



# *Capacity Building for Research: Promoting Inclusive Development of Agricultural Value Chains*

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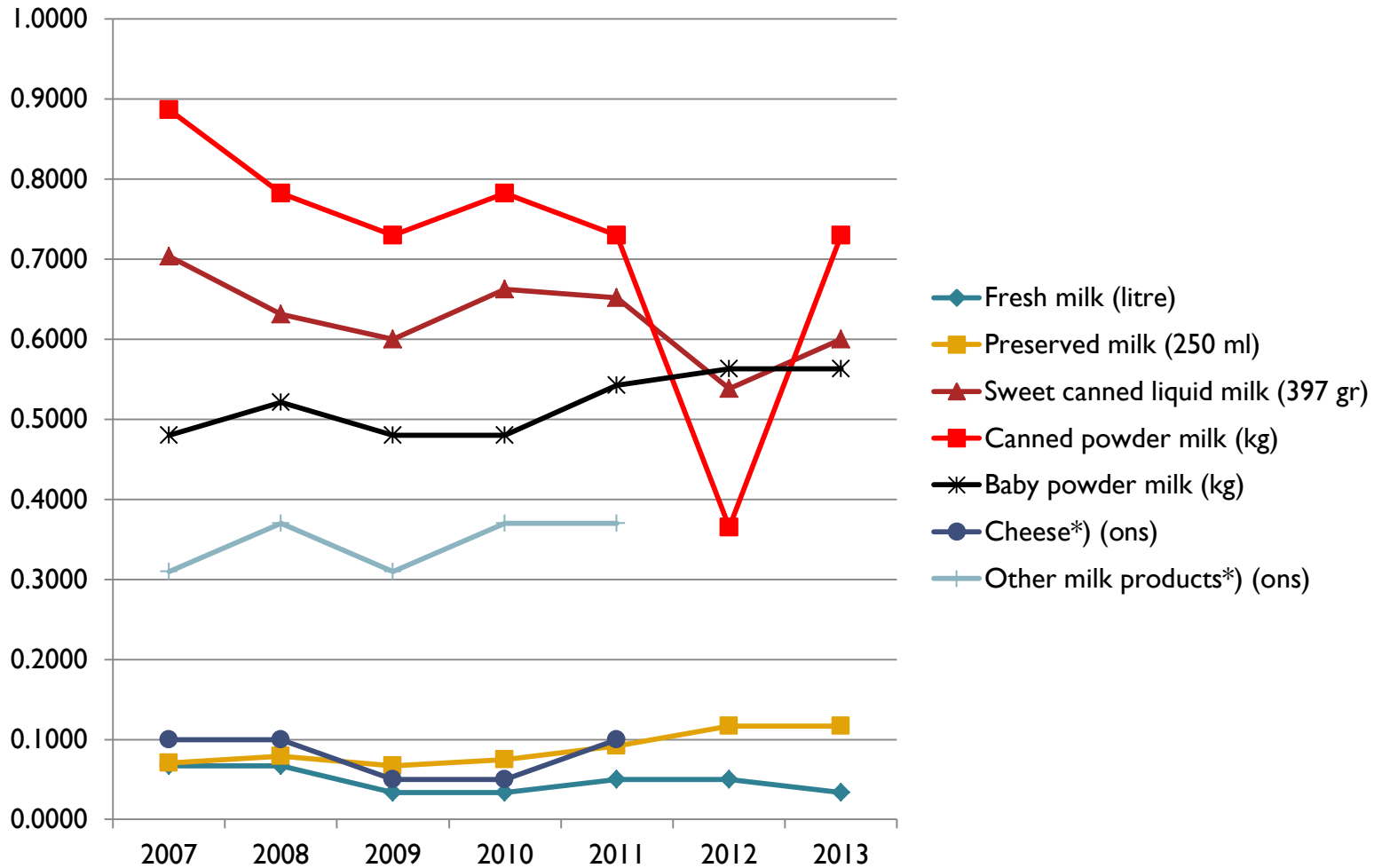
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# I. Background

- Dairy consumption in Indonesia continues to increase.
- Milk consumption of Indonesia has an increasing trend in the last 5 years.
- The growth of dairy consumption is the results of increasing incomes and the development of science and technology.
- However, there has been a wide gap between milk production and consumption.
- Production is decreasing

# Figure I. Milk consumption per capita (capita/year) in Indonesia



Source: Statistics Indonesia 2013

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- For several rural households, dairy farm business has contributed as a primary source of income.
  - Dairy farming plays a key role in improving the socio-economic status of a large percentage of rural communities.
  - Condition in dairy farm in West Java:
    1. The farmer's not have access to capital and markets and low productivity,
    2. The farmers face a difficulty to adopt new technologies which are introduced to improve agriculture sector.
  - As a case study, this paper looks at challenges and opportunities facing a dairy cooperative in West Java, ➔ KUD Giri Tani

# Objectives

- In general, the objective of this study is to recognize the opportunities and challenges faced by dairy farmers and cooperatives particularly KUD Giri Tani, in West Java in the context of value chain analysis.
- The specific objectives are as follow:
  1. To identify dairy farming performance i.e. production, marketing, and the nature of relationship between farmers and cooperatives and cooperative and processors.
  2. To identify the opportunities and challenges facing by farmers, cooperatives, and processors.

