

Minutes of the Third Meeting of the
WORKING GROUP ON ENVIRONMENT (WG-ENV)
 Tehran, Iran
 16 October 2011: 09.00-12.30 hours
Strategy Theme: Basin

Year of Establishment: 2008

Completion of the Mandate: 2014

Mandate: To provide guidance to policy makers, planners, designers, and managers in the irrigation and drainage sector on the environmental aspects of drainage and irrigation systems. The environmental aspects are physical, chemical, ecological, socio-economic and cultural, as well as concerns to the effects on climate and human health. By looking at environmental aspects, the working group will aim for the management of a sustainable environment, maximizing positive and minimizing adverse effects of irrigation and drainage systems”.

Members Present: (1) Prof. Hu Heping, Chairman, 2005 (China, 2000); (2) Dr. Sylvain-Roger Perret, Vice Chairman, 2010 (France, 2009); (3) Dr. Michael van der Laan, Secretary (South Africa, 2010); (4) Prof. Yih-Chi Tan (Chinese Taipei, 1995) represented by Ray-Shyan Wu; (5) Dr. Shaden Abdel Gawad (Egypt, 1996); (6) Mr. Mohammad Kazem Siah (Iran, 2000); (7) Mr. Osmo Antero Purhonen (Finland, 2002); (8) Dr. Choi, Joong-Dae (Korea, 2003); (9) VPH Dr. Jose A. Ortiz Fdz.-Urrutia (Spain, 2005); (10) Prof. Dr. N. Hatcho (Japan, 2006); (11) Mr. Clarke Ballard (Australia, 2010).

Members Honoraire Present: (1) Dr. Hussein El-Atfy, Vice President Hon., ICID (Egypt); (2) Dr. Samia El-Guindy, Vice President, ICID (Egypt).

Observers: (1) Tian Fuqiang (China); (2) Avinash C. Tyagi (WMO); (3) Mukhlis Zainol Abidin (Malaysia); (4) Khodjet-Kesba Omar; (5) Moussa Amadou (ARID); (6) Anna Tedeschi; (7) Graziano Ghinassi (Italy); (8) Mr. Ahmed M. Aziz (Iraq); (9) Azita Ramezani (Iran); (10) Yi-Fong Ho (Taiwan); (11) Sheng-Hsein Hsieh (Taiwan); (12) Kuan-Pei Lin (Taiwan); (13) Ying-Chien Lo; (14) Mohammad Sadegh Jafari; (15) Esmail Jarbbari (Iran); (16) Nader Alizadeh (Iran); (17) Hyun-Tai, Kim (Korea); (18) Parush Bahrehdar (Iran); (19) Abang Emir Faridz (Indonesia); (20) Ping Chen (Taiwan); (21) Sabine Walser (Germany); (22) K.Y. Reddy (India); (23) Pao-Shon Yu (Taiwan); (24) Ian W. Makin (ADB); (25) Mohd Yazid Abdullah (Malaysia); (26) Adama Sangare (Mali).

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

The following members sent apologies for not being able to attend the meeting but still shown interest in continuing as active members of WG-ENV:

- *Prof. Yih Chi Tan (Chinese Taipei, 1995), represented by Prof. R.S. Wu*
- *Mr. Taner Kimence (Turkey, 2006)*

Item 1 : Confirmation of the minutes of 2nd meeting of the WG-ENV

The minutes of the second meeting of the WG-ENV held in Yogyakarta were confirmed.

Item 2 : Membership of the Working Group

2.1 New nomination

Italian Committee nominated Dr. Anna Tedeschi in place of Mr. S. Salbitani. Dr. Tedeschi (Italy). Dr Tedeschi was confirmed as a new member of WG-ENV.

2.2 Past nominations

Mr. Ahmed M. Aziz had been nominated as the Iraqi representative by Iraq National Committee in 2010. This nomination was not considered last year since Mr. Aziz did not attend the 2nd meeting in Yogyakarta. Mr. Aziz (Iraq), however, was present during this meeting and his nomination was confirmed as a new member of WG-ENV.

