwide scenario and development studies were also quite numerous.

Along with the Global Changes theme of the Congress, we expected many papers related to major changes in global economy, trade, demography, urbanization, human development, land use, and climate change. Whereas those were present in numerous studies, I felt that, with the exception of climate change, these issues have not penetrated sufficiently into our field.

All the world's leading schools on international waters were in Montpellier. Political issues—often extremely sensitive ones—are now more openly deliberated than before. Water resources should be managed within river basins but the borders of the basins rarely coincide with those of the national borders. 45 percent of the globe's land area belongs to such basins and on the top come those that depend on international groundwater aquifers. The politics and challenges of rivers such as the Brahmaputra, Mekong, Amu Darya, Niger, Jordan, Nile and numerous other large and small basins were deliberated at the congress.

B. Climate change and disasters

When it comes to climate change, the current challenge is to figure out where the risks to water systems and water management are, and distinguish those aggravated by climate issues from changes due to other reasons. The underlying factor behind climate warming is the trapping of increased amount of energy into the atmosphere due to growing concentrations of greenhouse gases and aerosols. The consequent growth of the energy content of the atmospheric-hydrological system tends in most cases to exacerbate many of the climatic phenomena. Storms and rainfall intensities are likely to become stronger, while droughts worsen. Arid areas may become drier and rivers in humid climates may become more flood-prone. Several analyses in Montpellier draw attention to the melting of glaciers in mountain regions as well as in other cold climate areas.

The methodological approaches varied, but perhaps the most typical was to commence with a diagnostic of existing time series and other data which in some cases went back centuries. Thereafter predictions and policy implications (mainly adaptation) followed. Another methodological branch considers risk-analysis but sound probabilistic studies remain very scarce and people tend to rely more on deterministic scenario simulations.

The trend is clearly towards more analyses in which other changes are included; such as those related to economic sector activities, land use, social issues as well as demographic transitions.

Another trend is the widening of geographical coverage. Conventionally, studies on North America, Northern and Central Europe, Australia and Japan have dominated. The geographic coverage has recently become substantially more balanced. The Montpellier Congress



witnessed the reinforcement of this tendency with a substantial number of studies on Africa, Latin America and the Mediterranean region as well as most other parts of the world.

Disparities in adaptation and mitigation capacity should be more profoundly recognized and emphasized. The Congress made an important leap forward in this regard. The same individuals, communities or countries that will be forced to adapt to climate changes are not usually the ones who should assume the responsibility for mitigating those changes. The worldwide disparity is massive, with the poor part of the human population in particular suffering disproportionately from changes without much capacity to mitigate the effects of climate change.

The human dimension should be reinforced within the adaptation and mitigation discourse. Community involvement, awareness, education and capacity building remain rare in climate change studies.

C. Development of water resources and infrastructure

The world constructs more now than ever before. The world population grows by 70 million people per year. All of this growth ends up in urban areas, two-thirds of that in Asia and most of the rest in Africa. The global economy keeps expanding and housing, industry and infrastructure are developing at a remarkable pace. This helps millions out of poverty each year, but it also unfortunately polarizes many social settings and is even politically quite challenging.

Most of the papers under this title at the Montpellier Congress focused on the 'soft' side of the issue, namely data and information methodologies such as monitoring, modeling, Geographic Information Systems, Decision Support Systems and risk analysis. The human component, including social and political questions, also received attention.

Besides the social issues and other 'software' of water resources development, research must be done on the 'hardware'. In fact, the water infrastructure development demands are enormous today. The number of papers on this topic was smaller than expected but the quality was good. More than half of them dealt with analysis and management of risks and disasters. Other perennial hot topics related to energy production, water supply, wastewater treatment, sanitation, and agriculture. Besides these, infrastructure issues were analyzed in many papers categorized under governance or demand management.

Yet I still feel that the issues related to water quality are still far too often disregarded in this context, despite growing concern. More attention is needed on the mounting deterioration of natural waters due to improper treatment of waste waters, as well as the contamination of surface and ground waters due to human activities.

D. Governance, water security, capacity and demand management: Approaching the people in charge

The Montpellier Congress had much to offer on 'water governance'. This broad theme ranged from local water governance to governance of international rivers, from human rights and



local participation to governance of water quality. The bulk of the water politics related titles were treated under the governance theme.

