













- The Alliance of the 357 signatories of the Paris Pact on water and adaptation to climate change in the basins of rivers, lakes and aquifers, facilitated by INBO in partnership with UNECE,
- The Business Alliance for Water And Climate Change BAFWAC, launched by the Carbon Disclosure Project CDP, the CEO Water Mandate, the World Business Council for Sustainable Development and SUEZ, which has now 44 member organizations, including 30 leading companies,
- The Alliance of Megacities for Water and Climate, facilitated by UNESCO, ICLEI, SIAAP and Arceau-IDF, gathering 16 Megacities for a total population of 300 million inhabitants

























































# GLOBAL CLIMATE ACTION WATER 9 November 2016 SHOWCASE



Panel 3
Progress made in the initiatives launched during COP21

Jean-François DONZIER, General Secretary, INBO, Moderator

Andrey VASILYEV, Paris Pact on water and climate adaptation in basins, Bertrand CAMUS, Business Alliance for Water and Climate
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<u>Testimonies</u>



### FRESH WATER IS A TIME BOMB!!!





Water is one of the first victims of climate change!



### **Climate change consequences**







The climate change is likely to increase the frequency of extreme events, such as floods and droughts:



# Conflicts!!





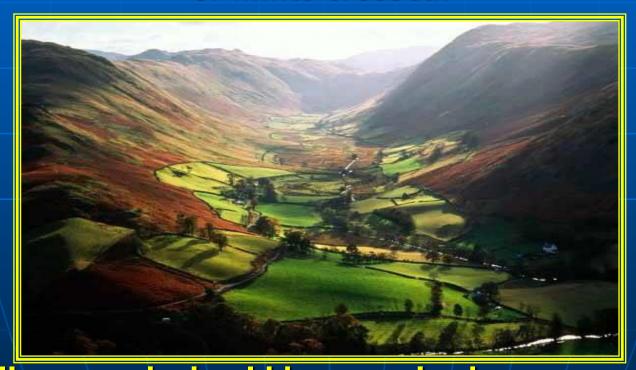
We should act quickly before it is too late!



# Indeed, basins are the natural territories, in which water runs, on the soil or in the sub-soil,



whatever are the national or administrative boundaries or limits crossed.



An overall approach should be organized on the relevant scale of basin areas of rivers, lakes and aquifers,









We, representatives of governments, international organizations, donors, national and transboundary basin organizations of rivers, lakes or aquifers, local authorities, of the civil society and companies, support the integration of fresh water into the Global Climate Action Agenda, especially for initiating or strengthening necessary adaptation actions in the basins of rivers, lakes, aquifers, large wetlands as well as coastal areas.

#### GENERAL STATEMENT

Climate change is already affecting and will increasingly affect the quantity and quality of freshwater and aquatic ecosystems, especially through the intensity and greater frequency of extreme hydrological events, such as floods and as well as the increase in ocean level, which **357 SIGNATORIES!!** c and social development and the

> We recognize that adaptation actions should be undertaken without delay to minimize the impacts of climate change on the populations' health and safety, on economic development and the environment, considering the importance of the protection of water-related ecosystems.

> The basins are natural areas where water flows on the surface and in the subsoil: they are the relevant territories for organizing water resources management.

> In order to ensure more effectiveness, these actions to adapt to climate change should thus be implemented at the level of river, lake and aquifer basins, through a joint, participative, integrated and sustainable water resources management.

#### We should act quickly before it is too late!

To that end, mobilizing new and increasing funding dedicated to climate change adaptation in basins is essential. Therefore. new basin organizations and existing ones should be financed and strengthened to facilitate the cooperation, coordination and exchange of information, dialogue, consultation and prevention of conflicts between stakeholders and to enhance the implementation of adaptation measures and the sharing of benefits on the basin scale.

We encourage donors to support prior assessments and actions for adaptation to climate change in basins,

Local authorities and communities, economic sectors and the civil society should be better associated and involved in basin management, including in the definition and implementation of adaptation measures.