Mr Javeed Iqbal Bokhary had been nominated as the Pakistani representative by Pakistan National Committee in 2010. Since Mr. Bokhary did not attend the second and third meeting, his nomination was deferred. WG-ENV requests ICID Central Office to invite fresh nomination from Pakistan National Committee.

2.3 Non-attendance or contribution of WG members

The following members neither attended meetings nor contributed to WG activities for four consecutive years:

- Dr. Smiljan Juvan (Slovenia),
- Prof. Almeida Fernandez (Portugal),
- Mr. Belguenani Hassane (Morocco),
- Prof. Dr Natha Hungspreug (Thailand).

WG-ENV requests ICID Central Office to invite fresh nomination from these National Committees.

The WG-ENV Chair acknowledged that it may be difficult for WG members to attend all meetings. Communication by many other means and ways is still possible and should be promoted in-between ICID meetings. It is reminded to members that a *LinkedIn group WG-ENV* has been set up in 2010 (www.linkedin.com) and members are invited to register, and then participate to the forum. Vice-Chair proposed that effective communication and interaction could be achieved through regional ICID initiatives (e.g. Asian sub-WG-ENV). Dr. Gawad further suggested the use of virtual (remote hook-up) meetings between annual meetings and that smaller WG meetings could be organized around bigger international events in which several WG members are attending.

The Chair will e-mail the *LinkedIn group WG-ENV* registration procedure to all members.

2.4 Election of Chair and Vice Chair of the WG

Prof Hu Heping officially stepped down as Chair of the WG during the 3rd meeting. He however would continue to be a member of the WG.. Dr Sylvain-Roger Perret (Vice-Chair, France, 2009) has been elected as the new Chair. Prof Dr Nobumasa Hatcho (Japan, 2006) has been elected as the new Vice-Chair in place of Dr Perret. Dr Michael van der Laan retains his position as Secretary for the WG.

Prof Hu will continue to be a member of the WG.

The new Chair acknowledged and thanked Prof. Hu Heping (China, 2000), who chaired the WG-ENV since 2005, for his efforts and for the work done during his tenure. He hopes that Prof. Hu will continue to contribute actively to the WG, as a member.

The Chair thanked the Secretary for his firm support and congratulated Prof Hatcho for being elected as the new Vice-Chair.

The renewed WG-ENV committed itself to set up a work plan for remaining years (2012-2014) and to comply with the stated mandate of the WG. The Chair insisted that this can be achieved only with active contributions by all members. Also, interactions and collaborative activities with other WG will be considered.

A. CONTINUING ITEMS

The Chair reminded members that the WG has a mandate positioned at Basin level, as an ICID strategy theme.

The Chair also reminded the WG of its mandate, which encompasses all facets and aspects of the environment, i.e. physical, chemical, ecological, socio-economic and cultural, as well as concerns to the effects on climate and human health. Sustainability, through maximizing positive and minimizing adverse effects of irrigation and drainage systems, is also included.

With this context, certain topics of interest have been placed on the agenda over the past years for attention by the WG (Items 3-6), with no tangible action or deliverables planned or achieved so far. Also, it was clear that many dimensions of the WG mandate have been overlooked so far.

Decisions are urgently needed in terms of selection, then possibly of actions to be undertaken regarding these topics. A systematic item screening has been carried out.

Item 3 : The improvement of agricultural return flow and requirement of environmental flow

WG-ENV has not addressed this issue so far. Overall, members recognized it as being very important.

Mr. Purhonen (Finland) highlighted that the issue of quality in addition to quantity was vital when considering return flows.

Mr. Ballard (Australia) suggested, via questionnaire feedback by Secretary (see Item 8), that a workshop on Agricultural Return Flows (RF) and Minimum Environmental Flows (EF) be organized during the next ICID meeting in Adelaide, Australia in 2012, and that the Murray-Darling Basin could be used as one of the case studies.

Dr Samia El-Guindy (observer, Egypt) suggested that such a workshop be organized jointly with WG-PQW (Use of Poor Quality Water for Irrigation), since both WGs address environmental issues related to water quality and quantity, at farm and basin level respectively, considering both input (inflow) and output (outflow) waters.

