

Keys to Inclusion of Small-scale Producers in the Dynamic Potato Market in Thailand

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Why Housewives' group in the potato supply chain?

Motivation

- To illustrate the performance of a community enterprise to include in the potato supply chain the otherwise rejected potatoes as usable material.
- To highlight the role of a housewives' group in providing alternative for growers' market participation.

Background

- Potato crop was introduced to highland farmers in 1960s.
- Thai government has implemented supply control policy up to present.
- Potato became an important cash crop in 1990s due to increase in demand for potato chips and popularity of tourism to Thailand.

Background (cont.)

- Two types of potato are available in Thailand (table and processing types).
 - Most processing potatoes are traditionally produced into potato chips by large firms and distributed to middle and high level markets.
 - The principal markets for table potatoes are western restaurants, hotels, and supermarkets. Some table potatoes were produced to be dried-potato by local people in the north.

Background (cont.)

Potato varieties available in the country

1. Table type (Spunta variety)



- Spunta accounts for 10% of total potato production.
- To control supply the government permits 302 tons/year of Spunta seed with tariff exemption to prevent undesirable farm price.
- In 1990s two Potato Grower Cooperatives were formed to determine annual amount of Spunta variety tuber seed imports.

Background (cont.)

2. Processing type (Atlantic variety)

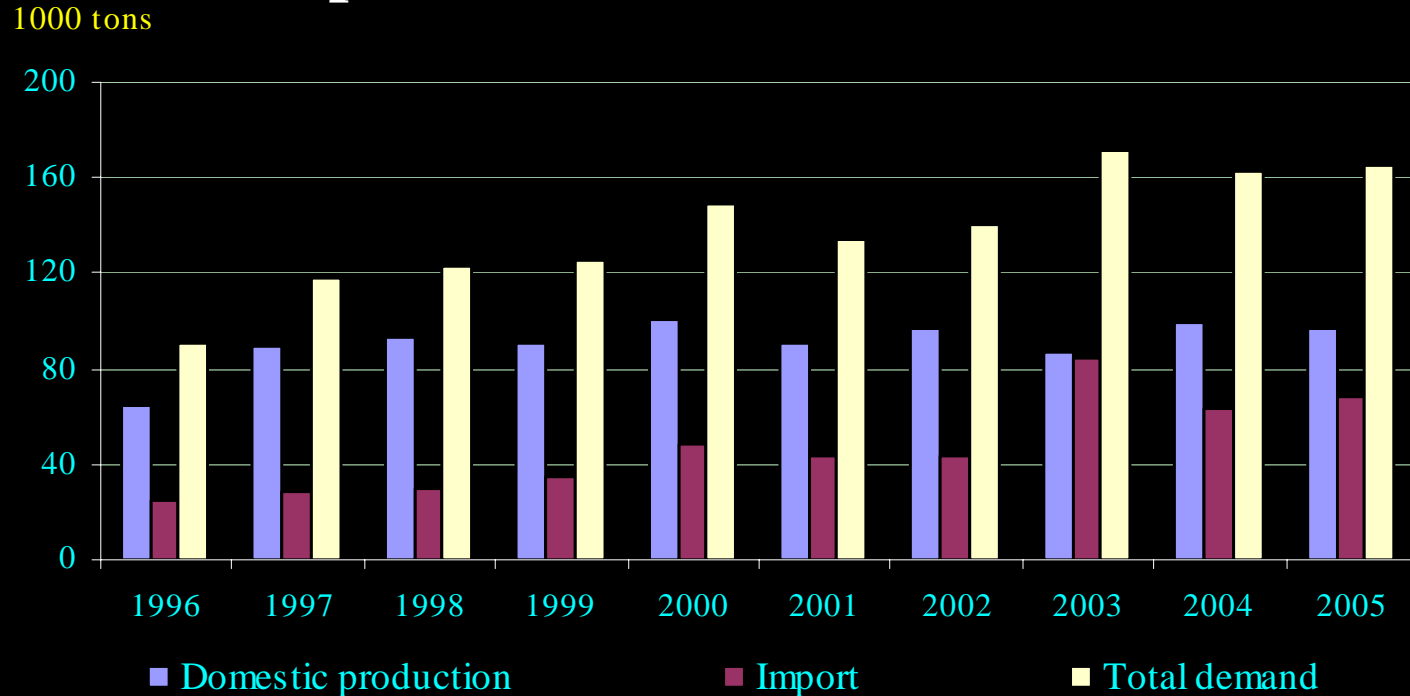


- Processing potato accounts for 90% of total potato production.
- Almost all of the processing potatoes are grown under contract farming system.
- Government allows firms to import Atlantic variety tuber seed as required for their contracted growers.