Cooperation and exchange should increase between the institutions involved, especially among the basin organizations at the global and regional levels in order to facilitate the transfer of experience and know-how on best practices in basin management and adaptation to climate change.









vCOP22

**Paris Pact** 





www.inbo-news.org www.cop22.ma





CHINA – HAI RIVER BASIN
Integrated Water resources management
And adaptation to climate change.



The 3 - 1000 km long water S/N transfers diverting flows of the Yangtze river to provide water to the water stressed cities of Beijing and Tianjin in the Hai river basin.

The Hai River Basin



#### **Context**:

- Megacities (Beijing+Tianjin: 34 million people)
- **H**ighly affected by water stress, frequent floods and droughts, and high pollution



















**MEXICO - MEXICO DF AND VALLEY** Integrated water resources management and adaptation to climate change. District Federal and 60 neighbor Municipalities





#### **Context:**

- Megacity (Mexico: 23 million people 2<sup>nd</sup> W largest city),
- Altitude 2250m,
- Scarcity: 160 m<sup>3</sup>/habitant/an,
- Low level of aguifers, driving of soils,
- Eutrophisation of the réservoirs,
- Urban flooding
- Low level of waste water treatment





















# COOPERATION AND ADAPTATION IN THE SENEGAL RIVER BASIN (Guinea, Mali, Mauritania, Senegal)

OMVS, A ROLE MODEL FOR ADAPTATION? The secret recipe of joint investments and shared benefits



State	Share of invest.	Share from benefits
Mali	35,3%	52% hydropower. Navigation.
Mauritania	22,6%	15% hydropower. 33% irrigable land.
Senegal	42,1%	33% hydropower. 64%irrigable land.







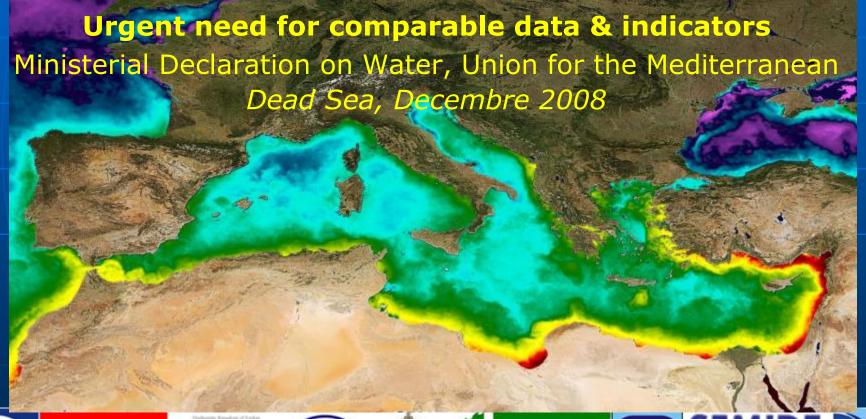






THE MEDITERRANEAN WATER
KNOWLEDGE PLATFORM
for adaptation to climate change

(Jordan, Lebanon, Morocco & Tunisia)

