Conventionally the water resources management science has concentrated on the management of natural water systems with technologies and policies. The Montpellier Congress was a landmark in linking to this also viewpoints from the direction of human systems. Various governance and human capacity issues were represented far more than before. Water as a basic human right and the importance of open and equitable information and public awareness have become hot topics. This tendency is equally clear whether discussing the implementation of European water policies or in improving the water supply of Vientiane or forging basin management policies for the Aral Sea or the Mekong River.

‘Conservation and water demand management’ was an overarching theme that brought together the role of the people, the environment, and improved water use. Whereas the augmentation of water supply and rationalization of water allocation have been focal points in water resources management in the past – spiced with environmental and social constraints – looking at the water demand side seems to be gaining a strong position. The increasing application of market mechanisms in economizing water use and the conservation of natural water supplies in order to reduce the human water footprint as well as working against ecological deterioration of water resources have become mainstreamed. The roles of capacity building, education, institutional development, stakeholder involvement, good governance, and technological progress are issues being emphasized today.

E. Financing

Whereas water services and water access have largely been seen as a public responsibility, the tendency today is to require municipal water utilities, irrigation water suppliers and other water service providers to recover costs. Determination and charging of water tariffs are issues that are sensitive to political conflict and tensions between various stakeholders. On the other hand, the adoption of economic instruments often clarifies responsibilities, increases efficiency and allows the cost recovery of the operation and maintenance of the water service and related infrastructure. Agriculture is by far the largest water user on this planet. Yet the implementation of economic instruments in agriculture is far more challenging than in water supply or in industry.

Perhaps most often the bottlenecks of applying economic instruments are on the institutional and on political side, in areas such as regulation, monitoring, social and political acceptance, and community involvement. Potential efficiency benefits of applying economic instruments are totally conditional to correct pricing and robust institutional control. Otherwise, the application of economic instruments may lead to inferior or questionable benefits.

The introduction of financial and economic instruments affecting traditional livelihoods which dominantly consider water as a common property resource is an extremely delicate process and should be done with the simultaneous introduction of financial systems such as micro-financing or insurance systems to balance out some of the risks due to natural climatic variability. Another challenge comes from the need to secure sufficient water for ecosystems.



Equally basic, and stressed by many in Montpellier, is that water pricing schemes must comply with cultural ethic and religious values. Value conflicts are very easy to build up but difficult to solve.

Where next?

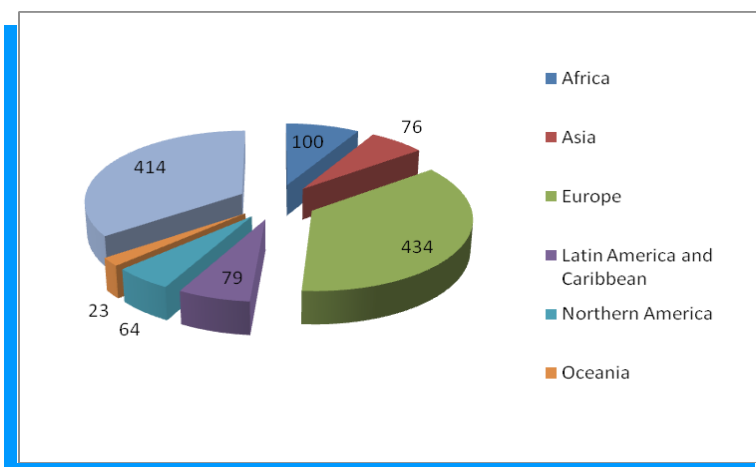
I started by defining water resources management as an intercourse between people and water. On the whole, my own feeling is that at the 13th World Water Congress in Montpellier in September 2008, IWRA has taken a leap forward in the ‘people’ side, and moved more than little towards the ‘soft’ direction. Particularly progress appears to have been made on the social impact side as well as in water governance including institutional and organizational aspects, water demand management, and water politics. Some of the conventional bulwarks of the field, such as physical infrastructure, data management and analysis, modeling, economic valuation of water through agriculture, energy sector, and water supply were present but more and more looked at least partly through the glasses of the ‘soft’ aspects.

Participation



The XIIIth World Water Congress brought together 1190 participants coming from 85 countries from all over the world. The diagrams below represent the participant distribution by macro region and by category.