A one-day workshop (possibly more, if needed, after consultation with WG-PQW) should be organized during the ICID meeting in Adelaide, Australia, in June 2012, jointly with WG-PQW. All members concurred with the idea of organizing a workshop on EF / RF in Adelaide 2012.

From WG-ENV mandate and interests, sub topics could provisionally be:

- Definition of EF and assessment of EF requirements in context of off-stream / in-stream multiple uses
- Impacts of implementing EF on irrigation: extraction vs. conservation
- Irrigation return flows: quantitative and qualitative aspects, contribution to EF
- Country or basin case studies on EF policy and implementation
- Water quality in return flow: standards, regulations, monitoring systems
- Ecosystem services provided by irrigation and drainage systems: case studies

Consultation and coordination with WG-PQW will continue in coming months (Nov - Dec 2011) in order to finalize the agenda. Contributions by WG-ENV members will be solicited via email and LinkedIn forum. The WG members further observed the following:

- Final sub-topics and agenda should be finalized and circulated to ICID Central Office by November 15, 2011.
- Presentations may include research papers, policy analysis and case studies.
- The workshop will be open to all. WG-ENV members are invited to contribute.
- Willing presenters will have to submit a 500-word abstract by December 15, 2011.

Options for publication of the workshop proceedings will be discussed at a later stage. A WG publication on "Irrigation and Drainage Systems in a Multifaceted Environment: Interactions and Cross-Impacts" including selected full papers presented at the workshop may be considered, as a concrete output of WG-ENV.

Item 4 : Environmental aspects of irrigation and drainage projects

Item 6 : Management of a sustainable environment (maximizing positive and minimizing adverse effects of irrigation and drainage systems)

The two items were examined together.

The Chair and Vice-Chair suggested Life Cycle approaches (LC inventory, LCI, LC impact assessment, LCIA) as effective means of studying the potential impacts of irrigation systems, equipment, activities on the environment,

from a regional / basin perspective. LCI / LCIA approaches receive growing interest globally, for their potential towards process / product labeling, environmental foot-printing, assessment of diverse regional and global impact categories (climate change, eutrophication, acidification, resource depletion, energy use, biodiversity loss, etc.). WG-ENV could form a platform towards LCA awareness and use in irrigation and drainage community at global level.

The Chair had presented an introduction to Application of LCA to Irrigation System during 2nd meeting in Yogyakarta, 2010. Members were invited to refer to the website for more information <<http://www.wg-env.icidonline.org>>

Both Chair and Vice-Chair are currently using LC approaches applied to paddy fields in Thailand and Japan respectively. The Chair has also similar activities in irrigated cotton in Pakistan.

The Secretary also expressed interest for potential application in irrigated Sugarcane in South Africa.

Dr. Choi Joong-Dae suggested that other integrated approaches for environmental impact assessment of irrigation be investigated / presented to WG members. He mentioned Total Maximum Daily Load –TMLD- as one example. Dr. Anna Tedeschi concurred that there exist many possible approaches.

No other idea for collective action towards potential deliverables on items 4 and 6 came out of the discussion.

The Chair reminded WG members of the Basin scope of the WG mandate, and also that WG mandate cannot merely consist in reporting established research and disseminating already published material, but should rather focus on investigating novel approaches.

Although many WG-ENV members are still unsure of the potential and benefits of the LC approach, it is decided to set up a WG Task Force on “LC Approaches (LCA) Applied to Irrigation and Drainage Systems “. The Chair, Vice-Chair, and Secretary of WG-ENV form the task force; any interested member may join the TF.

Task Force activities will consist in:

- Document and information sharing between LCA task force and WG members; especially background documents will be disseminated to WG members; the Chair will compile recent literature on LCA application in irrigation and drainage and circulate it to members via emails and website postings (December 2011),
- 3-4 presentations will be made by task force members during next 4th WG meeting in Adelaide, 2012, on LCA (June 2012),
- A WG report on “LC Approaches Applied to Irrigation and Drainage Systems” will be compiled, including literature review and list, and papers of presentations made at Adelaide meeting (timeframe and final contents to be decided in June 2012).

Communication will be extended to WG-Climate since LCA provides information onto GHG emissions and climate change potential of studied systems.

