

**MINUTES OF THE 5<sup>TH</sup> MEETING OF THE  
WORKING GROUP ON SUSTAINABLE DRAINAGE (WG-SDRG)**

15 August 2018, 09.00-10.30 hours (Session I) and 11.00-12.30 hours (Session II)  
Saskatoon, Saskatchewan, Canada

**Strategy Theme: Scheme**

**Presented by the Chair**

**Year of Establishment: 2013**

**Completion of the Mandate: 2019**

**Mandate:** (a) To promote drainage as part of integrated water resources management; and (b) To promote sustainable approaches for drainage and related projects through a balanced integration of (i) environmental, (ii) economic, and (iii) social and cultural aspects. The WG will work on – (a) Soil management and (integrated) water (resources) management; (b) Traditional and wise drainage management including (i) dry drainage and bio drainage, (ii) arid and semi-arid zones v/s rain fed zones, and (iii) controlled drainage and regulated drainage; (c) Operation and maintenance; (d) Promotion of multi-stakeholders approaches; (e) Reuse and multiple uses; (f) Promotion of risk assessment under global change, and (g) Assessment of drainage needs.

**Members Present:** (1) Mr. Bernard Vincent, Chairman (France); (2) Dr. Momon Sodik Imanudin, Vice Chairman (Indonesia); (3) Ms. Helena Aijo (Finland); (4) Dr. Gurbachan Singh (India); (5) Mr. Ardavan Azari (Iran); (6) Dr. (Ms.) Naoko Koshiyama (Japan); (7) Engr. Mohd Anuar Musardar bin Yusoff (Malaysia); (8) Dr. Henk Ritzema (Netherlands); (9) Dr. Yurii Yanko (Russia) represented by VP Irene Bondarik; (10) Prof. Aidan Senzanje (South Africa).

**Observers:** (i) PH Bart Schultz (The Netherlands); (ii) Hannes Puu (Estonia); (iii) Engr. Amali Abraham Amali (Nigeria); (iv) Mazhayskiv Yury (Russia); (v) Chris Hay (USA).

**WG-SDRG Minutes Item 1: Action taken report by the Chair**

1. Chair welcomed all the members and briefed on the latest status on the action point emerging from the minutes of the previous meeting of the WG held at Mexico City in October 2017.

2. WG reviewed the membership of the group which includes four new nominations viz. Prof. LB Roy – Direct Member (India); Eng. Mohamed Saleh El-Basyony (Egypt); Eng. Maiada Mohamed Anwar (Egypt); Eng. Dina Mahmoud Mohamed Ali - Young Professional (Egypt) and the same were accepted as Provisional Member. Dr. Hajime Tanji (Japan); Mr. Raed Abbood Awad (Iraq); Mr. Amjed Mohammed Abbas - Young Professional (Iraq); Eng. Mohamed Fawzy Mohamed Mahmoud (Egypt) neither attended the meeting nor contributed to the activities of the group during more than one year so the group suggested to invite new nominations from the respective NCs. Membership status is given in **Annex 3 (page 51)**.

**WG-SDRG Minutes Item 2: Road Map to ICID Vision 2030 – Status of activities on sustainable drainage**

3. During the meeting, the group reviewed the activities on sustainable drainage as part of Road Map to ICID Vision 2030 and updated it (refer **Annex**). The group noted that the roadmap and the rolling plan of the WG are in a good way of achievement however, it was felt that the following points will be hard to reach as data are rarely available.

- (a) Promotion of multi-stakeholders approaches,
- (b) Promotion of risk assessment under global change,
- (c) Assessment of drainage needs,
- (d) Reuse and multiple uses.

**WG-SDRG Minutes Item 3: Compilation of experiences in bio-drainage and bio-saline agriculture**

4. During the meeting, the group noted that the document titled “Bio-drainage for Management of Waterlogging and Soil Salinity” authored by Dr Gurbachan Singh (India) is available at [http://www.icid.org/report\\_bmw\\_n\\_ss.pdf](http://www.icid.org/report_bmw_n_ss.pdf) for download.

**WG-SDRG Minutes Item 4: Updating database on ‘Drained area in the world’**

5. The group discussed and noted that the updated database of drainage area is available at <http://www.icid.org/world-drained-area.pdf>. Chair encouraged members to provide the latest information in respect of their countries every year regularly.

**WG-SDRG Minutes Item 5: Updating Multilingual Technical Dictionary (MTD)**

6. During the meeting, the group discussed the updation of terms related to chapters of MTD however, it was noticed that members never shown willingness to participate in the above job. Chair will do the job in consultation with the ICID Central Office.

**WG-SDRG Minutes Item 6: Dissemination of activities of WG**

7. The group noted that the website of the WG [http://www.icid.org/wg\\_sdg.html](http://www.icid.org/wg_sdg.html) was fully updated with new membership list, agenda, minutes, events, etc. Chair encouraged members to provide interesting articles/ papers/ presentations/ documents related to the activities of the group for uploading on the website.