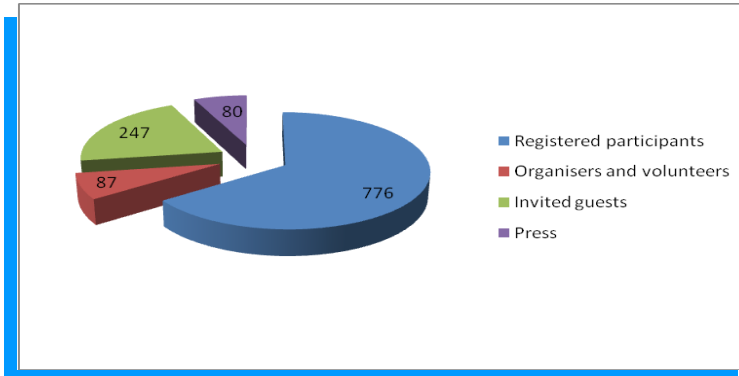
Participant distribution by macro region



Note: the category “Europe” includes a certain number of participants attached to European institutes coming from other continents (in particular from Africa, Latin America and Asia).



Participant distribution by category



It is important to underline the participation of young high-school pupils at the Congress with the involvement of Club JRD who held a stand and presented their works and the lyceum Georges Pompidou at Castelnau le Lez.

A team of 37 volunteers took part in the Congress by helping to coordinate the event (welcome, orientation of the participants, coordination, etc.). They are mainly Master and PhD students in water sciences at Montpellier Universities (UM II, SupAgro, MSE, Polytech).

Congress Events

Ordinary Sessions

45 ordinary sessions were organised at the Congress. They were programmed into 45 slots (1.5 hour each). 246 oral communications were realised and 223 submitted articles were published in the Congress Proceedings (CD format and on line).

The theme of the Congress was: Global Changes and Water Resources. 8 main subtopics were defined as priority subject areas to explore the theme:

1. WATER AVAILABILITY, USE AND MANAGEMENT (12 sessions)

Participation rate: 50 participants/session

2. TOWARDS THE FUTURE: WATER RESOURCES AND GLOBAL CHANGES (2 sessions)

Participation rate: 40 participants/session

3. CLIMATE CHANGE AND DISASTERS (5 sessions)

Participation rate: 65 participants/session

4. DEVELOPMENT OF WATER RESOURCES AND INFRASTRUCTURE (7 sessions)

Participation rate: 40 participants/session

5. WATER GOVERNANCE AND WATER SECURITY (10 sessions)

Participation rate: 65 participants/session



6. WATER CONSERVATION AND DEMAND MANAGEMENT (7 sessions)

Participation rate: 55 participants/session

7. FINANCING WATER DEVELOPMENT (1 session)

Participation rate: 50 participants

8. CAPACITY BUILDINGS (1 session)

Participation rate: no statistics available

Special Sessions

The XIIIth World Water Congress provided a platform for 14 special sessions organised by various international and national organisations. They were programmed into 25 slots (1.5 hours each). 15 articles were published in the Congress Proceedings (CD format and on line).

- **SSa1-2: Sustainable financing to ensure affordable access to water and sanitation: lessons from the OECD** (2 sessions)
Organised by - Organisation for Economic Cooperation and Development (OECD)
Participation rate: no statistics available
- **SSh1-2: Assessment of climate change impact on the Arab Region** (2 sessions)
Organised by - Arab Water Council
Participation rate: 45 participants/session
- **SSm1-2: 10 years of the Brazilian Water Law achievements and new challenges** (2 sessions)
Organised by - Agência Nacional de Águas (ANA), Brazil and UNESCO Brazilian Office
Participation rate: no statistics available
- **SSi: Water in mountains** (1 session)
Organised by - Institut de la Montagne, France
Participation rate: no statistics available
- **SSb1-2: Future trends of water and food security in Central Asia** (2 sessions)
Organised by - Altera, Netherlands
Participation rate: no statistics available
- **SSq1-2: Scientific and technological innovation in water management in Japan and promotion of international collaboration** (2 sessions)
Organised by - Japan national committee of international Water Resources Association
Participation rate: no statistics available
- **SSc1-2: Challenge Program on Water and Food: Water, agriculture and poverty alleviation in basin focal projects** (2 sessions)
Organised by - Challenge Programme Water and Food
Participation rate: 90 participants/session
- **SSj: Training needs in water sector in Sub-Saharan Africa** (1 session)
Organized by - Institut International d'Ingénierie de l'Eau et de l'Environnement, Ouagadougou, Burkina Faso
Participation rate: no statistics available
- **SSd1-2: Risk management for water in the Mediterranean region. An example of**



