Theme: Ecosystem Services and Multi-Functionality of Irrigation and Drainage Systems: Theoretical and Empirical Perspectives, Case Studies and Practical Prospects

Introduction:

Irrigation and drainage systems worldwide interact with complex, dynamic and diverse environments which include physical, chemical, ecological, climatic, social, human and economic dimensions. Environmental sustainability is a moving target which evolves as the complexities of the ‘Nature’ unfold, as new societal challenges emerge. The three pillars of ‘Green Revolution’, - high yielding varieties, chemical inputs like fertilizer and pesticides, and irrigation – have had a definite positive outcome in terms of increased food production, which prevented hunger in many parts of the world. But it also had negative impacts on the environment. The way water in general and water for agriculture in particular is managed, may harm the environment in a variety of ways: groundwater depletion; land degradation and water contamination; depletion of resources; and loss of ecosystem services, biodiversity, and habitats. However, most irrigation and drainage systems also produce a number of goods, services and positive amenities, which benefit local communities and societies at large.

ICID has long been concerned with the environmental impacts of irrigation and has been addressing the issues. In order to bank upon, the ICID Working Group on Environment (WG-ENV) was established in 2008 with the objective 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. Those aspects encompass environmental, social, and economic impacts of agricultural water systems, both positive and negative ones.

Recent research and literature recognize and document this diversity of functions, services and impacts in agricultural water systems, which may be identified as agro-hydro-ecosystems. The concepts of multifunctionality and ecosystem services are now globally used to characterize such situation.

Scope:

On the occasion of the 66th IEC and 26th European Regional Conference, 11-16 October 2015, Montpellier, France, ICID Working Group on Environment wish to bring together experts from all over the world to discuss the concepts of ecosystem services and multifunctionality in irrigation and drainage systems, to discuss their theoretical foundations, to illustrate cases and applications from empirical works, and to contemplate practical prospects. The half-day workshop will be welcoming contributions from different perspectives (scholars and researchers, practitioners, policy makers, development operators and I&D system managers, change agents and civil society members), with a multidisciplinary angle.
Prof. Damien Jourdain (Asian Institute of Technology and CIRAD) will be presenting a keynote / introductory note on the topic, which will help introduce the concepts and definitions, and illustrate with some examples.

The abstracts/papers are invited on the following topics; well-documented case studies are welcome:

1. Irrigation return flow and river’s environmental flow
2. One water, many uses
3. Biodiversity and water habitats
4. Flood reduction
5. Hydro-morphological impacts of irrigation systems
6. Social and economic impacts of irrigation systems
7. Multiple and integrated production from irrigation systems
8. Contribution of irrigation and drainage systems to landscaping and waterscaping; geomorphology
9. Cultural, social and shared values of agricultural water systems
10. Economic assessment of ecosystem services; methods, case studies, use and prospects
11. Compensations and payment for ecosystem services: cases in agricultural water systems and catchment management

Selected contributors will be given a 10mn time slot for oral presentation, followed by 5mn discussion. Full papers will be published in the conference proceedings, and best papers will be forwarded to ICID’s Irrigation and Drainage journal for possible publication in a special issue.

Schedule for submission of abstracts/full papers

- Submission of abstracts (max. 300 words): 15 April 2015
- Notification of acceptance: 15 May 2015
- Submission of full paper (8000 words): 31 July 2015

This Workshop is being organized by ICID’s Working Group on Environment (WG-ENV) during its 66th International Executive Council (IEC) and 26th European Regional Conference from 11-16 October 2015 at Montpellier, France.

Contact co-ordinates:

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