

## Climate Change and Advancing Rice Production in Asia

Chair: Jun-Ichi Sakagami (Kagoshima University, Japan)

Wed. Sep 8, 2021 1:55 PM - 4:30 PM Plenary Room

3:30 PM - 3:50 PM

### [S-05] Farming Systems under Environmental Changes in the Mekong Delta of Vietnam

( Vietnam)

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The Mekong Delta is the most important agricultural area of Vietnam and has often been described as the "Rice Bowl of Vietnam". This Delta provides to more than half of food production and over 95% of rice for export from Vietnam. From long time ago, rice monoculture is a predominant system of agricultural production of the Delta. The reason for this is the environmental conditions such as land and water resources are favorable for rice growing. In addition, other than rice, there are a great potential for fruit trees, fish, shrimp rearing, and to develop diversification of rice-based farming or integrated farming systems in the Delta. Although specialization is the global trend in agriculture, integrated farming systems have emerged in the Mekong Delta of Vietnam during the last two decades. An important motive was the desire to improve the livelihoods, the diet of the nuclear families and to adapt to environmental change. Integrated farming systems are often considered equal to extensive or low-input farming systems and to sustainable agriculture, but usually receives low incomes. The transformation of the farming systems from an extensive, low-input system into an intensive, industry farming system associated with changes in government policy, production technologies and environmental changes. Recently agriculture in Southeast Asia, especially in the Mekong Delta of Vietnam is vulnerable to climate change. Therefore, adaptation measures are required to sustain agricultural productivity, to reduce vulnerability, and to enhance the resilience of the agricultural system to climate change. There are many adaptation practices in the production systems to reduce the effects of climate change. Some farming systems and government policy toward agriculture contributes to adaptation to environmental changes.

This paper focusses on two issues. The first issue presents a systematic review of the historical development of the predominant production systems under environmental changes in the Mekong Delta with major characteristics, performance, perspectives and with reference to other Southeast Asian countries. In the second one, as climate change has already begun, adaptation or the modification of farming practices and production to be discussed – and also the major options in the agricultural sector for adaptation to climate change.