

# **Final Report of 4<sup>th</sup> Asian G-WADI Network Meeting**

**22 June 2011, Tehran Iran**

## List of Participants

Prof Soontak Lee, Chair of IHP Intergovernmental Council

Dr Maki Tsujimura, Japan

Prof Yongjian Ding, Asian G-WADI Secretariat

Dr Zhuotong Nan, Asian G-WADI Secretariat

Mr Din Mohammad Faqery, Afghanistan

Dr Keli Jia, China

Mr Op Sharma, India

Mr Alireza Daemi, Iran

Mr Kassym Duskeyev, Kazakhstan

Mr Mohammad Riaz, Pakistan

Simon Sargsyan, UNESCO Office in Almati

Mr Qunli Han, UNESCO Cluster Office in Tehran

Ms Niloofar Sadeghi, UNESCO Cluster Office in Tehran

Ms Laya Taheri, UNESCO Cluster Office in Tehran

Mr Mohammad Reza Rahdan, Ministry of Energy of Iran

Ms Hoda Rahmati, Ministry of Energy of Iran

Dr Mahin Gazani, Iranian National Commission for UNESCO

Mr Taghados, Iranian National Commission for UNESCO

Dr Forood Sharifi, Forest, Range and Watershed Management Organization

Dr SedigheTorabi, Ministry of Energy of Iran

Mr Alireza Salamat, Regional Centre on Urban Water Management

Mr Hossein Saadat, McGill University Canada

## Introduction to the 4<sup>th</sup> Asian-G-WADI Meeting

1. Representatives from the Asian G-WADI member countries (Afghanistan, China, India, Iran, Japan, Kazakhstan, and Pakistan), the Chairperson of IHP Intergovernmental Council (Prof. Soontak Lee), Authorities of the Ministry of Energy and the Ministry of Jihad-e-Agriculture of the I.R of Iran, representatives from UNESCO Offices (Almati/Tehran), representatives from Iranian National IHP Committee, as well as representatives from Iranian Universities met in Tehran, Iran, on 22<sup>nd</sup> June 2011.
  
2. **The Purpose of the Meeting Was:**
  - a. To discuss ways forward for the Asian-G-WADI Network;
  - b. To Present reports from the Asian-G-WADI Secretariat on activities between 2007-2011;
  - c. To present country reports and progress made in the G-WADI Pilot Basins in member countries;
  - d. To identify regional specific issues for cooperation in 2012-2013 (Presentation of first project proposal for joint cooperation by Iran);
  - e. To discuss about the publication of technical documents on: “Success Stories and lessons learnt from G-WADI Pilot Basins;”
  - f. To discuss possibility of exchanging visits among Asian G-WADI Pilot Basins;
  - g. To finalize and adopt the 4<sup>th</sup> Asian G-WADI Statement.

### Opening Remarks

Professor Soontak Lee, Chair of IHP Intergovernmental Council opened the meeting by thanking the “The Ministry of Energy of I.R of Iran” and IHP National committee of Iran for hosting and organizing the *“Regional Training Workshop on Climate Change Impacts on Water Resources Management in Arid and Semi-Arid Zones*. In addition, he congratulated the member countries for their achievements so far and hoped for successful exchange of views and future joint cooperation among the Asian G-WADI Network countries.

## **New Directions and Ways Forward by Mr Qunli Han**

The challenges faced ahead for joint cooperation was underlined by Mr Qunli Han, Director of UNESCO Tehran Cluster Office, as a result of regional dynamics. It was highlighted that after the establishment of the Asian G-WADI Network, it is now time to push forward to identify common issues among the member countries to work together in order to achieve more tangible results. Furthermore, the crucial importance of having G-WADI Networks to ensure that their existence as a platform for joint cooperation secured in the next phase of the IHP Programming was emphasized.

