



**REPORT OF THE FIRST IORA WATER SCIENCE AND  
TECHNOLOGY WORKING GROUP WORKSHOP  
5 – 6 FEBRUARY 2015  
MULDRSDRIFT, SOUTH AFRICA**



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23 February 2015

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**WATER  
RESEARCH  
COMMISSION**

# CONTENTS

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<b>1.</b>	<b>BACKGROUND</b>	<b>3</b>
<b>2.</b>	<b>SUMMARY OF PROCEEDINGS</b>	<b>3</b>
2.1	Breakaway Sessions	
<b>3.</b>	<b>IORA WSTWG GOVERNANCE STRUCTURE</b>	<b>6</b>
3.1	Roles and responsibilities	
3.2	WSTWG Plan of Action 2015/16	
<b>4.</b>	<b>CONCLUSION</b>	<b>8</b>
<b>5.</b>	<b>ANNEXURE A: LIST OF PARTICIPANTS</b>	<b>10</b>

## **1. BACKGROUND**

The inaugural Indian Ocean Rim Association (IORA) Water Science and Technology Working Group workshop was held from 5 to 6 February 2015 in Muldersdrift, South Africa. This workshop was the first of three still to be held as part of the IORA-funded project led by the South African Water Research Commission (WRC) to establish an IORA Water Science and Technology Working Group (WSTWG).

The main purpose of the IORA WSTWG will be to look at the strategic role of water science and technology in the region.

The main objectives of the IORA WSTWG are to:

- Concentrate efforts in the water R&D domain inside the IORA
- Coordinate the development of the IORA Water Science and Technology Working Group, which entails a framework for researcher exchanges in member countries in the water R&D domain
- Provide support for networking measures in the form of several workshops to promote cooperation activities.
- Create an active community of research-based institutions interested in water research and development
- Establish links with universities and research-based institutions in the region
- Encourage members to focus on IOR water issues around specific themes, with the explicit goal of producing an agenda for future research
- Build capacity, by empowering a younger generation of researchers, academics and scholars to take ownership of their research environment and to aid in shaping its direction; an advisory team of experts would also guide this process and help to equip a younger generation to better deal with future challenges

## **2. SUMMARY OF PROCEEDINGS**

The workshop was attended by representatives from nine (9) IORA member states and France as a dialogue partner. The workshop had the following as objectives:

- to develop a road-map for the establishment of a standing Water Science and Technology Working Group,
- to conduct a situational analysis of the water R&D landscape in IORA,
- to develop an institutional framework for cooperation,

- to provide a networking platform for water science stakeholders in the region,
- to identify areas of common interest for collaboration and develop a way forward.

The CEO of the Water Research Commission (WRC), Mr Dhesigen Naidoo opened the proceedings providing an overview on current global water challenges and responses. It was noted in the workshop that water has been identified as one of the top global business risks, and urgent action amongst all stakeholders was necessary.

Representatives from all members states in attendance presented on the status of water science in their respective countries.



*Plenary Session during the First IORA Water Science and Technology Working Group, 5 – 6 February 2015, Muldersdrift, South Africa*

## **2.1 Breakaway Sessions**

The workshop then went into breakaway sessions focussing on:

1. Common water challenges that emerged out of discussions,
2. What could be the role of the IORA WSTWG in addressing these challenges,
3. What would the enabling environment need to look like in order to address these challenges?

A summary of these discussions is presented below:

### ***2.1.1 Common challenges identified***

- Overall water scarcity and increasing security challenges (quantity)
- Water quality and pollution, particularly surface water contamination (eutrophication, poor waste management)
- Groundwater contamination (including seawater intrusion) / extraction and general poor resource management and governance
- Unintended consequences of economic development on the resource
- Lack of funding or misuse of funds
- Critical scarce skills shortage
- Limited technological development and innovation i.e. desalination
- Fragmentation of water projects
- Global change (climate change, population growth, environmental disasters)
- Watershed degradation
- Rise in water use conflicts and political conflict
- Lack of public awareness on water conservation practices
- High cost of water treatment
- Vandalism of infrastructure and maintenance of ageing infrastructure
- Unequal access to water supply and distribution systems (safe drinking water and sanitation at household level)
- Limited water re-use/recovery measures implemented
- Insufficient/inadequate implementation of research solutions

### ***2.1.2 What role can the WSTWG play in addressing these challenges?***

- Be an advisory body to Member States through annual ministerial briefings of WG's key priorities.
- Serve as a coordinating platform for science activities in the region to foster collaboration and leverage resources, knowledge sharing, technology exchanges, building public awareness and capacity building development through cooperation and collaboration.
- Elevate the water agenda in the broader IORA political debates (advocacy).
- Explore financial support – lobby IORA to establish a fund for collaborative water projects.
- Link to private sector groups within IORA.

### ***2.1.3 Enabling environment needed***

- Sufficient funding to ensure sustainability of the working group and provide support for networking measures in the form of several workshops to promote cooperation activities.
- Political buy-in/will – greater support from government departments for WSTWG activities (disseminate info, link relevant institutions).

