

**Minutes of the 7th Meeting of the
WORKING GROUP ON SUSTAINABLE DEVELOPMENT OF TIDAL AREAS (WG-SDTA)**

12 October 2017: 09:00-10:30 hours (Session-I)

12 October 2017: 11:00-12:30 hours (Session-II)

Mexico City, Mexico

Strategy Theme: Basin

Presented by the Chairman

Year of Establishment: 2011

Extended the completion of the Mandate: 2017

Mandate: Identify sustainable management options of lowland, watershed, as well as sustainable development and management of water and land resources in tidal areas; (ii) To raise awareness of the increasing risk on tidal areas due to global climate change, stimulate discussion on impacts and mitigation, and find a balance between the preservation and development of tidal areas; (iii) To enhance survey, design techniques and monitoring and management programs for the irrigation and drainage facilities, and apply to collect information about the tidal area environment around the world; (iv) To review the progression of natural wetland conservation and constructed wetland development in tidal areas; (v) To join the international dialogue and organize international conferences to promote land and water management in tidal areas as well as evaluate the feasibility of tidal energy exploitation under global climate change; and (vi) To collaborate with other related working groups actively, and to exchange relevant experiences amongst NCs and support for developing, and least developed countries.

Present Members: (1) Dr. Ruey-Chy Kao, Chairman (Chinese Taipei); (2) PH Bart Schultz represented Mr. Henk P. Ritzema, Vice-Chairman (The Netherlands); (3) Ir. Hidefumi Murashita represented Dr. Hajime Tanji (Japan), Secretary; (4) Ir. Chi-An Huang represented Dr. Hsiao-Weng (Chinese Taipei) young professional; (5) Dr. Jeongryeol Jang (Korea); (6) PH Gao Zhanyi represented Prof. Zhang Zhanyu (China); and (7) Dr. Vijay K. Labhsetwar represented Er. Avinash C. Tyagi, Secretary General.

Observers: (i) VP Mohamed Wahba (Egypt); (ii) Ir. Wang Haili (China); (iii) Eng. Chih-Tsung, Chin (Chinese Taipei); (iv) Ir. Jin. Yong Choi (Korea); (v) Ir. Chang-Chi Cheng (Chinese Taipei); (vi) Mr. Yuta Takeno (Japan); (vii) Ir. Chamsung Oh (Korea); (viii) Ir. Jungseok, Jang (Korea); (ix) Ir. Chung Feng Ding (Taiwan); (x) Ir. Kuang Ming Chuang (Taiwan); (xi) Ir. Rayshyaa Wu (Taiwan); and (xii) Mr. G. Paavan Kumar Reddy (India) Young professional.

Website: <http://wg-sdta.icidonline.org>

WG-SDTA Minutes Item 1: Action Taken Report by Chair

1. The Chairman Dr. Ruey-Chy Kao presented the report of actions taken during the period since last meeting of the WG at Chiang Mai (2016), Thailand. The WG-SDTA has been preparing for various activities mentioned in the **Annex 1**.

2. To meet the expectation of the new mandate, 2017-2022 activities, the WG-SDTA is already promoting: (1) Sophisticated water-saving irrigating development with IOT and water-saving irrigation model techniques (activity 1.1 in Annex 1) and (2) Promoting exchange of water-saving experiences (activity 1.2 in Annex 1).

3. It was observed that the provisional members from Sri Lanka (Eng. L.S. Sooriyabandara) and Iraq (Eng. Ibrahim Abbas as Young Professional and Eng. Ghanim Hameed Hassan Alhashimi) have not been contributing to the WG and hence, the WG recommended the discontinuation of their membership.

4. Mr. Paavan Kumar Reddy, a Young Professional from India, expressed his desire to join the WG. The Chair provisionally admitted him subject to nomination from Indian National Committee of ICID (INCSW). Membership status is given in **Annex 7 (page 55)**.

WG-SDTA Minutes Item 2: Road Map to ICID Vision 2030 - Activities on Sustainable Development of Tidal Areas

5. The Group further discussed and finalized the Draft Action Plan 2030 and will be submitting its input to PCTA for inclusion in the Road Map to ICID Vision 2030. The highlights were: Goal 3: Facilitate exchange of information, knowledge and technology (workshop proceedings & Special Issue of Irrigation and Drainage); and Goal 6: Facilitate capacity development (short course/training & e-discussion on Sustainable Development of Tidal Areas

etc.) were very relevant to the activities of WG-SDTA as given at **Annex 1**. Steps to execute the above actions will be announced in early 2018.