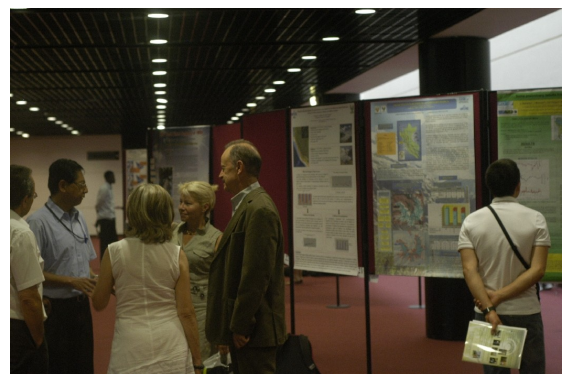
actions in research development (2 sessions)

Organised by – Pôle de Compétitivité Risques, France

Participation rate: 35 participants/session

- **SSp1-2: Imagining future waterscapes in the Mekong region (2 sessions)**
Organised by - Institut de Recherche pour le Développement (IRD), France; Mekong Program on Water Environment and Resilience (MPOWER); Finnish Environment Institute, Finland
Participation rate: 40 participants/session
- **SS11-2: Challenges and current trends in agricultural research for improving water use and management in cropping systems (2 sessions)**
Organised by - Agropolis Foundation for agronomy and sustainable development, France
Participation rate: no statistics available
- **SSn: Normalisation and innovation / Research in the water sector - the bridges required in the European context (1 session)**
Organised by - Association Française de Normalisation (AFNOR), France
Participation rate: no statistics available
- **SSg1-2-3: Transboundary Aquifer Systems (3 sessions)**
Organised by - Academie de l'Eau, France; University Partners for Transboundary Waters, USA; Kings College, London, United Kingdom
Participation rate: no statistics available
- **SSk: French Water Agency actions aligned with Integrated Water Resources Management and the European Water Framework Directive (1 session)**
Organised by - Agences de l'Eau, France
Participation rate: 110 participants

Poster sessions



4 poster sessions with a duration of one day were organised during the Congress. 200 posters were programmed; about 50% of them were displayed during the Congress. 156 posters were submitted and published in the Congress Proceedings.



Keynote Lectures

Several distinguished keynote speakers participated at the Congress. Summaries¹ on their lectures are presented below.

Monday 1 September: Angel Gurría, OECD Secretary-General



Angel Gurría, the first keynote speaker, is OECD Secretary-General. Former Minister of Foreign Affairs and of Finance and Public Credit, he directed several banking institutions in Mexico.

Mr. Gurría analysed the reasons which make it so that more than 1 billion of our contemporaries do not have access to drinking water and at which price this situation could be solved. He also underlined the role that OECD could play.

A short discussion regarding the diversity and the multiplicity of international organisations dealing with water: while refusing the creation of a new UN agency, Mr. Gurría pleaded vigorously for better coordination and coherence between institutions.

Participation rate: 350-400 participants

Tuesday 2 September: Michel Jarraud, OMM Secretary-General



Michel Jarraud, second keynote speaker, is Secretary-General of the World Meteorological Organisation.

Researcher and specialist in weather forecasting and the digital models on which it is based, he devoted his career to Météo France and to the European Centre for Medium-Range Weather Forecasts, before becoming OMM Secretary-General.

In his speech, Michel Jarraud talked about the difficulties for decision makers to take into account evolutions in climate and society. Whilst recognising the limits, he insisted on the necessity of weather forecasting and strong collaboration between the various partners.

A short dialogue with the audience enabled him, in particular, to evaluate positive and negative aspects of data privatisation and difficulties of access to this data.

Participation rate: 300-350 participants

¹ By Henri Carsalade, President of Agropolis International and Coordinator for Keynote Speakers at the XIIIth World Water Congress



Wednesday 3 September: Sanjit « Bunker » Roy, Founder of the Barefoot College



Sanjit Bunker Roy is founder of the « barefoot college », in Tilonia, Rajasthan, India.

His engagement with the civil society to help the poorest communities of his country goes back to 1972. The College trained two generations of villagers to become social workers, solar engineers, hand-pump mechanics and made it possible for 100 000 of them to have access to drinking water, education, health and employment.

He explained why rainwater harvesting is, in many contexts, the best, and even the only solution to provide wide access to drinking water for poor populations. In presenting his previous and present achievements and his plans for the future, he pleaded for strong solidarity in favour of the poorest.

