

Constraints and challenges in adopting new agricultural mechanization technologies



**ASIAN FARMERS ASSOCIATION FOR
SUSTAINABLE RURAL DEVELOPMENT (AFA)**

Introduction

Shazada Begum from Bangladesh

- ✓ Smallholder women farmer, I grow crops and animal products using power tiller, water pump and thresher.
- ✓ President of Kendrio Krishok Moitree (KKM), Bangladesh, formed in 2009. A national level farmers' organization with 15,000 smallholder farmers.
- ✓ Chairperson of Asian Farmers Association(AFA), a regional alliance of national farmers' organizations in Asia, established in 2002.
- ✓ Currently AFA consists of 20 national FOs from 16 countries, representing around 13 million small-scale men and women farmers.

Experience In Agro Mechanization

Commonly used machineries for:

- Land cultivation
- Irrigation
- Threshing
- Processing &
- Transporting



Less used machineries for:

- Tractor
- Reaper
- Combine harvester
- Drum seeder



Rice Processing Center : APCO PHILIPPINES



AGUS PINOY – Caraga Region

Machine and ICTs : SEWA, INDIA

Sl no	Initiatives	Process
1	Tools and Equipment Libraries	7 tools and equipment libraries benefit 15000 farmers
3	Voice Message Based Mobile Technology	3100 farmers are getting information about sustainable crop production technology
4	Solar Pump for Irrigation	Drip irrigation system mapped to the solar pump
5	Digital Initiatives (digital platform of women farmers)	mbachat - 18,285 + members from 1219 groups RUDI - reaches 2200 Villages mPaise - 4425 members from 295 groups PaySe - piloted with 950 members digital platform for women farmer members

Why Farmers Do Not Use Agri Machines

- Smallholder resource-poor farmers with fragmented, small pieces of land
 - Lack of financial strength to afford machines for crop production
 - Long traditional practices of depending on human labor
 - Lack of technical knowledge and skills on machine and also how to operate it
- 

Challenges : Agri Mechanization

- Inadequate steps from government and private companies on use of modern agro-technology and ICTs
 - Technology, machinery and ICT service are not farmer-friendly particularly for women farmer
 - Most machines are suitable for big farm and designed only for mono-cropping;
 - Poor communication infrastructure: a big challenge to reach the machines to marginalized farmers
- 

Opportunities: Agri Mechanization

We know, Machine has the potential of:

- Increasing production
- Ensuring timely plantation, intercultural operations and harvesting
- Improving irrigation and infrastructure improvement
- Offsetting human labor shortages and alleviate drudgery

Appropriate and affordable machinery will be attractive to the young farmers.

ICTs use in agriculture will increase our resilience to various shocks like early warning for flood, drought and other natural calamities

Recommendations

1. Introduce low cost modern machineries for smallholder farmers particularly women farmer-friendly machineries
 2. Provide incentives for FOs and cooperatives to acquire grants or soft loans to help farmers purchase machineries and equipment's, especially for processing and value addition.
 3. Provide incentives for FOs and cooperatives so that they can facilitate acquisition of tools and equipments needed for production – for example, loans to cooperatives so that they can provide loans to their members who would like to buy simple farm tools and equipments
 4. Involve the FOs and cooperatives in the design process of agricultural machineries and tools so that these can be suitable and appropriate for their local conditions.
 5. Government needs to increase provision of appropriate and suitable farm equipment's and machineries and ensure its equitable distribution.
- 

**Thank You All
for your patient hearing!!**