Demand for potato

1. Thai people consume potato in 2 categories, i.e. snacks (chip, crackers etc.) and table potato cooked in soup and curry.
2. Life style of the Thai has changed rapidly in the past 10-15 years due to:
 - ❖ Expansion of modern retail stores and shopping habits
 - ❖ Widespread western fast food chains in Thailand
3. Domestic demand for potato has increased due to the popularity of potato chips and western food consumption over the past decade.
 - ❖ Value of crisp chips consumption amounted to 308 billion baht in 2005 and it was expected to increase at least 10% in 2007. ([http: Siamturakit.com](http://Siamturakit.com))

Import and Domestic Production



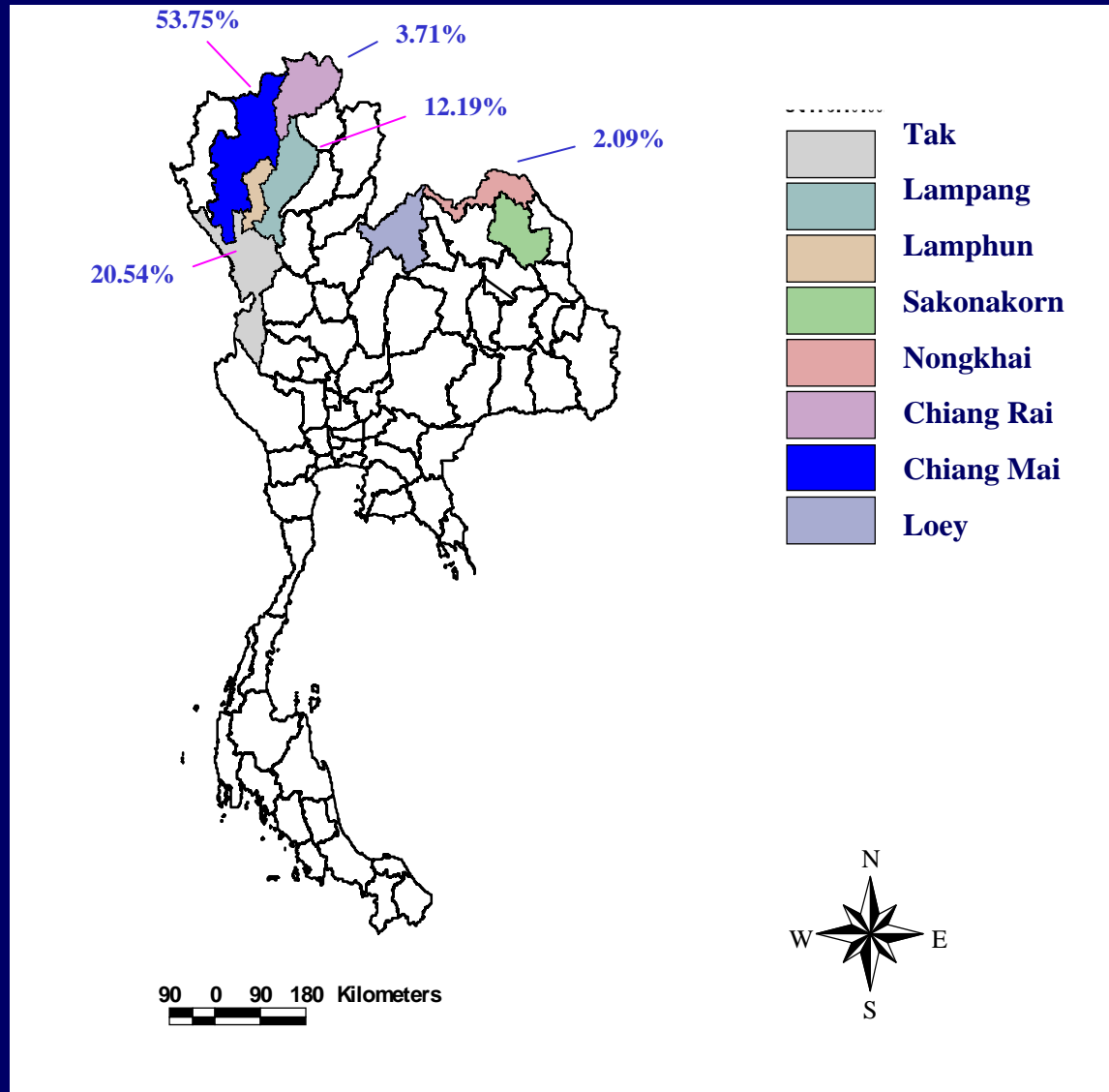
Source: Office of Agricultural Economics, 2006 ; Department of Customs, Thailand ; Bank of Agriculture and Agricultural Cooperatives.