- Strengthening the institutionalization of the WSTWG within IORA structures such as the Academic Group.
- Effective communication channels within IORA and between Member States.
- Plan of action with priority identification for WSTWG.
- Broader participation and commitment – member countries to recognize significance of working group as an advisory group.
- Promote public-private p to connect the water S&T community in the Indian Ocean Rim.
- Implementation of better rainwater harvesting practices.
- Greater awareness within IORA and member countries of the importance of non-traditional security challenges.
- Active community of research-based institutions interested in water research and development.
- Closer links with universities and research-based institutions in the region.
- The Working Group should be geographically and thematically SPECIFIC as well as GOAL ORIENTATED.

### **3. IORA WSTWG GOVERNANCE STRUCTURE**

The workshop proposed the following terms of reference for the WSTWG:

#### **3.1 Roles and responsibilities**

- The WSTWG will comprise of a Chairperson and representatives from each of the IORA Member States and Dialogue Partners.
- The position of chairperson will be rotated every two years (chairperson of working group should ideally come from the same country as the IORA chair, failing which the WSTWG will nominate a chair).
- The next WSTWG chair to be nominated by December 2015.
- The WSTWG will meet once a year and in the country of the chair of the working group.
- Funding model for hosting (IORA Secretariat to provide mobilisation funding)
- Each Member State is to appoint a focal point (may be from a research institution, academia – with water background) who will serve as the country's representative on the WSTWG. These nominations will be renewed on a biennial basis.
- A written report is to be submitted to the IORA Academic Group (IORA-AG) two months before the Academic Group's annual meeting (August every year)
- The WSTWG will meet at least four months prior to the Council of Ministers meeting (in June/July each year)

- The role of the WSTWG is to encourage participation of all Member States and Dialogue Partners through the IORA-AG and to distribute contact details of focal points
- The role of the country focal point/representative is to identify subject experts for workshop attendance, advisory duties to IORA body etc.
- WSTWG to be have a webpage on IORA website
- A WSTWG database will be developed and will run on the IORA website - Contact details of members circulated to all Member Countries as well as by IORA-AG. This database will serve a portal for the IOR water science and technology community to a) find partners in IOR states for research collaboration b). identify who the country focal points are and c). communicate research activities.
- The WSTWG will also coordinate a mentoring programme that will facilitate collaboration between Member States, using best practices and lessons learned.

## **3.2 WSTWG Plan of Action 2015/16**

### **3.2.1 Key activities in the plan of action:**

1. Development of an IORA water science and technology database
  - To be run on the IORA website
  - Member states to share existing databases to be linked to the IORA website
2. Two (2) Thematic Workshops (August & Feb 2016) to be held. At first workshop participants agreed that the two subsequent workshops would be topic-specific with the first one focusing on water re-use/alternative water supply, and the second one focusing on groundwater.

### **3.2.2 Follow-up actions**

#### **Database**

1. WRC to engage IORA secretariat to ascertain the feasibility of the database project:
  - a. Development of a WSTWG tab under the IORA AG link or separate WSTWG webpage
  - b. Deadline: Feb/March 2015
2. Searchable database platform operational
  - a. Deadline: March 2015
  - b. Link the respective country databases to the IORA website
  - c. Focal points to provide required information of water science and technology institutions in their countries.
3. WRC to initiate development of a database template

- a. Time line: March – September 2015

## **Workshops**

1. Workshop II to take place in Oman in August 2015.
  - a. Theme: Alternative water supply in addressing water scarcity
  - b. WSTWG to meet one day before subject workshop
2. Workshop III to take place in February 2016 in Perth, Australia (CSIRO)
  - a. Theme: Groundwater (governance/quality)
3. Publications:
  - a. A publication on Workshop II (Oman) outcomes will be published two months after workshop (October 2015) and presented at October 2015 Council of Ministers meeting. A scientific publication i.e. collection of papers will be explored for Workshop II (Oman) in the IORA Journal by October 2016.
  - b. A publication on the Workshop III (Australia) outcomes will be published two months after the workshop (April 2016) and presented at October 2016 Council of Ministers meeting. A scientific publication i.e. special publication on a collection of papers presented at Workshop III will be explored for publication in the IORA Journal by October 2017.

## **4. CONCLUSION**

The inaugural workshop in South Africa was a notable success. It provided an opportunity for representatives from Member States to learn more about IORA and its governance structures. It also provided an opportunity for participants to discuss common challenges affecting states in the Indian Ocean Rim. The water science and technology community from Members States re-committed themselves to ensuring the success of the initiative. All members states will work together to ensure broader participation in the WSTWG by IORA members states.



***Participants at the First IORA Water Science and Technology Working Group, 5 – 6 February 2015, Muldersdrift, South Africa***

## 5. ANNEXURE A: LIST OF PARTICIPANTS

ATTENDANCE REGISTER FOR THE IORA WATER SCIENCE AND TECHNOLOGY WORKSHOP, 5-6 FEBRUARY 2014		
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