

- [About](#)
- [Meetings](#)
- [Sections](#)
- [Index Terms](#)

Quick Search

Submit Query

Guidance for Large-scale Implementation of Alternate Wetting and Drying: A Biophysical Suitability Assessment

Details

Meeting	2014 Fall Meeting
Section	Global Environmental Change
Session	The Influence of Changes in Farming Practices, Vegetation, and Land Use on Climate Adaptation, Mitigation, and Ecosystem and Socioeconomic Services II
Identifier	GC14B-10
Authors	Sander, B O* , International Rice Research Institute (IRRI), Los Banos, Philippines Wassmann, R , International Rice Research Institute (IRRI), Los Banos, Philippines Nelson, A , International Rice Research Institute (IRRI), Los Banos, Philippines Palao, L , International Rice Research Institute (IRRI), Los Banos, Philippines Wollenberg, E , Climate Change, Agriculture and Food Security program (CCAFS), Copenhagen, Denmark Ishitani, M , International Center for Tropical Agriculture (CIAT), Cali, Colombia
Index Terms	Agricultural systems [0402] Carbon cycling [0428] Nitrogen cycling [0469] Impacts of global change [1630]

Abstract

The alternate wetting and drying (AWD) technology for rice production does not only save 15-30% of irrigation water, it also reduces methane emissions by up to 70%. AWD is defined by periodic drying and re-flooding of a rice field. Due to its high mitigation potential and its simplicity to execute this practice AWD has gained a lot of attention in recent years. The Climate and Clean Air Coalition (CCAC) has put AWD high on its agenda and funds a project to guide implementation of this technology in Vietnam, Bangladesh and Colombia. One crucial activity is a biophysical suitability assessment for AWD in the three countries. For this, we analyzed rainfall and soil data as well as potential evapotranspiration to assess if the water balance allows practicing AWD or if precipitation is too high for rice fields to fall dry. In my talk I will outline key factors for a successful large-scale implementation of AWD with a focus on the biophysical suitability assessment. The seasonal suitability maps that we generated highlight priority areas for AWD implementation and guide policy makers to informed decisions about meaningful investments in infrastructure and extension work.

Cite as: Author(s) (2014), Title, Abstract GC14B-10 presented at 2014 Fall Meeting, AGU, San Francisco, Calif., 15-19 Dec.