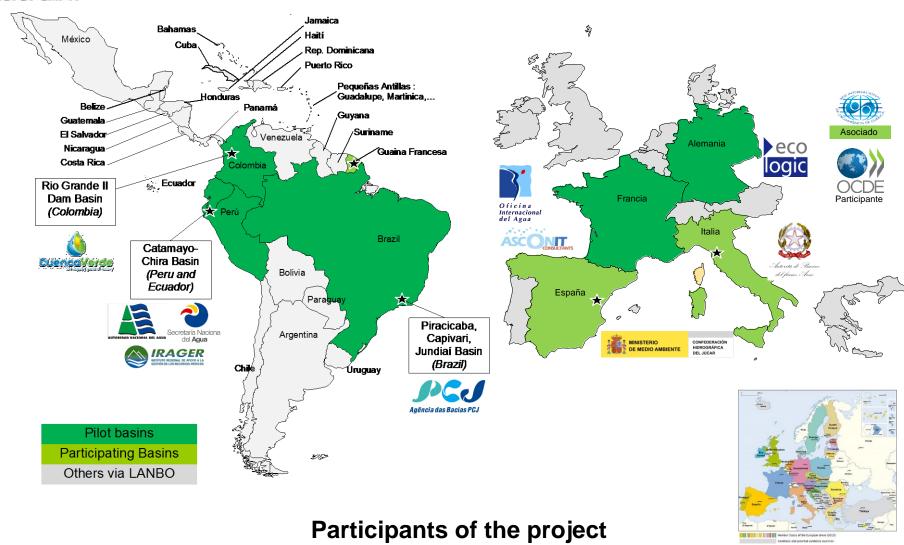






#### **ECOCUENCAS PROJECT**

Demonstrate in a practical way the relevance of redistributive mechanisms for integrated water resources management and better resilience;





### International Network Of Basin Organizations

NIGER RIVER BASIN
The Climate Resilience Investment Plan

Climate change impacts are affecting the livelihood of the population living in the Niger river basin.











# CONGO RIVER BASIN Strengthening monitoring to improve basin adaptation

- Context: Congo river basin= world's second biggest (in both surface area and flow),
  - Limited existing monitoring capacities, limited knowledge for adaptation.
- Objective: Developing monitoring to increase basin capacities for adaptation
  - Strengthening classic monitoring networks,
  - Developing the use spatial technologies for hydrometeorological monitoring,
  - Improving IWRM planning.
- **Beneficiaries**: 100 million people living in central Africa.
- **Timeframe**: 2016-2017
- **Funding/commitments:** 500 000€











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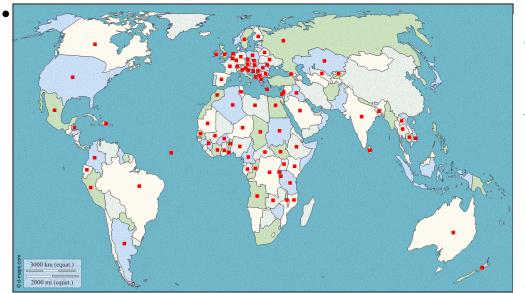
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# Paris Pact on water and adaptation to climate change in the basins of lakes, rivers and aquifers





- Initiative under the Lima-Paris Action Agenda (now Global Climate Action Agenda) by INBO in 2015, in cooperation with UNECE
- Aims to mobilize action, from all the stakeholders in the basins, in order to enhance and accelerate strategies and measure plans better adapted to the current and future effects of climate change
- 357 organizations from 94 countries have signed it











## Reinforce capacity development and knowledge

- Monitoring networks (meteorology, hydrology, quality, uses, environment...)
- Water Information Systems
- Exchange platforms between research and decision making
- Data interpretation capacities
- Translation into policy responses

## Adapt basin management planning

- Impact and vulnerability assessment
- Production of adpartation strategies
- Floods and droughts prevention actions
- Performance indicators
- Water demand control for agricultural, industrial and municipal uses
- Development of water supply
- Water-related ecosystems services (NWRM)

### Reinforce governance

- Individual capacities of BO staff (training)
- Institutional capacities (sharing experiences)
- Integration with related sectors (agriculture, energy, transport, tourism, fish farming...)
- Stakeholders participation

### Ensure adequate financing

- Sustainable financial mechanisms
- Polluter/consumer pays principles
- Investment programs
- Cost-effectiveness analysis
- Financial support by donors

# You are not alone- Support to implementation of the Pact



### Exchange of experience:

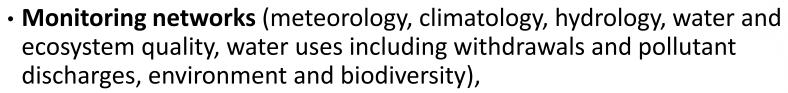
- Global platform and network of basins working on climate change adaptation,
- Events such as "Water Security for Climate Justice", Rabat, 11-12 July, organized by the Moroccan Ministry

delegate for water

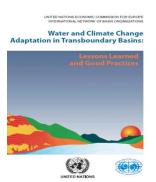
Guidance material and good practice collection