Calculated by using quantity of fresh and processing potato

- ✦ Demand for potato in Thailand is twice the domestic production.
- ✦ 25-50% of potatoes have been imported from various countries each year.

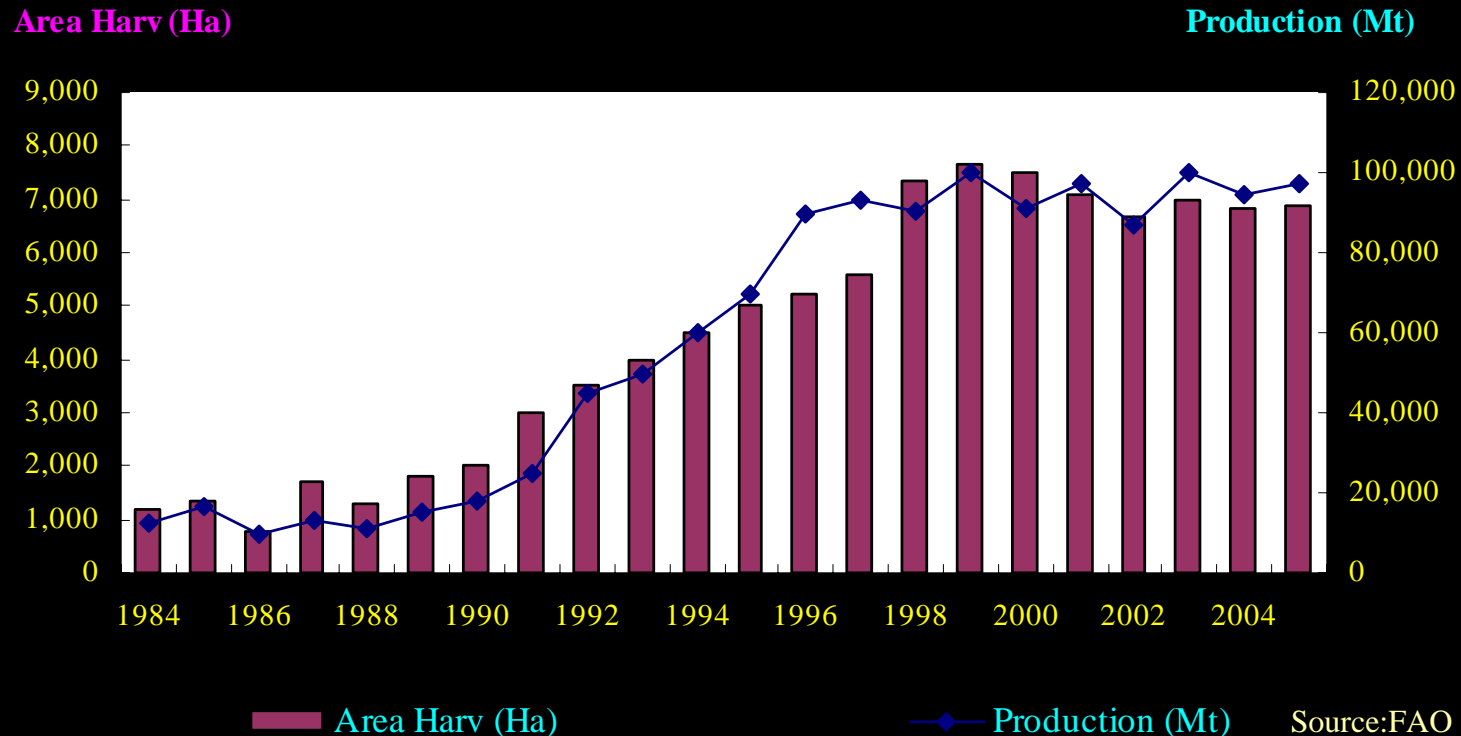
Potato Production and Supply in Thailand