Dr. Choi Joong-Dae, Dr. Tedeschi and any willing member are invited to circulate relevant background material regarding other approaches to (integrated) environmental assessment of irrigation and drainage systems.

Item 5 : Impacts of irrigation and drainage projects on human health

While the importance of this issue was fully recognized by WG members, it will not be a priority issue for the group in the short-term, under limited time before mandate completion and the need to focus energies on specific issues. There exist many reports and documents on the topic. If interested, a Work Team could be established to work on this topic. In the meantime, the Chair will identify relevant background material or website on “Irrigation Systems and Human Health” and disseminate the information to WG members.

Item 7 : Website of WG-ENV

The Secretary has revamped the site and placed presentations of the WG’s workshop held in Indonesia (2010) on the website. The Chair thanked him and requested to continue to be the WG’s website manager. Members were invited to use the website as a communication medium and mean to share documents. Mr. Purhonen (Finland) requested that an email be circulated when important content is added to the website. The Secretary encouraged

members to provide references of their recent outputs on the website to inform other members of their research interests and areas of expertise.

The Secretary remains the WG's website manager; e-mail alerts will be sent to members when new material is posted.

Item 8 : WG-ENV members' questionnaire

The Secretary gave a brief overview of the results of the questionnaire sent to members earlier in 2011, including results from a previous similar questionnaire sent in 2009. It was noted that results were well aligned with the WG's discussions and decisions regarding activities and work plan (items 3 to 6).

During the meeting, Mr. Ahmad Aziz (Iraq) requested information on the use of international vs. national guidelines, standards and norms in environmental assessment. The Chair responded that this was an important question that the WG could help answer. If interested, a Work Team could be established to work on this topic. In the meantime, the Chair will identify relevant background material or website on "Environmental Standards and Norms" and disseminate the information to WG members.

In the questionnaire, several members expressed the view that the WG-ENV should spend more time on technical discussions and less on administration. The Chair suggested that from now on, WG-ENV meetings should allocate a maximum of half of its time to administrative matters. Also, members were invited to submit ideas of short country presentations that could be presented during meetings. Yet again, remote communication on technical matters between members should be promoted and strengthened in between meetings (items 2.3 and 7).

Item 9 : ICID position paper

The Chair reminded members that a position paper is an important and official ICID document that must be carefully designed and developed. It will end up as a statement, a prescription made by ICID towards the international community regarding a topic, a methodology, a technology. Prof Wu also insisted that a position paper results from a collective effort, as an outcome that no single individual may achieve alone. Further, Mr. Ballard and the Chair expressed reservations on the capacity of WG-ENV to identify, develop and finalize an ICID-PP under its mandate with the limited time left before mandate completion. No suggestions for a position paper emerged from discussion. The idea of an ICID position paper by WG-ENV is dropped for the time being.

Item 10 : Work plan of the WG

It is agreed that the work plan will actually include the activities described and listed under items 3 to 8 (workshop in Adelaide, LCA presentations and report, circulation of documents on different topics).

The WG-ENV will circulate a draft work plan including allocation of tasks, among members by e-mail in November 2011, before finalizing the WG's work plan before the end of 2011.

B. NEW ITEMS

Item 11 : Freshwater Ecosystem Monitoring Working Group

It was acknowledged that there could be some overlap between the activities of this new WG and those of the WG-ENV, especially since WG-ENV will start working on LCA. The Chair recommended that to ensure there is no duplication of efforts among ICID WGs, it is important for WG-ENV members to attend other WG's meetings and familiarize themselves with the activities of these groups and facilitate collaboration where appropriate. Activities by WG-Climate and WG-PQW are also potentially of great interest.

Item 12 : Invitation to join LinkedIn group

The issue has been addressed under Item 2 / 2.3.

Item 13 : Any other business

WG-ENV members are warmly invited to participate to the next meeting of the WG in June 2012 at Adelaide, Australia.

The following two conferences were also brought to the WG-ENV's attention:

- The International Conference on Sustainable Irrigation, Australia, 11-13 December 2011
 - ICID African Regional Meeting, Mali, 29 November-3 December 2011
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