6. However, in 2017, the WG has already undertaken: Short Course/Training Workshop on Sustainable Development of Tidal Area (activity 3.7 in Annex 1) and Special Issue of ICID Journal on SDTA (activity 4.26 in Annex 1).

WG-SDTA Minutes Item 3: Publications of the Working Group: A Special Issue of ICID Journal on SDTA in 2017

7. The WG decided to publish a Special Issue of ICID Journal titled “*Sustainable Development of Tidal Areas: Climate Change and Environmental Impacts*” by end of 2017 or early 2018. The Special Issue will consist of 12 papers of which 8 papers have been finalised and 4 others are in the final stage of review process.

WG-SDTA Minutes Item 4: Dissemination of activities of WG

8. The organization of Web-based seminars/e-discussions is innovative and new to the WG. Further, the members of the WG discussed the possible topics and contents.

WG-SDTA Minutes Item 4.1: Website of the Group

9. The Chair invited all the members to send papers/ presentations/ reports to him by e-mail so that it can be uploaded on the website for dissemination. The Chairman specially urged the members from Korea, Japan, China and Chinese Taipei to take lead.

WG-SDTA Minutes Item 4.2: Web-based seminars/ e- discussions

10. The Chairman invited all the members to initiate and conduct the web-based seminars to share experiences, knowledge and technological know-how by raising some questions for discussion in the Webinar. The Chairman once again requested the members from Korea, Japan, China and Chinese Taipei to lead from front.

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

11. The WG observed that the task assigned to Prof Hajime Tanji (Japan) remains unfulfilled due to his prolong illness. The Chair invited other members of the Group to succeed of Prof. Tanji and complete the task of updating WG related terms in the MTD.

WG-SDTA Minutes Item 6: Scoping Document (mandate) for a new WG

12. The Chair presented the ‘Scoping Document’ (mandate) for a new WG in 2016 and further refined it (**Annex 2**) during the meeting and members agreed to take up actions as per the Draft Action Plan 2030. The WG recommended the final mandate of the WG to PCTA/IEC for consideration.

WG-SDTA Minutes Item 7: Any other business

Cooperation between Institutions from Taiwan and Korea

13. The MoU was signed (2016) between the two organisations i.e. the Rural Research Institute (RPI) of Korea Rural Community Corporation (KRC), Tainan Hydraulic Laboratory (THL), National Cheng Kung University (NCKU), for future cooperation on issues of mutual interest in the area of SDTA. The area of cooperation for now is the tidal area development and conservation, to avoid flooding disasters.

OBITUARY

14. INACID recently informed that the Permanent Observer Prof. Robiyanto Hendro Susanto (Indonesia) has passed away. Members expressed their deep sympathy to family of Prof Susanto.



Annex 1 [Appendix XVI, Item 2]

ROAD MAP TO ICID VISION 2030 – ACTIVITIES OF WG-SDTA

	Activity	Outcomes/ Outputs	Milestone for Year 2017	Milestone for Year 2018	Milestone for Year 2019	Milestone for Year 2020	Milestone for Year 2021	Milestone for Year 2022
Goal B: Be a catalyst for change in policies and practices								
Strategy B1 : Supporting Development of Appropriate Policies	1.1 Promoting Sophisticated water-saving irrigation development with IOT and water-saving irrigation model techniques exchanges	Technical report, workshop proceedings and water industry web site	Preparing: Promoting demonstrative plan	Site tests demonstration: Hardware construction and software tests	Site tests demonstration: Hardware, software and system control integrating process	Site tests plan: Workshop observation	Examination Plan results & improvement	Examination Plan results & improvement
	1.2 Promoting up-to-date water-saving experience exchange	As above	As above	As above	As above	As above	As above	As above
	1.10 Sustainable drainage management experience exchange	Internet of Things Water industry workshop						
Goal C: Facilitate exchange of information, knowledge and technology								
Strategy C4 : Compile, Collate and Share Knowledge and Experiences	4.26 Special Issue of ICID Journal on SDTA	Special issue of IRD	Announcement of special issue, inviting authors etc.	Setup Review Committee for selected papers based on the workshops	Submission of final drafts	Publishing Special Issue of IRD		
Strategy C5 : Dissemination of Data, Information, Tools, Knowledge and Know How	5.8 Develop and maintain the ICID web site as a knowledge hub	On-line						
Goal E: Encourage research and support development of tools to extend innovation into field practices								
Strategy E3 : Develop and Promoting Tools for AWM	3.2 The application for output of development tools from academic institutions							
Goal F: Facilitate capacity development								
Strategy F3: Technical Training of Young Professionals from Member Countries	3.7 worksh/Training Workshop on Sustainable Development of Tidal Areas	Technical transfer and internet information short course /training workshop	Scope, theme and announcement	Short Course/Training Workshop on SDTA		Short Course / Training Workshop on SDTA		Short Course / Training Workshop on SDTA
	3.8 To launch e-Discussion on Sustainable Development	E-discussion	E-discussion on Sustainable Development of Tidal Areas		e-Discussion on SDTA		e-Discussion on SDTA	

