IWA-IDB INNOVATION CONFERENCE ON SUSTAINABLE USE OF WATER: Cities, Industry and Agriculture

Call for Action

GUAYAQUIL, ECUADOR| 30.9. – 3.10.2019

COORDINATED BY

SUSTAINABILITY IN THE WATER SECTOR

CO-ORGANIZED BY

GHENT UNIVERSITY

espol Escuela Superior Politécnica del Litoral

Background

2030 /Sustainable Development Goals

- Goal 6 Availability of water and sanitation for all
- Goal 12 Sustainable Consumption and Production Patterns
- Goal 17 Development of multi-stakeholder partnerships

United Nations High-Level Panel on Water

- Understand water
- Value water
- Manage water (including strengthening collaboration among multiple sectors)

Growing awareness that healthy water, health communities, a healthy environment, and a responsible response to climate change **will require rapid and significant changes in the way water is used by industry**

1. We will increase awareness of the economic, environmental, and social impacts of unsustainable water use by industry, as well as opportunities for industry to support healthy economies, healthy people, and a healthy planet through modified business strategies, technologies, and practices.

1

- We will develop a Communications Plan that identifies key strategies, messages, target audiences, communication styles, and communication tools

- We will record locally and transmit globally, using current technology and messaging approaches that make effective use of new tools

- We will look for opportunities to provide training support to industry on sustainable water use

- We will move information on water stewardship practices more quickly into the hands of those who need it, communicating in terms that are meaningful to them

- We will support watershed-level analysis of water supplies and vulnerabilities, highlighting areas where sustainable practices are most urgently needed

2. We will encourage use of incentives and supports for sustainable use of water by industry and development and implementation of disincentives and penalties for unsustainable use

- We will encourage research on types of incentives and penalties available for use by different sectors, and their relative effectiveness

- We will encourage research on positive financial benefits for cities and governments as a result of more sustainable water use

3. We will support communication and collaboration among the many groups that affect or are affected by industry's use of water

- We will support communication, collaboration, and shared projects among all sectors, including industry, NGO’s, government policy-makers and regulators, water utilities, financing institutions, educational and research institutions, professional associations, and the public through conferences, workshops, publications, and contributions to industry events.

4. We will think long-term, engage with partners outside our organizational and sector boundaries, and act now

- **We commit to a perspective that extends beyond our time and our day-to-day work boundaries,** working with all sectors to assess existing and potential financial, social, and environmental impacts and develop and implement long-term plans

- **We commit to accelerating the pace of improvement in industrial water use** in order to protect our communities, the environment, and the resources required to support economic prosperity

Call for Help

IWA-IDB INNOVATION CONFERENCE ON SUSTAINABLE USE OF WATER: Cities, Industry and Agriculture