#### Paris Pact 2016 Call for Action:

- Calling for new signatories
- Calling for new commitments
- Thematic focus of Paris Pact 2016 Call for Action:



- Water Information systems (data collection, management and sharing)
- Consider also groundwater







### Conclusions and next steps with regards to the Pact

- Achieve a high profile for water in the climate negotiations and implementation of Paris agreement
- Expand the Paris Pact community and its projects
- Implement the commitments and report
- Make projects happen
- Improve the dialogue between project-holders and funding organizations
- Consider basin and transboundary cooperation also in national planning processes (e.g. NDCs, NAPs, sustainable development plans)



COOPERATE in adapting to climate change- in basins, across borders, between sectors



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#### **BAFWAC Key Facts**

- 4 founding partners: SUEZ, CDP Global Compact of the United Nations (CEO Water Mandate), WBCSD
- 44 participants: 68% of private companies, 20% of NGOs,
   7% of business organizations and 5% of research institutes / learning centers
- 30 signatory companies representing a total aggregated income of 680 billion US dollars from the 5 continents
- 3 levels of ambition:
  - Analyze and share water related risks to implement collaborative response strategies;
  - Measure water footprint with existing standards;
  - Reduce impacts on water availability and quality in direct operations and all along the value chain.
- 1 operational objective: achieving 100 signatories by 2018 (global stocktake) representing \$1 trillion revenues compared to 44 signatories in 2016 representing \$680 billions.









#### **BAFWAC Signatories**







































gasNatural





















#### BAFWACs Roadmap to 2018

- First milestone: secure 100 corporate signatories by 2018 representing \$1 trillion in revenues.
  - To date, more than 30 companies across 5 continents representing \$680 billion in revenues have joined BAFWAC and committed to take action
  - We have partnered with We Mean Business through its Commit to Action campaign to launch the first water-related commitment that will increase the number of signatories
- Second milestone: to catalyze and facilitate effective water action
  - Technical workshops and webinars have been held
  - Best practice information and dissemination platforms have been created
  - Monitoring and tracking of progress against commitments is underway
  - Collaborative action opportunity identification is underway



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#### Objectifs de l'Alliance des mégapoles

#### **NATURAL SCIENCES**







Définition de projets



Réalisation



Collecter et diffuser les expériences et les stratégies d'adaptation.



Faciliter l'échange de savoir, la recherche, et définir les bonnes pratiques.



Identifier et développer les mécanismes de financement de l'adaptation des services d'eau.



Organisation des Nations Unies . Hydrologique pour l'éducation, . International la science et la culture







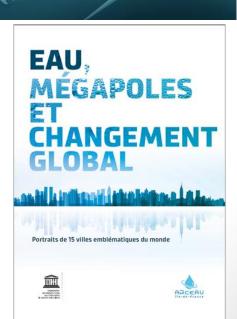




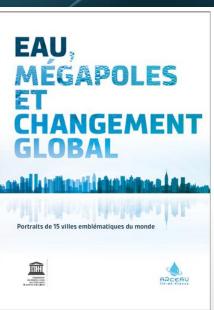
### Création d'une Plateforme pour l'Alliance des mégapoles pour l'eau et le climat

#### **NATURAL SCIENCES**





**MEGACITIES ALLIANCE FOR** 





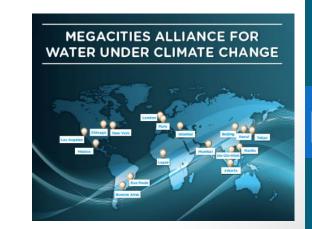
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#### **NATURAL SCIENCES**



#### Etapes récentes vers la création d'une plateforme

- ➤ 15 juin, Urban Breakfast, Paris.
- ➤ 16 et 17 juin, Conseil Exécutif du PHI de l'UNESCO.
- ➤ 11 Juillet, Semaine Internationale de l'eau, Singapour.
- >31 août, Semaine Mondiale de l'eau, Stockholm.
- ≥5 octobre, séminaire à Manille, WaterLinks Forum.
- ≥19 octobre, UN-HABITAT III, Quito.
- ➤ 9 novembre, COP22, Marrakech.







