



WATER, MEGACITIES  
AND GLOBAL CHANGE

1 - 4 December 2015

# INTERNATIONAL CONFERENCE WATER, MEGACITIES AND GLOBAL CHANGE

UNESCO HQ

PARIS - FRANCE





WATER, MEGACITIES  
AND GLOBAL CHANGE

UNESCO HQ - PARIS  
1 - 4 December 2015

International conference on water, megacities and global change / *Conférence internationale Eau, mégapoles et changement global*



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## LUNDI 30 NOVEMBRE

**19h30 - 22h :**

**ICE BREAKING EVENT - COCKTAIL DE BIENVENUE**

For registered participants - *Sur inscription*

*UNESCO - Bâtiment Fontenoy, 7<sup>e</sup> étage -*

*Place Fontenoy, 75007 Paris*

## DAY 1 - JOUR 1

## 1 DECEMBER - 1<sup>er</sup> DÉCEMBRE

**9h : REGISTRATION - ACCUEIL DES PARTICIPANTS**

**9h30 : WELCOME COFFEE - CAFÉ D'ACCUEIL**

**10h - 12h :**

**OPENING SESSION - SESSION D'OUVERTURE**

*Irina Bokova, General Director of UNESCO -*

Directrice générale de l'UNESCO

*Angel Gurría, General Secretary of OECD -*

Secrétaire général de l'OCDE

*Cynthia Rosenzweig, Nasa, Columbia University,*

*Co-Director UCCRN - Co Directrice de l'UCCRN*

**12h - 13h30 : LUNCH - DÉJEUNER**

**13h30 - 15h30 :**

**OPENING SESSION - SESSION D'OUVERTURE**

*Representative of the World Bank -*

Représentant de la Banque mondiale

*Arjun Thapan, President of WaterLinks -*

Président de WaterLinks

*Diane d'Arras, Vice president of IWA -*

Vice-présidente de l'IWA

**15h30 - 16h : BREAK - PAUSE**

**16h - 18h :**

**MONOGRAPHS SESSION -**

*SESSION MONOGRAPHIES*

*Presentation of 4 monographs -*

Présentation de 4 monographies

*Time for debate - Temps d'échange*

*Presentation of a synthesis of monographs -*

Présentation d'une synthèse des monographies

*Blanca Jiménez-Cisneros, Secretary UNESCO-IHP -*

Secrétariat UNESCO-PHI

*Time for debate - Temps d'échange*

**18h : END OF DAY 1 - FIN DU JOUR 1**



## DAY 2 – JOUR 2 2 DECEMBER – 2 DÉCEMBRE

**8h : REGISTRATION - ACCUEIL DES PARTICIPANTS**

**8h30 - 10h30 :**

**PARALLEL SESSIONS - SESSIONS EN PARALLÈLE**

### **Resiliency and climate change 1 -**

*Résilience et changement climatique 1*

*Climate change and drought management in Tehran megacity, F. Vojdani*

*Ho-Chi-Minh City and the risk of flooding resulting from the coupling between climate change and land subsidence, G. Vachaud*

*A simulator for strategic planning and for preparation to climate change - Application to Lima, Danang, Kigali and Cali, M. Schuetze*

*The challenge of climate change for Paris Region's sanitation, J.P. Tabuchi*

### **Water in megacities 1 - Eaux et mégapoles 1**

*Water for megacities: challenges and solutions under global change, A. Michelsen*

*Piscinão: problems and possibilities of stormwater detention as civic infrastructures in São Paulo, Brazil, B. Davis*

*Water management strategies for development of Kolkata megacity, India, A. K. Bera*

*Khartoum waterscapes: hydrosocial networks and transformations within the city fabric, D. Blanchon, S. Abdallah*

### **Operation of megacities technical systems 1 -**

*Exploitation des systèmes techniques des mégapoles 1*

*Assessment of the potential to reduce drinking water consumption by widespread use of rainwater harvesting systems in residential buildings, E. Brizon d'Angelo Chaib*

*Services for all, a specific program to develop and maintain access to water and sanitation in poor suburban areas, P. Guiffant*

*Forecasting quality of raw water to optimize drinking water production, N. Fauchon*

*From wastewater treatment plant to water valorization system, G. Grau*

**10h30 - 11h : BREAK - PAUSE**

**11h - 13h :**

**PARALLEL SESSIONS - SESSIONS EN PARALLÈLE**

### **Resiliency and climate change 2 -**

*Résilience et changement climatique 2*

*Need to forecast urban inundation events for Ho Chi Minh City (Viet Nam) resiliency, T. Dung Tran Ngoc\**

