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THAICID Academic Network and their Supporting Roles on Irrigation and Drainage toward Sustainable Water Management

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ABSTRACT

Thailand is 1 of 11 founder-member countries who in 1950 established the International Commission on Irrigation and Drainage (ICID) and THAICID (Thai National Committee on Irrigation and Drainage).

ICID is a leading scientific, technical, international not-for-profit, non-governmental organization. THAICID is the Thai subsidiary and supports the establishment of professional network consisting of experts from across the world in the field of irrigation, drainage, and flood management. The main mission is to promote 'Sustainable agriculture water management' to achieve 'Water secure world free of poverty and hunger through sustainable rural development' (*excerpted from https://www.icid.org/about_icid.html*). Three representatives from THAICID who were honored to be Vice President of ICID are M.L. Xujati Kambhu or "Father of Irrigationists", from 1964 to 1967, Captain Sunthorn Ruanglek, from 1983 to 1986 and Mr. Chaiwat Prechawit, from 2010 to 2013.

Since 2008, the THAICID National Symposium has been organized every year to be an ideal platform for the promotion and exchange of irrigation and drainage innovation in Thailand. The e-Symposium was recently organized in response to the Covid-19 pandemic.

In 2020, THAICID celebrated the 70th anniversary of ICID as well as THAICID, the 13th THAICID NATIONAL e-SYMPOSIUM was organized under the main theme "The ICID & THAICID 70th Anniversary Celebration our ongoing support to Secure The Future We Want under Sustainable Development GOAL 6 Focusing on Innovated Irrigation Water and Drainage Management".

To date, 14 Proceedings with 245 articles were published in hardcopies and digitally “green-proceedings” that cover the entire spectrum of agricultural water management practices ranging from rainfed agriculture to supplemental irrigation, land drainage, deficit irrigation to full irrigation, etc.

In addition, drainage of agricultural lands forms the core theme of commission’s activities. Floods and drought; the two extremes of increasingly variable climate as a result of potential climate change, also form the focus of ICID’s activities. The following table lists the number of articles published each year.

The Proceedings of 11 THAICID Symposiums & 3 THAICID e-Symposiums with 245 paper published						
THAICID 1 st 2008	THAICID 2 nd 2009	THAICID 3 rd 2010	THAICID 4 th 2011	THAICID 5 th 2012	THAICID 6 th 2013	THAICID 7 th 2014
13	9	23	12	16	8	13
THAICID 8 th 2015	THAICID 9 th 2016	THAICID 10 th 2017	THAICID 11 th 2018	THAICID 12 th 2019	THAICID 13 th 2020	THAICID 14 th 2021
17	23	11	24	26	22	28



Fig. 1. 12th THAICID National Symposium 2019



Fig. 2. 14th THAICID National e-Symposium 2021 (Online Platform)



Fig. 3. 70th Anniversary ICID&THAICID 2020



Fig. 4. Manuals on Planning of Non-Structural and Structural Approaches to Flood Management (English-Thai Translated)

Additionally, the English-Thai translated manuals on Planning of Non-Structural and Structural Approaches to Flood Management were published during the occasion of 70th Anniversary ICID&THAICID in 2020. The Manual on Non-Structural Approaches to Flood Management is the manual that explains about

activities which are planned to eliminate or mitigate adverse effects of flooding without involving the construction of flow-modifying structures. While structural approaches to flood management may or may not be used conjunctively with non-structural approaches, but are not prerequisite to the use of non-structural measures because of the potential for synergistic enhancement of their effectiveness. Under some river basin conditions, the introduction of non-structural methods to limit flood damage may alone be more cost-effective than alternatives involving structural methods. The non-structural approaches to flood management covered by the manual are divided into 2 groups 1) Planning Measures: which comprises flood forecasting, sea flooding, control of floodplain development, flood insurance, flood proving, catchment management and decision making (The Song Pi Nong district in Suphanburi province was used as a good example of flood proving)

The Manual on Planning of Structural approaches to Flood Management involve the use of structures such as dams, levees, dikes, diversions, floodways, etc., which provide some control of flood water by storage, containment or flow modification or diversion. The purpose of this manual is to give planners and decision makers in flood management and flood control guide lines on the planning and design of flood control projects following certain basic principles. The chapters in the manual includes, the relationship between flood parameters and inundations, the relationship between flood parameters and damages, desires level of protection, and the use of hydrodynamic mathematical model for flood management.

SUMMARY AND ACKNOWLEDGMENTS

The past proceedings and mentioned manuals were archived and posted on THAICID website in Thai language at <https://www.rid.go.th/thaicid/>. THAICID would like to remind readers about the upcoming 15th THAICID 2022 e-symposium on July whose main theme is 'Improving water Governance for Flood and Drought in Response to the Post-Pandemic Phase under Climate Change'. The information will also be posted on the mentioned THAICID website.

Thailand remains proud to stand with likeminded nations heading into our 8th decade of water sustainability and management. In the year of COP26, we can respectfully remember that our nations have long worked towards sustainability in water management, and we humbly look forward to many more years of fruitful collaboration for the benefit of all life on Earth.

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