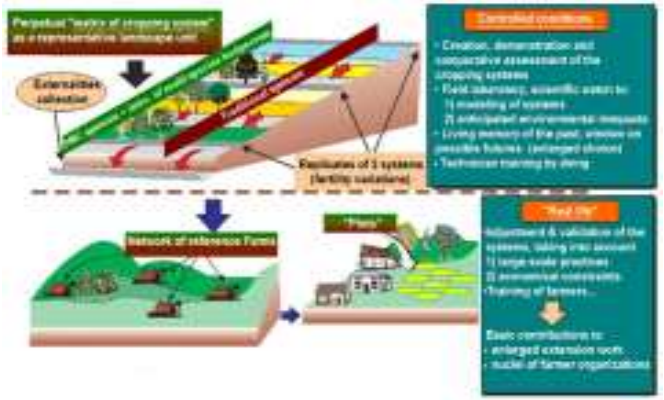

Fig. 2 Two main stages of CREATE model implementation

Expected Outcomes

- Decreased labor burdens for women, men, and children;
- Improved soil quality rapidly;
- Reduced other production inputs (e.g. machinery wear and tear and fuel costs for tillage);
- Increased agricultural profitability;
- Enhanced resilience to climate change (since CAPS can reduce runoff); and
- Increased residual moisture, minimizing drought during extreme weather events.

Project Period

January 1, 2010 to September 30, 2014

SANREM Research Team

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Conservation Agriculture for Food Security in the Philippines

USAID
FROM THE AMERICAN PEOPLE

Sustainable Agriculture and Natural Resources Management - Collaborative Research Support Program

SANREM CRSP

Degraded landscapes are expanding annually in Southeast Asia. In the Philippines, it is estimated that approximately 36 million people live on less than $2 a day. Rural poverty in upland communities increases pressure on natural resources like forest, soil and water. These are the last "capital" for the poor and they are rapidly diminishing due to non-sustainable management. Such practices reduce agricultural productivity, which in turn heightens food insecurity and exacerbates poverty.

Principles of Conservation Agriculture

- Minimal soil disturbance
- continuous mulching
- Diverse species rotations

There are some promising sustainable agriculture practices in Southeast Asia. SANREM in 1994 started developing solutions for arresting soil and water degradation concentrating research in Lantapan, a small farming community in the Philippines. In 1996, the World Agroforestry Centre (ICRAF) and the Agencia Española Cooperacion Internacionale (AECI) supported the evolution of the Landcare movement in Claveria, Misamis Oriental. This expanded to other municipalities and provinces in Mindanao and the Visayas, involving more than 10,000 Landcare farmers who are practicing conservation farming, like establishment of natural vegetative filter strips (NVS) along the contour and agroforestry technologies to control soil erosion. The Landcare Foundation of the Philippines, Inc. (LFPI) facilitates the formation and continuation of Landcare groups in many areas in southern Philippines.

Conservation Agriculture Production Systems (CAPS) are tailor-fitted approaches for successful adoption and implementation of CA to specific locations.

This research will show that CA principles and practice of minimal soil disturbance, continuous mulching and diverse species rotations, constitute the best "tool box" to create sustainable permanent cropping systems for annual crop production under wet tropical conditions. These reverse soil degradation, increase crop yield and profits and reduce the labor burden on women.

Project Goal

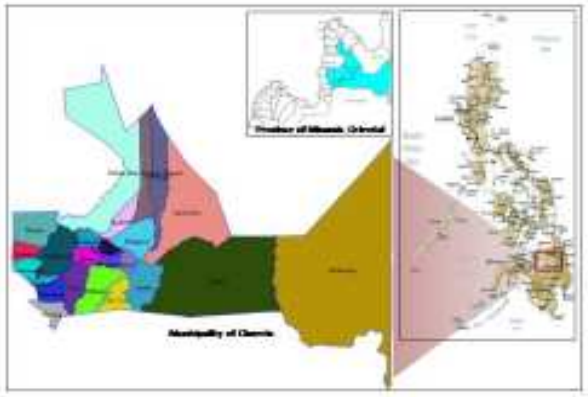
To promote **Conservation Agriculture** as a technologically-feasible, economically-viable, environmentally-sustainable and gender-responsive production system that will contribute to food security of small farm communities in the Philippines.

GETS Objectives

1. **Gender:** Identify gendered limitations and advantages that can promote adoption of CAPS, and determine if CAPS will increase labor burden on women;
2. **Economics:** Identify field-and-farm-level CAPS that will minimize smallholder costs and risks while maximizing benefits and adoption;
3. **Technology network:** Quantify the effectiveness of SANREM-supported farmer groups in training knowledge leaders, in being knowledge transmission points, and in facilitating network connections leading to widespread adoption of CAPS; and
4. **Soil:** Assess soil quality and measure crop yield and biomass from CAPS, and compare them with soil quality and crop yield and biomass from conventional plow-based systems.

Research Site

Claveria. Misamis Oriental



Methodology

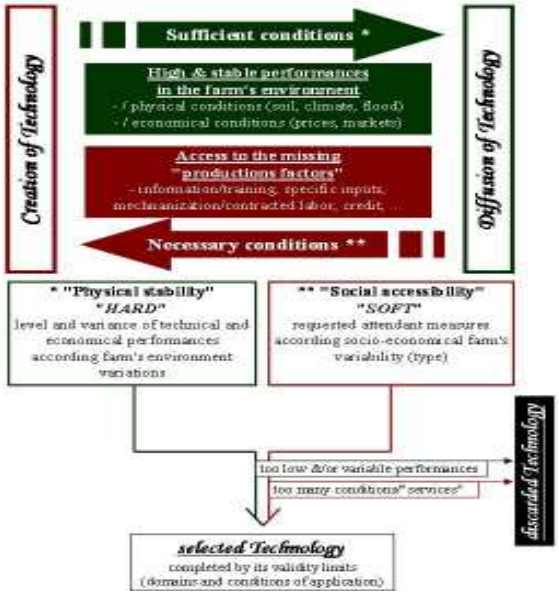


Fig. 1 -CREATE Model: 'Creation-Research-Extension-Action-Teaching-Education' or the Creation Diffusion Training Method