## **Presentation by the Asian G-WADI Secretariat**

Representing the Asian G-WADI secretariat, Dr Zhoutang Nan from CAREERI, presented below information:

- 1- Introduction to the Asian G-WADI Network-** under the Framework of Global G-WADI, the Asian branch was established in March 2005 on consensus and collective understanding of representatives from Afghanistan, China, India, Iran, Kyrgyzstan, Mongolia, Pakistan, Tajikistan, and Uzbekistan to conform the urgent need for increased regional cooperation for sustainable development of arid and semi arid zones.
- 2- Organization Structure-** the Asian G-WADI is comprised of the Secretaries (of which since 2008, has been hosted by the Cold and Arid Regions Environmental and Research Institute (CAREERI) of the Chinese Academy of Science) and the Advisory Committee consisting of experts from different member countries.
- 3- The Asian G-WADI Website-** <http://asian-gwadi.westgis.ac.cn> hosts a range of information such as; an introduction to Asian G-WADI Pilot Basins, meeting materials, general publications from IHP and G-WADI, etc. The functionality of the website has been enhanced so that notification messages related to G-WADI activities will be posted to member countries on regular basis. This facilitates better communication between the Secretariat and the G-WADI member countries.

**4- Activities-** the International G-WADI Modelling Workshop and the 1<sup>st</sup> regional meeting on 28<sup>th</sup> March 2005, was held at the National Institute of Hydrology, Roorkee, India. An International training workshop on Groundwater Modelling for Arid and Semi Arid Areas and the 2<sup>nd</sup> Asian G-WADI meeting, were held on June 2007 in Lanzhou, China. A special two week training course for Afghan experts on “Application of GIS and RS in Hydrology” held on the 21<sup>st</sup> Oct-3<sup>rd</sup> November 2008 in Lanzhou, China. Training of Trainers workshop on Climate Change and its Impacts on Water Resources Management, were held in Damascus, Syria, from 13<sup>th</sup>-16<sup>th</sup> October 2008. International workshop on Land Observing, Modelling and data Assimilation and the 3<sup>rd</sup> Asian G-WADI network Meeting was held in Beijing, China from 13-16<sup>th</sup> July 2010.

#### **Discussions:**

- Dr Maki Tsujimura to assist the Secretariat in connecting the responsible institution in Mongolia to the Asian G-WADI Network;
- Prof Soontak Lee suggested that the IHP National Committee in Mongolia could act as a focal point to the Asian G-WADI Network;
- Mr Han suggested to the Secretariat to include names and contact information of the focal points of the Asian G-WADI Network on their website;
- Mr Han suggested that either UNESCO Tehran Cluster Office or the Secretariat to assist Pakistan in finding out about its previous proposal for a G-WADI Pilot Basin, also to share with Pakistan the criteria for selection of a G-WADI Pilot Basin;
- Mr Han emphasized for better communication amongst the member countries and requested the Secretariat for further improving and advancing their website.

## Country Presentations

1. Mr Faqery from Afghanistan provided a brief account on the environmental challenges Afghanistan is facing at the present stage, followed by an introduction to the National Environmental Protection Agency (NEPA) and the areas they are involved in such as environmental law, environmental strategy, and environmental policy.
2. Dr Nan from China presented the challenges of the arid zones in regards to integrated water resource management (IWRM). Further he presented the progress made in the Heihe Pilot Basin on its recent advancement in modelling initiatives. Few modelling techniques such as the Watershed Allied Telemetry Experimental Research (WATER) was introduced and explained. It was pointed out that models are still at the research stage and have not been incorporated in the management of the pilot basin yet.
3. Mr Jia Keli provided a brief account of the Dalai Lake Basin of inner Mongolia, China. The Dalai Lake Basin is proposed as a new member under G-WADI Pilot Basins. The background of the Lake including environmental services and biodiversity values, Lake's present situation and the causes of shrinkages, and the water quality as the real challenge was presented. Furthermore, the real challenges of IWRM such as coordination of different agencies, coordination with Mongolia and Russia, poor hydrological and environmental monitoring systems and insufficient data, and lack of plan of action for the Lake was highlighted. In the end the work to be done including review of the existing water resources management plan, assessment of water resources, mobilizing resources to implement the IWRM plan of action, and international cooperation and coordination on transboundary water management was mentioned as ways forward.