the international water association

IDB Inter-American Development Bank

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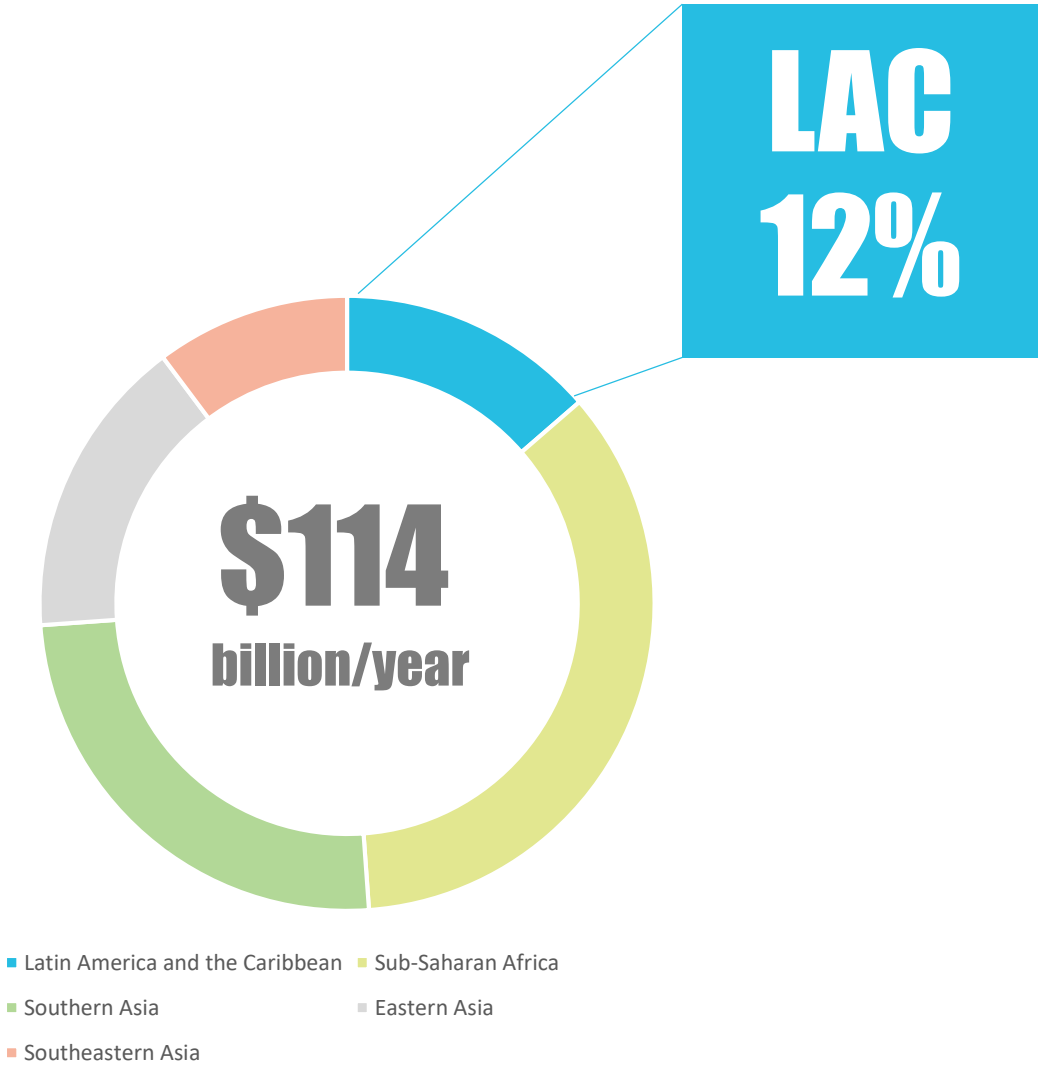
The global costs of achieving the Sustainable Development Goals targets 6.1 and 6.2 is three times the historic spending on extending services to the underserved



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LAC 12%

by 2015 most of the countries in this region had reached the Millennium Development Goals

95%

83%

Securely Managed

65%

23%

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CALL FOR ACTION

1 Support innovators

- Create reward initiatives for new innovations
- Use/create existing/new water innovation funds
- Organize hackathon with young innovators at local level
- Promote piloting, encouraging the application of best and sustainable technologies

CALL FOR ACTION

1 Support innovators

2 Innovation Repository

- Continuously update the list of technologies based on value, technological maturity and scalability
- Reward technology innovation and adoption through recognition and awards
- Identify and strengthen the existing centers of innovation

CALL FOR ACTION

1 Support innovators

2 Innovation Repository

3 Culture of innovation

- Create tools to facilitate scale innovation strategies
- Organize regular Managers/CEO forums for innovation culture
- Create profiling for innovators in the region and establish discussion groups

CALL FOR ACTION

1 Support innovators

2 Innovation Repository

3 Culture of innovation

4 **Marketplaces**

- Create open innovation platforms
- Create and strengthen public-private partnerships to pilot and scale innovation

CALL FOR ACTION

1 Support innovators

2 Innovation Repository

3 Culture of innovation

4 Marketplaces

5 **Innovation Community**

- Organize annual events and meetings on innovation (e.g., water tech hubs/accelerators, prize competitions, etc.)
- Develop courses and training materials
- Integrate innovation in education and development programs of water professionals

CALL FOR ACTION

1. Support innovators
2. Innovation Repository
3. Culture of innovation
4. Marketplaces
5. Innovation Community
6. **Initiatives inventory**