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

Annex 2 [Appendix XVI, Item 6]**SCOPING DOCUMENT AND MANDATE (DRAFT)**

1. Based on the previous mandate and action plan of 2011-2016, the WG achieved the following:
 - (a) There was one handbook published.
 - (b) There were 6 workshops held including 2 International ones and 4 internal ones. Twelve papers from these workshops were selected to be listed in the Special Issue of ICID Journal.
 - (c) The CTCID, JNC-ICID and KCID have sponsored 3 WG publications. Further, the CNCID has sponsored 1 publication.
 - (d) The International Short Course on “Resilience and Adaptations to Climate Change for Sustainable Management of Tidal Areas” started from late 2015. The WG invited 5 lecturers and 2 keynote speakers from the Netherlands, USA, Japan, Korea and Chinese Taipei to share their experiences with the 20 participants from 14 countries covering Asia, Africa and North America at National Cheng Kung University (NCKU), Tainan, Chinese Taipei, from August 1-6, 2016. The participants have given positive feedback for the short course.
2. During 2011-2016, WG-SDTA held a series of activities and roughly learned the situations about the tidal areas of the coastal countries. They are facing the paradox of the competition and cooperation as well as how to balance between development and conservation. In addition to the updated professional techniques and the public monitoring of data the stakeholders’ involvement should strengthen the communications of knowledge and concepts. Furthermore, they are able to include both development and conservation by experience and technique consultant from other countries.
3. The tidal level variations directly influence the drainage systems of the coastal countries. In order to reduce the loss of property and lives, the constructing intelligent flood control system would be a solution by integrating the rainfall information in upstream catchments, the waterway monitoring systems of middle/downstream and the potential flood simulation and tidal level prediction model of downstream.
4. To better understand and deal with problems such as land-subsidence caused by over pumping of groundwater and sea water intrusion as well as flood caused by the depreciation of drainage systems along the coast, it is a good way to construct the optimal management system by exploiting the modern technologies like Cyber-Physic System and IOT.
5. In addition to the interdisciplinary collaborations of hydrology, hydraulics, irrigation, drainage and sea tides, waves, current and storm surge techniques, the WG will promote the advanced management of irrigation, drainage, flood control and groundwater by combing the latest technologies of ICT, IOT, CPS and data techniques.
6. To achieve the goal of promoting sustainable development of tidal areas, the WG has updated the mandate for 2016-2022 as below:
7.
 - (a) To understand the existing and potential challenges and opportunities of tidal areas for now and the future by figuring out underlying issues;
 - (b) To raise awareness of the increasing risk on tidal areas due to global climate change and stimulate interdisciplinary discussions on impacts, mitigation, and adaptation
 - (c) To enhance survey, design techniques, and monitoring and management programs for the irrigation and drainage facilities, and apply to collect information about the tidal area environment around the world;
 - (d) To identify sustainable development and management options in tidal areas, and find a balance between the conservation and development of tidal areas with acknowledgement of ecosystem services;
 - (e) To join the international dialogues and organize international conferences and short courses to promote interdisciplinary and participatory land and water planning and management in tidal areas;
 - (f) To collaborate with other related working groups actively, and to exchange relevant experiences amongst NCs and support for developing, and least developed countries.

