

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

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.