- Convene an annual event to ensure progress is made on all the action items identified and agreed upon
- Engage all levels of the private sector, government and subject matter experts to support and promote innovations through innovation events to achieve strategic goals in the water sector

CALL FOR ACTION

1. Support innovators
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Challenges OF WATER in THE AGRICULTURAL SECTOR

- Agriculture remains the main water consuming sector. Therefore, solutions in this sector are needed to make water use more efficient and moreover reduce the impacts on water resources, by reduced contamination and overexploitation. Increased insights in environmental resources and their functioning (optimal locations for particular types of agricultural production, water system functioning, disaster preparedness and avoidance), new technologies, sustainable farming practices, enhanced agricultural policies and regulations can lead to both a better environmental situations and socio-economic conditions of actors in this key sector of human society.

AGRICULTURAL track – Call for action

- Increase the efficiency of water use via better crop selection and improved agricultural practices (tillage, irrigation, …)
  - Low efficiency at existing irrigation practices
  - To generate evidence of the benefits of better water use (e.g. reduction in production costs, pumping time)
  - Wise allocation of crops based on existing and further water offer (i.e. climate change)

AGRICULTURAL track – Call for action

- Improved technologies
  - Use of TICs towards smart irrigation
  - Remote sensing as a tool to support agricultural practices in the sector (open source data)
  - On line and real-time monitoring of agricultural watersheds (SAICA network at Daule basin)
  - Need of tailor-made monitoring programs, based on local conditions (e.g. pesticides).

AGRICULTURAL track – Call for action

- Institutional aspects needed for a sustainable use of water in agriculture
  - Coordination among water institutions
  - Not only good regulation but implemented control
  - Need to identify incentives towards a more efficient use of water by users

AGRICULTURAL track – Call for action

- Production-use-waste chain analysis and geographical optimization
  - Opportunities to create added value to existing agricultural wastes (e.g. sugar cane waste for heavy metal removal at mining industry)
  - Incentives for water wise crops

AGRICULTURAL track – Call for action

- New methods for training and education of the agricultural sector and its direct and indirect stakeholders (from providers of raw materials, processing industry to consumers)
  - MOOCS
  - Knowledge Hubs
  - Centered not in content but in audience needs and characteristics

Thank you!

Luis Domínguez
ESPOL

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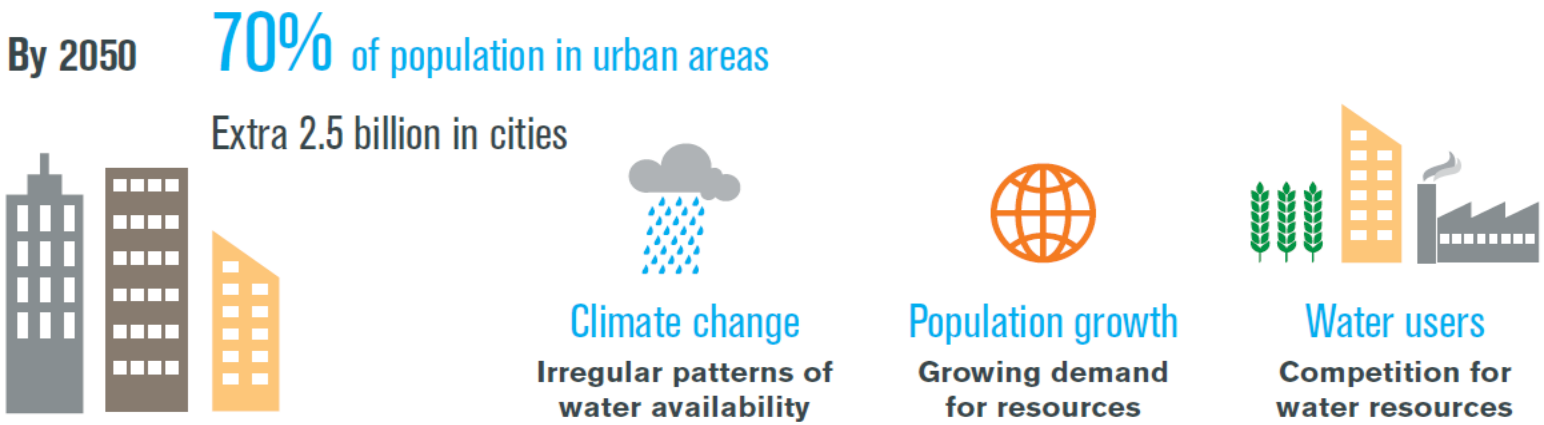
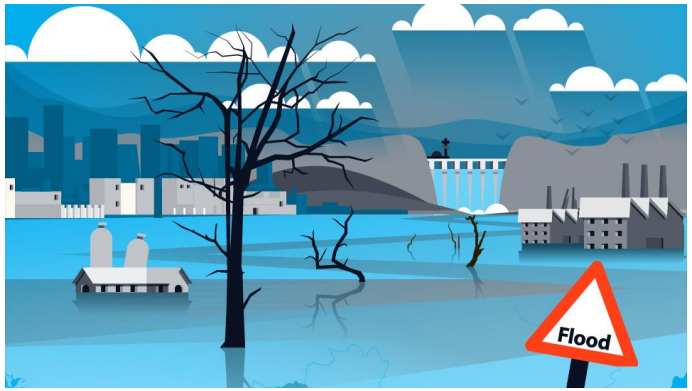
“The battle for sustainability will be lost or won in cities…”

