

**MINISTRY OF AGRICULTURE  
THE REPUBLIC OF INDONESIA**

**THE STUDY  
ON  
THE IMPROVEMENT OF FARMERS' INCOME:  
AGRICULTURAL PROCESSING AND  
RURAL MICROFINANCE  
IN  
INDONESIA**

**FINAL REPORT**

**VOLUME-I: EXECUTIVE SUMMARY**

**July 2007**

**JAPAN INTERNATIONAL COOPERATION AGENCY**

**NIPPON KOEI CO., LTD.**

## **LIST OF REPORTS**

**FINAL REPORT:                      SUMMARY**

**MAIN REPORT**

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Appendix A: Rural Microfinance

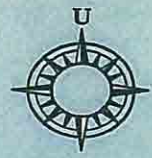
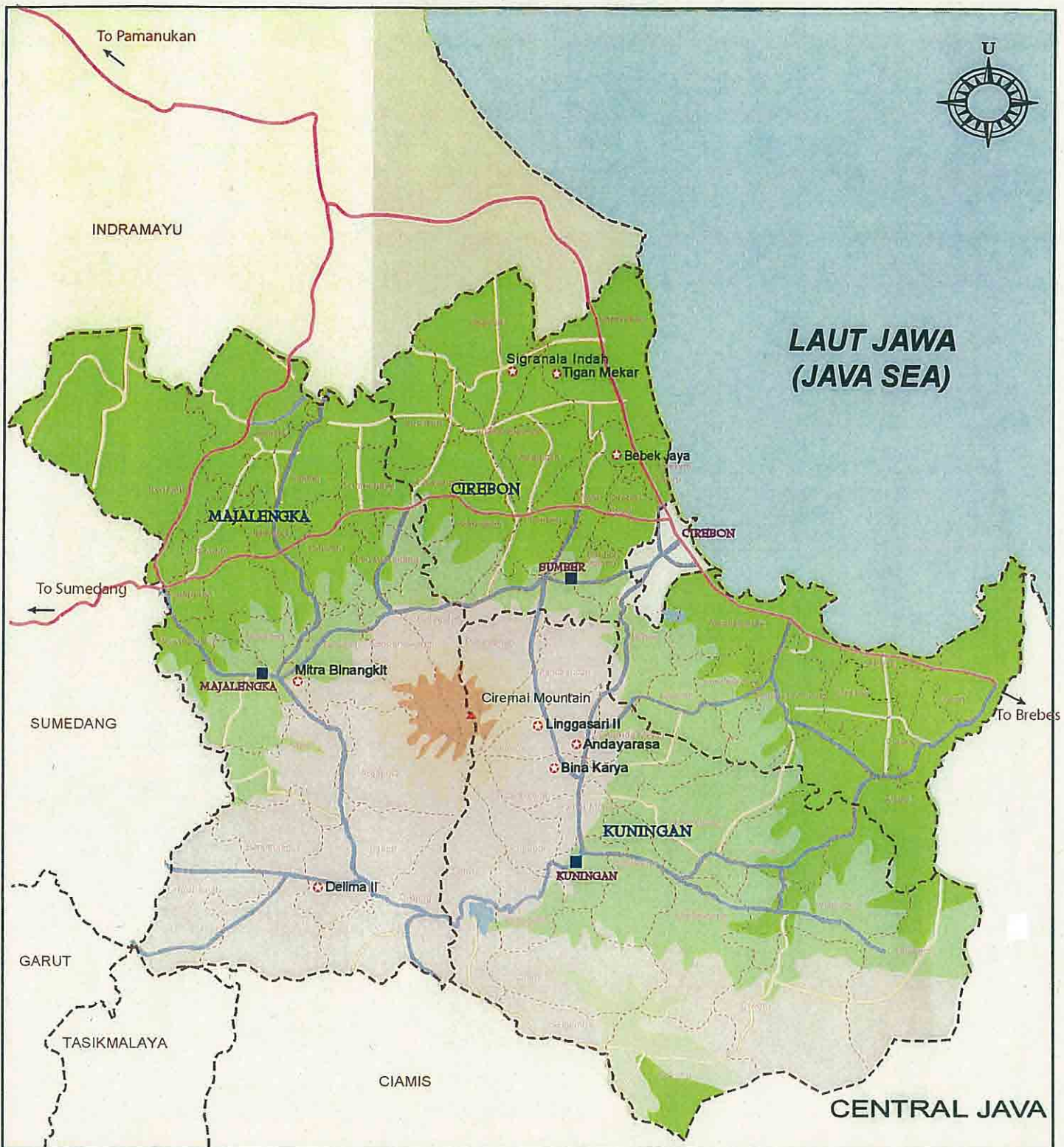
Appendix B: Agricultural Processing

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**SOUTH SULAWESI COMPONENT:**

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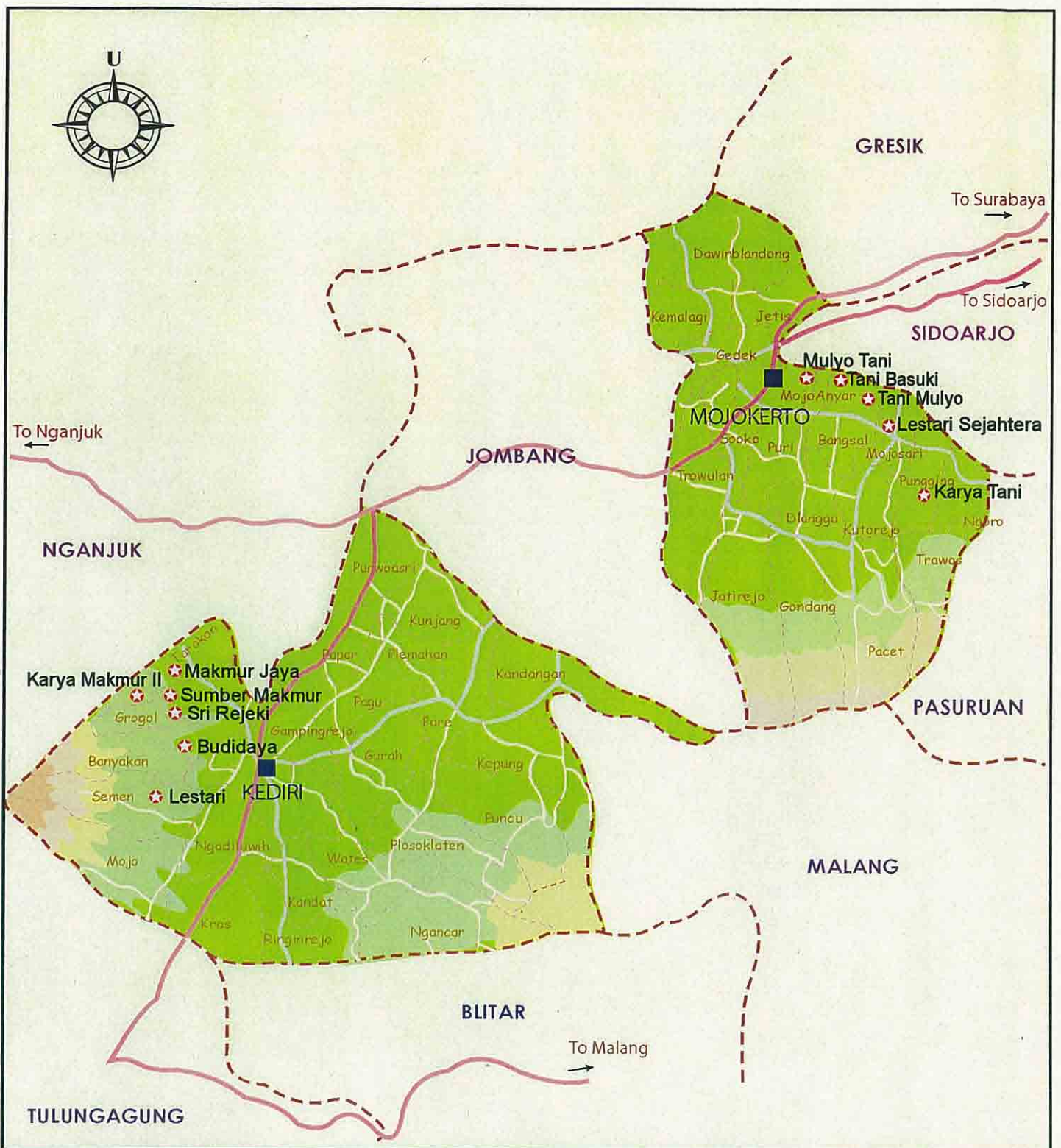
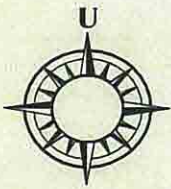


**LEGEND**

- CAPITAL OF KABUPATEN
- ⊙ KELOMPOK TANI SELECTED
- STATE ROAD
- PROVINCIAL ROAD
- KABUPATEN ROAD
- - - BOUNDARY OF KABUPATEN
- - - BOUNDARY OF KECAMATAN
- ▲ MOUNTAIN
- ☪ RESERVOIR / LAKE
- MORE THAN 1500 M
- 1000 - 1500 M
- 500 - 1000 M
- 100-500 M
- 0 - 100 M



LOCATION MAP (WEST JAVA)



### LEGEND

- CAPITAL OF KABUPATEN
  - KELOMPOK TANI SURVEYED
  - STATE ROAD
  - PROVINCIAL ROAD
  - KABUPATEN ROAD
  - BOUNDARY OF KABUPATEN
  - BOUNDARY OF KECAMATAN
- |  |                |
|--|----------------|
|  | MORE THAN 1500 |
|  | 1000 - 1500 M  |
|  | 500 - 1000 M   |
|  | 100-500 M      |
|  | 0 - 100 M      |



LOCATION MAP (EAST JAVA)

# The Study on the Improvement of Farmers' Income: Agricultural Processing and Rural Micro Finance

## Background and Purpose of the Study

### Background

- 37 million of the people in Indonesia are in the category of poor, 70 % of which inhabit in rural areas. Improvement of farmers' income particularly in those areas is the requisite to alleviate poverty in the country.
- Government of Indonesia (GOI) puts higher priority in the improvement of farmers' income by promoting value added products through agricultural processing.
- Finance is one of the effective tools to support farmers' activities and rural livelihood for the improvement of their income, however, there are currently gaps between supply and demand.

### Purpose

- To prepare policy recommendations for the GOI in its formulating/ implementing possible future policies for the promotion of agricultural processing and rural microfinance to improve farmers' income, and
- To transfer relevant technical skills/ knowledge to the Indonesian counterpart personnel through on-the-job training during the course of the Study.

### General Information

#### Overall Goal:

Farmers' income is increased through promoted agricultural processing activities, with the enabling environment of finance achieved through rural microfinance in parallel.

**Sample Area and the Commodities:** 3 Kabupaten in West Java and 2 Province in East Java

Province	Kabupaten	Commodity	Poverty Index (2003)		
			Poverty Line (Rp./capita/month)	Poor Population (person)	Poverty Headcount Ratio (%)
West Java	Cirebon	Duck	120,074	352,400	17.3
	Kuningan	Sweet Potato	123,267	201,700	19.5
	Majalengka	Sweet Potato	129,547	203,700	17.7
East Java	Mojokerto	Duck	140,862	166,100	17.2
	Kediri	Mango	112,907	289,200	19.6

#### Agricultural Processing and Marketing:

Agricultural processing promotion plan has been prepared for abovementioned sample commodities. Other commodities are also considered by the preparation of issues for common consideration.

#### Rural Micro Finance:

Financial system in Indonesia has been reviewed in terms of rural microfinance to support farmers and rural communities. Rural micro finance schemes that are easily accessible to farmers as well as sustainable have been prepared.

#### Implementation model:

Implementation models have been prepared for the scheme of agricultural processing and rural micro finance particularly by utilizing Second Kennedy Round-Counterpart Fund (SKR-CF).

### Flow of the Study

The Study has been conducted from December 2005 to July 2007 in the following manner:

- Review and analysis of existing material and information for agricultural processing and rural microfinance,
- Survey on farmers' group (**Kelompok Tani:KT**) and financial institution through

Study Period	2005		2006						2007						
	The First Year (JFY2005)		The Second Year (JFY2006)						The Third Year (JFY2007)						
	Nov.	Dec.	July	Aug.	Sep.	Oct.	Nov.	Dec.	Jan	Feb	Mar	April	May	June	July
Work in Indonesia	■		■						■		■				
Home work in Japan	□							□				□	□		
Report	△							△	△		△	△		△	
	Ic/R							Pr/R(1)	Ic/R		Pr/R(2)	Dc/R		F/R	

- field survey and group workshop,
- (3) Organization of field workshop with selected Kelompok Tani and other stakeholders to identify current situation in agricultural processing and rural microfinance and derive needs from the participants,
  - (4) Formulation of draft policy recommendation and implementation model, and finalization of those through socialization meeting,
  - (5) Preparation of general issues on promoting agricultural processing and rural micro finance,
  - (6) Organization of dissemination seminar, and
  - (7) Preparation of Final Report

## Agriculture Sector and Its Policy

### National Medium-Term Development Plan (RPJMN)

Enacted on January 19<sup>th</sup> 2005 as the Presidential Decree (No. 7/2005)

Three Agenda: (i) Creation of safe and peaceful country, (ii) Establishment of justice and democracy and (iii) improvement of people's welfare

Nine Priority Areas: (i) Poverty reduction, (ii) improvement of employment opportunities, investment and export, (iii) revitalization of agriculture, fishery, forestry and rural area, (iv) improvement of accessibility and quality of education and health, (v) law enforcement, corruption eradication and bureaucratic reform, (vi) reinforcement of defense capacity, stabilization of security and order as well as conflict settlement, (vii) mitigation and management of disaster, (viii) acceleration of infrastructure development, and (iv) development of border area and isolated regions.

#### Target:

- ✧ Reduce poor population to 8.2 %
- ✧ Economic growth from 5.5 % to 7.6 %
- ✧ Reduce unemployment from 9.7 % (2004) to 5.1 % (by 2009)

### Agriculture Development Plan 2005 to 2009

Formulated and published in January 2005

Putting emphasis to improve: (i) food security, (ii) value addition and competitiveness of agriculture products and (iii) farmers' welfare.

Three development programs are: (i) Food Security Improvement Program, and (ii) Agribusiness Development Program covering agricultural processing and rural microfinance, (iii) Farmer Welfare Improvement Program.

#### Target:

- ✧ Average GDP growth rate of 3.3 % per annum in the agriculture sector
- ✧ Employment creation of 44.5 million in 2009
- ✧ Increase value addition at the rate of 5% per annum
- ✧ Growth of labor productivity at the rate of 1.4 % per annum
- ✧ Reduction in rural poverty to 15 % by 2009

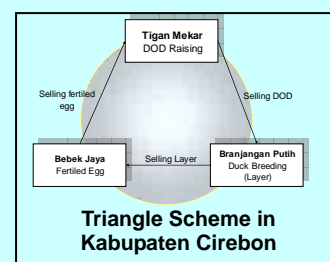
## Characteristics of Sample Area and the Commodities

Characteristics of sample area and the commodities from the view point of agricultural processing and rural microfinance are briefed below, which are based on the data collection and field survey from 34 Kelompok Tani, rural communities, financial and non-financial service providers, and different government offices:

### Agricultural Processing

#### Duck in Kabupaten Cirebon and Mojokerto

- ✧ Triangle scheme as a business alliance among Kelompok Tani, each group of which is core supplier for fertile egg, DOD and pullet/layer
- ✧ Three types of duck feeding: (i) Traditional, (ii) Intensive and (iii) Semi-intensive
- ✧ Issues to be improved: (i) low egg production yield by layer, (ii) low hatch yield, (iii) high mortality, (iv) no scientific application on temperature and relative humidity in hatchery management, (v) No selling of young male duck meat in Kabupaten Cirebon (vi) high price of duck feed and (vii) no effective utilization of duck feather



#### Sweet Potato in Kabupaten Kuningan and Majalengka

- ✧ Productivity of sweet potato varies from 8 – 20 ton/ha largely depending upon the availability of irrigation facilities.
- ✧ Two large-scale sweet potato processing factories are in Kabupaten Kuningan while there is no particular connection with private industry in Kabupaten Majalengka.
- ✧ In Kabupaten Majalengka, one specific middlemen's group dominates nearly 70 % of sweet potato market.



Keremes



Sweet Potato Chips



Sweet Potato Cakes

Sample of Sweet Potato Processing Products

#### Mango in Kabupaten Kediri

- ✧ Two distinguished activities observed: (i) dried chips processing at Kelompok Tani Sumber Mulyo (Kecamatan Banyakan) supported by an NGO and (ii) pineapple processing by Kelompok Tani Lohginawi (Kecamatan Ngancar) technically advised by BPTP Malang, Brawijaya University and DINAS Industry

- 75% of mango transaction are currently made between collectors and farmers before the harvest, generally called *Ijon* system widely practiced in Java Island, not only for mango but also for other crops..
- Issues to be improved: (i) insufficient technology in processing and packaging, (ii) lack of transportation to the market, (iii) difficulty in input procurement, (iii) price decline particularly at peak harvest season and (iv) difficulty in access to financial institutions



Mango Podang in Kecamatan Tarokan

### Rural Micro Finance

#### Findings from the Field

- Farmers have different accessibility to financial institutions from **BRI Units** to **Non-banks**, and others such as **pawnshop**, **warung** and **arisan**. In general, the fair and rich ranking people have access to formal banking institutions while very poor and poor mostly have access only to moneylenders, pawnshop, *warung* and *arisan*.
- Most of the selected Kelompok Tani have some forms of savings and loan activity although their level differs.
- Unequal distribution of government finance programs for farmers and for poverty alleviation is observed, which affects attitude and mindset of the beneficiaries.



Arisan Book managed by Farmers' Group



Discussion among P4K Gabungan and stakeholders at the Socialization in Kabupaten Mojokerto

#### Gap between Supply and Demand

- Financial needs of the famers and rural community are not satisfied due to the following gaps: (i) Lack of physical access due to remoteness, (ii) Lack of financial services for the poorer members of rural community, (iii) Lack of finance to fully meet agribusiness capital needs, (iv) Difficulty in meeting bank loan conditions of installment, interest rate and collateral due to the seasonality and low profitability of agribusiness, and not having collateral, (v) Reliance on traders on farm inputs and cash needs, in exchange of unfavorable terms, and (vi) Limit amount of loan from Kelompok Tani and cooperatives due to their small internal fund raised from limited number of members, and informal legal status hampering their access to formal finance.