## Discussions:

- Prof Soontak Lee underlined that IHP has published guidelines on IWRM which include case studies from different regions;
  - Mr Han pointed out that the Dalai Lake site is a UNESCO Biosphere Reserve site and a transboundary case that requires collaboration of China, Mongolia, and Russia to reduce the pressures facing the Lake;
  - Mr Sharma pointed out the need for local communities' participation during decision making for better and successful results, he also added that the scientific models and approaches should be simplified so that the local communities could understand and benefit from.
- 4- Dr Torabi from Iran provided a brief account of the Kashafroud and Taleghan Basins. Challenges in the Kashafroud Basin was listed as population increase and increase in water demand, severe water scarcity, water pollution, less water availability per capita, and non sustainable environmental approaches. In addition, some challenges facing the Taleghan Basin such as soil erosion was mentioned and the management activities under implementation in the Basin including construction of catchment dams for flood prevention and tree plantations for soil erosion prevention was presented. In conclusion recommendations were given for more cooperation and networking among Asian G-WADI member countries, ensuring that the G-WADI Networks are reflected in the next IHP programming phase and the need for developing concrete project proposals for joint cooperation between member countries.
- 5- Mr Duskayev presented background information on water resources in the Republic of Kazakhstan, climate change impacts on water resources, country's policies on climate change mitigation and adaptation, and the development of National Programme for Adaptation to Climate Change.

## **Identification of Region Specific Issues for Cooperation in 2012-2013**

The first proposal for joint cooperation between the Asian-GWADI member countries was presented by Iran on “the Creation of Landform, Land Use, Land Cover and Soil Erosion Maps using a GIS and Remote Sensing Protocol at the Regional Scale”.

### **Project Background**

In response to existing limitations on environmental mapping, a joint research took place between the Forest Range and Watershed Management Organization of Iran (FRWMO) and McGill University in Canada. The research was based on the development of a new comprehensive approach for creating environmental base maps in an integrated manner applicable at national and regional scale with an acceptable level of accuracy. The research was undertaken in Golestan Watershed. The result of the research has established a protocol for creating environmental base maps. At the current stage, FRWMO has selected two further regions in Iran to carry out the same research for producing environmental base maps on land use, landform, land cover, and soil erosion.

### **Proposal for Cooperation**

The proposed area for cooperation was the establishment of environmental base maps for different climatic zones in the Asian G-WADI Pilot sites.

### **Conclusion**

The Asian G-WADI members welcomed the idea of the project proposal. However, participants underlined the need for more detailed project review that elaborates on the validity of the scientific approach used in the research, and the advantages of using such models compared to the existing ones. It was agreed that a more comprehensive project note will be shared with the Asian G-WADI member countries for their input and further feedback.

## **Lessons Learnt from G-WADI Pilot Basins**

Under this topic the main points discussed were:

- Regarding publication format, it was advised by Prof Soontak Lee to consider the IHP publication format and adapt that;
- The need to decide on the title of publication ,the targeted audience and the timeline for reporting;
- Regarding lessons learnt it was suggested not to limit the work to pilot basins and to consider good examples of other basins in member countries ;
- It was suggested to start with countries that could provide immediate material for publication by 2013;
- The Asian G-WADI members were invited to come up with titles and a brief note on what each chapter will include within the next three months and share it with the network for feedbacks.

## **Exchange of Visits among G-WADI Pilot Basins**

- The idea was welcomed by member countries;
- Mr Han suggested to include a budget for site visiting in the next IHP Programming Phase, he also suggested to the Asian G-WADI Secretariat to include on their website the areas for exchange of information among member countries;
- Ms Sadeghi suggested that for gaining better outcomes from visits, each country should indicate the sites they would like to visit in other countries, and to indicate national sites they want to show.

## **Adoption of the 4<sup>th</sup> G-WADI Meeting Statement**

The statement was presented during the meeting and was adopted with minor changes (Refer to Appendix I for full version of the meeting statement).

## Appendix I

### 4th Asian G-WADI Meeting – Statement

Representatives from the Asian G-WADI member countries (Afghanistan, China, India, Iran, Japan, Kazakhstan, and Pakistan), the Chairperson of IHP Intergovernmental Council (Prof. Soontak Lee), Authorities of the Ministry of Energy and the Ministry of Jihad-e-Agriculture of the I.R of Iran, representatives from UNESCO Offices (Almaty/Tehran), representatives from Iranian National IHP Committee, as well as representatives from Iranian Universities met in Tehran, Iran, on 22<sup>nd</sup> June 2011.