The audience cordially welcomed his talk and asked for details, in particular on training contents and on teaching (concerning illiterate people). In his answer, he expressed his regret at the lack of support and understanding by public authorities.

Participation rate: 300 participants

Thursday 4 September: Luis Carlos Guedes Pinto, Former Brazilian Minister of Agriculture, Livestock and Food Supply



Luis Carlos Guedes Pinto, agronomy engineer, obtained his PhD in Agronomy in 1973, at University of Sao Paulo.

He participated in the creation of EMBRAPA, Brazilian Agency for Agricultural Research. He became Chief of Staff to the President and Head of the Technical Advising Unit, among other responsibilities. He became then professor of rural economy at the University of Campinas, in the State of Sao Paulo.

In 2003, he was president of CONAB, Brazil's crop supply agency. He held the post of Vice Minister of the Ministry of Agriculture, Livestock and Food Supply, before being appointed Brazilian Minister of Agriculture for the period 2006-2007.

He is today Vice President of Agrobusiness of the Bank of Brazil.

Mr. Pinto spoke about Brazilian experience regarding agricultural management. He insisted on the interconnection between natural resources, and thus forests and water, and agricultural production. Showing success and failures of his country on the matter, he insisted on environmental, economic, scientific, human and institutional aspects.



The debate related to the importance of the Brazilian private agricultural sector, on the exporting will of the country on food and energy agricultural products, finally on the particular problem posed by persistence of poor rural population in the country.

Participation rate: 250 participants

The Ven Te Chow Memorial Lecture Summary: Laureate Professor John J. Pigram



In a rapidly changing global environment, the leadership of the International Water Resources Association and its members is vital in promoting sustainable water planning and management for all the world's peoples. The Association, through its network of expertise and experience and its influence, is uniquely placed to help the process of reform, restructuring and redistribution necessary to achieve sustainable solutions to global and regional water issues. To some, globalisation is a suspect process to be resisted. However, in a positive sense, globalisation implies sharing, collaboration and partnership.

Globalisation offers a means whereby developing, as well as industrialized nations, water-rich and water-poor, and the public and private sector, can be brought together in a mutually advantageous relationship to share knowledge and ensure that the dissemination of technological advances and better practice in water management is directed towards overcoming water scarcity and deficiencies in sanitation. The need to address water-related problems in a trans-disciplinary way and to pursue partnerships and common ground between governments, water professionals and involved communities are essential if the world is to meet the water challenges of today and tomorrow.



Technical Exhibition



Congress participants were able to visit displays and presentations at 26 stands, representing over 32 different organisations.

EGIS
KROHNE
Région Languedoc Roussillon ; BRL
Agglomération de Montpellier
INGENIO
Agences de l'eau
Prince Sultan International Prize for Water
FARMEX
SWELIA
ECA HYTEC
BRGM
Hydrosciences Laboratory
Agropolis International ; Echel-Eau ; Pôle Risque
AquaStress
Club JRD
IRD Éditions
CIHEAM
Département de l'Hérault
INRA
Eau Thermale Avène
Véolia
Suez - SDEI
Studio Maione Ingegneri Association
Corporate Technology Services
VERSeau Développement ; ILEE ; IAHS
IWRA ; Recife 2011; Taylor & Francis



Cultural Events

Welcome Cocktail



All Congress participants were invited to attend the welcome cocktail on the opening evening of the Congress. Thank to the Ville de Montpellier for having organised and offered the cocktail to all registered participants. Estimated participation: 1000 participants.

Conference session for the general public



A free public conference on the theme of water by Erik Orsenna took place on Monday 1st September from 20:30-22:30 at the Pasteur Room at the Corum. It brought together congressists and the general public alike and was considered a success with the room at full capacity (750 participants).

Cultural Event



The Congress organised a special evening «*Courbet au fil de l'eau*» at the Fabre Museum the evening of 3 September from 17:30-19:30 which was free to all congressists. 150 guided visits of a special and unique exhibition of Courbet's works and the museum's permanent water collections were organised. The evening also included 100 additional unguided visits.



Gala Dinner



The gala dinner, premier social and networking event of the XIIIth IWRA World Water Congress was held on the evening of the 3 September. There were 370 participants. With fine French cuisine and light entertainment of 3 music groups («Tombés du Ciel»: French songs, «Cusuquita»: Latin Jazz, «Spok Frevo Orquestra»: Brazilian Orchestra) it was also the occasion for the awarding of 6 IWRA prizes.