Planted Area of Potato in Thailand



- Potato planted area scatters in 8 provinces in the northern and northeastern regions.
- There were 11,412 potato growers in 2005.
- About 95% of planted land is in the North and 53 % in Chiang Mai province.

Potato Production in Thailand



- Domestic production has increased five times within 15 years since 1990 due to the planted area expansion (not yield increase).
- Yet, in the past 3 years planted area has become stagnant because of limited availability of suitable land; although cultivation has been expanded to northeastern provinces.

Expansion of production in the past 15 years was due to;

- ❖ Rapid rise in domestic demand
- ❖ Market certainty and large absorption of processing industry encourage farmers to enter contract with business firms.
- ❖ Favorable climatic condition in the northern region

Case study : Local Small Scale Processing Group

Why the Farmers' Housewives Group in Chiang Mai

- Chiang Mai is the main potato producing area, 56,700 tones of processing potato production were from this province in 2005.
- About 10 % of the total production were of substandard, rejected by the firms and the quantity of substandard potatoes has increased along with the expansion of production.
- The study found a farmers' housewives group in San Sai District of Chiang Mai turned the unsold potatoes into usable raw material for potato chips.
- The group represents one of the successful cases of inclusion of small growers in the supply chain.

Background of the farmers' housewives group

- ✧ After the economic crisis (in 1997), many policy measures were launched for accelerating establishment local groups to create local employment and income. A Farmers' Housewives Group of Chedi-Mae Krew (CMK) is a community enterprise in San Sai District which was formed with the support from the District Office of Agriculture to make the best use of substandard potatoes as raw material to process potato chips.
- ✧ The CMK included 42 members; each holds at least one share of 100 baht.

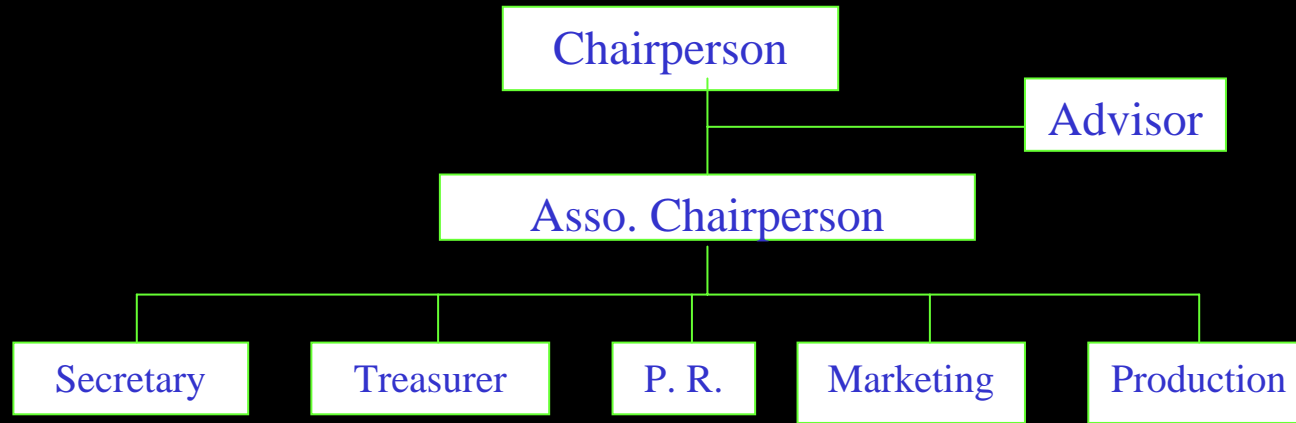
Background of the farmers' housewives group (cont.)