The participants took note of the last statement produced by the Asian G-WADI Network in Beijing in July 2010 and further supported the statement. Reviewing the past activities of the Asian G-WADI and with extensive discussions taking place around strengthening regional integration under the Asian G-WADI Network, the participants:

1. **Extended** special thanks and gratitude to the “The Ministry of Energy of I.R of Iran” and IHP National committee of Iran, for hosting and organizing “*Regional Training Workshop on Climate Change Impacts on Water Resources Management in Arid and Semi-Arid Zones*” and the 4<sup>th</sup> Asian G-WADI Network meeting in Tehran Iran from 20-23 June 2011;
2. **Extended** special thanks to Prof. Soontak Lee, Chair of the IHP Intergovernmental Council for attending and providing scientific contribution to the Asian G-WADI meeting and training workshop;
3. **Extended** special thanks to UNESCO Offices in Almaty/Beijing/New Delhi/Tehran and IHP Secretariat for their contribution provided to participants to attend and benefit from the Training Workshop and the 4<sup>th</sup> Asian G-WADI Network meeting held in Iran;
4. **Appreciated** the efforts and supports towards the various activities of the Asian G-WADI Network provided by the Asian G-WADI Secretariat hosted at ‘CAREERI’ which was represented in Tehran meeting by Prof Ding and Dr Nan;
5. **Noted with thanks** the progress made by the Asian G-WADI Secretariat to further develop its website to systematically distribute updates to Asian G-WADI Network and requested CAREERI to further strengthen this initiative;
6. **Highlighted** the dynamics of G-WADI Pilot Basins which could potentially serve as the common ground for addressing Hydrological and Climate Change issues at the basin level;
7. **Highlighted** the important role played by the Regional G-WADI Networks in strengthening the capacity to manage the water resources of arid and semi-arid areas;

8. **Emphasized** the challenges and complexities of long term approaches regarding Integrated Water Resource Management (IWRM) and the need to link scientific achievements with policy aspects of water resources management;
9. **Noting** the well laid platform provided by the Asian G-WADI Network for networking and cooperation:
  - a. **Underlined** the need for further capacity building and strengthened networking among the countries of the Asian G-WADI Network, particularly toward the establishment of joint monitoring mechanisms;
  - b. **Recommended** exchange of visits among Asian G-WADI Pilot Basins with special thematic trainings at the site and requested UNESCO field Offices in Almaty/Beijing/New Delhi/Tehran to facilitate these visits;
  - c. **Stressed** the need to identify common issues for the scientific/technical cooperation of Asian G-WADI countries;
  - d. **Welcomed** the first proposal developed by IHP Iran for collective regional effort on “the Creation of Landform, Land Use, Land cover, and Soil Erosion Maps using a GIS and Remote Sensing Protocol at the Regional and National scales”. The participating countries agreed that the present Asian G-WADI countries would review the Iranian proposal and provide their feedback on how to move forward;
  - e. **Further agreed** that the Iranian proposal would be elaborated in detail for the fund mobilization to international donors;
10. **Underlined** the need to further explicitly elaborate on the role and possible contributions of UNESCO Category II Centres to the Asian G-WADI Network;
11. **Emphasized** the importance of exchange of information and networking among G-WADI Networks established in Africa, LAC and in the Arab regions;
12. **Requested** G-WADI Global Technical Secretariat and IHP Secretariat to facilitate networking and providing web linkages in the global G-WADI website;
13. **Agreed** to work closely with the Asian G-WADI Secretariat to provide inputs for the publication on “Lessons Learnt from Integrated Watershed Management in Asian G-WADI Countries” in the IHP technical document series with the technical and financial support from UNESCO IHP Secretariat;
14. **Welcomed** Pakistan’s willingness to identify and establish a G-WADI Pilot Basin in the arid and/or semi-arid zones of Pakistan with support from the Asian G-WADI Secretariat as well as UNESCO Tehran to provide criteria for nomination of a G-WADI Pilot Basin and background work done by Pakistan;

**15. Called upon** the IHP Council, IHP Bureau and IHP Secretariat to provide the needed attention and consideration to the G-WADI programme in IHP programming and particularly in the formulation of IHP-VIII.

## Appendix II

### G-WADI Participants Contact List

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