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Local Production & Local Consumption Model of Energy, Food and Finance in Mozambique.



Nippon Biodiesel Fuel Co., Ltd.

1 Outline

2 Business Opportunities

3 Challenges

4 Future Plan

5 Annex

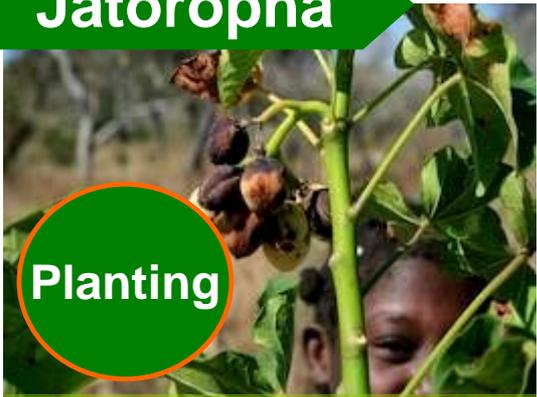
Local Production & Local Consumption Model of Energy, Food and Finance in Mozambique.

- ★ Producing Biofuel & organic fertilizer from Jatropha
- ★ Introducing an electric money system to satisfy the needs of rural areas for saving of cash. Creating a database of rural populations' consumption trend through the system. This database enables us to make more efficient business, research and aid designs.

Area	Energy	Food	Finance
Contents	<ul style="list-style-type: none"> ● Supplying biofuel for generators and maize mills in non-electrified villages. 	<ul style="list-style-type: none"> ● Supplying organic fertilizer made from Jatropha seed cake. ● Purchasing rice from rural farmers. Commercializing and Selling it locally. 	<ul style="list-style-type: none"> ● Installing electric money system to KIOSK shops in rural area. Using Electric money for purchasing crops. ● Recording lifelog of farmers.
Relation with Gov.	<ul style="list-style-type: none"> ● F/S: NEDO (US\$ 1.3million) ● Research: JICA·JST (US\$ 4million) ● Pilot: AECF (US\$ 1.5million) 	<ul style="list-style-type: none"> ● Participating G8 New Alliance for Food Security & Nutrition. 	<ul style="list-style-type: none"> ● NEC and NBF submitted A proposal to JICA.

Jatropha

Planting



◆ Working with 10,000 farmers.

Refine De-gummed Oil

Fuel SALES



Mobile phone towers /generators

Movitel
FUNAE
Public users

Multi-Platform (Electrification)

FUNAE



Power generation

KIOSK shops

- ◆ Ice, Cold drink sales
- ◆ Lantern rental service

Maize Mills

- ◆ Milling service



Electric Money

Finance



- ◆ Sales of daily products and food at Kiosk shops
- ◆ Purchasing rice, Jatropha seeds etc.
- ◆ Saving function and micro loans.
- ◆ Recording lifelog to make enables credit provision.

Organic fertilizer

Fertilizer



CEPAGRI
SDAE
G8



Rice

Branding

- ◆ Branding local rice.

F/S & Pilot Project

【Biofuel】 From 2007, F/S & pilot projects were conducted in Mozambique with the support of public research funds.

Public funds supported not only “research.” but also “implementation” of activities, such as a fuel production and electrification with the fuel.

Local Needs

【Rice】 A lack of market access and a lack of branding → Commercialization
【Finance】 A lack of arithmetic capacity of salesperson → Introducing “Tablet POS”
Improving cash flow at the period of purchasing products → Electric Money

【3】Challenges

Price

Filling price gaps between cities and rural areas

Cost reduction

Creating a network of product delivery

Commercialization

Purchasing local agricultural crops

Partners

Cooperating with local governmental institutions

Channel

Built trust under long-term researches

Operation Activities

Selecting agencies among clients

Commercial practice

N/A

Improve Productivity

Highly productive variety & improving logistics

Improving Quality

Fertilizer testing, growth of rice seeds

Local Management

Improving potential capacities of local staffs

Japanese staffs

Hired Japanese who have work experience in Moz.