BRI Unit in Kecamatan Cilimus, Kabupaten Kuningan



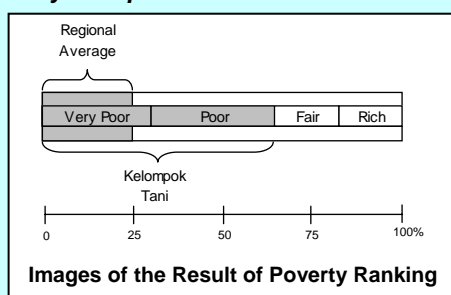
Poor Physical Accessibility in Kabupaten Majalengka

### Improvement Approach

Four basic points considered to formulate improvement approach are: (i) Target Group, (ii) Linkage between Agricultural Processing and Rural Micro Finance, (iii) Process to Transform Farmers' Organizations to Micro-Finance Institutions, and (iv) Linkage with Community Development and Partnership with Industry as described as follows:

#### (i) Target Group:

**Poor Ke(iilompok Tani with strong motivation and potential capacity to improve their current livelihood**

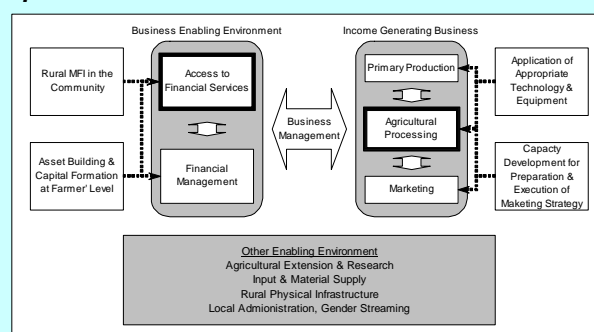


Images of the Result of Poverty Ranking

According to the poverty ranking and field workshop, farmers in selected Kelompok Tani feel that they are still in nearly poor situation and demanding support to improve income generation activities. Such groups are assumed to have strong motivation and potential capacity to carry out agricultural processing as business and savings and loan activity with necessary support.

#### (ii) Linkage of Agricultural Processing and Rural Microfinance

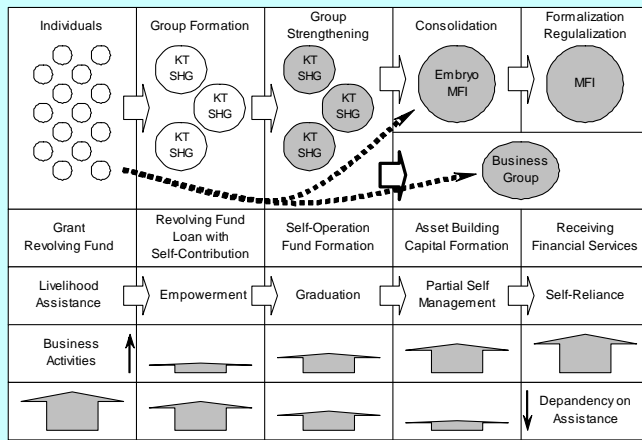
**Linkage of agricultural processing as income generating activity and rural microfinance as enabling environment is the key to success in achieving farmers' income improvement.**



Schematic Image of Linkage

**(iii) Transformation of Farmers' Organizations as Agribusiness Entity:**

*Gradual scaling-up by strengthening group capacity and transforming groups into association / MFI (via Embryo MFI)*

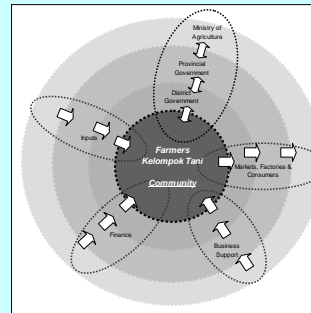


KT: Kelompok Tani, SHG: Self-Help Group, MFI: Microfinance Institution

**Transformation Image of Farmers' Organization to MFI**

**(iv) Interaction between Farmers Agribusiness and Community Development**

*Farmers agribusiness activity involves stakeholders at community level such as neighbors/consumers, traders, and financial service providers. Thus it contributes to the improvement of economy and socio-economic condition of the community, and vice versa.*



To consider this interaction is one of the important prerequisite to success in agricultural processing and rural microfinance since such activities are close to rural community and boost up community economy.

**Linkage with Community**

**Business Model**

**Preparation Steps**

- Step-1: Improvement directions for each Kelompok Tani are prepared,
- Step-2: Separate business models are identified and classified, and
- Step-3: Linkage of business models between agricultural processing and finance are assumed.

**Step-1 Improvement Direction (Key Word, please refer chapter 5 of Main Report for Details)**

Agricultural Processing and Marketing	Finance
<ul style="list-style-type: none"> <li>✧ Utilization of existing organizational set-up such as triangle scheme in Kabupaten Cirebon and/or new partnership with private sector players</li> <li>✧ Market selection: market outside or local market</li> <li>✧ Introduction of new technology / scale expansion</li> <li>✧ Guidance and facilitation by the third parties: BDS, NGOs and Universities</li> <li>✧ Soft loan for equipment and a part of working capital</li> </ul>	<ul style="list-style-type: none"> <li>✧ Establishment of Microfinance Institution (MFI) in the community where Kelompok Tani operates</li> <li>✧ Establishment of own MFI from Kelompok Tani</li> <li>✧ Strengthening financial function of existing cooperatives (KSP/USP) which are serving Kelompok Tani</li> <li>✧ Improving profitability of Kelompok Tani agribusiness</li> <li>✧ Asset Building at the level of farmers, Kelompok Tani, and cooperatives for livelihood stability and sustainability</li> </ul>

Based on the key improvement direction described above, improvement plans have been prepared for 13 Kelompok Tani selected during field survey and P4K Gabungan / LKM as follows:

Kabupaten	Kecamatan	Commodity Kelompok Tani & Number of Members	P4K Gabungan / LKM
Cirebon duck	Gegesik	Sigranala Indah 7 (men 6, women 1)	13 Gabungan 1 LKM
	Cirebon Utara	Bebek Jaya 20 (men 20, women 0)	
	Panguragan	Tigan Mekar 36 (men 33, women 3)	
Kuningan s.potato	Cilimus	Andayarasa 25 (men 20, women 5)	12 Gabungan 6 LKM
	Jalaksana	Bina Karya 20 (men 19, women 1)	
	Cilimus	Llnggasari II 20 (men 20, women 0)	
Majalengka s.potato	Cogasong	Mitra Binangkit 37 (men 0, women 37)	17 Gabungan 4 LKM
	Talaga	Delima II 16 (men 5, women 11)	
Mojokerto duck	Pungging	Karya Tani 11 (men 10, women 1)	29 Gabungan 9 LKM
	Bangsals	Tani Mulyo 28 (men 5, women 23)	
	Mojosari	Lestari Sejahtera 47 (men 0, women 47)	
Kediri mango	Tarokan	Makmur Jaya 105 (men 75, women 30)	4 Gabungan 0 LKM
	Banyakan	Budidaya 160 (men 90, women 70)	





**Step-2: Business Models of Agricultural Processing & Marketing and Finance**

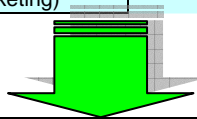
**Improvement Directions and Business Models for Processing & Marketing**

<b>Duck Industry (Kabupaten Cirebon and Mojokerto)</b>	
• Duck Industry Model 1:	Expansion of business scale and renewal of technologies (introduction and strengthening of triangle production system with partnership among Kelompok Tani)
• Duck Industry Model 2:	Expansion of business scale and strengthening of duck industry (new comer and reviving of inactive groups, involvement in partnership)
<b>Sweet Potato Processing (Kabupaten Majalengka and Kuningan)</b>	
• Sweet Potato Model 1:	Primary Processing and Marketing (sweet potato dried chip, partnership with sweet potato flour mill factory)
• Sweet Potato Model 2:	Cottage level food processing and marketing (local production and local consumption, traditional and unique products)
<b>Mango Processing (Kabupaten Kediri)</b>	
• Mango Model:	Fruit processing and marketing with private sector (dried mango and juice, marketing)

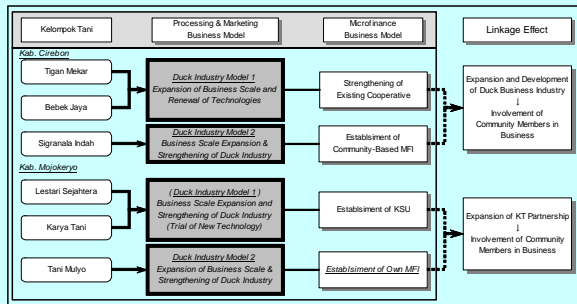
**Improvement Directions and Business Models for Finance**

• Model for establishing Community-based MFI:	For inactive Kelompok Tani are inactive, and sometimes the leader dominates the group management and the members are passive attitudes
• Model for establishing own MFI:	For Kelompok Tani in which regular savings & loan is in progress and the group activity is high
• Model for strengthening existing function of cooperative:	for Kelompok Tani where the cooperatives are already established

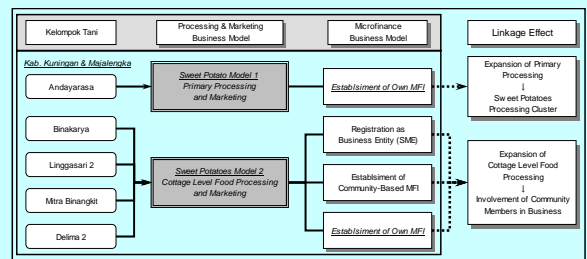
Note: Another important point for business model of finance is to involve middlemen and collectors in MFI for information sharing about consumers' preference about products, which will smoothen marketing of products by sharing marketing information among farmers and traders.



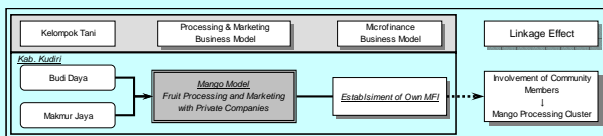
**Step-3: Linkage of Business Models between Agricultural Processing and Finance**



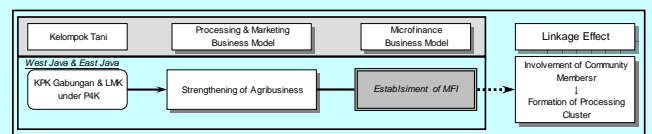
**Linkage for Duck Industry and Finance Business Models**



**Linkage for Sweet Potato Processing and Finance Business Models**



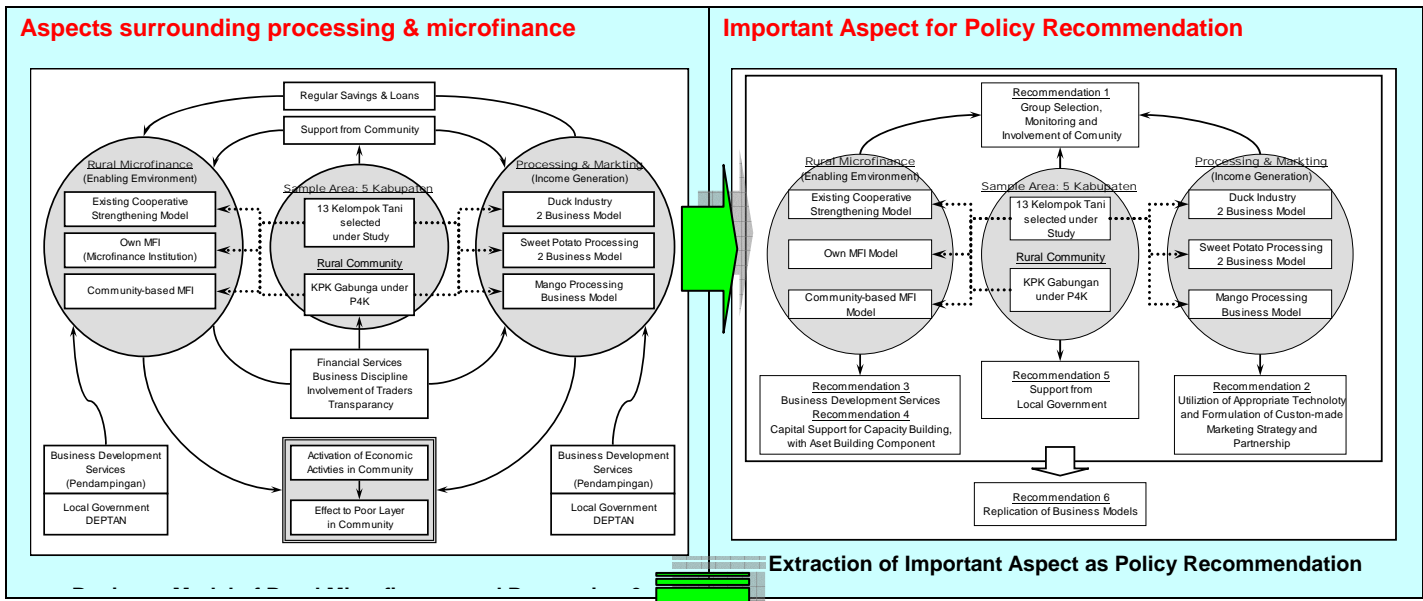
**Linkage for Mango Processing and Finance Business Models**



**Linkage for Income Generation Activities and Finance Business Models**

**POLICY RECOMMENDATION**

After implementation of the models introduced above, direct effects of agricultural processing are estimated at average income increase of Rp.6.6 million per annum for total 350 member households in 13 Kelompok Tani. From the linkage with MFI or strengthening of cooperative, improvement of self-reliance level is expected through building assets and own capitals to access commercial finance after the project period of 5 years. From the linkage, indirect effect is expected to 4,200 households in the community, of which 48% or 2000 households are poverty.



Important Aspect as Policy Recommendation	
<b>Recommendation 1</b> Group Selection, Monitoring & Involvement of Community	<ul style="list-style-type: none"> <li>• Groups to be selected from which they can do savings &amp; loan</li> <li>• Involvement of community in the activities so as enhance the sustainability</li> <li>• Third party independent from direct involvement for monitoring and evaluation</li> </ul>
<b>Recommendation 2</b> Processing Technology & Other Commodities and Marketing Partnership	<ul style="list-style-type: none"> <li>• Preparation of direction and strategy using analytical techniques such as Value Chain Analysis, SWOT Analysis, Market Mix and so forth</li> <li>• Involvement of middlemen and collectors in the Embryo MFI for multiplier effect</li> </ul>
<b>Recommendation 3</b> Business Development Services (BDS)	<ul style="list-style-type: none"> <li>• Need of assistance to Kelompok Tani particularly in terms of financing, accounting group management, processing technologies, marketing arrangement, coordination and communication with stakeholders with proper exit strategy in order to enhance groups' initiative and capability</li> <li>• Necessity of inventory of BDS providers at the local level of Kabupaten and Province along with the information on their performance results</li> </ul>
<b>Recommendation 4</b> Capital Support for Asset Building Component	<ul style="list-style-type: none"> <li>• Capital support would be in the form of loan from bank, not revolving fund directly given to Kelompok Tani.</li> <li>• Frozen saving will build Kelompok Tani's asset utilizing interest.</li> <li>• Intension is directed to train farmers' financial management capacity.</li> </ul>
<b>Recommendation 5</b> Support from Local Government Services	<ul style="list-style-type: none"> <li>• Important roll of DINAS Kabupaten to create enabling environment, as the key for the successful implementation</li> </ul>
<b>Recommendation 6</b> Replication of Business Model	<ul style="list-style-type: none"> <li>• The model for replication assumed for cost profit and asset building on the basis of implementation model proposed under the Study</li> </ul>



**JICA Study Team on the Improvement of Farmers' Income: Agricultural Processing and Rural Micro Finance**  
 Building A. Room 801, Jl. Harsono RM No.3 Jakarta 12550 INDONESIA  
 TEL (Office) : 021-781-9833 (Office), 081-385-661191 (N.Morioka), 081-385-661197 (S. Otsuka)

## Photographs

		
<p><b>Duck</b> DOD Feeding at Kabupaten Mojokerto (August 8<sup>th</sup>, 2007)</p>	<p><b>Duck</b> Preparation of Salted Egg in Kabupaten Cirebon (August 3<sup>rd</sup>, 2006)</p>	<p><b>Duck</b> Drainage from Duck House in Kabupaten Mojokerto (August 8<sup>th</sup>, 2006)</p>
		
<p><b>Duck</b> Checking fertilization of duck egg by simple lighting equipment at Kabupaten Mojokerto (August 8<sup>th</sup>, 2007)</p>	<p><b>Duck</b> Traditional Manual Hatchery Machine at Kabupaten Mojokerto (August 8<sup>th</sup>, 2007)</p>	<p><b>Duck</b> Duck Feed Harvested from the River at Kelompok Tani Bebek Jaya at Kabupaten Cirebon (August 8<sup>th</sup>, 2007)</p>
		
<p><b>Duck</b> Socialization Meeting at Kabupaten Cirebon (February 6<sup>th</sup>, 2006)</p>	<p><b>Duck</b> Sate Bebek, one of the important Products from Duck at Kabupaten Cirebon (August 3<sup>rd</sup>, 2006)</p>	<p><b>Sweet Potato</b> Field Workshop held at Kelompok Tani Lingasari II at Kabupaten Kuningan (August 3<sup>rd</sup>, 2006)</p>
		
<p><b>Sweet Potato</b> Socialization Meeting at Kabupaten Majalengka (February 8<sup>th</sup>, 2007)</p>	<p><b>Sweet Potato</b> Field Survey, Interview at Kelompok Tani Andayarasa in Kabupaten Kuningan (September 7<sup>th</sup>, 2006)</p>	<p><b>Sweet Potato</b> Ice Cream made from Sweet Potato at Kabupaten Kuningan (August 2<sup>nd</sup>, 2006)</p>

