

Minutes of the Second meeting of the  
**WORKING GROUP ON WATER MANAGEMENT IN WATER STRESSED REGIONS (WG-DROUGHT)**  
 New Delhi, India  
 06 December 2009: 14:15-18:00 hours  
*Strategy Theme: Basin*

Year of Establishment: 1996

Completion of the Mandate: 2002

**Mandate:**

- (i) Drought Management Strategies: To capture field experiences of the implementation of drought risk management strategies.
- (ii) Coping with water scarcity
  - Critical evaluation of the validity of the crop water requirement computations based on climate data as a tool to be used in coping with water scarcity;
  - Approaches and strategies for incorporating economical justification when deciding on the amount of water to be allocated for agricultural production;
  - Re-defining, as necessary, the conventional irrigation efficiency concept;
  - Design, operation and maintenance of sand dams – Under-ground water reservoirs.
- (iii) Rainfall management for sustainable agriculture: Innovation and implementation of smart rainfall management technologies.

**Members Present :** (1) Vice President Hon. Dr. S. Nairizi (Iran, 2008), Interim Chairman; (2) Vice President Hon Mr. F. Dimick (USA, 2008), Secretary; (3) Dr. Ragab Ragab (UK, 2008); (4) Mr. Graziano Ghinassi (Italy, 2008); (5) Prof. Chang-Chi Cheng (Chinese Taipei, 2008); and (6) Secretary General represented by Dr. Vijay K. Labhsetwar, ICID Central Office.

**Observers:** (1) Mr. Z. Behairy (Egypt); (2) Dr. Sue Walker (South Africa); (3) Dr. S. Szalai (Hungary); (4) Mr. Mohammad Sadegh Jafari (Iran); (5) Mr. Shital Babu Regmee (Nepal); (6) Mr. Uttam Raj Timilsina (Nepal); (7) Prof. Dr. Niaz Ahmed (Pakistan); (8) Mr. Rajeev Kumar (India); (9) Mr. Prashant Jaiswal (India); (10) Mr. Praveen Jais (India); (11) Mr. Naito Kunihiko (Japan); (12) Mr. Ian Moorhouse (Australia); (13) Mr. Enayatallah Farahani (Iran); (14) Mr. B.N. Bilgundi (India); (15) Mr. Danda Pani Jaishy (Nepal); (16) Mr. H. Raheman (India); (17) Mr. G.V. Surendra (India); (18) Mr. H.V. Shivakumar (India); (19) Mr. N.B. Patel (India); (20) Mr. Tushar M. Dholakia (India); (21) Mr. M.S. Zaman (India); (22) Mr. D.S. Kabuur (India); (23) Mr. B.S. Patil (India); (24) Mr. C. Ballard (Australia); (25) Dr. M.K. Sharma (India); (26) Mr. A. Alghamdi (Saudi Arabia); (27) Mr. Abdul Rahman S. Aljughaiman (Saudi Arabia); (28) Mr. J.S. Sodhi (India); (29) Dr. C. Venkata Reddy (India); (30) Mr. Koichi Kuwabava (Japan); (31) Mr. S. Vijay Ghogase (India); (32) Mr. Kanhaiy M. Shah (India); (33) Mr. Rajendra Pawar (India); (34) Mr. Ashok K Surushe (India); (35) Mr. Sharad S. Dabhadkar (India); (36) Dr. T.B.S. Rajput (India); (37) Mr. Laurie Tollefson (Canada); (38) Dr. K. Emami (Iran); (39) Dr. Vincent Bernard (France); (40) Dr. Jung-Hua-Wang (Chinese Taipei); (41) Mr. V.B. Nath (India); (42) Mr. Maurice Roos (USA); (43) Mr. Suresh Charchy (India); (44) Mr. Suresh Chandra (India); (45) Mr. J.B. Mahapatra (India); (46) Mr. Deepak Kumar Das (India); (47) Mr. N.K. Tyagi (India); (48) Dr. Ahmet Sereen (Turkey); and (49) Mr. Hasan B. Yuksel (Turkey).

**Website:** <<http://www.wg-iadws.icidonline.org>>.

**Item 1 : Confirmation of the minutes of the 1<sup>st</sup> meeting of the WG-DROUGHT**

The minutes of the 1<sup>st</sup> meeting of the WG-DROUGHT at Lahore, Pakistan (2008) were confirmed.

**Item 2 : Review of membership**

Dr. Teodore Estrela-Monreal (Spain); Engr Qaz Tallat Mahmood Siddiqui (Pakistan); Dr. Kiwood Park (Korea), and Dr. Benjamin de Leon Majarro (Mexico) were not present and their nominations were deferred till the next meeting of the WG in 2010.

Mr. Mohammad Sadegh Jafari (Iran) was present and introduced himself to the WG. His nomination was approved as a member of the WG-DROUGHT. Because of the limitations for having multiple members from the same country, Dr. Nairizi, (Iran) indicated he would be resigning from the WG.

Dr. T.B.S. Rajput (India) was present and introduced himself to the WG. His nomination was approved as a member of the WG-DROUGHT.