- ✧ The capital worth 71,100 baht at the initial stage enabled the CMK to invest on simple production equipment and raw material.
- ✧ Among the community enterprises in the district, the CMK received more support from government to develop products and expand its market because of its better ability to access the support from various government agencies.
- ✧ Keys to the success of the group to be included in the potato supply chain were the ability in management, product development and marketing management as well as the support from the government.

Management

The ability in management of the leader and committee members was the important strength leading to the success of the group

Organizational Structure of the Housewives' Group Committee



- The CMK's leader has responsibility to the overall planning and monitoring work plan, coordinating with government agencies and attending local meetings.
- Each committee member has been assigned to the right job and thus is enabled to perform up to expectation.

Human Resource

- The leader and advisor are the key persons to the success of the group.
 - The chairperson “Mrs. Boukham Wipasa” completed only 4 years of formal education. Her major occupation is farming. However, with her personnel ability/nature she has played several roles in the community.
 - The advisor of the group is the chairperson’s husband who has played significant roles in marketing and advising. His background on cooperative management provides business oriented attitudes, concepts and progressive approach to the group management.

Human Resource (cont.)

- The committee members attended 4-13 years in formal education system; however, they are able to handle each of their responsibilities rather well.

Production

The key point to produce good quality potato chips from rejected potatoes is the continuous product development by the group as well as knowledge and technology support from the government.

Raw material

- In 2006, 90% of the products were potato chips produced from Atlantic (processing) potatoes, the remaining were dried Spunta (table) potatoes.
- The group has enabled potato growers to sell the defective outputs as useful raw materials for snack processing at 2-5 baht per kilogram instead of their selling as animal feed at 1-2 baht per kilogram.
- The substandard potato absorption of the group rose from 6 tons in 2003 to 200 tons in 2006 and it is expected to increase by 50% in 2007.

Employment

- The group employed its members to work in the processing plant. In 2004, 13 members and committee members were employed at 120 baht/day to work once a week . In 2006, the CMK hired 5 permanent employees working 5 days a week and increased the wage rate to 150 baht per day.
- The employees earn salary as well as other welfare benefits from the group.

The processing plant of the CMK

The group processed potato chips in simple processing plant; however, its products were accepted as the good quality by consumers.



Support from the government on production

The plant was located in the premise of the chairperson and most equipment used in the plant was sponsored by the government agencies.

The main sponsors were

1. District Agricultural Office provided cleaning and small slicing machine as well as the fund for purchasing raw material.
2. Department of Cooperatives Promotion provided aluminum foil packages and related equipment and knowledge on group management.
3. Chiang Mai University provided the knowledge to run business and longan-drying oven for grease reduction in fried chips.

Products

The group produced a variety of flavors and packages of its products to serve different markets.



Products distributed to the markets

Type of packaging	Weight	Market
simple plastic bags	0.5 – 5 kg	wholesale in village and other provinces
simple plastic bags with its brand	60g, 40g, 20g	wholesale and retail in village and other provinces
aluminum foil with colorful bags	40g, 20g.	cooperative shops in universities
simple plastic bags with its brand	Packed to order	wholesale in village and other provinces

Marketing

Pricing and niche marketing are the key strategies to expand its market.

Marketing (cont.)