## Photographs

<p><b>Sweet Potato</b> Research for Dry Chips at Legumes and Tuber Crops Research Institute (BALITKABI) at Malang (February 22nd, 2007)</p>	<p><b>Sweet Potato</b> Sweet Potato Flour Mill Machine (Manual Type) at Kabupaten Kuningan (August 2<sup>nd</sup>, 2006)</p>	<p><b>Sweet Potato</b> Sweet Potato Farm at Kelompok Tani Sawalohag in Kabupaten Majalengka (September 11<sup>th</sup>, 2006)</p>
<p><b>Sweet Potato</b> Group Discussion for Reviewing Draft Implementation Model in Socialization Meeting at Kabupaten Kuningan (February 7<sup>th</sup>, 2007)</p>	<p><b>Mango</b> Peeled by Farmers' Group for preparing Dried Mango at Kabupaten Kediri (November 6<sup>th</sup>, 2007)</p>	<p><b>Mango</b> Vacuum Flyer for preparing Dried Fruits by the assistance of NGO, Resource Exchange International (REI) in Kabupaten Kediri (February 20<sup>th</sup>, 2007)</p>
<p><b>Mango</b> Dried Mango processed by the assistance of REI in Kabupaten Kediri (February 20<sup>th</sup>, 2007)</p>	<p><b>Mango</b> Exchange of Opinion with REI during Socialization Meeting at Kabupaten Kediri (February 20<sup>th</sup>, 2007)</p>	<p><b>Mango</b> Packed Products in Kabupaten Kediri (November 6<sup>th</sup>, 2006)</p>
<p><b>Mango</b> Juice Packing Equipment in Kabupaten Kediri (November 6<sup>th</sup>, 2006)</p>	<p><b>Mango</b> Problem Census in Field Workshop at Kelompok Tani Makmur Jaya in Kabupaten Kediri (October 16<sup>th</sup>, 2006)</p>	<p><b>Mango</b> Market in Surabaya (August 10<sup>th</sup>, 2006)</p>

## **I. Introduction**

### *Authority*

01. This is the Final Report on the Study on the Improvement of Farmers' Income: Agricultural Processing and Rural Microfinance in Indonesia (hereinafter referred to as "the Study") prepared in accordance with the Scope of Work (S/W) agreed upon between the Ministry of Agriculture, and the Japan International Cooperation Agency (JICA) dated November 5<sup>th</sup> 2004. This report presents all the results of the Study: background, present situation of the sample Kabupatens, business models and implementation models of agricultural processing and rural microfinance, and policy recommendation for promotion of agricultural processing and development of microfinance schemes. **(1.1)**

### *Objectives of the Study*

02. The objectives of the Study are: (i) to prepare policy recommendations for the Government of Indonesia (GOI) in its formulating / implementing possible future policies for the promotion of agricultural processing and rural micro-finance to improve farmers' income, (ii) to transfer relevant technical skills/knowledge to the Indonesian counterpart personnel through on-the-job training during the course of the Study. **(1.3)**

### *Study Area*

03. In order to facilitate the Study related to agricultural processing, sample commodities (Sweet potatoes, Duck, and Mango) are selected by GOI. Based on the production area of the sample commodities, the Study area is five Kabupaten consisting of Cirebon, Kuningan and Majalengka in West Java Province, and Mojokerto and Kediri in East Java Province, the total area of which extends over 4,300 km<sup>2</sup>. **(1.4)**

### *Scope of the Study*

04. The scope of the Study is stipulated in the S/W as follows: (i) review of existing information/data on agricultural processing and rural micro-finance, (ii) collection of basic information of the sample sites, (iii) promotion of agricultural processing, (iv) development of new rural micro-finance scheme, (v) linkage between agricultural processing and rural micro-finance and (vi) policy recommendations. **(1.5)**

## **II. Socio-Economic Condition and Agriculture Sector Policy**

### *Socio-economic Conditions Surrounding Agriculture*

05. In 1998, the Indonesian economy was heavily damaged by the currency crisis, however, the agriculture sector showed only 0.7% down because that agriculture sector heavily depends on food crop production and is less sensitive to such economic change. Since 2000, all the economic sectors came to achieve the positive GDP growth of over 5% per annum, owing to the growth of the sectors other than agriculture. The food crops sub-sector under agriculture sector showed the lower growth rate at 1.5 to 2.5% per annum. On the other hand, non-food crops and livestock showed the higher growth rate than that in the total GDP in 2001 and 2002 contributing to increase the agricultural GDP.

After 2004, however, their growth rate has been decreasing showing lower growth rate than food crop sub-sector. **(2.1)**

06. Until 1999, the agriculture sector was the second largest, but its current status declined to third position maintaining 13% of to GDP. The agriculture sector still employs more than 40% of the total working population, and export from this sector was valued at US\$ 10 billion equivalent to 16% of the country's total export revenue, therefore, the agriculture sector plays an important role as ever in the national economy however, the sector is performing with low growth and facing a lot of difficulties. Main difficulty is its low productivity expressed that nominal GDP per employee is only 20% (US\$880 per employee in agriculture in 2005) of the other sector (US\$4,490 per employee) **(2.1)**
07. The poor population drastically increased up to 38.7 million, 19.1% of the total population in 2000 from 22.5 million or 11.3% in 1996 due to an impact from the economic crisis. As for geographical distribution, 60% of total poor population are in Java Island (BPS, 2003 and 2004). 59% of poor household are engaged in agriculture. This indicates that, for poverty reduction, economic development in the rural area would contribute to reduce the poverty through providing income generation opportunity, particularly agriculture based industry in the Java Island. **(2.1)**

***Finance Sector***

08. After the currency crisis in 1997, IMF played a vital role in recovering the economy, guiding the economic and fiscal policy. In 1999, economic growth rate recorded 0.8% as a result. Overall non-performing loans (NPL) of the banking sector reached the highest point of 58.7% in March 1999 and it turned to be decreasing to 18.8% at the end of 2000 thanks to the restructuring efforts of corporate and banking sector. The amount of NPL of commercial banks is shown in Table S-1.

**Table S-1 Non Performing Loan (NPL) of Commercial Banks**

	98/3	99/3	99/12	00/12	01/12	02/12	03/12	04/12	05/12
NPL of Commercial Banks	19.8%	58.7%	32.8%	18.8%	12.1%	8.1%	8.2%	5.8%	8.3%

Source: JCIF, 2006

From 1998 to 2004, various measures were taken to address the banking sector reform particularly restructuring program through capital infusion by the government. As the implementing agency of this reform, Indonesian Banking Restructuring Agency (IBRA) was established. The NPL was transferred to IBRA, and many banks were closed or merged in the restructuring process. IBRA completed its mission and dissolved in February 2004. **(2.2.1)**

09. The economy of Indonesia gained its stability after 2000, achieving the stable growth rate between 3.8% and 5.6% due to several factors such as: (i) recovered investment activities, (ii) increase of domestic private consumption backed by low interest rate and expansion of consumer finance. However, toward the end of 2005, the economic growth slowed down due to higher inflation and interest rates triggered by cut down fuel subsidies and to raise administered price of petroleum products by more than 120%. Inflation rate in

Indonesia represented by one-month (SBI rate) has been in the range of around 10 to 15% till the mid 1990s. After the currency crisis, it rose up to maximum of 70.6% in September 1998. The rate has been falling down after this peak, and in 2005, the range was between 7.42% and 12.75%. **(2.2.1)**

10. Based on Banking law

No. 7/1992, banks are categorized into two in Indonesia: Central Commercial Banks and Rural Credit Banks (BPR). From an operational point of view, Commercial

**Table S-2 Number of Banks**

Description	2001	2002	2003	2004	2005*
1. State Owned Banks	5	5	5	5	5
2. Private National Banks	80	77	76	72	71
3. Foreign & JV Banks	34	34	31	30	30
4. BPD: Regional Development Banks	26	26	26	26	26
Total	145	142	138	133	132
BPR Total	2,432	2,747	3,299	3,507	3,081*

Source: BI -2005 Economic Report on Indonesia. \* September 2005

Banks are categorized into four banks: State Owned Banks, Private National Banks, Foreign and Joint Venture Banks, and Regional Development Banks, number of which is as shown in Table S-2. **(2.2.2)**

11. The outstanding loans by commercial banks before the currency crisis were growing steadily. After the crisis, however, these loan assets changed into NPLs and they were mostly transferred to IBRA as bad debts. Since the transfer, there had been over-liquidity situation where the amount of deposit well exceeded outstanding loan amount, and the abundant cash coming from deposits was not used as much in the form of loan, which led to decrease of financial intermediary function of banks. Commercial banks tended to push the money collected through deposits to SBI, especially when the deposit rate is lower than SBI rate. The recent performance of the commercial banks indicated that both deposits and lending has been growing. Of late, the loan to deposit ratio (LDR) has improved and that more money is going into lending. **(2.2.2)**

12. Bank Indonesia 2005 Economic Reports, in line with the overall expansion in credit, shows that loan disbursements to Micro, Small, and Medium Enterprise (MSME) increased sharply during 2005. The fact that 2005 was the International Year of Microcredit set by the UN and the launching of Indonesian Microfinance Year seemed to contribute to the growth of MSME lending, and banks disbursed more than what they planned in their business plans. Agriculture sector MSME lending has also grown, however, its share among MSME lending is not high. It was actually on the declining trend from 5.5% in 2001 to 3.6% in 2005. **(2.2.2)**

13. Currently, there are two Syariah banks in Indonesia, Bank Syariah Mandiri and Bank Syariah Mega Indonesia based on Islamic principle for banking: (i) legal issue, where the idea of interest is prohibited, and (ii) economic issue, where justice in economy is emphasized. In conventional banking, depositors obtain interests whether the bank gets profit or not. However, in Syariah banking, there is profit and loss sharing. And Syariah banks invest the funds to the real sector, and they are not allowed to invest in speculation, which is not stable. **(2.2.2)**

14. The microfinance sector in Indonesia comprises of (i) government programs which are both targeted programs and poverty alleviation programs with microfinance component, (ii) banks offering microfinance (mainly by BRI Units), and People’s Credit Bank (*Bank Perkreditan Rakyat* : BPR), (iii) savings and loan cooperatives (Koperasi Simpan Pinjam) and units of savings and loan (Unit Simpan Pinjam) of multipurpose cooperatives, (iv) village credit institutions (*Badan Kredit Desa*: BKD), and rural credit fund institutions (*Lembaga Dana Kredit Pedesaan*: LDKP), (v) pawnshops, (vi) informal sector consisted of small Self-Help groups (SHGs), informal savings and loan cooperatives, *Baitul Maal wat Tamwil* (BMT) and Credit Unions (CUs), NGOs, money lenders, and traders. **(2.2.3)**

15. The summary of micro finance institutions already registered in any sense is summarized in Table S-3. Other than BRI Units, other commercial banks attempt to enter in the microfinance sector by channeling funding through above MFIs and/or setting up units. In addition, there are thousands of SHGs, savings and loan groups which were formed under the various programs, associations and *arisan*. **(2.2.3)**

**Table S-3 Microfinance Institutions**

Institution Name	Units	Loan Amount (in Rp.000)	Client	Savings (in Rp.000)
BRI Unit	3,916	14,182,000	29,870,000	27,429,000
BPR	2,158	12,150,000	5,760,000	11,160,000
KSP	1,097	531,000	N/A	85,000
USP	35,218	3,629,000	N/A	1,157,000
BKD	5,345	200,000	460,000	28,500
LDKP	2,272	358,000	N/A	334,000
Pawnshop	42	21,000	No savings	No savings
BMT	3,038	157,000	N/A	209,000
CU	1,022	395,721	207,147	272,124
NGO	124	110,008	81,931	11,969
Total	54,232	31,733,729	36,379,078	40,686,593

Source: ProFI (2005) Indonesia: Background Paper on Microfinance Policy and Strategy

16. Banks are regulated under the Law No.7/1992 allowing to take deposits from the public. It was amended in the Law No.10/1998, intending to accommodate the growing Islamic banking and to regulate banking operations based on Syariah principles. According to the Article 16 of the Banking Law, non-bank non-cooperative microfinance institutions are illegal. Among non-bank financial institutions, only cooperatives are allowed to take deposit, but from members and not from the public, under the Law No. 25/1992. Their supervisor is the Ministry of Cooperative & SMEs. But some cooperatives take deposit from non-members, and call them “potential members”, which strictly is not legally allowed. Another type of non-banking financial institution, pawnshops are the state-owned enterprise operating under the Law No.103/2000, and are supervised by the Ministry of Finance. (MOF). **(2.2.3)**

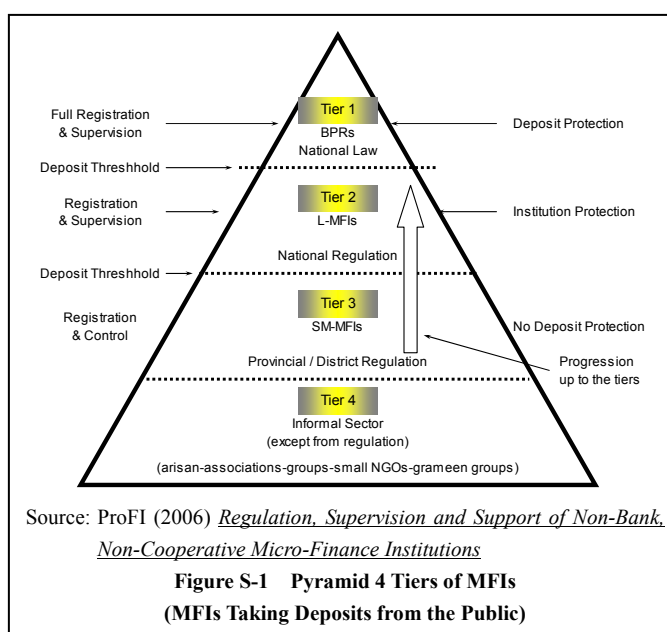
17. There are many non-bank non-cooperative MFIs (LKM B3K), not registered as cooperatives, and small institutions which is clearly or unclearly, not allowed to take deposits but in reality they grew from the needs of the community and they exist as deposits from non-members, which are not allowed under the current legal system. The legal framework does not reflect the reality of the microfinance on the ground. In 2001, the Initiative Team consisted of BI, Ministry of Cooperatives, MOF and State Secretary proposed a Draft Law of Micro Finance Institution (MFI Law). This draft is under



discussion among the stakeholders. By currently involving the Regional Representatives Council, Academic Script for the Draft Law has been prepared and discloses the issues as follows: (i) to reveal the inconsistency of the existing regulation with the need of Non Bank Non Cooperative (NBNC) MFI, (ii) to provide general description of NBNC MFI and (iii) to provide inputs of the legal certainty for NBNC MFI. (2.2.3)

18. To fill the need of MFI Law, currently, Ministry of Cooperative & SME initiated the draft President Regulation concerning National Policy and Strategy for Micro Finance Development recommending legal framework for the strata of MFIs as show in Figure S-1. Assumption is that LDKP, BKD or cooperatives shall fall under SM-MFIs (Small and Medium MFIs) but the institutions having a big volume of deposits shall move up to become Large MFIs (L-MFIs). The legal framework is the amended Banking law

(Window 1) to allow the issue of Government Regulation or Presidential Decree to create the legal framework for MFI and Cooperative Law (Window 2) to govern savings and loan activity of cooperatives and shall be amended to require large KSP/USP to comply with directives of the National Regulator and Supervisor (NRS). Window 3 shall be the MFI Regulation to set out parameters for deposit mobilization from the public by NBNC MFIs (to create 3rd window). At regional level, the provincial laws/regulations and district regulations /decrees are required to create legal framework for SM-MFIs. (2.2.3)



19. GTZ in 1999 together with Bank Indonesia and the Ministry of Finance set up a comprehensive microfinance program called Promotion of Small Financial Institutions (ProFI). ProFI cooperates with many stakeholders in promoting more accessible, affordable, and effective MFIs for low-income people. ProFI strives to strengthen three types of MFIs: (i) Rural Banks BPRs, (ii) Non Bank MFIs, and (iii) other community-based credit & saving institutions in East and West Nusa Tenggara. ProFI applies such financial components: (i) initiated the National Micro Finance Policy Discussion Forum (FOMFI) and assisted to formulate a national policy and strategy paper for micro finance development, (ii) assisted Bank Indonesia to improve the regulation and supervision system as well as the infrastructure (deposit protection, apex organizations, associations) for BPRs, (iii) took a lead in developing a training and certification system for BPR/MFI professionals, and (iv) combines policy and strategy advice, the creation of enabling environments, prudential regulation and effective supervision, professional

- certification, capacity and institution building at the provincial and district level. **(2.2.3)**
20. There are commercial banks which strategically lend to MFIs. Some of them even play the role of building the capacity of MFI, themselves, others work with capacity building partners such as (i) Bank Bukopin, (ii) Bank Mandiri, (iii) Bank Syariah Mandiri, (iv) Permodalan Nasional Madani (PNM), (v) Bank Rakyat Indonesia (BRI), and (vi) People's Credit Bank (Bank Perkreditan Rakyat: BPR). **(2.2.3)**
21. Other than commercial banks which lend to MFIs introduced above, government programs which have a component of building up the financial institution are: (i) Rural Income Generation Project (RIGP or P4K), and (ii) Development of MFIs in Agrobusiness (LKM-A) under MOA, (iii) Urban Poverty Project (P2KP) under the Ministry of Public Work, (iv) Revolving Fund for USP/KSP/LKM, and (v) P3KUM under the State Ministry of Cooperatives and SME, (vi) PEMP under the Ministry of Marine and Fisheries, and (vii) Kecamatan Development Project under the Ministry of Home Affairs and Regional Autonomy. Other institutions conducting MFI capacity building facility is PINBUK, an Islamic Organization, having a program of institutional development of BMT based on the concept of professionalism, self-support and independence and sustainability. **(2.2.3)**

#### ***Agriculture Sector and Its Policy***

22. The National Medium-Term Development Plan (RPJMN: Rencana Pembangunan Jangka Menengah) for 2004 to 2009 was enacted on January 19<sup>th</sup>, 2005 focusing on the three agenda as the main pillar: (i) Creation of safe and peaceful country, (ii) Establishment of justice and democracy, and (iii) Improvement of people's welfare. The RPJMN targets to reduce percentage of population below the poverty to 8.2%, economic growth from 5.5% to 7.6% per year, and reduction in unemployment rate from 9.7% in 2004 to 5.1% in 2009. **(2.3.1)**
23. Agenda for agricultural sector in the National Medium Term Development Plan are "Revitalization of Agriculture" in order to enhance welfare of rural households and place foundation for economic development in rural community. Ministry of Agriculture formulated the Agricultural Development Plan 2005 to 2009 as its medium term development plan and published in January, 2005. This plan put emphasis on the improvement of (i) Food Security, (ii) Value added and competitiveness of agriculture products and (iii) Farmers' Welfare. The targets during this period are: (i) average GDP growth rate of 3.3% per annum in the agriculture sector, (ii) Employment creation of 44.5 million in 2009, (iii) increase in value added at the rate of 5% per annum, (iv) growth of labour productivity at the rate of 1.4% growth per annum, (v) reduction of rural poverty to 15.0% by 2009. In order to achieve the abovementioned targets, three programs are formulated: (i) Food Security Improvement Program, (ii) Agribusiness Development Program, and (iii) Farmer Welfare Improvement Program, item two of which covers Agriculture Processing and Rural Micro Finance as the main component. **(2.3.2)**
24. In the subject of agriculture processing, in order to enable farmers to access to new technology and timely market information is emphasized so as to increase farmers'

income and to improve welfare. The strategy focused in the policy includes (i) development of capability of farmers, (ii) dissemination of innovative processing and post-harvest technology (iii) promotion of domestic products competitive with international market and (iv) industry development through cluster concept in order to ensure sustainability. **(2.3)**

