

# Good & Bad Practices in Promotion of Agricultural Mechanization

September 6<sup>th</sup>, 2017 at JICA Tsukuba Center

Takanori SATOYAMA  
General Coordinator  
CARD Secretariat



**CARD**

COALITION for AFRICAN  
RICE DEVELOPMENT

# Outline

## <Good Practices>

**Case 1 – Ethiopia**

**Case 2 – Uganda**

**Case 3 – Kenya**

## <Bad Practices>

**Case 4– Tanzania**

**Case 5 – Cote d'Ivoire**



**CARD**

COALITION for AFRICAN  
RICE DEVELOPMENT

# Good Practices



**CARD**

COALITION for AFRICAN  
RICE DEVELOPMENT

# Good Practices

## Case 1 – Ethiopia (Linking Mechanization Chain Actors)

<EDGET project>

– **E**thiopians **D**riving **G**rowth, **E**ntrepreneurship & **T**rade

- Implemented by MEDA - Mennonite Economic Development Association with Canadian fund
- 2010-2015 (second phase is being implemented as of 2017)
- Implemented in Amhara Region

**Project Site**



**Addis Ababa**



CARD

COALITION for AFRICAN  
RICE DEVELOPMENT

# Good Practices

## Case 1 – Ethiopia (Linking Mechanization Chain actors)

### <EDGET project >

- Development of models of combination of milling accessories together with Agriculture Research Institutions (R&D)
- Partnering with an Addis Ababa-based machinery importer and retailers that can supply accessories
- Linking the machinery supplier with millers in project areas
- If there is interested millers for machinery purchase, the project facilitated financing (linking millers with financial service providers, and help negotiation, provision of loan guarantee (15%) and cost sharing/ grant (15%))



CARD

COALITION for AFRICAN  
RICE DEVELOPMENT

# Good Practices

## Case 1 – Ethiopia (Linking Mechanization Chain actors)

### <Impacts of EDGET project (As of 2013) >

- Upgrading of Rice Mills by 5 millers (covering 13 districts)
  - ➔ Increased milling capacity and improved rice quality
- Increased profit for Rice Millers
- Competitive rice product ➔ better price also benefits rice growers as well
- Sustainable and stable supply of spare parts and repair services
- Expansion of market for the machinery supplier
- Expansion of financing services for banks

### <Key for Success>

- 1. Project focused on linkage building and facilitation, instead of playing roles that are to be played by private sector**
- 2. Project worked with those who are already in business**

# Good Practices

## Case 2 – Uganda (Provision of Advisory Services)

### <JICA Support to interested Entrepreneurs in Mechanization Biz>

- Free consultation for interested entrepreneurs (Provision of advisory services on their business plan in terms of technical and business management aspects)
- Objective is for entrepreneurs to obtain loan from financial institutions such as banks - No financing from JICA

### <Critical Elements>

- 1. Importance of good business plan to ensure profit that helps sustain mechanization**
- 2. Existence of Human Resource with strong capacity (Advisors)**
- 3. Combination with financial arrangement such as loan guarantee maybe more effective**



CARD

COALITION for AFRICAN  
RICE DEVELOPMENT

# Good Practices

## Case 3 – Kenya (Successful Tractor Service Provider)

### <General information of Successful Tractor Service Provider >

- Mr. Kingali is a business person who provides Tractor-Hire Service as well as Tourism bus service.
- He lives in Kabete near Nairobi, owning 2 acres of farm land
- Purchased a 80HP tractor with disk plow and hallow through dealers' (retailers) loan – total amount was USD42,000: 30% down payment, with 15 annual interest for the rest.

**Mr. Guideon KINGALI**



**CARD**

COALITION for AFRICAN  
RICE DEVELOPMENT



# Good Practices

## Case 3 – Kenya (Successful Tractor Service Provider)

### <Operation Calendar>

**Nov-Jan:** Maize in Kabete

**Dec-Apr:** Wheat and Maize  
in Nyhululu

**Apr-May:** Maize in Lamu

**May-Jun:** Beans and Maize  
in Taveta

**Jun-Aug:** Beans and Maize  
in Oloitokitok

**Sep-Oct:** Maintenance and  
repair in Kabete



CARD

COALITION for AFRICAN  
RICE DEVELOPMENT

# Good Practices

## Case 3 – Kenya (Successful Tractor Service Provider)

### <Performance and Results>

- The tractor has been operated 280-300 days per year on average, cultivating approximately 1,500 ha per year.
- Tractor service generated income of more than USD50,000 per year
- Mr. Kingali paid back loan to tractor retailer in 2 years
- Tractor was used for another 4 years, and the renewal was done without loan
- With the profit, Mr. Kingali purchased a truck and started animal feed transport business as well