Urban water challenges

- The rapid pace and scale of urbanization challenges the delivery of water and sanitation services and environmental protection.





- Uncoordinated use of water & land resources leads to negative impacts on cities and watersheds

THE IWA PRINCIPLES FOR WATER-WISE CITIES

4 Levels of Action

17 Principles for Water-Wise Cities

1 Regenerative Water Services

- Replenish Waterbodies and their Ecosystems
- Reduce the Amount of Water and Energy Used
- Reuse, Recover, Recycle
- Use a Systemic Approach Integrated with Other Services
- Increase the Modularity of Systems and Ensure Multiple Options

2 Water Sensitive Urban Design

- Enable Regenerative Water Services
- Design Urban Spaces to Reduce Flood Risks
- Enhance Liveability with Visible Water
- Modify and Adapt Urban Materials to Minimise Environmental Impact

3 Basin Connected Cities

- Plan to Secure Water Resources and Mitigate
- Protect the Quality of Water
- Prepare for Extreme Events

4

- Empowered Citizens
- Professionals Aware of Water Co-benefits
- Transdisciplinary Planning Teams
- Policy Makers Enabling Water-Wise Action
- Leaders that Engage and Engender Trust

5 Building Blocks

Vision | Governance | Knowledge & Capacity | Planning Tools | Implementation Tools

Cities track – Call for action

- Champion Water-Wise systems and activate actors of change
- Provide a platform and opportunities for continued knowledge sharing around Water Wise Cities
- Promote and support the commitment and the actions taken by cities which are implementing sustainable practices
- Strengthen the community of stakeholders supporting the concept and practice of Water Wise Cities through

Cities track – Call for action

- Champion Water-Wise systems and activate actors of change by:
  - Engaging key enablers, including decision makers and regulators to work towards a water wise city approach (using the Principles as a tool);
  - Promoting thought leaders and champions of Water Wise Cities at leader focused forums on key topics; and
  - Connecting with city networks to integrate the Water Wise approach into the actions they undertake within their networks of cities

Cities track – Call for action

- Provide a platform and opportunities for continued knowledge sharing around Water Wise Cities through:
  - The development of case studies to share experiences and identify solutions to challenges
  - Dedicated sessions, tracks and forums at events
  - Online interactive sessions including webinars, online discussion, etc