**WG-SDRG Minutes Item 7: Organization of 14<sup>th</sup> International Drainage Workshop, 2020**

8. At Saskatoon meeting, the group discussed about the organization of 14<sup>th</sup> International Drainage Workshop (IDW) and noted that the National Committee of Georgia had shown their interest for organizing the 14<sup>th</sup> IDW. During the meeting, representative from Russian National Committee explained that the Georgian proposal is on hold due to local re-organisation.

9. After discussion, Chair suggested some of the options, all at the stage of proposal and with no formal involvement of NC's viz.

- (a) 14<sup>th</sup> IDW should be in 2020 as another world wide event. IDS being organized by ASABE ad CIGR will be in 2021 and it is proposed to combine both the events in one to avoid the risk of over competition since the drainage community is not able to feed both event at a short step of time. Chris Hay from IOWA Soy Bean Association and representing the IDS organizing committee had a good agreement with the idea of joining both the events. WG-SDRG agreed with the above proposal and to go ahead further in this direction.
- (b) In China, namely Wuhan University and the National State Key Laboratory could be keen to welcome the event with considerable advantage of the huge capacity of Wuhan University to organize. Furthermore, WHU carries out researches on green infrastructures v/s surface water quality, with very similar tools and objectives that have in Europe and northern America, and Government of PR of China promotes improvement of water quality in rural communities and enhances nature-based solutions. The climatic conditions are favorable in China, but there is still need for some clarification as the representative from WHU, China was not present and CNCID is not yet aware of the project.
- (c) France could be a possibility, but the political context is difficult, and support would be difficult to find. For the moment, the chair does not have sufficient credentials to formally propose this solution.

10. After discussion with the members, the group suggested to enhance the solution of the organizing as join event.

**WG-SDRG Minutes Item 8: Workshop by WG in August 2018, Canada**

11. The group organized a Workshop on “Dry Drainage and Bioreactors or Green Infrastructures” on 12 August 2018 in Canada. In total, nine papers were received for the workshop that inspired the debate of the WG.

12. It was noted that drainage, at least in Europe, is taxed with all the evils, bringing pollution by nitrates and pesticides and increasing the floods. In arid zones, it is fought to be antagonist with water saving programs and numbers of irrigation funding plans dangerously pass drainage under silence. As contrary, in North America, it vehicles an acceptable image when promoted as drainage Water Management. However, well-designed, well-managed, well used drainage is a powerful regulator runoff, can store water in the soil, to ultimately allow regulation of agricultural surface water quality and quantity. Combined with an adapted irrigation design, drainage is the essential tool for managing soil salinity, alkalinity or acidification and, therefore, the sustainability of irrigated agriculture.

13. The workshops address the techniques to design or manage drainage for improving water quality, controlling quantities of water, preserving the soil quality (controlled drainage, constructed wetlands, bioreactors, green infrastructures). Papers related to traditional techniques (Dry drainage for instance) are also well encouraged. The subject may be linked to design criteria, law and policies, sociologic approaches for implementation, case studies, any situation in which drainage carries with it the genes of the self-compensation of the agriculture it supports.

14. The list of presentations made by the authors during the workshop as follows -

- (a) Artificial Wetlands in Khuzestan, Iran: Problems and Solutions (Ardavan Azari Yekom Consulting Engineers, Iran)
- (b) Peat Subsidence Due to Drainage in the Paddy Field Zone in Hokkaido (Japan Naoko Koshiyama, Civil Engineering Research Institute for Cold Region, Sapporo, Japan)
- (c) Methods to Improve the Function of Controlled Drainage and Sub-irrigation (Seija Virtanen, Finish drainage foundation, Finland)
- (d) Water Gate Valve in Controlled Drainage (Helena Aijö, Finish drainage constructor's association)
- (e) Experience with Controlled Drainage and Water Table Management in Eastern Canada (Chandra A. Madramootoo, McGill university, Canada)
- (f) Control Drainage for Fire Prevention in Peatland Areas in South Sumatera, Indonesia (Momon Sodik Imanudin, Faculty of Agriculture, Sriwijaya University, Indonesia)
- (g) Green infrastructures V/S Drainage Water Quality (Bernard Vincent, France)
- (h) Yield Benefits of Drainage Water Recycling in Iowa and Indiana (Chris Hay, Iowa soybean Association, USA)
- (i) The Need for a Safe Outlet for Drainage in Irrigated Agriculture: Comparison of the Nile and Indus Basins (Henk Ritzema, Wageninigen University, The Netherlands)

**WG-SDRG Minutes Item 9: Any other business**



**Annex** [Appendix XXIX, Item 2]

**ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WORK BODIES**

Goals/ Strategies	Activities	Outcomes / Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021
<b>Goal C: Facilitate exchange of information, knowledge and technology</b>							
<b>C4. Strategy:</b> Compile, collate and share knowledge and experiences	4.23 Collection and compilation of drainage irrigation data	Database	Updating database	Updating database	Updating database		
<b>Goal E: Encourage Research and Support Development of Tools to Extend Innovation into Field Practices</b>							
<b>E5. Strategy:</b> Compilation of Global Data Sets on Irrigation and Drainage	5.3 Datasets for Drainage Area						

(Source: Consultative Group (CG) Report: A Water Secure World Free of Poverty & Hunger: A Road Map to ICID Vision 2030)