The Ven Te Chow Memorial Lecture was awarded to Professor John J. Pigram. The Crystal Drop was awarded to H.E. Dr. Mahmoud Abu-Zeid. The Water International Best Paper was awarded to Claudia W. Sadoff and David Grey; to Brent Swallow, Nancy Johnson, Ruth Meinzen-Dick and Anna Knox; to David J.H Phillips, Shaddad Attili, Stephen McCaffrey and John S.Murray; and to Mark Zeitoun. Special IWRA Fellowships were awarded to Professor Chennat Gopalakrishnan and Doctor Toshikatsu Omachi.



The gala dinner was also the occasion for a communication by the Minister of Water of Uzbekistan and the Secretariat of Hydraulic Resources of Brazil.

Technical Visits



Following the Congress, about 100 participants registered to attend technical visits organised in the region by the partners and organisers of the Congress.

The visits enabled Congress participants to visit infrastructure and innovative tools for water resources management: management of agricultural impacts (INRA, CEMAGREF, CG 34), SAGE Hérault (CG 34), Contract of the Orb River (CG 34), Montpellier Drinking Water Supply and the capture of the Lez spring (City of Montpellier - Veolia), Sanitation of the Montpellier Agglomeration (STEP MAERA - Agglo - Veolia), regional Hydraulic Equipments (BRL), real-time flood risk management (PREDICT), flood warning system (ESPADA: City of Nimes, Egis Eau), Lombri-station (City of Combaillaux and LombriTek), Eco-techniques of sanitation (GEOASSEV) (CG 34, Association REEANVER), the Mare Nostrum Aquarium (Agglomeration of Montpellier).

The participants were interested and appreciated the richness of our region.

Several visits that were initially programmed were not held either because of insufficient pre-registrations or because of last minute technical problems (e.g. cancellation by the organising partner).



Public Events and Youth Involvement

Various public events were held throughout Montpellier and its environs under the banner of the XIIIth World Water Congress (Spot Film Festival for the Environment, conferences, artistic animations, exhibitions, etc.). Among the the main activities that were proposed (this list is not exhaustive) there are:

Francesca Caruana, visual artist, worked out a coloured lap over the fountains: le Château d'Ô was decorated with a luminous sculpture during all the week of the Congress and the fountains of Montpellier were coloured, one after another, on 1st September from 11:00-18:00. "A vau-leau", exhibition of fabrics and sticks of incantation took place at the Theatre d'Ô from 1st to 20 September.

The Association "Messages pour la Terre" organised the first edition of the International Spot Film Festival for the Environment in Rabelais Room on 1st September. The festival was a successful event with more than 800 participants within 5 evenings. The events that were proposed around the Festival were very diverse: debates - 1 hour of debates each day around a film on water issues, animated by a journalist where were invited personalities from the scientific world, documentary cinema, environment, of ONG, etc.

"Water" **spectacles**: "Aquagramme" by François Philipponnat, author and actor, and Nadine Cabarrot, actress and photographer; "Soirée Impro, Cie du Capitaine": theatre improvisation by Julien Masdoua and his assistants on water and environment issues; "H2o... Gouttelettes" by Cie Bagages d'acteurs: educational spectacle on environment for young public who will be soon concerned with water issues.

A great choice of **exhibitions** on water:

"Images d'eau, un itinéraire" : large size exhibition in Rabelais Room and on esplanade from 25 August to 7 September. Six collectives of photographers presented some of their more beautiful photographs resulting from their own set of themes. About thirty photographs were exposed in large size. The exhibition thereafter will be presented in Lyon in the hall of the Agency of water Rhône Méditerranée, then in the facilities of the Maison des Sciences de l'Eau in Montpellier.

Thematic exhibitions on water by collectives photographs were also presented in integrality in Montpellier districts and in villages in the neighbourhood: "Étang donné" by collective "Objectif Image" ; "Lez" by Club Photo MJC Clapiers; "Eau des villes, eau des champs" by Club photo de la Maison pour Tous Boris Vian; "Les sens de l'eau" by Collective of "Photographes Anonyme"; "Au fil de l'eau" by Club photo Vendarguais; "Eau: bâtisseur de vies" by Club Photo MJC Castelnau. Transit / Maison des Relations Internationales Collective presented from 25 August to 28 September 3 reports on the Amour and Sao Francisco Rivers but also on the Dead Sea. Water taste, form, colour, power, but also water value and movement were in the heart of the exhibition "L'eau à la bouche" largely open to all public from 1st September to 10 October in the Hall de la Mairie.