*Identification of trends for extreme events of precipitation in the metropolitan region of Belo Horizonte through statistical methods, A. de Araújo Nunes*

*Urban development and its response to flooding hazards in Bordeaux (France) and Bangkok (Thailand), C. Parin*

*Participative Water Resilience Index (PWRI): Comparative results for long-term flood risk management projections in the great state of Sao Paulo - Brazil, E. M. Mendiola*

### **Water in megacities 2 - Eaux et mégapoles 2**

*Upstream - downstream contamination gradient of the fluvial urban system in Chennai (Tamil Nadu, India), S. P. Saravanan*

*The opportunities and hazards of urban integrated water resource management for public space and ecology in Los Angeles and its river, A. Robinson*

*Multi-scale approach of the green roofing potential: application to the Paris agglomeration, B. de Gouvello*

*Conciliating urban development with water resources protection in Brazil through the conception of a "Trama Verde e Azul", green-blue network, as an urban planning framework, J. Eleutério*

### **Operation of megacities technical systems 2 -**

*Exploitation des systèmes techniques des mégapoles 2*

*Water resources quality management by implementation of Tehran megacity's wastewater project, H. Saberi*

*Urban water use model application for water conservation in Curitiba City, Brazil, D. Costa dos Santos*

*Water supply system in the Rio de Janeiro Metropolitan Region: open issues, contradictions and challenges of water access in an emerging mega-city, A. Britto*

*The water challenges of megacities: vulnerability and wastewater problems in Delhi, G. Kumar*

**13h - 14h : LUNCH - DÉJEUNER**

**14h - 16h :**

**SESSION ELECTED OFFICIALS**

**AND CIVIL SOCIETY PART 1 -**

*SESSION REPRÉSENTANTS POLITIQUES*

*ET DE LA SOCIÉTÉ CIVILE PARTIE 1*

**16h - 16h30 : BREAK - PAUSE**

**16h30 - 18h :**

**SESSION ELECTED OFFICIALS AND CIVIL SOCIETY PART 2 -**

*SESSION REPRÉSENTANTS POLITIQUES*

*ET DE LA SOCIÉTÉ CIVILE PARTIE 2*

**18h : END OF DAY 2 - FIN DU JOUR 2**



## DAY 3 – JOUR 3 3 DECEMBER – 3 DÉCEMBRE

### 7h30 : REGISTRATION - ACCUEIL DES PARTICIPANTS

### 8h - 10h :

#### PARALLEL SESSIONS - SESSIONS EN PARALLÈLE

##### Resiliency and climate change 3 -

*Résilience et changement climatique 3*

*Consequences of climate change on water resources management on the Seine basin, C. Jost*

*Difficulties in installing sustainable urban drainage policy in some latin america megacities: case of the Matanza Riachuelo basin, Argentina, J. C. Bertoni*

*Urban hydro morphology index as tool to improve living environment and the city resilience towards climate change, M. Seidl*

*Long term resilience for urban water systems: myths and reality for the metropole of Paris, E. Adler*

##### Paradoxes of sustainable development 1 -

*Injonctions paradoxales du développement durable 1*

*Evaluating the environmental impact of losses reduction in drinking water networks, J. Pillot*

*The pragmatic integration of hydrological recommendations into a stormwater regulation - The stormwater zoning of the Val-de-Marne department, P. Bompard, G. Petrucci*

*Lower water bills: the city Los Angeles shows how efficient water rates produce affordable and sustainable use, B. Prokop*

*Water governance and sustainability dilemmas in global cities, F. Lee*

##### Innovation 1 - Innovation 1

*Nutrient and energy flows related to wastewater management in the Greater Paris: the potential of urine source separation under global change constraints, F. Esculier*

*Life cycle assessment of water management forecasting scenarios in Paris suburban area, P. Loubet*

*Simulation of scenarii with source separated system integrated in the cities for wastewater added value, M. Besson*

*Potential for wastewater heat recovery in Paris: from theory to practice, M. Bouvier, M. Gaussens, O. Saison*