25. “Strategic Plan” for the marketing of agricultural product sets objectives as: (i) to encourage farmers and agro-businessmen to access market information, and (ii) to extend processing industry of agricultural products in village level. With this objective, activities primarily cover: (i) improvement of capacity of human resources, (ii) Increase of competitiveness of agricultural product by value-addition, and (iii) protection of farmers from unfair market. The plan also stresses the importance of (i) the development of agricultural products needs to be implemented in market-oriented approach, and also (ii) harmonious and supportive cooperation by agro-businessmen as well as regional government and community. **(2.2)**
26. The essence of finance policy by MOA is to stimulate the community fund spending budget allocation, in the form of program credit, intervention to commercial credit, and facilitating capital access through non-bank finance. For this mandate, the Center for Agriculture Financial Services was set up in 2005 under the Secretary General, which has the sections of credit program, syariah finance, commercial finance, and administration. Lessons learnt from the program implemented by MOA and local government are as follows: (i) finance schemes can be classified primarily into two based on its purpose, community’s welfare improvement and agri-business promotion, (ii) efforts have been made not only by MOA but also by other Ministries and local government to carry out finance scheme particularly with the purpose of welfare improvement, and (iii) assistance for capacity development of farmers’ group is required so as to enable them to manage fund assistance as well as to function as a business entity. **(2.3)**
27. Agriculture extension previously had been carried out by giving priority on achieving national food self-sufficiency of food with strong Government initiative. BIMAS programme, the Agricultural Intensification Agency, for instance, was really successful with its green revolution irrigated rice development programme. After food self-sufficiency is enhanced, more attention is given to the empowerment of communities with farmers’ participation based on decentralization policy, from which many methodology and guidelines have been prepared. Currently, many organizations are in charge of agricultural extension including BIPP, UPTD, functional position group etc., organizations of which are different among Kabupaten depending upon the progress of decentralization, therefore, confusion of responsibility sharing in terms of extension works is observed. It would be necessary to systematically reformulate the framework of agricultural extension by considering decentralization in order to improve the situation. **(2.4)**

**III. PRESENT CONDITION OF THE STUDY AREA**

***Introduction***

28. Kelompok Tani surveyed under the Study were selected primarily based on the discussion with Kabupaten DINAS and on the Kecamatan level production data of sample commodities. In general, 5 to 9 Kelompok Tani were selected for sample commodities. Based on the survey, qualitative evaluation was made from the view points of: (i) finance, (ii) socio-economy, (iii) organization, (iv) production and processing technology level, (v) marketing potential and (vi) future plan to select model Kelompok Tani for detailed study. **(3.1.1)**

29. Field workshop was organized at selected Kelompok Tani. Through the session, information on the needs, constraints and perception of participants regarding agricultural processing, marketing and finance was primarily collected. Poverty assessment is separately carried out. Classification of poverty is made from the view point of: (i) income level, (ii) asset, (iii) education level, (iv) food sufficiency, and (v) financial transaction, level of which are respectively determined by the attendants. Such data and information is incorporated into the formulation of improvement plan. Number of Kelompok Tani surveyed are as shown in Table S-4. **(3.1.2)**

**Table S-4 Number of Kelompok Tani Surveyed**

Province	Kabupaten	Kelompok Tani	
		Basic Research	Field Workshop
West Java	Cirebon	9	3
	Kuningan	7	2
	Majalengka	7	3
West Java Total		23	8
East Java	Mojoketro	5	3
	Kediri	6	2
East Java Total		11	5
Total		34	13

30. Population of Kabupaten in the Study area extends from 908,000 to over 2 million, of which majority live in rural area. Population and population density in Kabupaten Cirebon is the largest (2,050,000, and 2,080 person per km<sup>2</sup> respectively) amongst target Kabupatens. Sector-based population data is available for West Java Province. Although share of agriculture in GRDP is recently decreasing, agriculture population is still dominant in three Kabupaten. **(3.2.1)**

31. Climate in the target area is generally characterized by “high temperature and humidity.” Dry season is from May to September while rainy season extends from October to April. 80% of the rainfall is concentrated in the rainy season. Mean temperature of all the target area is nearly 26 degrees Celsius. Rainfall pattern shows little difference between East Java Province and West Java Province. Relatively, annual rainfall in East Java Province is lower, approximately 2,000 mm, than that in West Jawa, from 2,400 to 2,600 mm. East Java Province is clearly distinct between dry season and rainy season. All the Kabupaten under the Study faced serious drought decreasing by 30% of annual average rainfall in 2002 which caused the decrease of agriculture production. **(3.2.2)**

32. Poverty line represented by BPS is probably the most frequently utilized measure of poverty in Indonesia, which is based on the level of expenditure necessary to purchase 2,100 kcal of diet and other basic-needs non-food commodities. Based on BPS estimates, the nationwide

**Table S-5 Poverty Index**

Province	Kabupaten	Poverty Line (capita/ month)	Poor Population (person)	Poverty Headcount Ratio
West Java	Cirebon	Rp.120,074	352,400	17.3%
	Kuningan	Rp.123,267	201,700	19.5%
	Majalengka	Rp.129,547	203,700	17.7%
<b>West Java Province</b>		-	-	12.9%
East Java	Mojoketro	Rp.140,862	166,100	17.2%
	Kediri	Rp.112,907	289,200	19.6%
<b>East Java Province</b>		-	-	20.9%

Source: UNDP (2004), National Human Development Report 2004

poverty line is Rp. 152,847 per month per person (as of March 2006). Although poor population has been reduced thanks to Social Safety Net Program from 1998 to 2001, poverty remains one of the main topics to be tackled. Poverty line, poor population and poverty head count ratio of each Kabupaten is shown in Table S-5. In general, poverty ratio in East Java Province is higher than that in West Java Province. Target area, 5 Kabupaten, has higher poverty headcount ratio than the average of each Province. **(3.2.3)**

### ***Kabupaten Cirebon***

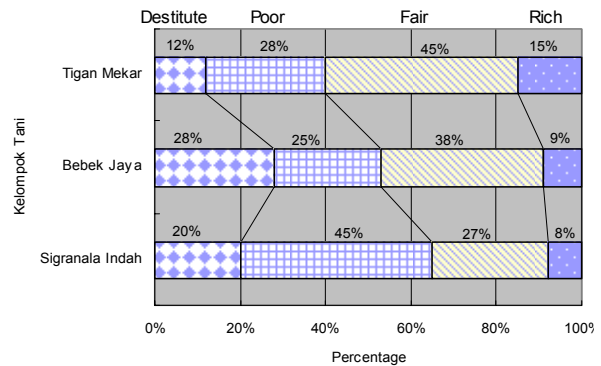
33. The strategic planning 2005-2009, Kabupaten Cirebon focuses on promoting livestock-based agribusiness in order to increase farmers' income. In this vision, Kabupaten aims to increase livestock production particularly paying attention to duck meat production as well as Day Old Duck (DOD) and pullet as future potential exportable products. In line with this vision, four programs are currently prioritized: (i) Food Livestock Sources Security Enhancement Program, (ii) Livestock Business Empowerment Program, (iii) Animal Health Control and Veterinary Community Health Program and (iv) Apparatus Facility and Infrastructure Development Program. **(3.3.1)**

34. Although Kabupaten Cirebon focuses on duck promotion, production is not necessarily in increasing trend. Peak production is observed in 2002 (350,000 tails) while in 2005 (280,000 tails), production decreased by 20% from 2002 due to the impact of avian flu. Kabupaten DINAS applies focal approach to promote duck production. The duck production is generally concentrated on such focal areas particularly along the coastal Kecamatan consisting of Gebang (67,000 tails), Panguragan (50,000 tails), Kapetakan (48,000 tails), Losari (40,000 tails), and Cirebon Utara (18,000 tails), which occupies over 80% of total production in the Kabupaten. **(3.3.1)**

35. Each Kelompok Tani in Kabupaten Cirebon has different levels of activities in production and processing as well as their marketing target. Some Kelompok Tani such as Jambul Jaya 6 and Sigranala Indah sells their products within Desa and surroundings of the groups. On the other hand, Tigan Mekar focuses on wider area of the market including outside Province. Kelompok Tani in Kabupaten Cirebon is, therefore, classified into three groups, market of which is: (i) nearby Desa, (ii) within Kabupaten and (iii) cross provinces. From each category, Sigranala Indah (markets nearby Desa group), Bebek Jaya (markets within Kabupaten group) and Tigan Mekar (markets cross province group) were respectively selected to carry out further detailed study and field workshop, and to

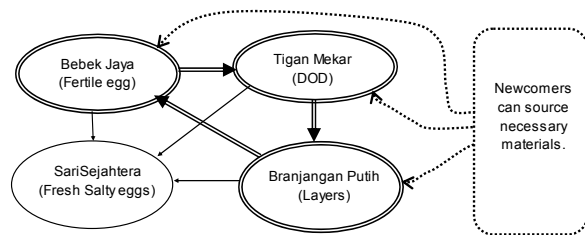
prepared improvement plan as sample duck Kelompok Tani model in Cirebon. **(3.3.2)**

36. The result of poverty ranking at three communities of Kelompok Tani is shown in Figure-S-2 explaining that the category, destitute and poor percentage is significantly high in Sigranala Indah according to the attendants understanding. The problems faced by Kelompok Tani in Cirebon mainly focus on: (i) capital insufficiency to expand business, (ii) limited marketing activities, and (iii) unstable price of egg and duck related-commodities. Physical constrains are also the problems for the group to develop and expand their activities such as lack of water supply facilities and accessibility to the market. **(3.3.2)**



**Figure S-2 Poverty Percentage of Communities (Kabupaten Cirebon)**

37. Salient characteristics of duck industry in Kabupaten Cirebon is business alliance so called “Triangle System.” As illustrated in Figure S-3, four Kelompok Tani concluded agreement (Memorandum of Understanding: MOU) to share work responsibility among the group. The system is advantageous to newcomers to start duck business by providing possible commodities (pullet & eggs) to be produced for them. DINAS Livestock and Fishery has been contributing to the development of this system through providing equipment such as hatchery with the group. **(3.3.3)**



**Figure S-3 Triangle System (Business Alliance) of Duck Industry (Kabupaten Cirebon)**

38. Rambon Aking variety is common in Cirebon which needs much water. Therefore, it is often called *wet duck*. There are two types of duck breeding system in Cirebon. One is traditional Herding System (*Angon*) and the other is fence system. *Angon* system release ducks to paddy fields after harvest where fallen paddy or snails are available as a feed. Farmer migrate with ducks from village to village or even crossing Kabupaten/Provincial borders. The field interview disclosed that the egg production is better with lower production cost through this method. Majority of *Angon* farmers in Cirebon takes herding during dry-season (from March until November) and fence system in wet season (December to February) near their residential area. Farmers adopt semi-intensive or intensive style is in increase nowadays. **(3.3.3)**
39. Particular findings of marketing in Kabupaten Cirebon is as follows: (i) Middlemen organize their own farmers’ groups, sharing 5-10% of all duck- related farmers in Cirebon, and (ii) Much of fresh duck eggs are incoming from other Kabupatens/ Provinces due to shortage of supply, while DOD are outgoing to other areas since they are produced for outside market. Every movement of the product gives middlemen a chance for business.

*(3.3.4)*

40. Participants acting in between farmers (individuals/ groups) and retailers in the market of duck-related product in Cirebon are: (i) Middlemen, (ii) Village collectors, (iii) Processor, and (iv) Multi-plyer. *(3.3.4)*
41. Marketing-related problems are primarily: (i) **Transportation**: lack of means, high cost and poor road condition, (ii) **Business quality**: lack of business mind and farmers' passive attitude toward marketing compared with middlemen, (iii) **Dependence on middlemen**: unsustainable marketing due to being dependent on middlemen, price determined by middlemen's initiative and bound by middlemen since loan provided by them and (iv) **Market**: difficulty in access to market, difficult marketing due to avian-flu and limited access to global marketing. *(3.3.4)*

***Kabupaten Kuningan***

42. Agriculture-based development is stressed to improve rural community in Kabupaten Kuningan. Policy on "Agropolitan Area Development" in 2006 prepared by BAPPEDA divides Kabupaten into four zones respectively centered by four Kecamatan: Cilimus, Ciawigebang, Luragung and Kuningan, each of which has different focus and target of commodities depending upon its own potentiality. Among others, Cilimus zone (Cilimus and Cigandamekar) is directed to be a production center of sweet potato, a sample commodity in Kuningan, sheep, fishery etc. In the Strategic Planning 2004-2008, Kabupaten put priority on the following three programs: (i) Agriculture Human Resources Quality Improvement Program, (ii) Food Security Enhancement Program, and (iii) Agribusiness Development Program. *(3.4.1)*
43. Sweet potato is one of the prioritized commodities in Kabupaten. As evident from the production data, 2002 shows better production performance while production in recent three years is apparently stagnant. As explained above, sweet potato production center is in Kecamatan Cilimus and Cigandamekar. These Kecamatan produces 59,500 ton of sweet potato equivalent to 55% of total production in Kabupaten followed by Jalaksana (16,500 ton), Pancalang (9,900 ton) and Cipicung (7,100 ton). Production of sweet potato in Kuningan is better than Kabupaten Majalengka for its favourable soil condition around Ciremay Mountain and developed irrigation facilities. AC variety is common in Kuningan. According to the field survey, however, farmers do not use superior seed intensively; the production yield and diseases tolerance are getting deteriorated year by year. It is important, therefore, to establish the seed multiplication and supply system of quality seed of sweet potato by DINAS Agriculture. *(3.4.1 & 3.4.3)*
44. Kelompok Tani can be largely classified into two: (i) Kelompok Tani engaged in production and (ii) those engaged in processing. Firstly, Kelompok Tani are classified into such groups for evaluation. Through the exercises, Kelompok Tani Andayarasa in Kecamatan Cilimus having high level of evaluation result in most of the aspects was selected from production group while two Kelompok Tani, Bina Karya and Lingasari 2 were selected as the group currently specialized in processing. *(3.4.2)*

45. Figure S-4 on the right shows that percentage of “destitute” and “poor” category, 30 to 40%, is recognized relatively lower than that of duck farmers’ group in Kanbupaten Cirebon. In general, in Kuningan Kelompok Tani, production-related problems are ranked higher through the discussion such as (i) High price of fertilizer, (ii) limited capital to purchase fertilizer, (iii) unstable and/or decreased production, and (iv) insufficient capital for cultivation. (3.4.2)

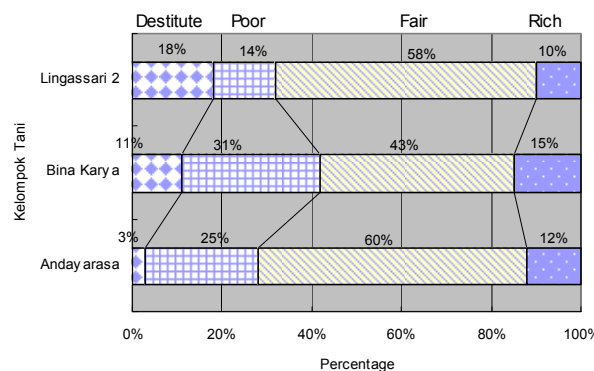


Figure S-4 Poverty Percentage of Communities (Kabupaten Kuningan)

46. Farmers groups work on various sweet potato processing. Common products are *Keremes*, *Dodol*, flour and chips. Some farmer groups challenge unique processing such as ice cream or *Sambal* sauce production under the leadership of the group leader. All of these works are small-scale basis and their markets merely covers their domiciles. The biggest issues are lack of capital for business expansion, weak marketing capability and lack of approach to new products/technology. The operation tends to be a personnel business although some official assistances are arranged, for instance, at Binakarya for *Sambal* sauce production and Lingasari 2 for ice cream processing. (3.4.3)

47. Two large-scale sweet potato processing factories are under operation. One is PT. Galih Estetika located at Kecamatan Cilimus producing mainly sweet potato paste for export to Japan, Korea and China. The other is PT. Global Agro-Inti located at Kecamatan Ciganda Mekar, main product of which is sweet potato flour. There would be a possibilities for farmers’ group to work with those private factories, through, for example, providing raw materials and/or semi-processed products such as dried potato chips. However, it surely requires careful quality assurance is essential for farmers. (3.4.3)

48. Particular findings of marketing in Kabupaten Kuningan are as follows: (i) Approximately 70% of sweet potato is outgoing through middlemen to other Kabupatens (processors or wholesalers for export) in fresh (unprocessed) form. Remaining 30% is distributed to local processors and wholesalers. (ii) There exists the processing industry (two private companies) for export & domestic industrial demand as mentioned above, and (iii) There are no middlemen group dominating sweet potato market. More fair and open competition is observed among middlemen, than in Majalengka. (3.4.4)

49. Participants acting in between farmers (individuals/ groups) and retailers in the market of sweet potato in Kuningan are: (i) Middlemen, (ii) Village collectors, (iii) Processor and (iv) Trader (Grosir). They are basically same functions as in Cirebon although commodity is different. (3.4.4)

50. Similar marketing-related problems are observed like in Cirebon primarily as: (i) **Transportation**: lack of transport means, (ii) **Business quality**: lack of business mind and passive farmers’ attitude in marketing compared with middlemen, (iii) **Dependence on**

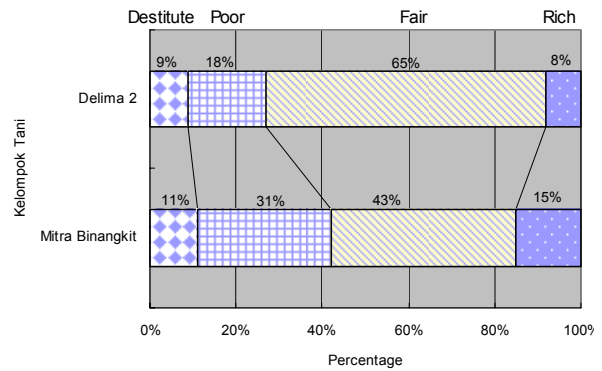


*middlemen*: price determined by middlemen's initiative and bound by middlemen since loan provided by them and (iv) *Market*: no knowledge of market price and malfunctioned market information system. (3.4.4)