### <Key for success>

- 1. High capacity of the owner in biz planning and operation**
- 2. Using experienced operators (more than 5 years)**
- 3. Incentive mechanism for operator (reward good performance)**
- 4. Good Access to spare parts and maintenance service (Nairobi)**



CARD

Center for Agricultural Research and Development  
RICE DEVELOPMENT

# Bad Practices



**CARD**

COALITION for AFRICAN  
RICE DEVELOPMENT

# Bad Practices

## Case 4 – Tanzania (Bad Government Intervention)

### <Government program for mechanization >

- Government of Tanzania decided to import and distribute 1,500 tractors to farmer groups in 2011
- Procurement was done through open tender, and a Chinese company won the bidding (this company had never operated in Tanzania before).
- 1,500 tractors were distributed to farmers groups at subsidized price
- 50% of tractors got broken down in 6 months, and 90 % in 1 year
- No spare parts or repair service available , because this Chinese supplier does not have supply chain in Tanzania



CARD

COALITION for AFRICAN  
RICE DEVELOPMENT

# Bad Practices

## Case 4 – Tanzania (Bad Government Intervention)

### <Negative impact>

- Farmers investment on machinery was wasted
  - ➔ Farmers became “anti-mechanization” from bad experience
  - ➔ This affected farm machinery market for long time (negative feeling on mechanization persisted for a few years)
- Private suppliers lost their markets (some of them got out of business)
- The country lost some permanent suppliers of machineries, spare parts and repair services

### <Recipe for Failure >

- **Government did what private sector was doing and competed with them (Disturbance of existing business)**
- **Working with new comers (Chinese supplier)**
- **Introduction of low quality machinery**

# Bad Practices

## Case 5 – Cote d'Ivoire (Bad Intervention by Project)

### <Introduction of High Capacity Rice mills >

- APRAO project implemented by FAO and Ivorian government 2010-13 (4 years)
- One of the project areas was Gagnoa where small mills are under operation with low milling capacity (high unit cost and low quality of milled rice)
- Supply of 3 rice mill plants with provision of loan guarantee to millers who plan investment for upgrading/introduction of high capacity rice mills (1 for private rice miller– upgrading, 2 for newly-established rice mill cooperatives)



CARD

COALITION for AFRICAN  
RICE DEVELOPMENT

# Bad Practices

## Case 5 – Cote d'Ivoire (Bad Intervention by Project)

### <Performance of introduced mills and Impact of support>

- The rice mill was fully operated, generating profit by the private miller (more than 10 hours per day during harvest season)
  - ➔ Long queue of customers to sell paddy
  - ➔ Miller is busy getting more customers, making good profit
  - ➔ Loan can be repaid in 4 years
- Rice mills were under-operated at milling cooperatives
  - ➔ Few customers, and not much efforts to get more customers
  - ➔ Operated 5 hours per day during harvest season
  - ➔ Loan can be repaid only in 10-12 years
- Small-scale millers lost customers and get out of business

### <Recipe for failures >

1. Working with new comers (killing existing private business)
2. Group ownership and operation

# Summary of Lessons

- **Government/ project should not do what private sector is supposed to do (don't compete with them)**
- **Instead, focus on creating conducive business environment through facilitation and linkage building among stakeholders, as well as implementation of relevant policies**
- **Support those who are already in Business, not new comers**
- **Good business plan and operation is necessary for successful mechanization business – Let's think about how government can support private sector for them to have this capacity**
- **Don't jump on low quality machinery (even when it is cheap)**
  - This will hold back mechanization process in the long run**
- **Group ownership is a bad idea (It hardly works)**



**CARD**

COALITION for AFRICAN  
RICE DEVELOPMENT



# Thank you



**CARD**

COALITION for AFRICAN  
RICE DEVELOPMENT