Amsterdam

Netherlands

Brisbane

Australia

Dakar

Senegal

Gothenburg

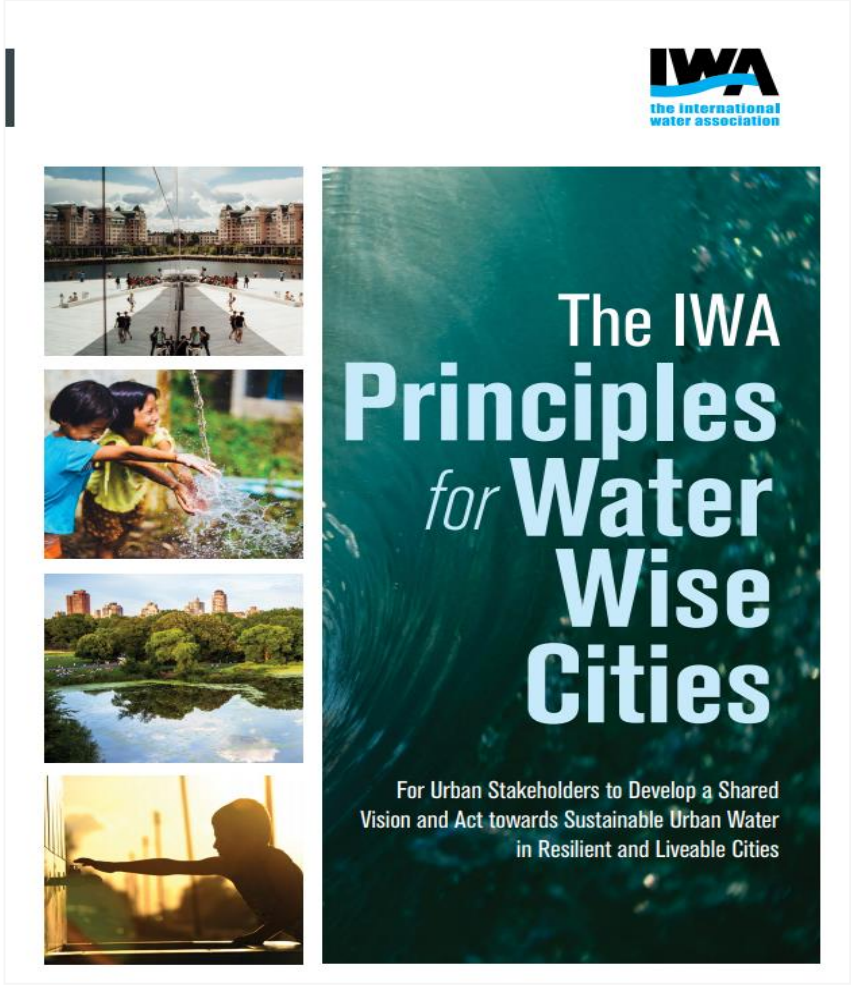
Sweden

Cities track – Call for action

- Strengthen the community of stakeholders supporting the concept and practice of Water Wise Cities through:
  - Learning and training materials
  - Integration into education and development programs of water professionals
  - Exploring the concept of awards around water wise cities

Cities track – Call for action

- Promote and support the commitment and the actions taken by cities which are implementing sustainable practices, by:
  - Documenting and highlighting endorsements of the IWA Principles, and activities related to Water Wise Cities through the IWA and partner networks;
  - Empowering utilities to implement IWA"s Principles for Water Wise Cities and the Action Agenda for Basin-connected Cities Framework



** Individual endorsements will be reflected upon further coordination*

Organisations Utilities Regulators Region Cities

Thank you!

Follow @IWAHQ on Twitter and share your urban water vision using **#WaterWiseCities**

IWA-Connect Group: IWA Water Wise World

https://iwa-network.org/projects/water-wise-cities/

Contact: Katharine.cross@iwahq.org

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CROSS-CUTTING

IMPLEMENTATION
Standardisation of concepts: from a jungle of ideas to international standards and directives (cf. European Water Framework Directive), multi-stakeholder approach => integrated water resources management 2.0

GOALS AND STEWARDSHIP
We all need to consider change in our daily life and become motivators of each other

COMMUNICATION AND EDUCATION
Both existing and innovative communication and education opportunities (media, MOOCs, schools, …)

OPPORTUNITIES AND CHALLENGES OF EMERGING TECHNOLOGIES
Advantages seem without limits, but we should be aware of new challenges of new technologies

CLIMATE CHANGE
Glocal approach and increase awareness as a basis for action at different levels