### ***Kabupaten Majalengka***

51. Kabupaten Majalengka agriculture development policy focuses on two main issues: food security and agribusiness development through the integration of available natural and human resources in a sustainable manner. Kabupaten put priority on five programs largely classified into two categories: General Programs and Special Programs. General Programs includes two programs: (i) Food Security Enhancement Program and (ii) Agribusiness Development Program. Special Program consists of: (i) Agriculture Human Resource and Institution Development Program, (ii) Potential Agribusiness Area Development Program, (iii) Agribusiness Competitive Commodity Area Mapping Program, (iv) Agriculture Production Development Program and (v) Infrastructure and Facility Development Program. (3.5.1)
52. In terms of production of sweet potato, a sample commodity of the Study for Majalengka, although there was a depression in 2003 due to unfavorable climatic condition, Kabupaten sweet potato production is in steady growth showing 60% increase since 2001. Sweet potato production is primarily concentrated on five Kecamatan. Most productive area is Kecamatan Maja producing 4,000 ton, 30.1% of Kabupaten total production followed by Kecamatan Cigasong (2,100 ton), Argapura (1,400 ton), and Majalengka (1,000 ton). Production of sweet potato in Kabupaten Majalengka is lower than Kuningan since the farmers produce sweet potato only in rainy season due to its poor irrigation facilities. Field survey shows that the productivity of sweet potato in rainy season is lower. It is also reported that the farmers do not use superior seed intensively; the production yield and tolerance to diseases are getting deteriorated year by year. It is required to establish the seed multiplication and supply system of quality seed by DINAS. (3.5.1 & 3.5.3)
53. Eight Kelompok Tani extending four Kecamatan were surveyed. As same as Kabupaten Kuningan, Kelompok Tani surveyed were firstly categorized into two: (i) "Production" Kelompok Tani and (ii) "Processing" Kelompok Tani for evaluation, from which Delima 2 in Kecamatan Telega and GPK Mitra Binangkit in Kecamatan Cigasong were selected from "Processing" group. Field survey revealed that currently Kelompok Tani categorized into "Production" group is in primitive level of production and still challenging for starting processing. Their production is unstable if compared with the groups in Kuningan. Therefore, first thing needs to be considered is to stabilize production in those Kelompok Tani through the assistance by DINAS, and subsequently commence processing gradually in the next stage. (3.5.2)
54. The result of poverty ranking at two Kelompok Tani is shown in Figure S-5, describing that the poor population in the communities where Delima 2 is in place is in low percentage than Mitra Binangkit. Both Kelompok Tani rose that "insufficient capitals" is the most considerable problems in the group. Processing and marketing related problems are also listed particularly current low processing and packaging skills. (3.5.2)

55. Through the field workshop, institutional linkage map is prepared to depict what kind of institutions are related with the community in what kind of degrees. Level of relation is classified into five: (i) very small, (ii) small, (iii) fair, (iv) big and (v) very big. The map also shows physical distance to each institution. If the institutions physically are located nearby, circles are placed near the group. From the institutional mapping prepared in three Kabupaten in West Java Province, similar pattern is observed related with closeness of Kelompok Tani with existing institution. Kelompok Tani have closer relation with Government Agencies particularly Kabupaten Agriculture and/or Livestock Services and Extension Worker. Financial institution was also listed up through the mapping, however, accessibility differs among the group members. Many of the group mentioned that the group account is owned on behalf of chairman's name. Accessibility as a group is not necessarily high. Marketing development is still developing process at most of the groups, therefore, traders are also one of the important parties toward the activities by Kelompok Tani. (3.3.2, 3.4.2 & 3.5.2)



**Figure S-5 Poverty Percentage of Communities (Kabupaten Majalengka)**

56. With regard to processing activities, women-led group are active such as Mitra Binangkit and Delima 2. The groups produce traditional sweet potato commodities including *Keremes*, *Kecemplung* and *Papais* based on small-scale facilities and marketing. Expansion of marketing area for those traditional products would be difficult. This kind of business characteristics should be targeting “*Local Production and Local Consumption/Marketing using Local Produces*”. (3.5.3)
57. Particular findings of marketing in Kabupaten Kuningan are as follows: (i) One specific middlemen's group dominates more than 60% of sweet potato market in Majalengka. Main destination of the product through this group is big processors for export in other Kabupatens / Provinces, and (ii) In the areas dominated by the said middlemen's group, sweet potato farmers have no choice for marketing. In other areas, however, marketing by farmers seems to be more open. (3.5.4)
58. Participants acting in between farmers (individuals/ groups) and retailers in the market of sweet potato in Majalengka are: (i) Middlemen, (ii) Village collectors (Pengepul), (iii) Processor and (iv) Trader (Grosir). As mentioned above, Middlemen is really influential in the market of sweet potato. (3.5.4)
59. Marketing-related problems are primarily: (i) **Transportation**: No transportation means owned by Kelompok Tani, (ii) **Business quality**: limited sales promotion, lack of business mind and farmers' passive attitude toward marketing compared with middlemen, (iii) **business performance**: limited marketing channel, limited marketing area, low level of profit and insufficient partnership among Kelompok Tani, (iv) **Dependence on**

*middlemen*: price determined by middlemen’s initiative and bound by middlemen since loan provided by them and no other choice for farmers in marketing their product since largely dominated by middlemen’s group and (v) *Market*: malfunctioned market information system, no access to market information and small market size for sweet potato. (3.5.4)

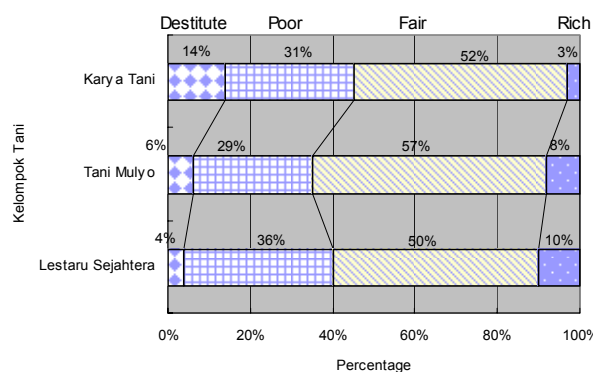
**Kabupaten Mojokerto**

60. According to the strategic planning 2001 – 2005 (DINAS Livestock and Fishery Services), one of the six missions is “To increase livestock production and productivity through breeding, feed development and livestock technology application.” In line with this vision, DINAS aims to increase livestock population by 2.1% per annum for big animals and 1.6% per annum for small animals as well as egg and milk production of 2.0% per annum respectively. Sample commodity for the Study, duck is one of the focuses to be developed by the DINAS within the vision. There are mainly five programs under operation with DINAS initiative: (i) Fishery and Livestock Production Development Program, (ii) A Million Cattle Acceptor Artificial Insemination Program, (iii) Food Security Enhancement Program through Supplying Animal Protein Sources and Empowerment of Fishermen Activities, (iv) Fish Seed Infrastructure and Facility Empowerment Program and (v) Prevention and Observation of Animal Diseases, Periodical Livestock Vaccination and Examination of Meat and Milk Quality. (3.6.1)

61. Duck production in Kabupaten shows gradual growth generally in recent five years although there is no Kecamatan basis data available and annual fluctuation is observed. Total duck production of Kabupaten in 2005 is 207,000 tails equivalent to approximately 15% increase from 2001. (3.6.1)

62. Five Kelompok Tani in five Kecamatan were surveyed. Kelompok Tani in Mojokerto can not be categorized by its marketing target since the duck marketing in Mojokerto is different from Cirebon. Field survey clarified that, currently, duck market in Mojokerto is actively driven by collectors and the demand to duck commodity is really high, particularly market outside Kabupaten, so called sellers’ market. With the help of such active collectors, demand of market can be expanded in the near future, especially for the market in Surabaya and surrounding urban area. Taking this situation into account, selection is made based only upon the qualitative scoring without segregation of markets. From this exercise, three Kelompok Tani consisting of Karya Tani, Lestari Sejahtera and Tani Mulyo are selected for model groups from Mojokerto. (3.6.2)

63. The result of poverty ranking at three Kelompok Tani is shown in Figure S-6 on the right. Destitute and Poor category shows comparatively lower percentage in the community of Kelompok Tani Tani Mulyo. Through



**Figure S-6 Poverty Percentage of Communities (Kabupaten Mojokerto)**

the problem census in the field workshop, limited capital to expand their activities was pointed out as higher ranked problem at all the Kelompok Tani. “Fuel price increase” although as an external factor was also discussed and ranked as serious problem through the session. (3.6.2)

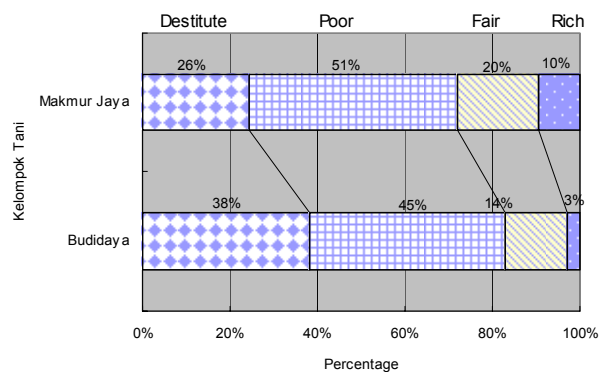
64. The basic technologies of duck farming and its recover ratio such as breeding, DOD production and salty egg processing are almost same as that in Cirebon. The different points to be mentioned is that there is no definitive nucleus suppliers system of fertile egg, DOD and pullet duck like in Cirebon, causing restriction of the development of duck breeding business in Mojokerto. It is difficult for new comers to commence duck business or for existing duck breeders to expand his business. DINAS Livestock and Fishery Services is recommended to support establishing business alliance system as seen in Cirebon for the development of duck industry. (3.6.3)
65. The biggest duck farmers’ group in Mojokerto is Kelompok Tani Lestari Sejahtera producing DOD, fertile eggs, salty eggs, meat ducks and smoked meat. DINAS have tried in 2001 to develop farmers’ group near Kelompok Tani Lestari Sejahtera by providing technical and financial support, however, the result was not necessarily successful. This is because they are reproached by surrounding communities for smell and noise of duck in the congested areas. From this trial, it is clarified that the promotion of new business requires a lot of consideration in all aspects such as the location, environment, human relation, leadership, skill of the management, transparency of the business, marketing condition, infrastructures and so on. (3.6.3)
66. Particular findings of marketing in Kabupaten Mojokerto is as follows: (i) There is no business alliance (partnership agreement) among Kelompok Tani as already mentioned, (ii) Much of duck-related product consisting of fresh eggs DOD and salted eggs flows out to Surabaya and other Kabupatens/ Provinces, and (iii) Various types of transaction between farmers and middlemen, particularly village collectors, are observed with the specific features of duck-related product. (3.6.4)
67. The interview with several officers (DINAS) suggests that middlemen are involved in the majority of duck-related transactions made by Kelompok Tani. Participants acting in between farmers (individuals/ groups) and retailers in the market of duck-related product in Mojokerto are: (i) Middlemen, (ii) Village collectors, (iii) Processor, and (iv) Multi-plyer. (3.6.4)
68. Marketing-related problems are primarily: (i) **Transportation**: lack of means, (ii) **Business quality**: lack of business mind, farmers’ passive attitude toward marketing compared with middlemen, Kelompok Tani’s unfavarable reputation and no partnership with other group, (iii) **Dependence on middlemen**: unsustainable marketing due to being dependent on middlemen, price determined by middlemen’s initiative and bound by middlemen since loan provided by them and (iv) **Market**: difficulty in access to market, difficult marketing due to avian-flu, decrease of demand of eggs and malfunctioned market information system. (3.6.4)

**Kabupaten Kediri**

69. Kabupaten agriculture development policy puts priority on: (i) increasing agriculture productivity, (ii) promotion of processing industry particularly increase of value addition through primary processing, and (iii) development of production center of prospective products, based on facilitating farmers' group participation. Following five programs are mainly taken into account in line with the policy: (i) Food Crops Security Improvement Program, (ii) Agribusiness and Agro-industry Development Program, (iii) Development of Best Quality of Fruits and Vegetables Program, (iv) Agriculture Infrastructure Development Program and (v) Human Resources Development Program. **(3.7.1)**

70. Although mango, a sample commodity, is a kind of perennial crops, production shows significant fluctuation. The production in 2003 demonstrated highest in recent 5 years while the production in 2005 merely reached to the 66% of the production in 2003. As for the Kecamatan basis production, Kecamatan Tarokan is the most developed in mango production (15,300 ton) followed by Kecamatan Semen (10,100 ton), Grogol (7,700 ton), and Banayakan (7,600 ton). These 4 Kecamatan dominate nearly 84% of total mango production in Kediri. **(3.7.1)**

71. Six Kelompok Tani extending four Kecamatan were surveyed identifying that only two Kelompok Tani, Budi Daya and Makur Jaya, are engaged in processing. Mango processing is still in the developing and, conversely, most of the Kelompok Tani is generally in the same level in processing. Therefore, different from sweet potato in Kuningan and Majalengka, Kelompok Tani were not classified into production and processing group but only compared using qualitative score for the selection. From this exercise, Kelompok Tani Budi Daya having competitive in most of the aspects and Makmur Jaya particularly predominating in marketing skills are selected as model groups. **(3.7.2)**



**Figure S-7 Poverty Percentage of Communities (Kabupaten Kediri)**

72. The result of poverty ranking at two Kelompok Tani is shown in Figure S-7. on the right. The category, destitute and poor percentage is significantly high as compared with other Kabupaten, 70 to 80% of the community members, in both community of Kelompok Tani. The field survey clarified that physical accessibility from both Kelompok Tani to the market is notably serious, therefore, it is understandable that lack of transportation and road condition was raised from the attendants of field workshop as one of the highest raked problems. Common issues also raised were (i) insufficient skills on mango cultivation and (ii) insufficient marketing activities. **(3.7.2)**

73. Mango farmers in Kediri usually apply mix farming (*Tumpang Sari*) system, therefore, they plant vegetable or secondary crops with mango tree. Harvest season is only once a year. Agricultural equipment for mango and food crops is simple ones such as hand

sprayer and hoe. Mango Podang processing is not developed in mango production areas (Kecamatan Tarokan, Semen etc.). Some farmers groups intend to carry out processing mango Podang, however, they don't have the skills on processing and marketing. Besides, most of them lack capital to process the mango. Until now, most of the farmers sell only fresh mango to collectors. Consequently, in peak season farmers do not get enough profit because the mango price is too low to cover cost of harvesting. (3.7.3)

74. Farmers' group level in processing remains low. For instance, Kelompok Tani Budidaya got Vacuum Fryer for mango and are trained by BPTP Malang. However, for mango processing up to now is still in trial stage. According to the field interview, the group produced mango juice with traditional simple method without pasteurization process, therefore, the products lasted long for 1 day only. As farmers strongly desire to sell out all mango fruits, it is said that 75% of mango transaction are made between collectors and farmers before the harvest, generally called *Ijon* system widely practiced in Java Island, not only for mango but also for other crops. (3.7.3)
75. There are two distinguished activities observed in Kediri: (i) dried chips processing at Kelompok Tani Sumber Mulyo (Kecamatan Banyakan) supported by NGOs and (ii) pineapple processing by Kelompok Tani Lohginawi (Kecamatan Ngancar) technically advised by BPTP Malang, Brawijaya University and DINAS Industry Kediri. (3.7.3)
76. Particular findings of mango marketing in Kabupaten Kediri are as follows: (i) More than 50% of fresh mango is outgoing to other kabupatens (wholesalers, etc.), due to limited demand within Kabupaten, (ii) There is a "fruits market" in the center of production area. 80 % of local mango gathers to this market in harvest season, but buyers from other Kabupatens are more than local ones, (iii) Approximately 75 % of mango transactions is made before harvest, with farmers' strong desire to secure the outlet. (iv) There is no mango processing industry, but only home industry level and (v) Some partnership between Kelompok Tani and private companies in other Kabupatens are observed for supply of raw materials, training and processing. (3.7.4)
77. As in other Kabupaten and/or commodities, middlemen and collectors are involved in the majority of mango related transactions made by Kelompok Tanis and non-Kelompok Tani member farmers. Participants acting in between farmers (individuals/ groups) and retailers in the market of mango in Kediri are: (i) Middlemen, (ii) Village collectors, (iii) Processor and (iv) Trader. They are basically same functions as in other Kabupaten. (3.7.4)
78. Similar marketing-related problems are observed primarily consisting of: (i) **Transportation**: No transportation means for distribution of the product and poor road condition leading to high transportation cost, (ii) **Business quality**: lack of business mind and farmers' passive attitude toward marketing compared with middlemen, (iii) **Dependence on middlemen**: price determined by middlemen's initiative and bound by middlemen since loan provided by them, (iv) **Market**: malfunctioned market information system. (3.7.4)

***Rural Microfinance***

79. The Study result shows that farmers have different accessibility to financial institutions from BRI Units to Non-bank and others such as pawnshop, *warung* and *Arisan*. Although there are various kinds of financial services, it was revealed from interview, workshop, poverty ranking, and household survey that not all the services are utilized by the all layers of community people. From the result of poverty raking, in general, the fair and rich ranking people have access to banking institutions while mostly very poor and poor have access only to moneylenders, *Arisan*, parnshop, small shops (*warung*), and traders (middlemen). In some worst cases, people in the very poor category have no access to any of the financial services. **(3.8.1)**
80. The existence of banks near the community does not necessarily help to fill the gap of financial demand and supply. Commercial banks are in general limited to serve the customers who are located nearby, within 5 – 10 km from their branches and units. This policy and the fact that they handle more government programs, seem to complement the number of establishments in the rural area and achieve a level of outreach following BRI Units. From the bank side, different banks have different priority areas, and they are not necessarily agriculture sector. Banks currently started increasing MSME finance but money is not flowing enough into the agribusiness. Banks analyzed the difficulties of lending farmers as (i) farmers low capacity of marketing, managing fund, and book keeping, (ii) cropping risk, (iii) profit margin decrease due to the impact of kerosene price hike, (iv) bird flu risk. All these would all risk the delay in following the instalment time. Due to bird flu outbreak, some banks stopped to finance new chicken and bird farmers. **(3.8.2)**
81. As repayment cycle or installments from banks came out as one of the major barriers for farmers who do not borrow from banks, this is normally not the case of the credit supplied by traders (or middlemen and collectors) and feed supplier, who are the main financier for farmers, following the banking, non-banking institutions, and farmers' groups. The common practice of repayment is that the farmers sell the products to the traders / suppliers after harvest, and they deduct the loan amount, and give back the difference to farmers. The power relations between the farmers and traders / suppliers differ in each case, some farmers take it positively, to utilize the marketing network of traders / suppliers, and to secure the sales even before the harvest. Others feel the relationship with feed supplier-cum-collector as bondage, staring they are charged market price when they are supplied feeds on credit, and when their products are collected, the purchase price is lower than the prevailing market price. **(3.8.2)**
82. Most of the selected farmers groups have some forms of savings and loan activity, however, level differs among those. Other points which should not be overlooked were unequal distribution of government finance programs for farmers and for poverty alleviation, which affect attitude and mindset of groups. Some of the groups which received softer condition finance program seem to be ready for financial independence, from any form of grant or soft loan. In a way, for them to receive massive assistance, they were chosen as a showcase. But the cumulative assistance obviously contributed bigger

expectation to additional financial program with soft terms. On the other hand, those groups which have less or no experience of receiving government program presented more business minded attitude. Characteristics of loan utilization by commodity is different. All of those financial experiences at Kelompok Tani need to be considered for the improvement approach. **(3.8.3)**

83. According to the basic research in the sample Kabupatens, the selected groups' farmers have already had access to the finance up to certain extent. The kind of financial institutions they have access to differ, the elements they cannot control is the community's geographical set up, and the profitability structure of the commodity. Some have access to banks, save and borrow their working capital and small investment capital around Rp.5 million. Some have access to cooperatives, save and borrow mainly the working capital around Rp.1 million without collateral, others to farmers' groups, save and loan around Rp.0.5 million without collateral, and to *warung*, and individuals (group leader, traders, feed suppliers). Other farmers do not have physical access to banks because they are located in the remote area, are currently served by P4K scheme. This situation expressed as the gap between demand and supply of financial services in the rural area: (i) lack of physical access, (ii) financial needs for the community, (iii) financial needs for agribusiness, (iv) not meeting the loan condition, (v) reliance on traders' finance, and (vi) limit of loan amount offered by farmers' groups and cooperatives. **(3.8.4)**



IV. BASIC IMPROVEMENT APPROACH

Basic Improvement Approach

84. The target group is the poor farmers in the rural area. The poverty headcount ratio at the district level in the Study area ranges from the lowest of 17.3% in Cirebon to the highest of 19.6% in Kediri in 2004, higher than the national average of 16.7%. The poverty assessment result shows the sense and level of poverty differs by community, as shown in Figure S-8 below.