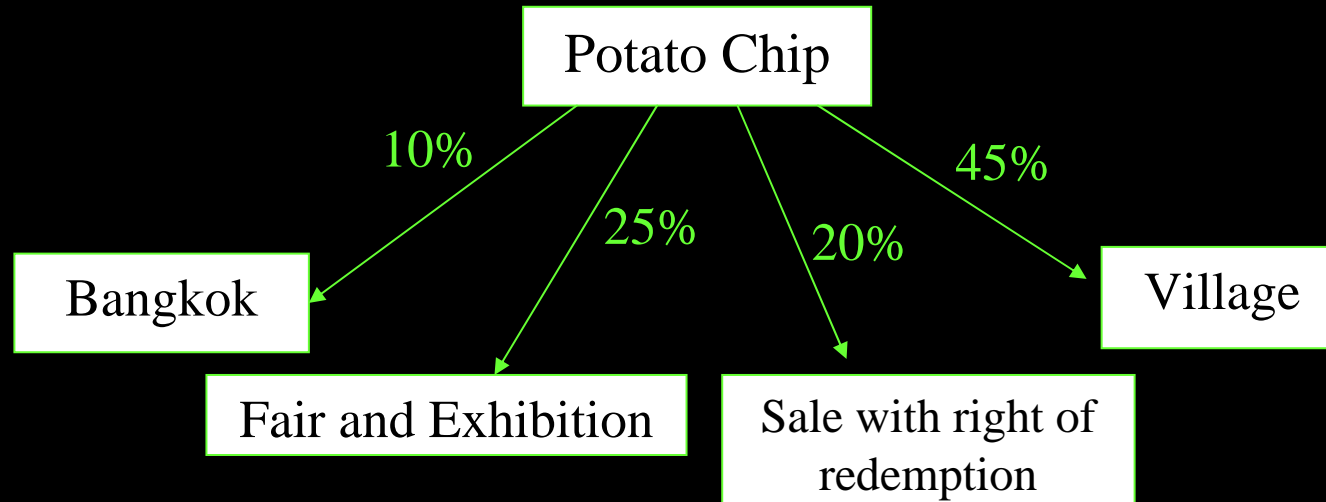
- The CMK takes an advantage from the increase in demand for potato chips influenced by the advertisement of large firms. Thus the group produces similar products to catch up with the demand led by famous brand names.
- The group targets on middle and local market segments. School children and teenagers are major consumers. Cooperative shops in universities and special space in supermarket assigned for local cottage products open additional outlets for the CMK to wider consumers.

Marketing (cont.)

- In 2004, the group supplied potato chips contained in aluminum foil packages to supermarkets; however, this channel was not successful. The problems caused the group to give up this channel were ;
 1. The credit term (45 days) is too long, causing cash flow problem.
 2. The commission rate is too high.
 3. The group's products are not well known and incomparable to other famous brand names, thus low rate of turn-over.
 4. Expired products add to high unit marketing cost.
 5. Being a small brand, the products are placed at non-attractive shelf position.

Market Channel

Market channels of the group have changed since 1997. The group could expand its market to other provinces as well as increased its total sale dramatically.

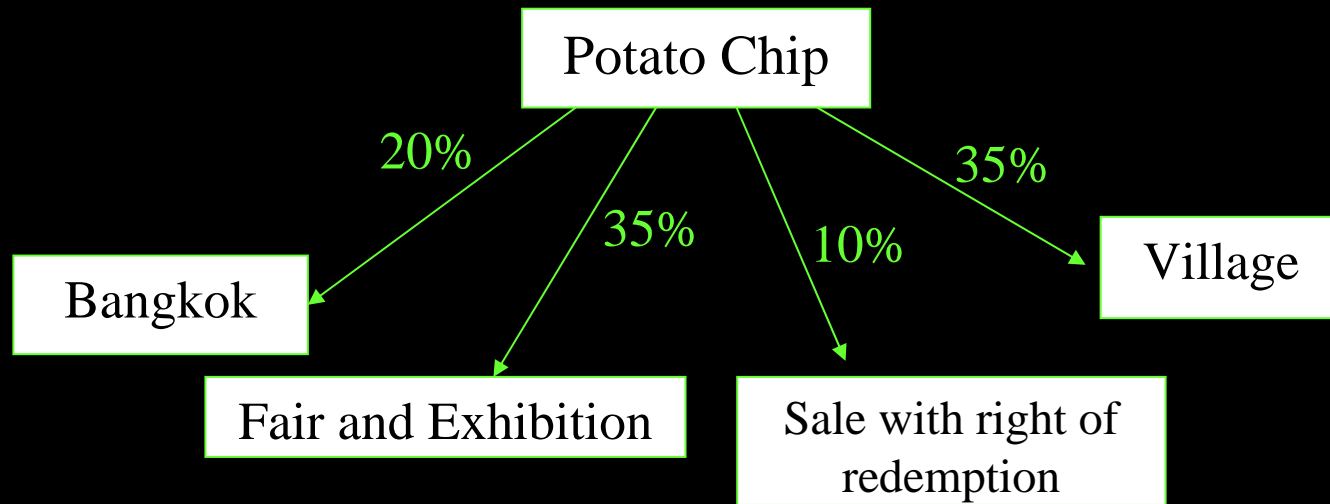


Market Channels in 2003

Source : Wiboonpongse, et.al. 2004

- The CMK could expand its market to other provinces. The share of the sale to other provinces increased from 10% in 1997 to 35% (Bangkok and exhibition) in 2003.
- In 2003, 65 % of products were marketed in Chiang Mai province (village and consignment).