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The #ClimatelsWater initiative: hydrating the climate negotiations

- Climate change impacts water resources first and foremost
- Water security is key to climate adaptation
- Water underlies many low-carbon solutions
- Urgent action is needed to increase visibility for water within the Global Climate Action Agenda



# GLOBAL CLIMATE ACTION WATER 9 November 2016 SHOWCASE



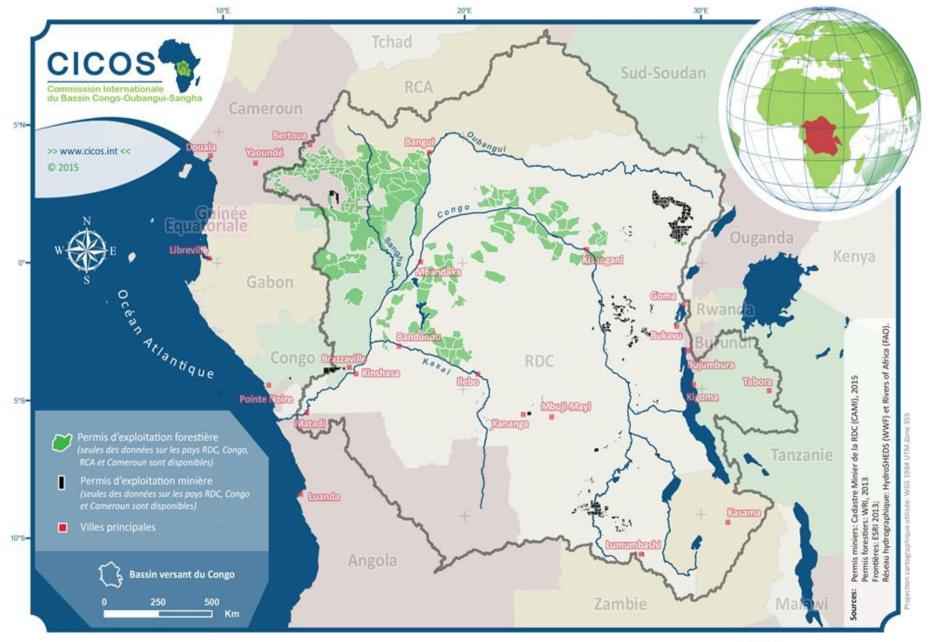
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# CICOS Initiatives for Enhancing Climate Change Resilience in the Congo Basin



1- Improving decision making through implementation of scenarios analysis tools for current and future environmental change

The CICOS' Water Resources Modelling and Allocation Tool: a conceptual framework for climate change scenarios analysis and building resilience for climate change within the Congo Basin

2- Implementation of low flow early warning systems for major tributaries of the basin through publication of alert bulletins on water levels for navigation













# CICOS Initiatives for Enhancing Climate Change Resilience in the Congo Basin



## 3- Strategic framework for CICOS intervention:

Water Management Master Plan (SDAGE) for the Congo Basin

SDAGE identifies three intervention areas in support of climate change resilience

#### **GOVERNANCE: Sensitization of stakeholders**

Information and sensitization of stakeholders on linkages between water uses and environment, as well as on aspects of sustainability and impacts of climate changes (Number of projects: 02; total cost: 1, 209, 214\$)

#### **MANAGEMENT**: Information System

Monitoring, through a reliable and functional water resource information system to strengthen our basin wide knowledge on the dynamics and impact of climate change.