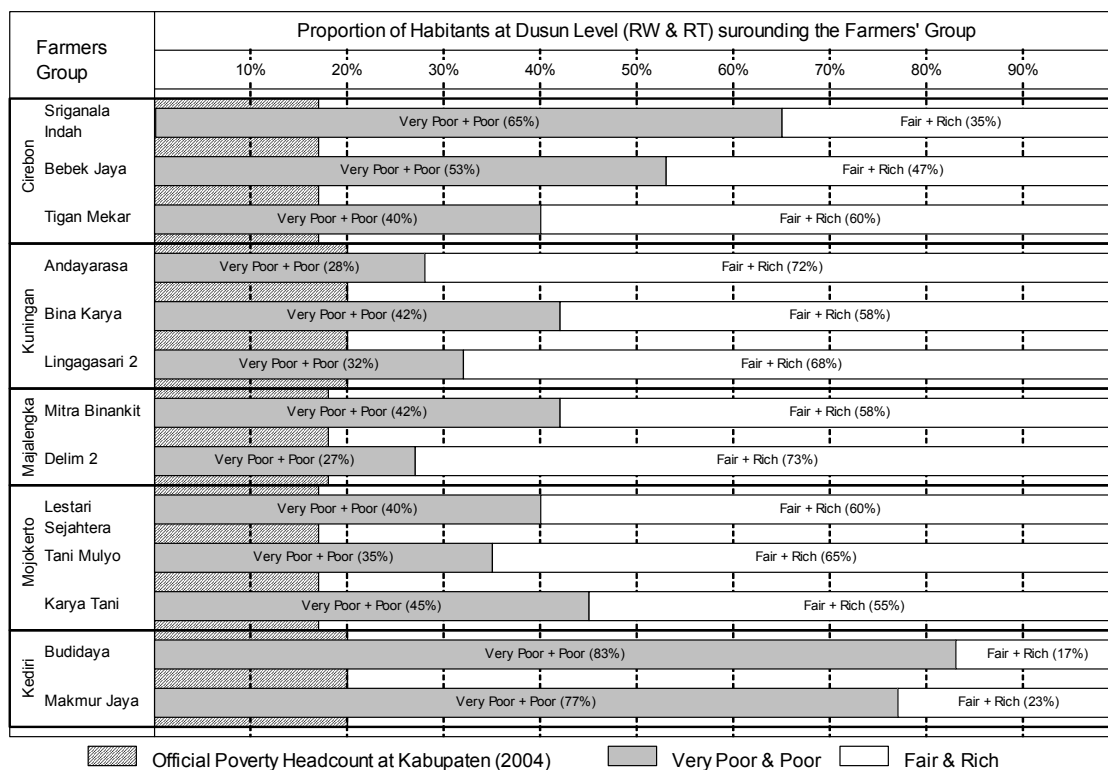


Figure S-8 Result of Poverty Ranking

Some of these farmers demonstrate their strong motivation and potential capacity to improve their agricultural processing as business, and savings and loan activity, because these are the minimum conditions for the income improvement. In this regard, the target Kelompok Tani are expected 1) to have the willingness to be self-reliant, 2) to recognize the importance of organizational management capacity, and 3) to consider the burden of women and gender balance. (4.1.1)

85. Many aspects needs to be considered to enable farmers to be self-reliant by agricultural processing and rural micro-finance activities consisting of: (i) technical and marketing capacities in processing business, (ii) marketing strategy to be prepared and updated at farmers' level, (iii) filling the gap between financial supply and demand by establishing micro-finance institution (MFI) leading to support asset building and capital formation, and (iv) enabling environment including research & extension, organization and institution, input and material supply, rural infrastructure etc. Schematic image of these linkage are shown in Figure S-9. (4.1.2)

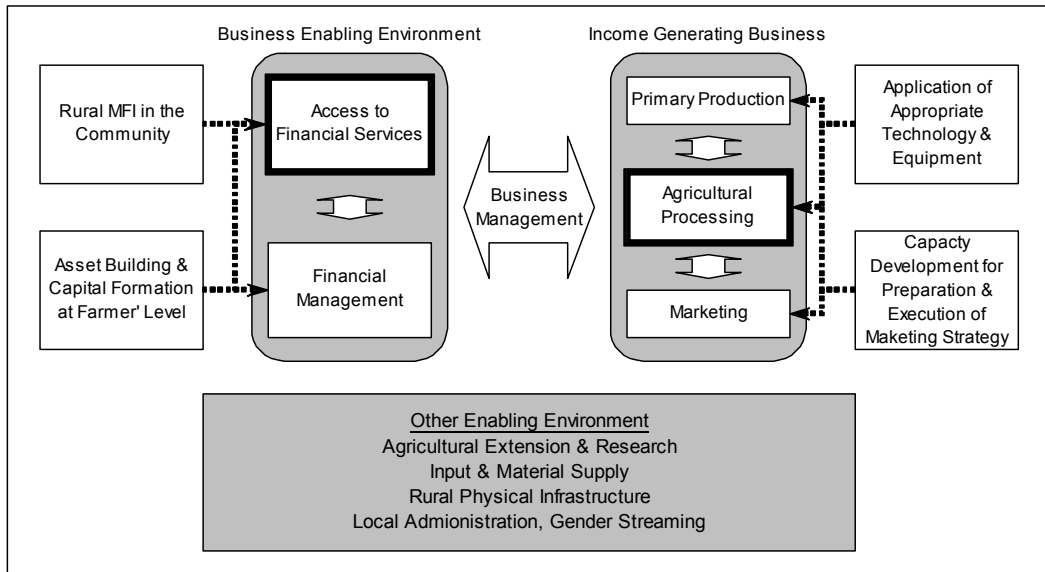
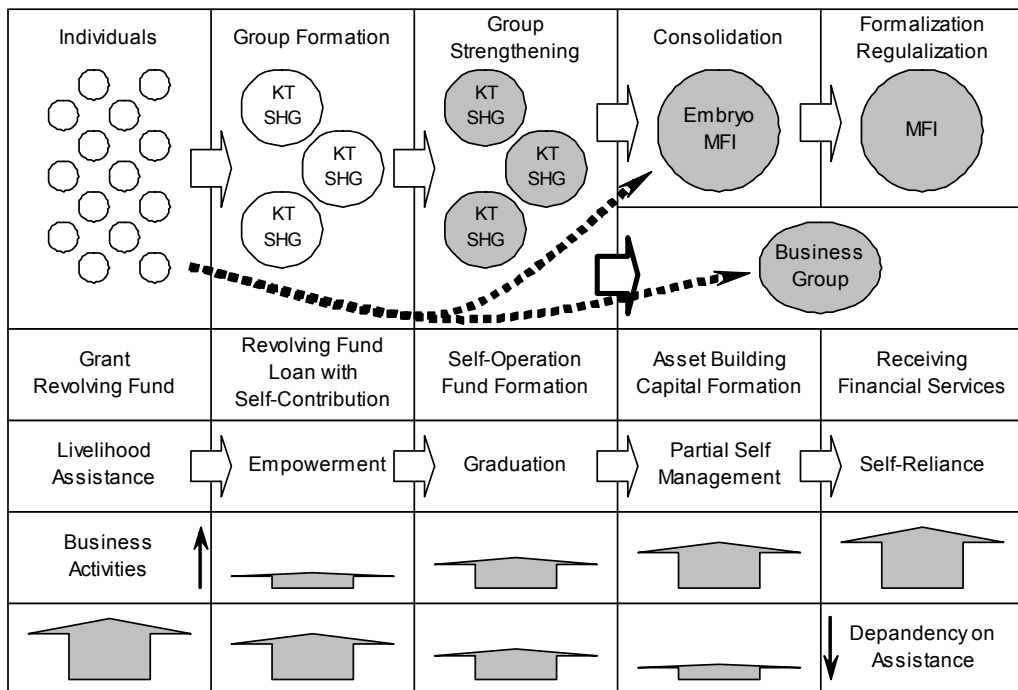


Figure S-9 Schematic Image of Linkage

86. In MFI formation process, the farmers will organize their own groups or women’s groups, then transform such unit to MFI via Embryo MFI (informal MFI, but widely accepted) through strengthening and consolidating groups into larger size. The transformation process is illustrated in the Figure S-10. Through the process, business activities will be up-graded up and “dependency mindset” will be decrease according to the steps in each stage. (4.1.3)



KT: Kelompok Tani, SHG: Self-Help Group, MFI: Microfinance Institution

Figure S-10 Transformation Image of Farmers’ Organization to MFI

87. Farmers and/or farmers' groups engaged in agriculture processing are rural community based producers utilizing raw materials available locally, and products are distributed through collectors and middlemen to the markets. This activity contributes to community-based economy and improves socio-economic condition of the community. At the same time, different activities in the community-based development stimulate and expand agricultural processing directly and indirectly. Same situation can be expected for rural microfinance, linkage with community development is, therefore, important for promotion of agricultural processing and rural micro finance, and as shown in Figure S-11. In some cases like duck and sweet potatoes, products are marketed to domestic markets at national level, directly or indirectly through further processing and manufacturing. In Kuningan, dried chips will be produced through the primary processing of sweet potatoes by the farmers' group, and to be procured sweet potato flour mill on regular basis. In this case, the farmers' group will have a partnership with other processors and manufacturers to supply their raw material. (4.1.4)

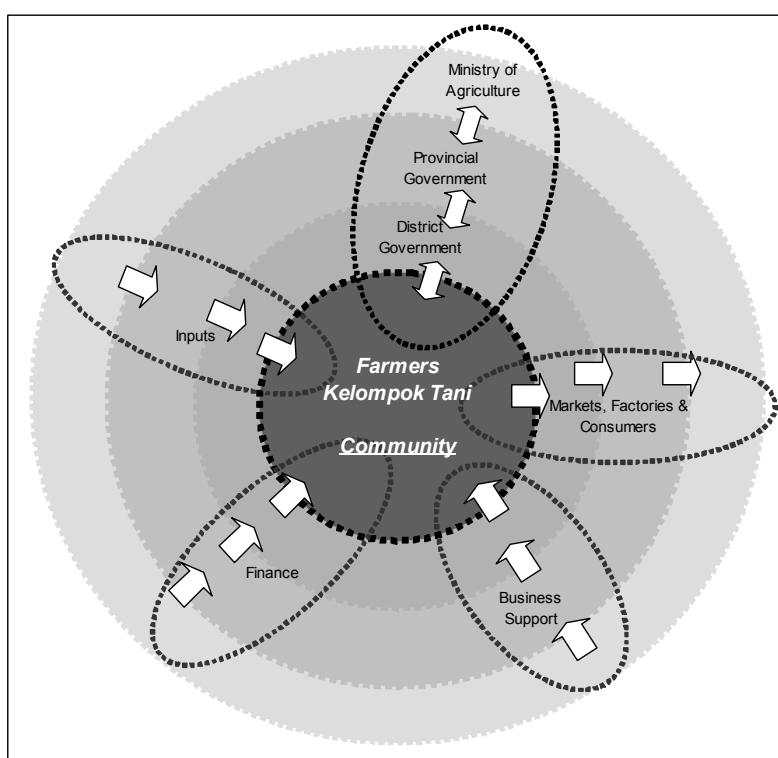


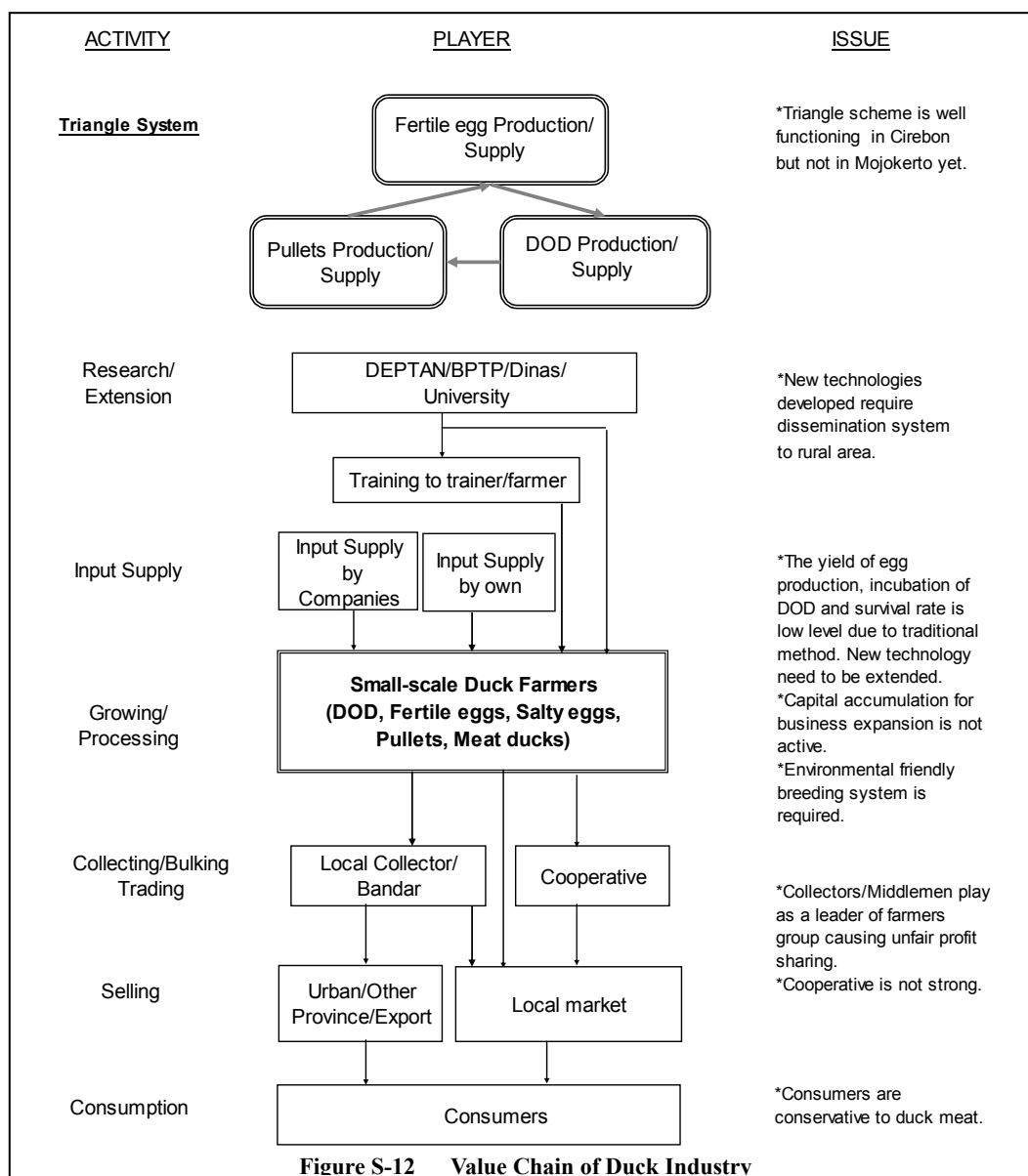
Figure S-11 Linkage with Community

**Improvement Direction**

**Processing**

88. Value chain of duck industry is illustrated in Figure S-12. Following direction should be taken for the improvement in Kab. Cirebon: (i) the existing triangle scheme should be further strengthened, (ii) technical assistance/extension should be arranged from BPTP Bogor, IPB and other institutions, (iii) new hatchery equipment such as semi-automatic type should be demonstrated, (iv) various supports for business management should be provided to Kelompok Tani, (v) soft loan should be provided for business expansion but not by grant, and (vi) new business opportunity should be developed for farmers. (4.2.1)