Market Channel (cont.)



Market Channels in 2006

Source : Interview, 2006

- In 2006 the share of the sale to other provinces was 55%, increased by 45% from the beginning.
- The value of total sale increased from 317,380 baht in 2003 to 1,080,000 baht in 2006.

Marketing Strategies

- Target customers are middle and local market segments to avoid high competition in upper market.
 - School children and teenagers are major consumers.
 - Cooperative shops in universities.
- The CMK has an opportunity to supply products to the upper end customer as it has access to special corner for community products in supermarkets to get wider customers.

Marketing Strategies (cont.)

- The prices of the group's products were set slightly lower than those of the famous brands while net weights were greater to compete with the famous brand names.
- For production expansion, in the near future parts of the products will be made-to-order placed by modern supermarkets under the latter's brand names.

Development of the Business

Product

Market

1997

Dried potato-called “Mankalaya” and crackers were produced from Spunta variety.

Local markets within the village.

1999

Potato chips were produced and contained in the simple plastic bags in bulk (0.5 kg. per bag) without brand.

2000

The group reduced packaging to serving sizes with sticker of the group’s name as its brand name. The original chip flavor was followed by many other flavors. Products and packages are diverse so as to serve different target consumers.

Local markets, schools, Bangkok and other provinces

Development of the Business (cont.)

Product

Market

2004

In response to change in chip market, it uses foil package and aims to sell in the same segment of large firms. The group implemented the brand “Chip Chip” and foil package with color and design.

Supply to shopping malls and stores in 2 universities in Chiang Mai province

2006

The “Chip Chip” brand was given up since it replicated an existing brand. The new brand of CMK became “Merry”. It’s products increased to more than 10 lines (from the original 2 lines) in 2006.

Expanded market to the same category as the international brand names and available on shelves in mini-marts and snack-bar in the local stores.

How can the CMK be an alternative for the farmers' participation in the supply chain

The CMK is a farmers' housewives group which was set up to be an alternative for farm families to increase income from the substandard potatoes as well as to be a small enterprise participating in the potato supply chain.