~The plan for business expansion and activity required for it. ~

Securing human resources and Education

- Building local production and consumption model of fuel and food. Then, expanding sales for larger cities and abroad. We will solve problems of garbage by using it as raw material of fuel.
- In addition to the fuel business, we will focus more on the financial business. We might compete with other rural financial services, such as M-pesa, but we will sell database of consumption trends/ transactions of rural populations.

Issuing an IC card for a client



IC card system (tablet, card reader and IC card)



Saleslady is using the IC card system at a Kiosk shop

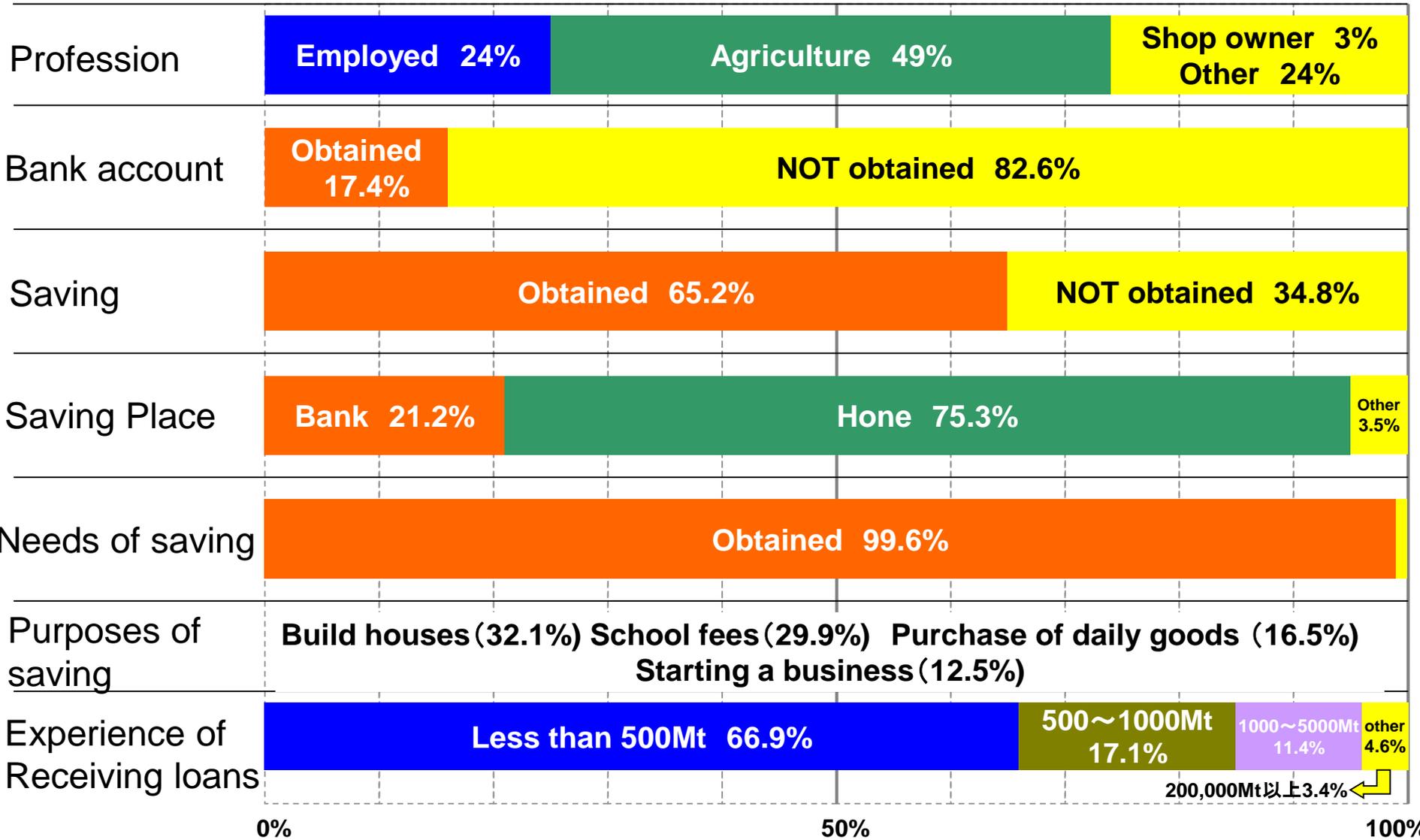


Local people who came to purchase goods by using the IC card

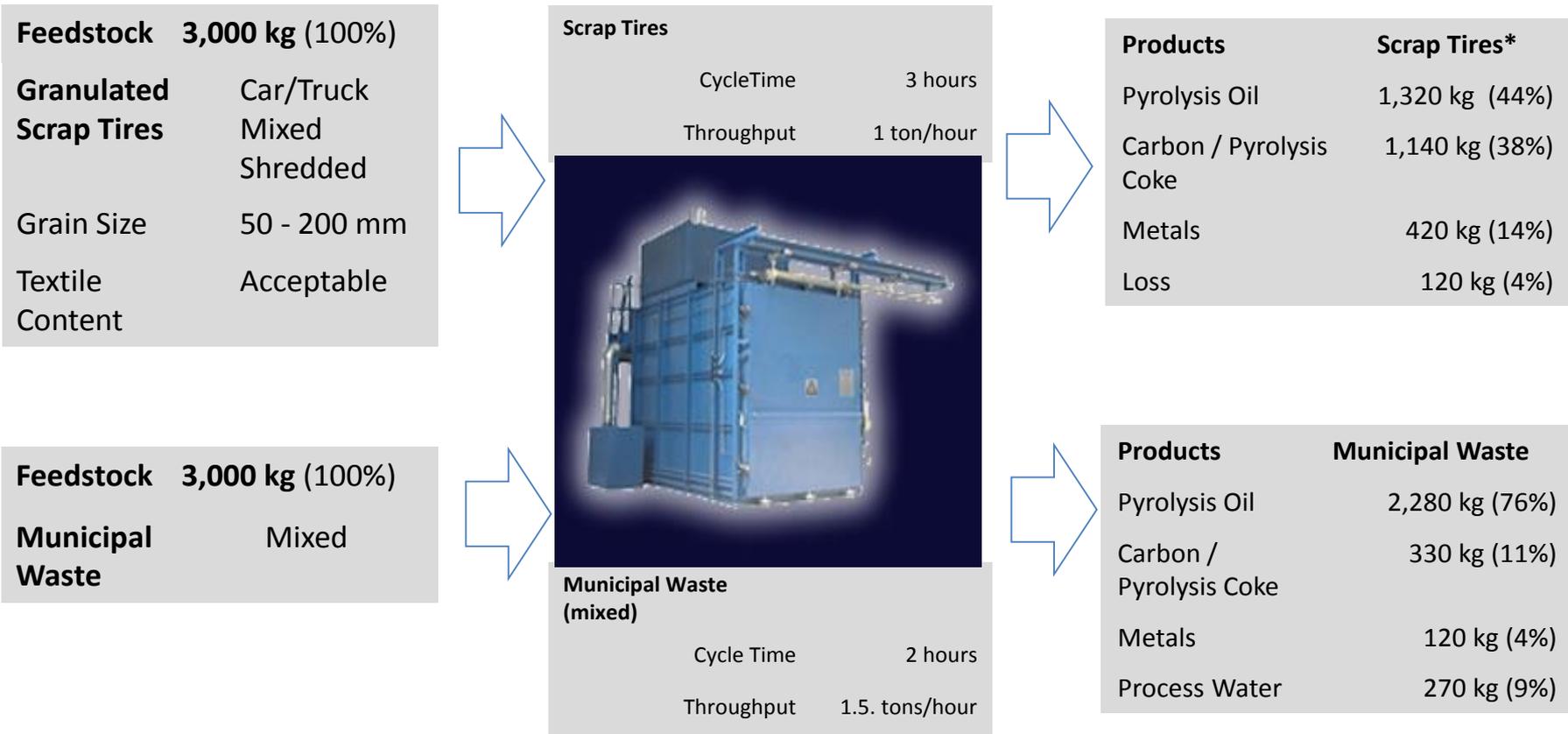


Results of interviews –IC card use (as of Apr 2014)

223 people answered (Male:168 /Female:55)



Results with Scrap Tires and Municipal Solid Waste*



* Performance data from prototype – data from production unit exceeding these numbers