### 10h - 10h30 : BREAK - PAUSE

### 10h30 - 12h30 :

#### WORKSHOP AND PARALLEL SESSIONS -

*ATELIER ET SESSIONS EN PARALLÈLE*

*Workshop Groundwater -*

*Atelier Eaux souterraines*

*International Association of Hydrogeologists (IAH)*

##### Paradoxes of sustainable development 2 -

*Injonctions paradoxales du développement durable 2*

*Urban water in megacities: path dependency in sustainability and resilience to global changes policies, B. Barraque*

*Urbanisation as a driver of transboundary water management in Africa, A. Earle*

*Urban hydrologic landscapes as a support for integrated urban water management. The case of the Brussels capital region (Belgium), K. de Bondt*

*Urban agriculture and the production of water in the metropolitan region of Belo Horizonte (RMBH), Brazil, H. Costa*

##### Innovation 2 - Innovation 2

*The boundaries of technical sanitation paradigm in Delhi (India), R. de Bercegol*

*Using CIB scenarios for developing action plans and preparing to climate change : the case of Lima/Pérou, C. D. León*

*The INDH-INMAE project: access to services for all in Casablanca, I. Pechell*

*Innovative forms of water governance: "new public regies" and the turn from a market management to egalitarian management of a common good, C. Blatrix*

### 12h30 - 13h30 : LUNCH - DÉJEUNER

### 13h30 - 17h30 : TECHNICAL TOURS -

*VISITES TECHNIQUES*

*On registration - Sur inscription*

*More details on - Plus de détails sur*

<http://eaumega2015.sciencesconf.org/>

### 17h30 : END OF DAY 3 - FIN DU JOUR 3

### 19h30 - 23h :

#### GALA DINNER : CRUISE ON THE SEINE RIVER -

*DINER DE GALA : CROISIÈRE SUR LA SEINE*





## DAY 4 – JOUR 4 4 DECEMBER – 4 DÉCEMBRE

**8h : REGISTRATION - ACCUEIL DES PARTICIPANTS**

**8h30 - 10h30 :**

**PARALLEL SESSIONS - SESSIONS EN PARALLÈLE**

### **Urban water infrastructures -**

*Infrastructures urbaines de l'eau*

*Recalibrating infrastructure through subsurface and surface system design: the role of technical heritage in designing green/blue cities, T. Bacchin, F. Hooimeijer*

*Drinking water infrastructure of "Métropole de Lyon" : strategic asset management and technical heritage, D. Fangeat*

*Valuation of social and environmental externalities from sewer networks: some experiences and perspectives for asset management, B. Rulleau, C. Wery*

*Urban subsurface infrastructure rehabilitation management challenges of NY City water mains, I. Juran*

### **Innovation 3 - Innovation 3**

*Decision support model for a sustainable supply of the Parisian non-potable water service. Consequences of the diversification of non-potable water resources on the Parisian territory, C. Trinh*

*Rapid adaptation to water resource volatility for utilities using the smart grid for water, T. Hill or G. Symmonds*

*Upgrading the resilience of megacities to global warming by reusing waters and adapting water quality to the uses, M. Lafforgue*

*Festival de l'oh! (Water festival): a cultural tool for citizen awareness on water related issues across a suburban area of Paris city, O. Meier*

**10h30 - 11h : BREAK - PAUSE**

**11h - 13h :**

**PARALLEL SESSIONS - SESSIONS EN PARALLÈLE**

### **Smart tools - Outils intelligents**

*Water saving impacts of smart meter technology - an empirical five year, whole of community study in Sydney, Australia, R. Shi*

*Towards a geographic data management as a contribution to asset management of physical networks, P. Bordin*

*Offsetting the water impact of new development: crafting a national template planning and zoning ordinance, M.A. Dickinson*

*Scientific and technological paradigm shifts, innovative platforms to manage megacity water in a changing climate, D. Schertzer*

### **Innovation 4 - Innovation 4**

*The Eau de Paris strategy of resource protection: an opportunity for territorial development and cooperation centered on innovation and support of sustainable agricultural systems, M. Zakeossian*

*Analyzing collaborations between researchers and practitioners in water and sanitation public services in the county of Seine-Saint-Denis: a retrospective and prospective look at an innovation process involving scientific inputs and reflexivity, R. Quilien and M. Soyer*

*New paradigms for metropolitan environmental services in France, P. A. Roche*

*Pavement-watering as a method to counter extreme heat events: adapting the watering method to different urban materials, M. Hendel\**