❖ Benefit to the growers

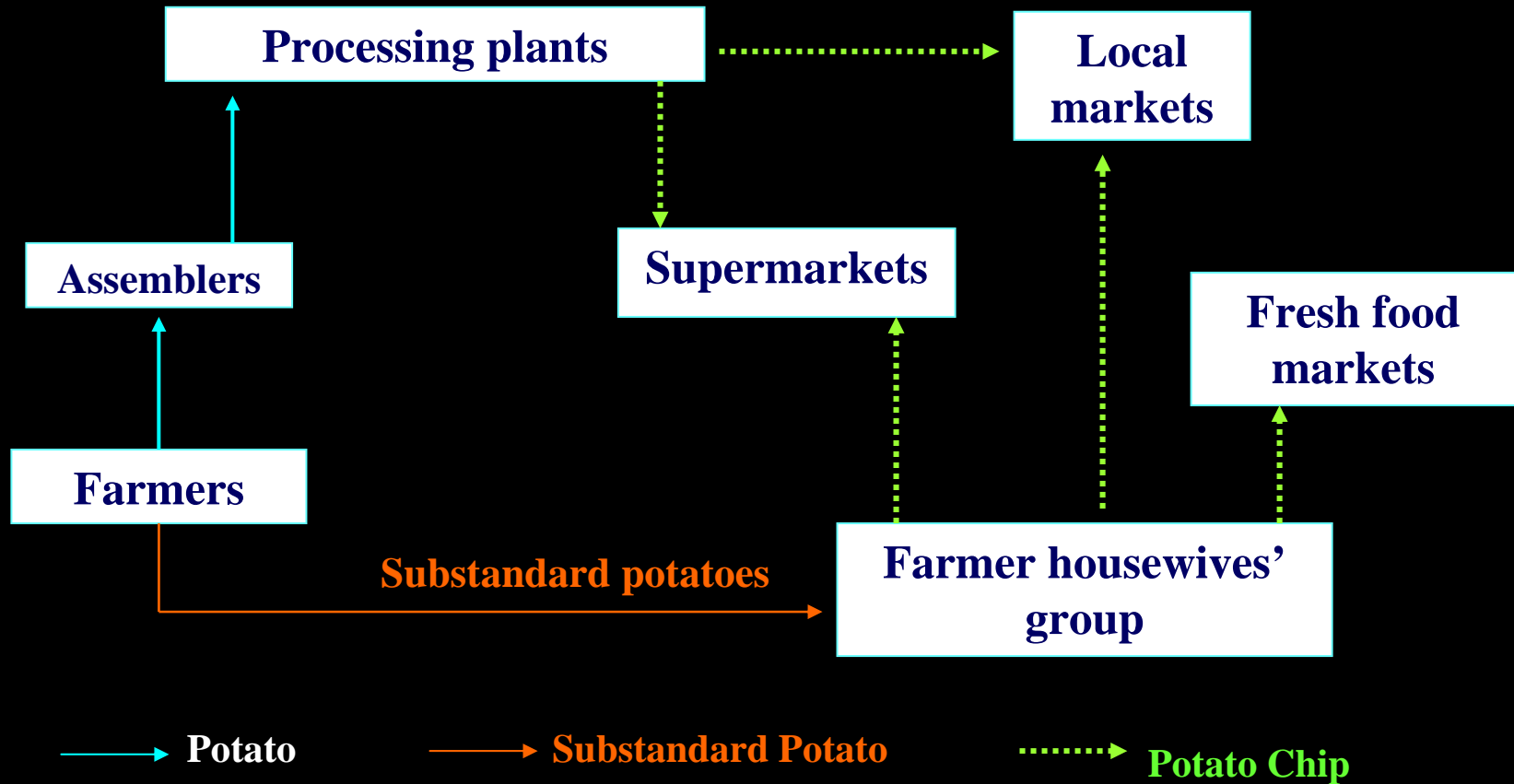
- Financial gain received by the members from selling damaged/defective and unacceptable potatoes (both Atlantic and Spunta varieties) at 2-5 baht/ kg.
- The incremental value of 600,000 baht to the otherwise price of defective potato as animal feed, means a significant contribution of the CMK to growers both members and non-members' income.

How can the CMK be an alternative for the farmers' participation in the supply chain (cont.)

❖ Inclusion of the CMK in market dynamic

- Despite 90% of market share for potato chip in Thailand held by 2 large firms with grew 25-30% annually, the CMK could increase its sale volume by 70% to 1,080,000 baht in the recent years.
- Even originally the CMK had local and lower markets as target groups it could get involved in the market dynamic by supplying products to the same target groups as the large firms.

Supply Chain of Potato Chip



Analysis : lesson learned for the success of small local processors

- ✦ Beside government supports in general, the success of the group was attributed by the leader's ability to have better access to support and by personal performance in management and marketing.
- ✦ The CMK could promote and expand its market by joining the meeting, fairs and exhibition organized by the government agencies in Bangkok and other provinces.
- ✦ The group realized its market potentials as well as observed and learned from other advanced groups' products.

Analysis : lesson learned for the success of small local processors (cont.)

- ✦ The group chose the right market segments. Niche marketing is an appropriate concept as long as the group could catch up with trend influenced by large firms.
- ✦ The modern supply chain does not have much room for small scale producers due to economy of scale in marketing activities especially placing and advertising.
- ✦ As an alternative, the small producers can participate in the modern chain by producing products under a supermarket's brand name.

Recommendation

- ✿ To participate in the market dynamic as demand for potato chips increases, housewives' group with adequate support can process its farm produce for local market segment before moving to the upper end segment. This is aimed for market certainty at manageable cost.
- ✿ With growing concentration in the processing and retail sectors, public policies are required to strengthen marketing and processing knowledge of housewives' group. This will enable small scale producers to have alternatives for market participation.
- ✿ Continuation of public sector's support up to optimal time/level is necessary to help build strong foundation for a community group to proceed on its own pace.