Exhibition, test and projections on water / Maison de l'Energie – Pavillon Bagouet – Esplanade Charles de Gaulle from 1st to 5 September: exhibition by Water Agency RM&C: resource/use/daily gestures; tests of various hydro-economical materials for general public;



sensitising film projections; plays for children on water; equipment, information, advice; “giant” meter installation on the frontage of the Pavillon Bagouet that hosts the Agency.

Photographs on the topic of water: NORIA association exposed on September 10 in the Jean Bene Room about twenty photographs on the topic of water taken during the trip carried out between Montpellier and Laos in 2cv.

General Public Conferences

Administrative management of water in France: diversities and complexities (Room Rabelais, 1 September) by Catherine Ribot, Public Law Professor, Director at CREAM, Faculty of Law, University Montpellier 1

Gulfs and underground rivers: attic windows on the mysterious world of the karst and its subterranean waters (Rabelais Room, 2 September) by Michel Bakalowicz, Research Director at CNRS-IRD, HydroSciences Montpellier

Henri Pitot, man, engineer and his inventions (Rabelais Room, 3 September) by Michel Desbordes, Professor at University Montpellier 2 and by Michel Lescure, Engineer at Conseil Général of Gard

Mediterranean floods: extreme pluvio-stormy mechanisms vis-a-vis to complex territory. Better understanding for better management (Rabelais Room, 4 September) by Emma Haziza, Consulting Expert, Doctor at École des Mines of Paris

Conference around the documentary film "Chercheurs de climat" (Conseil Général de l'Hérault - Jean Bucket Room, 10 September) animated by Bernard Pouyaud, Hydro-Climatologist, highly skilled Research Director at IRD, President of Association VERSeau Développement.

The documentary was realised by Patrick Desenne for France 5 with Bernard Pouyaud in quality of advising scientific. The conference was followed by a spectacle "H₂O, Paroles d'Eau" by Cie Bagages d'acteurs.

Pedagogical Animations

Spectacle-debate “L'Eau dans tous ses Etats” (Maison de quartier Frédéric Chopin, 3 September): bio-equitable buffet and “Water Bar” with CLCV, reading with “jeu d'eau”, “Narcisse” and “la rivière coule” (Companie “l'Albatros”), Companie “Bagages d'Acteurs”, exhibition “Homicycle” and projection “le bain à Bénarès”.

Exhibition "Histoires d'eaux: l'eau et les hommes" (Centre André Malraux (MJC) in Castelnau le Lez, 10 November-5 December): workshops, exhibitions, conference-debates for general public and for pupils on the topic of water.

“Les journées de Thau 2008” (Bassin de Thau, 6 September): 3rd edition, free animations to discover the environmental richness of the territory in partnership with the local stakeholders (communities, associations, professionals).

"Les techniques pour économiser l'eau" (Beaulieu, 21 September): organised by ADEB Beaulieu Restinclières (Association for Raw Water Service) in Beaulieu (Hérault), it was conceived as a place for discover and meetings: information and exhibition on water (pupils' participation), walk to discover the wells of Beaulieu (heritage relation), workshops-debates, experience exchanges, children animation space, exhibitors space (practical solutions for water conservation).

Work of high-school pupils: Club JRD "Water, grounds & climate" at lycée Jules Guesde (Lycée Jules Guesde, from 17-23 November): 6 groups of young pupils of Club JRD will present their works during the Festival of Science.



A teaching work on water (soon): “L'eau: une ressource durable?”: The Scientific commission on Culture and Technique at Agropolis International and CRDP (Regional Centre of Pedagogic Documentation of the Academy of Montpellier) are co-editors of the work entitled “L'eau: une ressource durable?” in the CRDP collection “Questions ouvertes”.

Press/ Media Report

Eighty local, national and international journalists covered the event.

Local press, with rare exceptions, “entered the play” of the Congress very early. Preparatory meetings enabled this excellent synergy: Midi Libre published a Special issue in French and English and “covered” the four days of the Congress. Regional channel France 3 Sud ensured direct-plates from the Corum as well as daily reports. France Bleu Hérault preferred to wait the last two days to prepare the final report. Sud radio carried out several “sounds”. Hérault du Jour, Gazette de Montpellier and local radios (Aviva, RCF Maguelone, Divergence, Radio Pays d'Hérault) prepared various reports.