**13h - 14h :**

**CLOSING CEREMONY - SESSION DE CLÔTURE**

**14h : END OF DAY 4 - FIN DU JOUR 4**



| DAY 1 - JOUR 1                                                                                    | DAY 2 - JOUR 2                                                                                                                          | DAY 3 - JOUR 3                                                                                                                   | DAY 4 - JOUR 4                                                                                 |
|---------------------------------------------------------------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------|
|                                                                                                   |                                                                                                                                         | 8:00 - 10:00                                                                                                                     |                                                                                                |
| 9:00 - 10:00<br><b>Registration and welcome coffee</b><br><i>Enregistrement et café d'accueil</i> | 8:30 - 10:30<br><b>Resiliency and climate change 1</b><br><i>Résilience et changement climatique 1</i>                                  | <b>Resiliency and climate change 3</b><br><i>Résilience et changement climatique 3</i>                                           | 8:30 - 10:30<br><b>Urban water infrastructures</b><br><i>Infrastructures urbaines de l'eau</i> |
|                                                                                                   | <b>Water in megacities 1</b><br><i>Eaux et mégapoles 1</i>                                                                              | <b>Paradoxes of sustainable development 1</b><br><i>Injonctions paradoxales du développement durable 1</i>                       | <b>Innovation 3</b><br><i>Innovation 3</i>                                                     |
|                                                                                                   | <b>Operation of megacities technical systems 1</b><br><i>Exploitation des systèmes techniques des mégapoles 1</i>                       | <b>Innovation 1</b><br><i>Innovation 1</i>                                                                                       |                                                                                                |
| 10:00 - 12:00<br><b>Opening Ceremony</b><br><i>Cérémonie d'ouverture</i>                          | <b>Break - Pause</b>                                                                                                                    | <b>Break - Pause</b>                                                                                                             | <b>Break - Pause</b>                                                                           |
|                                                                                                   | 11:00 - 13:00<br><b>Resiliency and climate change 2</b><br><i>Résilience et changement climatique 2</i>                                 | 10:30 - 12:30<br><b>WORKSHOP GROUNDWATER</b><br><i>Atelier Eaux souterraines</i><br>International Association of Hydrogeologists | 11:00 - 13:00<br><b>Smart tools</b><br><i>Outils intelligents</i>                              |
| 12:00 - 13:30<br><b>Lunch</b><br><i>Déjeuner</i>                                                  | <b>Water in megacities 2</b><br><i>Eaux et mégapoles 2</i>                                                                              | <b>Paradoxes of sustainable development 2</b><br><i>Injonctions paradoxales du développement durable 2</i>                       | <b>Innovation 4</b><br><i>Innovation 4</i>                                                     |
|                                                                                                   | <b>Operation of megacities technical systems 2</b><br><i>Exploitation des systèmes techniques des mégapoles 2</i>                       | <b>Innovation 2</b><br><i>Innovation 2</i>                                                                                       |                                                                                                |
|                                                                                                   | 13:00 - 14:00<br><b>Lunch</b><br><i>Déjeuner</i>                                                                                        | 12:30 - 13:30<br><b>Lunch</b><br><i>Déjeuner</i>                                                                                 | 13:00 - 14:00<br><b>Closing ceremony</b><br><i>Cérémonie de clôture</i>                        |
| 13:30 - 15:30<br><b>Opening Ceremony</b><br><i>Cérémonie d'ouverture</i>                          | 14:00 - 16:00<br><b>Session Représentants politiques et société civile</b><br><i>Session Représentants politiques et société civile</i> | 13:30 - 17:30<br><b>Technical tours</b><br><i>Visites techniques</i>                                                             |                                                                                                |
| <b>Break - Pause</b>                                                                              | <b>Break - Pause</b>                                                                                                                    |                                                                                                                                  |                                                                                                |
| 16:00 - 18:00<br><b>Monographs session</b><br><i>Session Monographies</i>                         | 16:30 - 18:00<br><b>Session Représentants politiques et société civile</b><br><i>Session Représentants politiques et société civile</i> |                                                                                                                                  |                                                                                                |

**Working language: English - a French-English translation will be provided during the sessions**  
*Langue de travail : anglais - une traduction anglais-français sera assurée durant les sessions*



**For more informations, please visit**  
*Pour plus d'informations, rendez-vous sur*  
[eaumega2015.sciencesconf.org](http://eaumega2015.sciencesconf.org)

19:30 - 23:00  
**Gala dinner : cruise on the Seine river**  
*Dîner de gala : croisière sur la Seine*