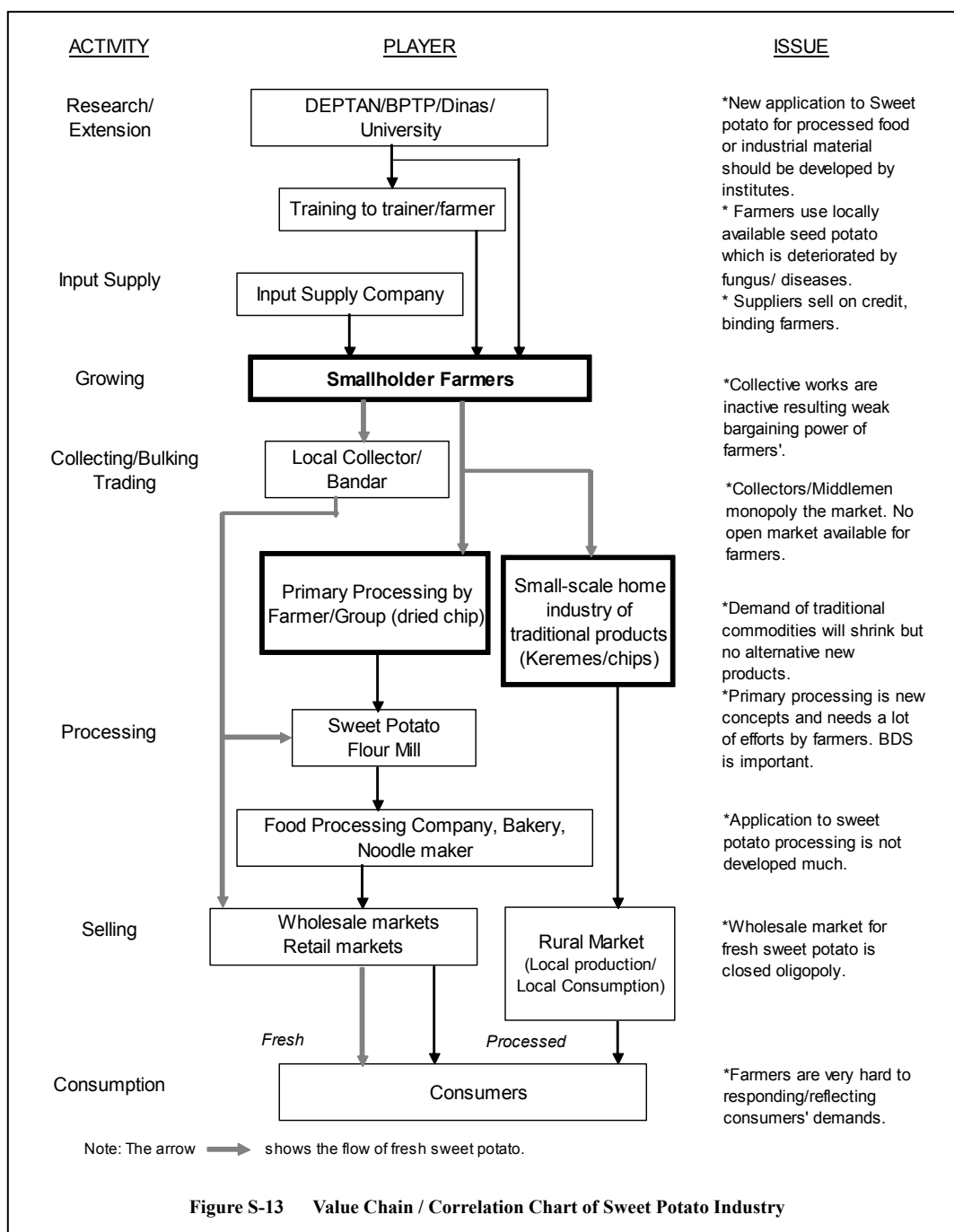
## Executive Summary



**Figure S-12 Value Chain of Duck Industry**

89. In Kab. Mojokerto, the improvement direction consists of: (i) The triangle system should be established like in Kab. Cirebon, (ii) Technical assistance/extension should be arranged from BPTP Malang, Brawijaya University and other institutions, (iii) New hatchery equipment should be demonstrated, (iv) Various supports for business management should be provided to Kelompok Tani, (v) Soft loan should be provided for business expansion but not by grant. **(4.2.1)**
90. Value chain of Sweet Potato industry is depicted in Figure S-13. Following direction is proposed for the improvement of sweet potato production and processing in Kab. Kuningan: (i) Disease free sweet potato seed should be multiplied and supplied, (ii) New sweet potato products should be developed, (iii) Marketing ability of Kelompok Tani having unique products needs to be strengthened, (iv) Development of new concept of value addition should be materialized, (v) Business management support should be provided, and (vi) Soft loan should be provided for business expansion but not by grant. **(4.2.1)**

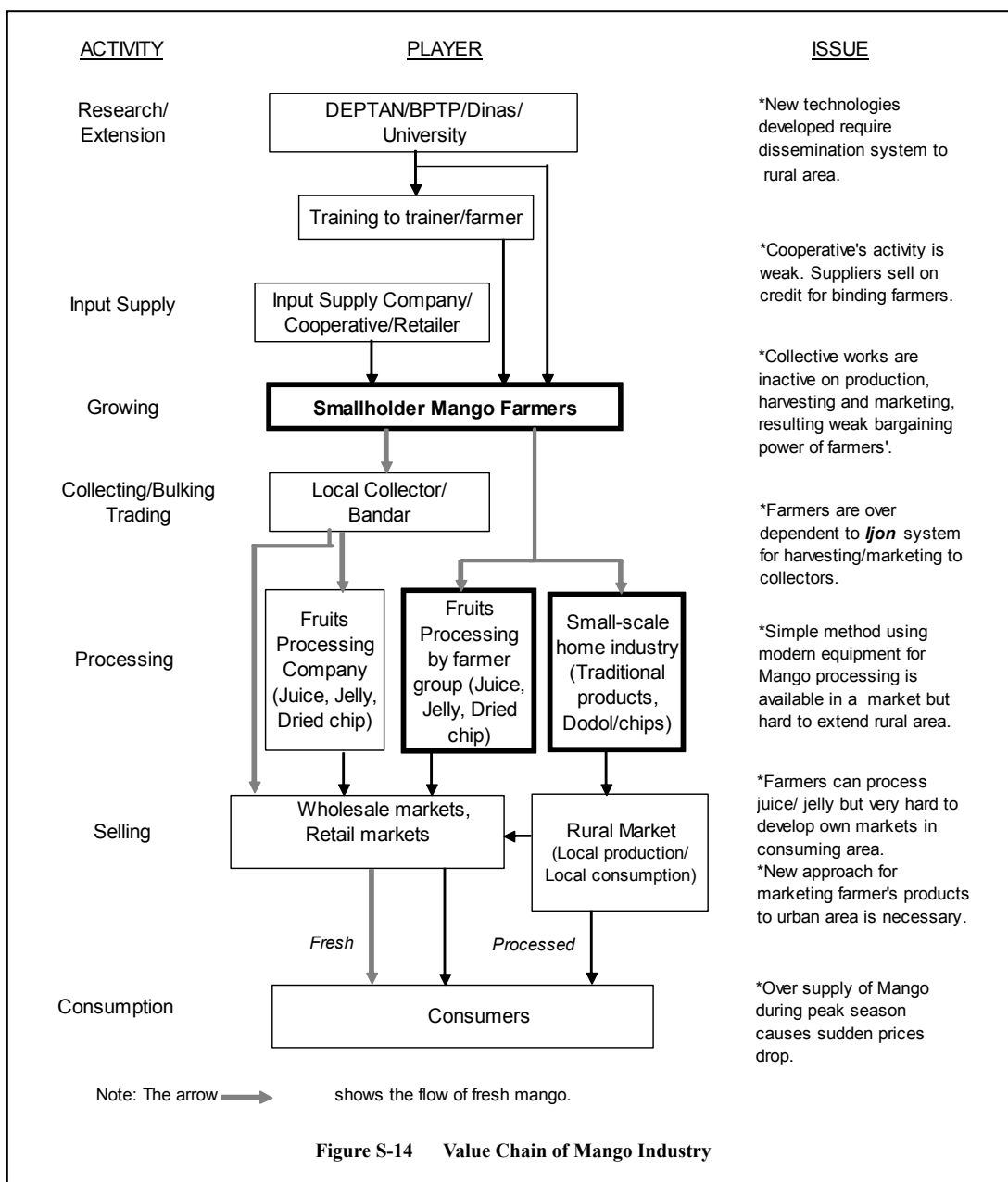
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91. Improvement direction of Kab. Majalengka consists of: (i) Disease free sweet potato seed should be multiplied and supplied, (ii) New sweet potato products should be developed, (v) Business management support should be provided, and (vi) Soft loan should be provided for business expansion but not by grant. **(4.2.1)**
  
92. Value chain of mango industry is illustrated in Figure S-14 in the next page. Following direction is proposed for the improvement of mango production and processing in Kab. Kediri: (i) New technologies for mango processing should be tried at selected Kelompok Tani having solid organization, daily activity, saving and loan management and especially capability on processing, marketing and business, (ii) mango dried chip production should be arranged in conjunction with NGOs project, (iii) mango juice, puree and jelly production project should be started at a selected KT for trial basis, (iv) activities should

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be expanded stepwise if the project is clarified feasible and sustainable, (v) New marketing approach should be studies and developed. (4.2.1)



### Marketing

93. According to the analysis of marketing problems, a core problem was identified as “Lack of Business Mind”. To improve the situation represented by the core problem, supporting system through Partnership with other private business unit and/or Facilitator (Business Development Service: BDS provider) is proposed. Farmers’ groups need to conduct marketing activities to find customers’ requirement and sales promotion at their initiative continuously, under the supporting system. (4.2.2)
  
94. Taking particular features of each Kabupaten in view, appropriate types of business unit are proposed; (i) Strengthening or replication of the existing partnership system among Kelompok Tani for Cirebon and Mojokerto (duck), (ii) Partnership with local processing

industry for Kuningan (sweet potato), (iii) Establish “Local Production & Local Marketing” business system for Majalengka (sweet potato) and (iv) Partnership with private sector (marketing) for Kediri (mango). (4.2.2)

### *Finance*

95. Currently commercial banks have been strengthening their efforts to expand credit to MSMEs by re-lending to formal MFIs such as BPRs and cooperatives. At the same time, the mechanisms have been established to increase loan from commercial banks and BPRs to MSME. Although the share of MSME lending in total bank lending is rapidly growing however, the share of agriculture sector in MSME lending is decreasing. (4.2.3)

It is better to link farmers to more formal financial institutions, but it was found that in most cases, it is not possible right away because of the gaps between financial demand of farmers and farmers’ community, and the supply, as is stipulated in the previous section. (4.2.3)

Since the study focus is the farmers and rural communities, it is proposed that the government and donor assistance programs to bridge these gaps by: (i) establishing a strong MFI around *Kelompok Tani* in the rural community to serve both farmers and community members, and, (ii) improving capacity of agribusiness itself, i.e. mainly to improve its profitability, as follows:

(1) Establishing a Strong MFI in the Community

(a) Establishing Community MFI

Such inactive *Kelompok Tani* due to domination by the leader and passive attitudes of members tends not to have savings and loan activities. In order to change the circumstances, the intervention shall be made to strengthen group activity with agribusiness improvement.

For financial access improvement, MFI is recommended to be established in the community, in order to avoid too much strong leadership and other power problems, and to take advantage of other leaders in the community.

(b) Establishing own MFI

This approach is for the *Kelompok Tani*, in which regular savings and loan is taking place, and collective action is observed. The potential of group discipline, leadership, and financial management of the said group is also recognized.

Then it is recommended to establish MFI based on the existing group (*Kelompok Tani* or *Self Help Group*).

There are two ways of achieving this process: i) the 1<sup>st</sup> way to expand the group, when the group has strong capacity and potential of capital accumulation, and ii) the 2<sup>nd</sup> way to form a federation with other groups in the community (*Gabungan*), and transform it into MFI. In this way,

the groups can combine their capital bases.

(c) Strengthening existing function of cooperative (KSP/USP)

If Kelompok Tani already have a strong linkage with cooperatives, the intervention shall be the one to strengthen this linkage, and the capacity of the cooperatives.

(2) Agribusiness Improvement

To improve the profitability of agribusiness and capacity of running agribusiness, it requires the intervention of technical assistance plus finance according to the improvement directions for Agricultural Processing and Marketing.

The three options under (a) to (c) are the financial improvement intervention parallel or subsequent to the agribusiness improvement. In case of the promising venture, it is recommended to transform it into a business entity in the form of a company. Then it is expected to have an access to commercial banks for finance.

(3) Asset Building

Asset building shall be incorporated in all the improvement options stated above. Farmers, Kelompok Tani, cooperatives, and MFIs are supposed to build assets for livelihood stability and organizational sustainability.

(4) Goal

The approaches of (i) to (iii) shall lead to the Goal of the farmer and their community owning and running a financially viable MFI, and individuals become financially profitable enough and having enough assets, and have access to financial services of their preferenc. *(4.2.3)*



**V. IMPROVEMENT PLAN**

96. In accordance with the present conditions and improvement approach discussed, the improvement plans are formulated taking the following steps into account: (i) Improvement directions for each Kelompok Tani are prepared, (ii) Separate business models are identified and classified, and (iii) Linkage of business models between agricultural processing and finance are assumed. **(5.1)**
97. Improvement plan based on processing and marketing activities to improve farmers' income is briefly summarized for selected 13 Kelompok Tani. Those directions find out categorization of five business models as follows:

**Table S-6 Improvement Directions and Business Models for Processing & Marketing**

<b><i>Duck Industry (Kab. Cirebon and Mojokerto)</i></b>	
• Duck Industry Model 1:	Expansion of business scale and renewal of technologies (introduction and strengthening of triangle production system with partnership among Kelompok Tani)
• Duck Industry Model 2:	Expansion of business scale & strengthening of duck industry (new comer & reviving of inactive groups, involvement in partnership)
<b><i>Sweet Potato Processing (Kab. Majalengka and Kuningan)</i></b>	
• Sweet Potato Model 1:	Primary Processing and Marketing (sweet potato dried chip, partnership with sweet potato flour mill factory)
• Sweet Potato Model 2:	Cottage level food processing and marketing (local production and local consumption, traditional and unique products)
<b><i>Mango Processing (Kab. Kediri)</i></b>	
• Mango Model:	Fruit processing and marketing with private sector (dried mango and juice, marketing)

All the models will be expected to contribute to the alleviation of poverty either directly or indirectly in the different type of communities. **(5.1.2)**

98. The improvement directions for finance are classified into three as follows:

**Table S-7 Improvement Directions and Business Models for Finance**

• Model for establishing Community-based MFI:	For inactive Kelompok Tani are inactive, and sometimes the leader dominates the group management and the members are passive attitudes
• Model for establishing own MFI:	For Kelompok Tani in which regular savings & loan is in progress and the group activity is high
• Model for strengthening existing function of cooperative:	for Kelompok Tani where the cooperatives are already established

Another important point is to involve middlemen and collectors in MFI for information sharing about consumers' preference about products. Presently farmers are weak position against the middlemen and collectors in price formation and transaction of products. For smooth marketing of products, marketing information is required for farmers and information sharing will benefit to both farmers and traders. **(5.1.3)**

99. At the Kelompok Tani level, processing and financing are closely correlated, and linkage of both business models are required. This linkage and its effect are illustrated in Figure S-15 to Figure S-18 respectively:

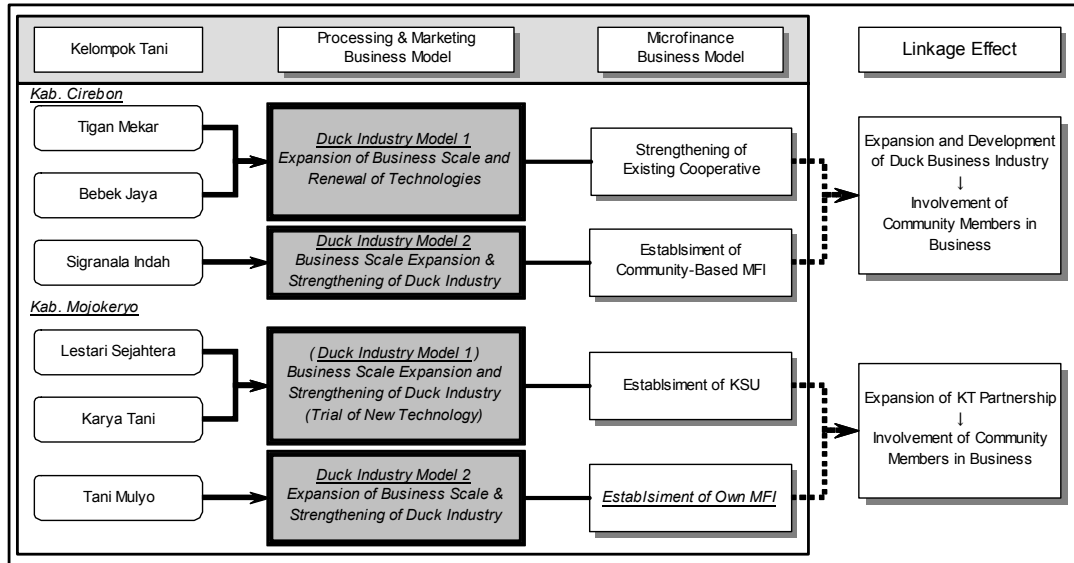


Figure S-15 Linkage for Duck Industry and Finance Business Models

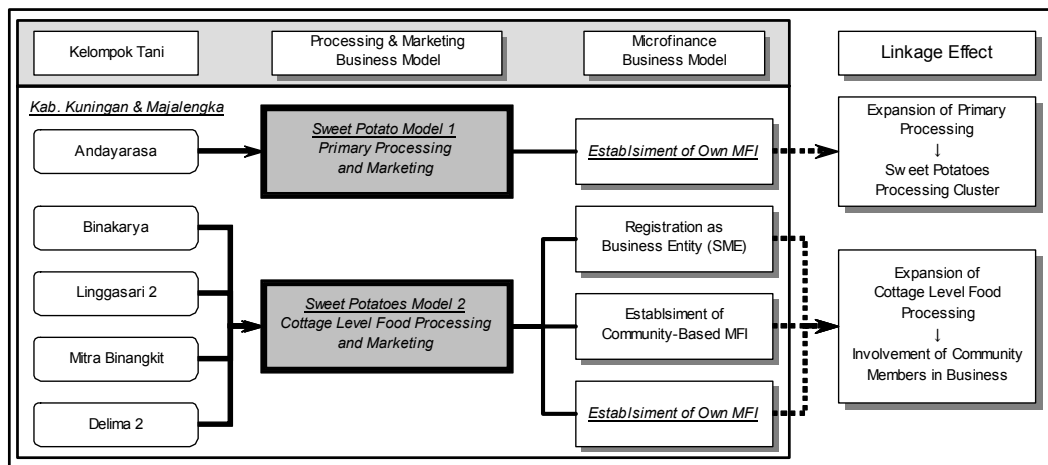


Figure S-16 Linkage for Sweet Potato Processing and Finance Business Models

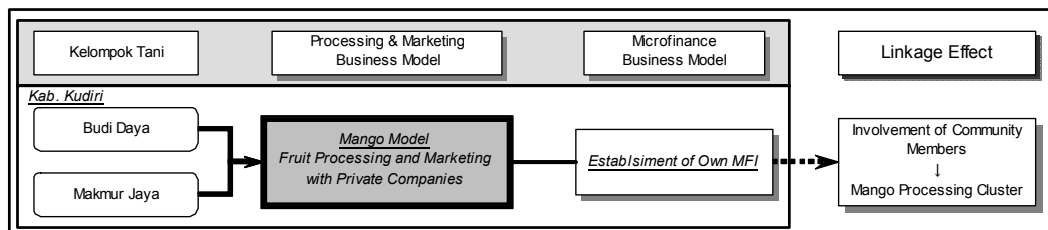


Figure S-17 Linkage for Mango Processing and Finance Business Models

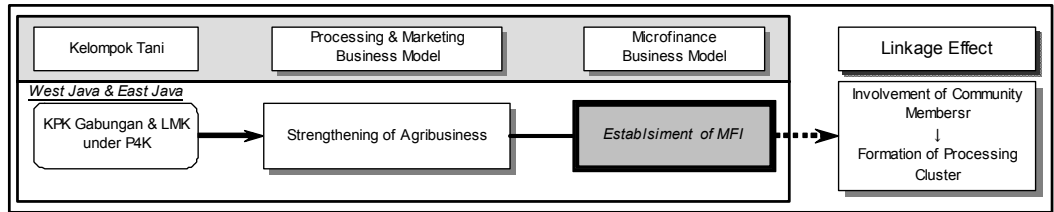


Figure S-18 Linkage for Income Generation Activities and Finance Business Models

Effects of the above linkage is assumed that: (i) MFI will enable Kelompok Tani to improve and expand their agribusiness, (ii) activities in the linkage will provide Kelompok Tani with environment and circumstances to create their own business mindset, (iii) MFI will provide more convenient financial access to the community members who currently do not get sufficient accessibility and (iv) MFI will involve the community members surrounding Kelompok Tani, and some members are expected to join or start the processing business. (5.1.4)

