Promotion of Conservation Agriculture Business

Cambodia

History

Since 2004, innovative cropping systems and practices based on the principles of Conservation Agriculture (CA) have been designed and tested in different agroecosystems of Cambodia. Results from these scientific studies, showed that Conservation Agricultural Production Systems (CAPS) improved soil fertility, reduced labor, conserved water, increased yield and smallholder farmer's income. However, for a sustainable change to occur in farming systems, these cropping systems and practices have to be adopted by the private sector as they play a crucial role in providing technologies, operational know-how and information needed for different value-chains.

The success of the promotion of CA machinery is primarily the result of the gradual development of CA thinking, which started back in 2004, when the Ministry of Agriculture, Forestry and Fisheries (MAFF) partnered with French Agricultural Research Centre for International Development (CIRAD) to form the Crop Diversification and Small-scale Rubber Plantation project funded by the French Agency for Development (AFD). In 2008, the PADAC (Projet d'Amélioration de l'Agriculture Cambodgienne) was launched with as main targeted areas Kampong Cham and Battambang provinces (AFD). Activities were also implemented in the pioneer front of Battambang from 2010 to 2014 under the Sustainable Agriculture and Natural Resources Management CRSP (USAID), and through a partnership between the General Directorate of Agriculture (GDA), Department of Agricultural Land Resources Management (DALRM), CIRAD and North Carolina A&T State University.

From 2014 onwards, PADAC was converted to the Conservation Agriculture Service Center (CASC) and integrated as a unit of DALRM/GDA. GDA provided DALRM/CASC with 14.5 ha of land in Bos Khnor (Kampong Cham, Chamcarleu) for research, training and seed preservation purposes. In Battambang, since 2014, CASC has been providing no-till services in rice, maize, and cassava. The farmers were paying full costs of the services; however, the project bought the equipment and was paying for other costs associated with the provision of the services. Thus, there was a need to engage with the private sector and specifically the local service providers to transition from intensive plough-based cultivation methods to CA-based management both in the uplands and lowlands of Battambang.

In 2016, the Feed the Future Innovation Lab for Collaborative Research on Sustainable Intensification (Appropriate-Scale Mechanization Consortium, Women in Agriculture Network and the Center of Excellence on Sustainable Agricultural Intensification and Nutrition - CE SAIN, USAID) was launched extending Sustainable Intensification and CA activities in different agroecosystems of Cambodia. CE SAIN also established a network of Technology Parks with Bos Khnor among them , to further promote these activities. ACTAE/AFD (Towards Agroecological Transition in South-East Asia) and Ecological Intensification and Soil Ecosystem Functioning (EISOFUN, UNCCD/CCCA) are other projects and donor agencies contributing to CA promotion.

In April 2018, The Centre for Sustainable Agricultural Mechanization (CSAM), a regional institution of the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP), was instrumental in hosting the Regional Workshop on the Role of Mechanization in Strengthening Smallholders' Resilience through Conservation Agriculture in Asia and the Pacific. There were a few other projects that have supported the promotion of CA in Cambodia, namely the Conservation Agriculture Services with a Fee (CASF) and Mekong Inclusive Growth and Innovation Program (MIGIP). Swisscontact runs MIGIP and focusses on engaging the private sector in technologies. CE SAIN runs CASF, in partnership with DAEng, DALRM/CASC/CIRAD and SC and funds the activities of the different partners. These two important projects have helped to realize the commercialization of CA machinery based on the foundations laid earlier.

Involved key actors, projects, institutions and donors

The success of the promotion of CA machinery and the development of CA thinking can be attributed to the core actors, projects, institutions and donors that have come together and worked together since 2004 until today.

Roles of key actors, projects and institutions

Key Actors	Roles	Supporting Projects/ Institutions	Donors
Private Sector	Investment, promotion, sales	CANSEA/CIRAD MIGIP/Swisscontact CASF & CE SAIN/RUA – SIIL/KSU	AFD SDC USAID
Department of Agriculture Engineering (DAEng)	Machinery design and manufacture, building connections with manufac- turers	CASF/CE SAIN/RUA – SIIL/KSU ASMC/UIUC - SIIL/KSU CANSEA/CIRAD MIGIP/Swisscontact	USAID AFD SDC
Department of Agricultural Land Resources Management (DALRM), Conservation Agriculture Service Center (CASC)	Capacity building and CA specialist (cropping system, appropriate-scale mechanization, soil health assessment, crop diversification)	CANSEA/CIRAD MGIP/Swisscontact CASF/CE SAIN/RUA – SIIL/KSU ASMC/UIUC - SIIL/KSU WAgN/PSU - SIIL/KSU	AFD, Agropolis Foundation UNCCD/CCCA USAID
Cambodia Agriculture Research & Development Institute (CARDI)	Research and machinery testing		
Cambodia Conservation Agriculture Consortium (CCAC)	Coordination and engagement platform	MIGIP/Swisscontact CANSEA/CIRAD CASF/CE SAIN/RUA – SIIL/KSU	SDC AFD USAID

Role of Supporting Projects and Institutions

CIRAD	Technical knowledge on CA, soil health, multi-criteria assessment of cropping systems, participatory approach, agrarian transition analysis, and the knowledge on various economic modeling
CANSEA	Networking, knowledge sharing between ASEAN countries in the field of Agroecology and CA
CASF/ CE SAIN/RUA- SILL/KSU	Support CIRAD, CANSEA, DAEng, DALRM and Swisscontact in their relationship with various public actors and provide financial support
Swisscontact (MIGIP)	Engagement of the tractor owners and other private and public sector actors working through an incentive based model and partnership deals. Introduction of the 4S market segmentation model.





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