( Number of projects : 04; total cost : 6, 782, 080 \$)

#### **INFRASTRUCTURE:** Evaluation

Basin wide coordination and normalization of infrastructure development and management (to promote nexus approach). (Number of projects: 02; total cost: 1 096 381 \$)

#### **Conclusion and recommandations**



- Promote better synergy among the various uses of water resources in the Congo basin (i.e. inland waterway navigation, hydroelectricity, agriculture, fisheries, ecotourism, etc.);
- Build resilience in infrastructures development within the basin;
- Prevent degradation of ecosystems arising from inadequate knowledge and managment of the impact of climate change.









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<u>Testimonies</u>

# Global Clean Water Desalination Alliance (GCWDA) - 80% of energy demand by Renewable Energy for desalination by year 2035

- Founded on the sidelines of COP 21 with the simple but vital objective of H2O CO2
- A diverse group of 140 members from 23 countries spanning the full spectrum of stakeholders
- Action to support the intention; four work streams
  - WS1: Clean energy supply for desalination plants;
  - WS2: Energy efficiency, system integration and demand response;
  - WS3: Research, development and demonstration (RD&D);
  - WS4: Education, training and outreach
- ❖ The Members of this Alliance pledge to make an additional investment of US\$100 million per annum towards this goal, each member shall be free to select the amount of committed investment. The investment can be in cash or in kind.

Use renewable energy to power desalination

Reduce energy intensity of desalinate

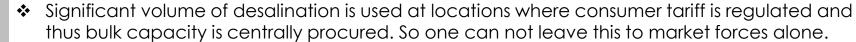
#### The Goal:

**Zero Impact Desalination** 



## What is needed to kick-start and accelerate renewable desalination







Cost of fossil fuel generated electricity in today's low fossil fuel price environment is 5 to 8 US Cents/kWh (but important to note 70% of this cost is subject to fluctuation based on fuel price)



Where reasonable renewable resource is available (sun and wind), land cost is not prohibitive and the country itself has a reasonable credit history, renewable energy can be provided at 3 to 4 US Cents/kWh, albeit with the constraint of this being intermittent energy.



The compelling value proposition needs to be recognized by policy makers who then need to give a clear signal to the industry by defining a clear determined path towards decarbonizing desalination, adapting the regulatory framework to foster the transition.



Such clear objectives and roadmap for de-carbonization of desalination will also contribute to investment in RE driving increased competitiveness of the prices of energy itself. Thus the Alliance will foster coordination and adopt a collaborative approach with different categories of stakeholders



Just as in the case of PV technology and Wind technology and now with CSP and battery technology, private sector will respond by innovating to reduce cost



As costs come down, pace of deployment will inevitably accelerate. So it is all about taking that first brave step. Just like Morocco via NOORo project with CSP technology and DEWA using PV technology at Mohammed bin Rashid Al Maktoum Solar Park





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SIAAP Testimonies



# SIAAP SERVING THE POPULATION OF GREATER PARIS





## TOWARDS A CULTURE OF SHARED WATER WORLDWIDE

Decentralised cooperation

Cambodia, Vietnam, Togo, Mali, Morocco, Algeria, Tunisia, Senegal, Ethiopia, Lebanon, Cuba and Haiti

And at COP21: Sao Paulo, Beijing and Mexico







#### The new Pasig River cooperation project





#### Cooperation with the Pasig River Rehabilitation Comittee, (PRRC)

The Pasig River flows through the most densely populated area of the Philippines, connecting 30 suburban cities to Metro Manila, populated by 13 million people.





# MARRAKECH DECLARATION OF GLOBAL ALLIANCES FOR WATER AND CLIMATE (GAWC)



16:15 ON THE FRENCH PAVILLON BLUE ZONE 2

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# MERCI DE VOTRE ATTENTION! THANK YOU FOR YOUR ATTENTION!



mail: inbo@inbo-news.org riob@riob.org www.riob.org www.inbo-news.org

Réseau International des Organismes de Bassin International Network of Basin Organizations



الشبكة الدولية لهينات الأحواض