At the national level, excellent covering by radios (Europe1, France Info-Marie Odile Monchicourt). A team of Arte prepared before the Congress 52 minutes on water. During the four days, two journalists prepared a very thorough work. In the same way, Gaëlle Dupont at the Water service in “Monde”, remained three days. Figaro, Humanité, France-Soir also wrote several “papers”.

At the international level, written press, TV, radio and Internet spoke about the Congress. Spanish TV, Brazilian TV, Radio Canada mobilised our researchers. A correspondent at El Watan, famous Algerian daily newspaper, spent four days at the Congress, feeding his newspaper and a site on the set of Mediterranean themes. A site of Gabon gave a report on the event.

The team of coordination of communication: Muriel Tapiou, Nadine Bosc and Rene Lechon were very solicited but reacted, in a very fast way to multiple requests, very often in urgency. A list of subjects for reports prepared by Valérie Rotival and Muriel Tapiou was very required and very much used: a good initiative.

Communication

Preliminary Leaflet “First Announcement / Call For Papers”

Second Leaflet “Second Announcement / Call For Papers”

Third Leaflet “Final Announcement and Preliminary Programme”

Final Programme

Public Events Leaflet

Special Sessions Leaflet

Sponsor Leaflet

2 Press Kits

Congress Proceedings



Financial Report

EXPENDITURE	BUDGET (ex Tax)	ACTUAL (ex Tax)
CONGRESS FACILITIES	180 670	160 171
PROMOTION	15 937	12 116
CONGRESS PARTICIPANT MATERIAL	12 385	9 189
PARTICIPANTS	53 540	38 274
SERVICES	14 000	10 339
PRESS	3 000	1 544
PROCEEDINGS	3 000	2 712
EVENT INSURANCE	5 145	5 145
OTHER	81 502	52 813
CONTINGENCIES	14 815	5 257
PERSONNEL	375 950	375 950
CONGRESS COMPLETION	45 100	45 100
TOTAL EXPENSES	805 044	717 067

REVENUE	Budget (ex Tax)	Actual (ex Tax)
REGISTRATIONS	329 605	291 100
STANDS	110 132	112 231
SPONSORING	365 885	389 187
TOTAL REVENUE	805 621	792 518

DIFFERENCE	Budget (ex Tax)	Actual (ex Tax)
TOTAL DIFFERENCE	578	75 451
ESTIMATION OF OUTSTANDING EXPENSES		10 000
RESULT		65 451

Other Revenues	21 395
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Other Expenses	22 842
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Organisers

International Water Resources Association (IWRA)

IWRA is a non-profit, nongovernmental, educational organization. It provides a global forum for bridging disciplines and geographies by connecting professionals, students, and individuals who are concerned with the sustainable use of the world's water resources. IWRA seeks to improve and expand the understanding of water issues through education, research, and information exchange among countries and across disciplines.

Association VERSeau Développement

«NGO in Special Consultative Status with the Economic and Social Council of the United Nations»

Verseau Développement is a French registered association (non profit organisation), which aims to promote and disseminate the skills and capacities of the French water community. Specialising in official, technical and legal approaches for qualitative and quantitative water resources management, it creates and builds partnerships between private and public organisations. In this way, it integrates French know-how in the provision of expertise, advice and training in national and international projects in the field of water.

Institut Languedocien de Recherche sur l'Eau et l'Environnement (ILEE)

ILEE is a «federative research institute» (FRI, IFR in French), appointed by the French Ministry for Research and New Technologies. ILEE brings together research units working on water and environmental sciences. These units are closely linked to higher education establishments (universities and Grandes Ecoles) and to large national research institutions (BRGM, Cemagref, CIRAD, CNRS, INRA, IRD). The IRD's scientific activities are organised through five departments: Earth and Environment; Living Resources; Societies and Health; Expertise and consulting; and Support and training.

ENJOY Montpellier

Enjoy Montpellier is a «shared economy society» related to the Montpellier Agglomeration authority and based on private right. It organises national and international events for three key sites: the conference center, Le Corum; the concert hall, Le Zénith, and the trade fair park, Parc des Expositions. Montpellier's leading convention center, Le Corum and its staff are the partner for logistics and services such as accommodation and congress participant management.



Sponsors and Partners



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