**2.1 Election of Chair, Vice-Chair and Secretary**

The WG elected Vice President Hon. Franklin E. Dimick (USA) as Chairman, Mr. Mohd. Sadegh Jafari (Iran) as Vice Chairman and Dr. Abraham Mehari Haile (The Netherlands) as Secretary.

**Item 3 : WG-IADWS publication – “Irrigation under Drought and Water Scarcity”**

A draft document of the above publication has been circulated among the members for comments and revision, if any. The publication is expected to be completed in 2010.

The document will be reviewed by the members of the erstwhile WG-IADWS to make sure that the separate contributions are linked together in the document properly and for their approval to the document. All comments must be submitted to Interim Chairman by end of February 2010. Contributors to the document are expected to update their references as well.

**Item 4 : Drought Management Strategies**

Mr. Jafari (Iran) presented some concepts for identifying management strategies for managing water during a drought period. The other members made the following comments:

- Short term strategies and long term strategies need to be developed.
- Effects on society needs to be considered in addition to the engineering aspects of drought management strategies.
- Water marketing must also be included in developing drought management strategies.
- Fish and wildlife and environmental concerns must also be included in developing drought management Strategies.
- Compilation of case studies would benefit the development of drought management strategies.
- Any long term strategy must include predictions of climate change effects.
- Environmental consequences of droughts must be considered when developing drought management strategies.

**Item 5 : Coping with Water Scarcity**

Chairman Nairizi stated that this item and item no. 4 could overlap and it will become necessary to define these two items carefully. Generally, Drought Management Strategies deal with the planning aspects while Coping with Water Scarcity deals with actions or performance.

Mr. Jafari (Iran) presented some ideas on how to pursue some activities under this item. Several of the ideas he presented such as allocation of water by quality were already being pursued by other Work Groups. Some important comments made by the members were:

- Re-allocation of water during droughts will have legal ramifications due to water rights, etc.
- Discussed need to clarify how irrigation efficiency is determined and its validity.
- Case studies would be helpful in compiling ideas on how to conserve water. The compilation and studying of these case studies may result in developing new concepts on irrigation practices.

Those in attendance at the meeting provided many ideas on how to conserve water.

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The conceptual problems that arise when using the traditional method of calculating water use efficiency were discussed. Many different views were presented on how to measure water use efficiency and the crop water use.

A discussion then took place on the need to measure actual crop evapotranspiration rather than using empirical formulas based on meteorological data.

#### **Item 6 : Rainfall Management for Sustainable Agriculture**

Mr. Jafari (Iran) presented some ideas on how to approach the Rainfall Management for Sustainable Agriculture.

Pursuing concepts of rain water harvesting were discussed as a task of this Working Group.

The need to find and collect data on how much rainfall is being used in irrigated and non-irrigated crops was discussed. Quantifying effective rainfall in crop production also needs to be investigated along with how to improve its effectiveness through technology.

One concept that needs to be examined is the need to change the cropping practices to effectively utilize the rainfall.

Farming practices such as plowing, no-till, varying tilling methods to maximize rainfall effectiveness needs to be examined.

The need to document the successful studies in rainfall management was discussed. It was decided to review these studies prior to the next meeting for fruitful discussions during the meeting in 2010.

#### **Item 7 : Any other business**

- **Seminar on ‘Managing Water Related Risks in Changing Climate at WWF-5**

Members took note of the Seminar on “Managing Water Related Risks in Changing Climate” at WWF-5 organized by the World Meteorological Organization (WMO) held on 17 March 2009.

- **Understanding Desertification and Land Degradation Trends (UNCCD)**

One of the International Organizations with which ICID has a good liaison is “UN-Convention to Combat Desertification” (UNCCD). Many documents and issues that rise in UNCCD are also of interest to ICID work. Some of our work bodies have been looking into aspects of ‘land degradation’, ‘desertification’ and ‘sustainable land and water management’. WG-DROUGHT is one such work body to review these issues. Given the above, the information reflecting UNCCD’s International Scientific Consultation Process on “Understanding Desertification and Land Degradation Trends were circulated among NCs and WG Chair.

The Scientific Conference and Consultation on “Understanding Desertification and Land Degradation Trends” took place during 22-24 September 2009 at the UNCCD Conference of Parties’ 9<sup>th</sup> Session (COP-9) in Buenos Aires, Argentina.

More information on the Conference is available at <<http://www.unccd.int/publicinfo/cstscicof/menu.php>>

- **Human Resources Survey for disaster and risk management**

The UNDP and United Nations International Strategy for Disaster Reduction (UNISDR) have jointly developed a questionnaire for profiling backgrounds of disaster and risk management practitioners. The Central Office circulated the questionnaire among WG members to get themselves registered to help in profiling the human resource base for reducing the risk of disasters and preparing for more effective response. The questionnaire is available at Survey Link : <<http://www.zoomerang.com/Survey/?p=WEB22986VV9L7G>>

- **Draft White Papers on “Needs and “Capabilities” for Climate Information for the Water Sector**

The members took note of two draft documents viz., “White Paper – Needs of Climate Information for Decision Making in the Water Sector” and “Application of the Climate Information and Prediction in the Water Sector: Capabilities” circulated by ICID Central Office for comments with a view to include those in the final version of the document.

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