100. The socialization workshop are held at five Kabupaten respectively to derive opinion of stakeholders related with agricultural processing and rural micro finance so as to finalize draft implementation model policy recommendation. Participants for each workshop generally consist of national counterpart, Provincial and Kabupaten DINAS, member from selected Kelompok Tani, Bank and so forth. Through the series of workshop, draft ideas on the improvement of farmers' income through agricultural processing and rural micro finance were presented by the Team and discussed among the participants. Although slightly different between the workshop as well as the groups, the participants have generally understood and shown agreement on draft improvement approach and implementation models. (5.2)



101. All the model schemes for processing and marketing consisting of are proposed to be implemented over five years from 2007 to 2012 as shown in Figure S-19 below.

	2007	2008	2009	2010	2011	2012
<b>1. Preparatory Works</b>						
(1) University/BDS Recruitment	█					
(2) Socialization and Public Awareness	█	█				
(3) Institutional Assessment & Marketing Survey	█	█				
(4) Facilities Procurement and Installation		█				
<b>2. Operation</b>						
(1) Production/Processing		█	█	█	█	█
(2) Marketing		█	█	█	█	█
(3) Training Program (processing and marketing)		█	█	█	█	█
<b>3. Monitoring and Evaluation</b>						
(1) Monitoring and Technical Support (with the assistance of BDS/University)		█	█	█	█	█
(2) Evaluation (MO/ANGOs Joint Evaluation)			△	△	△	△

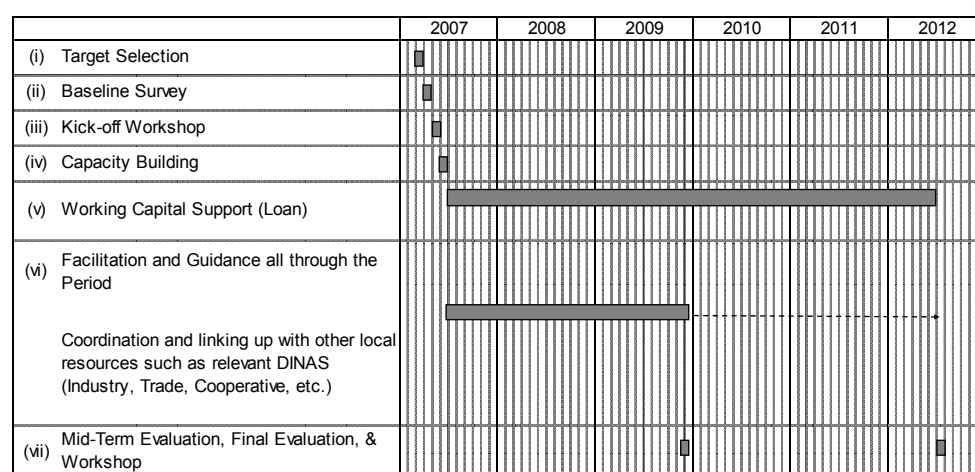
Figure S-19 Implementation Schedule of the Model Scheme for Processing and Marketing

Project preparatory work will commence from the recruitment of University/BDS for Kelompok Tani technical support followed by socialization and public awareness,

institutional assessment and marketing survey and facilities procurement. During the operation of production/processing and marketing, training program will be periodically organized. As for the monitoring and evaluation MOA/NGOs joint evaluation will be proposed for preparing effective review and recommendation as well as ensuring transparency. **(5.2.3)**

102. As an implementation model for finance scheme, the study hereby proposes to focus the aspect of “Rural Finance: improving accessibility to finance.” ***Strengthening of Rural Non-Bank Embryo Microfinance Institutions (Rural Embryo MFIs)*** developed from SHG formed under the previous project is proposed targeting 10 Rural Embryo MFIs, Federation of Lembaga Keuangan Mikro in 5 sample Kabupaten.

This model aims to develop Embryo MFIs using lessons learnt from previous programs of supporting poor farmers with micro-business in order to: (i) increase income and build assets of the Rural Embryo MFI members, (ii) to strengthen the capacity of Rural Embryo MFIs to become the real community bank in the remote area, and (iii) to establish the Rural Embryo MFI supporting mechanism in the Kabupaten. Implementation schedule is shown in Figure S-20.



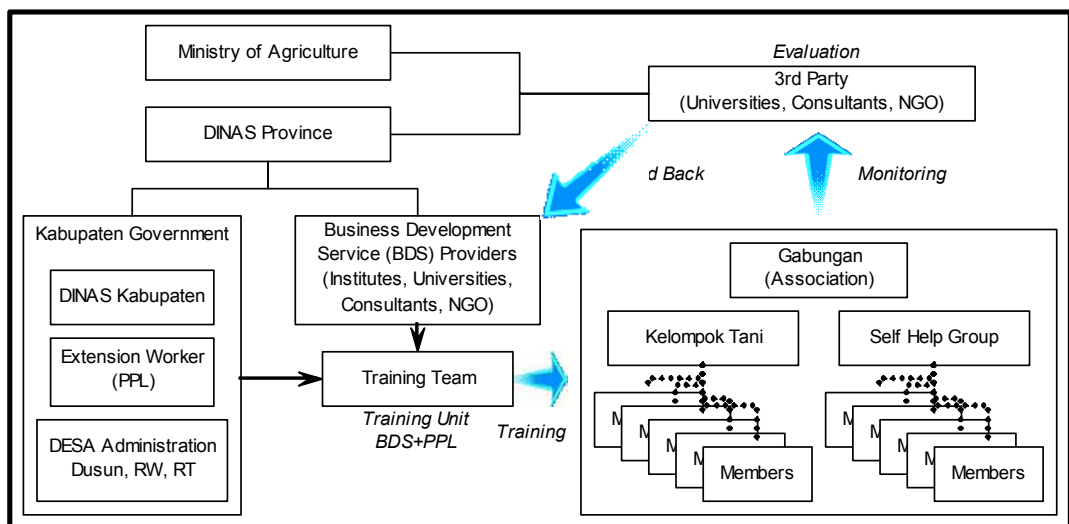
**Figure S-20 Implementation Schedule of Finance Scheme**

The model will kick off from target Rural Embryo MFIs selection and appraisal, baseline survey, socialization and capacity development for credit scheme administrator, working capital support in terms of loan from revolving fund at BPD, for building assets of the rural household involved and building capital for the Rural Embryo MFIs, to infrastructure support. Implementation period is proposed to be 5 years from 2007 to 2008. This pilot project will be expected as a model for improving business minded small farmers' access towards credit in remote areas. And, in the long run, the model will be replicable to other areas/provinces, especially remote areas. **(5.4)**

103. Capacity development for the promotion of proposed models will involve: (i) Community Institutional Development and (ii) Technical Development. Community Institutional Development aims: (i) to establish a village based, particularly Kelompok Tani, facilitation capacity to enhance the dissemination of extension services to the community through training Kelompok Tani members, (ii) to establish a Kelompok Tani proposal and

project tendering process to facilitate group member involvement in problem identification, planning, management and implementation of production and processing activities, (iii) to lead to working in collaboration with community-related institutions such as Village Institution, Financial Institution, Government Institution, Private/Business Institution and Religious Institution. On the other hand, by introducing BDS and/or University, technical development is carried out with the objective (i) to strengthen technical capacity of Kelompok Tani in production, processing and marketing of sample commodity and (ii) to create a linkage between BDS/University to encourage constant updating of training programs. **(5.2.4)**

104. Monitoring and evaluation are essential to understand the level of progress and constraints on a regular basis. The results to be obtained from monitoring and evaluation will give useful information for operation and management of ongoing or future projects. In addition, it is of importance to carry out the monitoring and evaluation works for community empowerment, since capacity development of community and/or Kelompok Tani member, first and foremost, main actors to promote processing and marketing activities, is expected through monitoring and evaluating their own activities and preparing recommendation based on this process. Joint monitoring and evaluation among MOA, NGOs and Kelompok Tani members is proposed. As in implementation schedule presented in Figure S-14, monitoring is carried out in the course of the Project while evaluation is made once a year jointly by NGOs and MOA together with technical review and follow-up to be supported by BDS/University. Mechanism on Capacity Development, Monitoring and Evaluation is illustrated in Figure S-21 below:

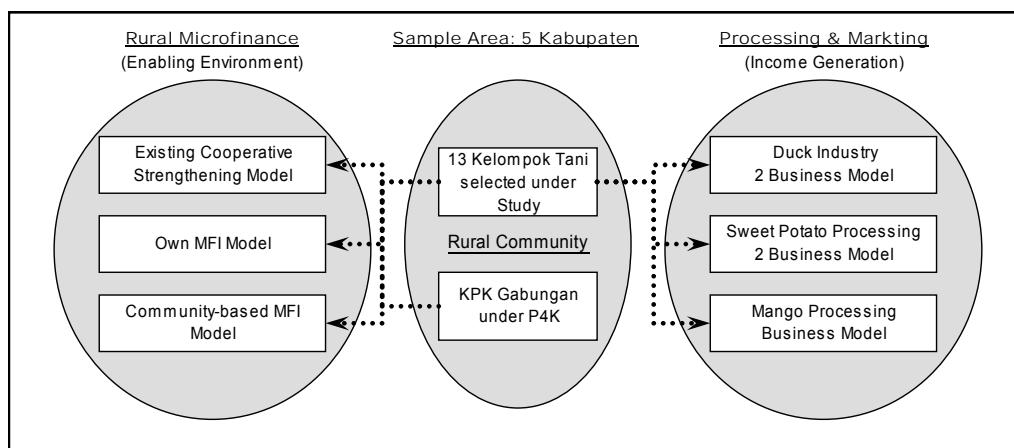


**Figure S-21 Mechanism of Capacity Development, Monitoring and Evaluation**

Preliminary idea of monitoring and evaluation indicators consist of: (i) operation indicator and (ii) effect indicator. Operation indicator can be broken down into three: organizational indicator, technical indicator, and social and environmental indicator. Operation indicator represents direct result to be obtained from proposed activities while effect indicator shows consequences from the direct result in the future. **(5.2.5)**

**VI. POLICY RECOMMENDATION**

105. From the viewpoint of agribusiness system, agricultural processing are included in the processing and marketing subsystems, and direct incomes for farm households are expected from this agribusiness subsystem. On the other hand, rural microfinance is not the income generation activity, but the agribusiness supporting subsystems to creates the “business enabling environment” in the rural area. In addition, rural microfinance will provide the financial services to meet the various demands of farmers and rural households in the rural communities where financial services are not accessible.



**Figure S-22 Business Model of Rural Microfinance and Processing & Marketing**

106. After implementation of the models introduced above, direct effects of agricultural processing are estimated at average income increase of Rp.4.8 million per annum for total 335 member households in 13 Kelompok Tani. From the linkage with MFI or strengthening of cooperative, improvement of self-reliance level is expected through building assets and own capitals to access commercial finance after the project period of 5 years. From the linkage, indirect effect is expected to 4,200 households in the community, of which 48% or 2000 households are poverty.

107. Some of the above improvement plans are expected to be implemented under the Second Kennedy Round-Counterpart Fund (SKR-CF) scheme 2007 and 2008. It is also assumed that the business models and linkage between processing and finance are replicable to other area and commodities through modification of models and procedure. In this case, wide variation of experience and implications were obtained during the Study, that are useful for smooth implementation. Among others, important aspects are illustrated in Figure S-23 as the policy recommendation and described afterward.

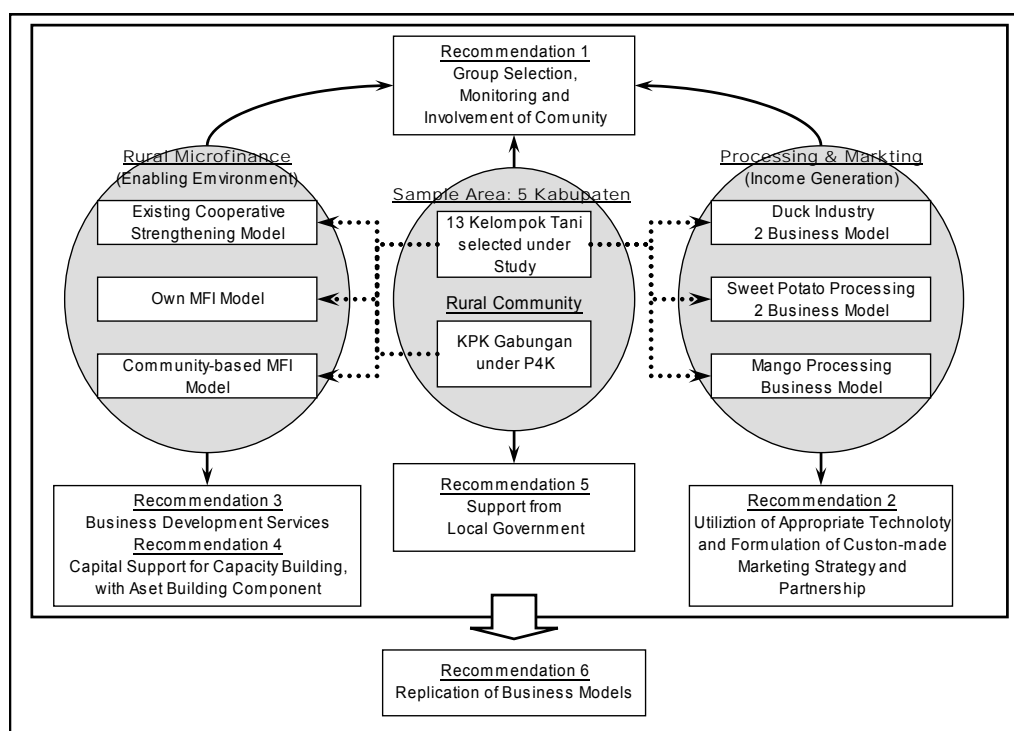


Figure S-23 Extraction of Important Aspect as Policy Recommendation

108. For implementation, replication and expansion of the business models, the following points are to be further considered for formulation and implementation of plans under MOA.

Table S-8 Important Aspect as Policy Recommendation

<p><b>Recommendation 1</b> Group Selection, Monitoring, and Involvement of Community</p>	<ul style="list-style-type: none"> <li>• Groups to be selected from which they can do savings &amp; loan</li> <li>• Involvement of community in the activities so as enhance the sustainability</li> <li>• Third party independent from direct involvement for monitoring and evaluation</li> </ul>
<p><b>Recommendation 2</b> Processing Technology &amp; Other Commodities and Marketing Partnership</p>	<ul style="list-style-type: none"> <li>• Preparation of direction and strategy using analytical techniques such as Value Chain Analysis, SWOT Analysis, Market Mix and so forth</li> <li>• Involvement of middlemen and collectors in the Embryo MFI for multiplier effect</li> </ul>
<p><b>Recommendation 3</b> Business Development Services (BDS)</p>	<ul style="list-style-type: none"> <li>• Need of assistance to farmers' groups particularly in terms of financing, accounting group management, processing technologies, marketing arrangement, coordination and communication with stakeholders with proper exit strategy in order to enhance groups' initiative and capability</li> <li>• Necessity of inventory of BDS providers at the local level of Kabupaten and Province along with the information on their performance results</li> </ul>
<p><b>Recommendation 4</b> Capital Support for Capacity Building with Asset Building Component</p>	<ul style="list-style-type: none"> <li>• Capital support would be in the form of loan from bank, not revolving fund directly given to Kelompok Tani.</li> <li>• Frozen saving will build Kelompok Tani's asset utilizing interest.</li> <li>• Intension is directed to train farmers' financial management capacity.</li> </ul>

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<b><i>Recommendation 5</i></b> Support from Local Government Services	<ul style="list-style-type: none"><li>• Important roll of DINAS Kabupaten to create enabling environment, as the key for the successful implementation</li></ul>
<b><i>Recommendation 6</i></b> Replication of Business Model	<ul style="list-style-type: none"><li>• The model for replication assumed for cost profit and asset building on the basis of implementation model proposed under the Study</li></ul>