# 2. Method

- **Data and sources of data**

- In this study, data were collected from KUD Giri Tani and smallholders dairy farmers in Cisarua and Megamendung sub-districts.
- We conducted individual interviews with farmers as well as Focus Group Discussions (FGDs). Interviews were conducted in Cisarua. This study used a semi-structured questionnaire during interviews with smallholder dairy farmers.
- The questions being asked to farmers included aspects of production, marketing, the nature of relationship between farmers and the cooperative and between the cooperative and processor (Cimory), and opportunities and challenges faced by farmers, the cooperative, and the processor.



- **Sampling methods**

1. The sampling method being used was non-probability sampling. We used a purposive sampling technique.
2. Smallholder dairy farmers' respondents who participated in the FGDs and survey were dairy farmers who have knowledge and experience of dairy farming.

## **Data analysis**

The survey data has been collected by the team members. Then the team made a short report into a presentation report. In the last day of fieldtrip, the presentation report was discussed with the mentors and supervisors in order to get feedback and some revisions

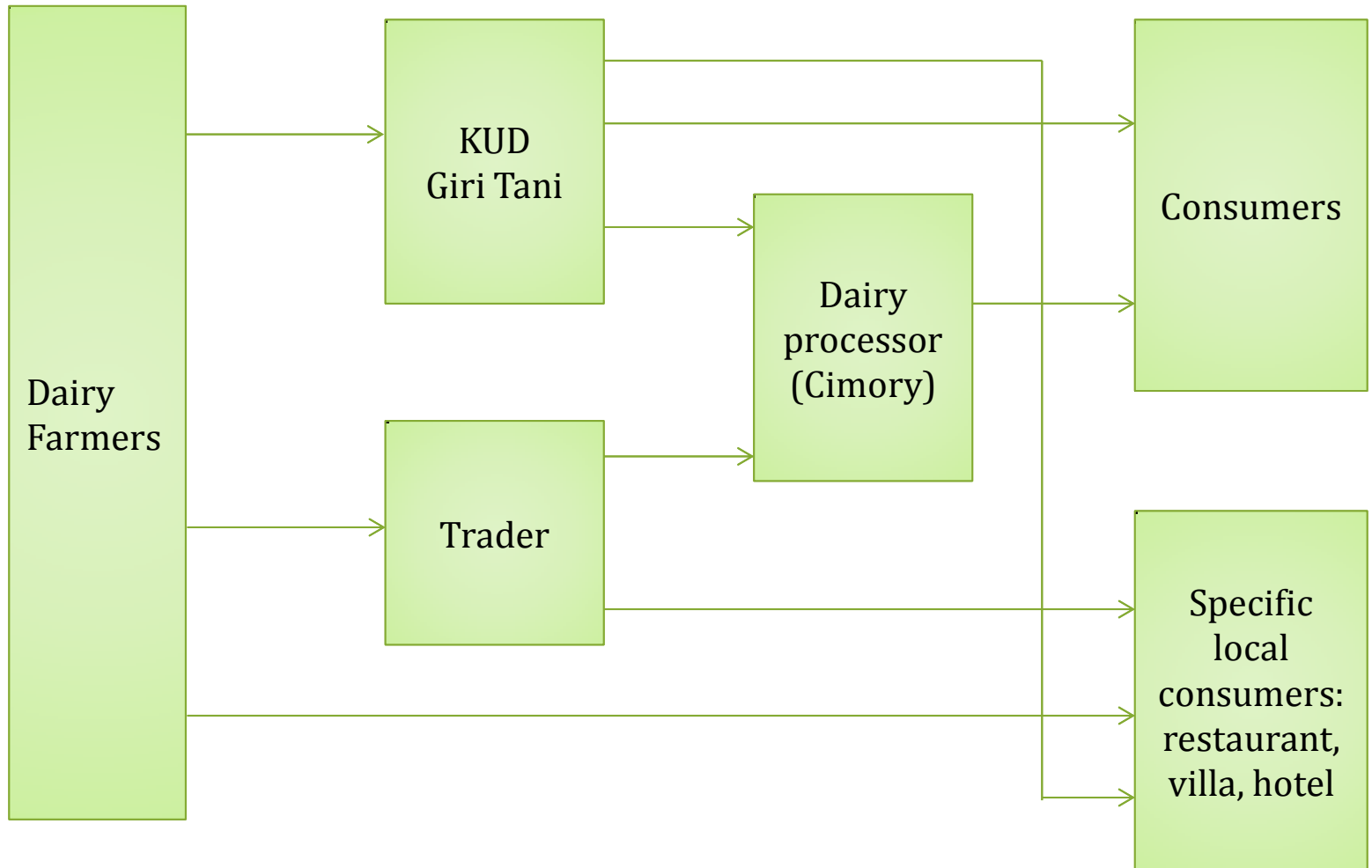


# 3. Results and discussions

## • Coop characteristics


- KUD Giri Tani was established in 1973. The cooperative initially focused on agricultural activities before narrowing down its focus on dairy farming in 1985.
- The coop was used to be a coopoperated in food crops, agricultural facility, credit program distributor, and fertilizer and chemical supplies. Dairy processing activity started following the implementation of the national program of cattle credit. Its operation is centralized in Cisarua and Megamendung sub-districts, Bogor regency, West Java. The dairy farmers as the KUD's members spread between these two sub-districts.
- Milk production from the smallholders collected by KUD Giri Tani is sold mostly to Cimory and sometimes (small amount of milk) to Nutrifood.
- The trend of milk production and cows' population number was decreasing from 2013 to 2014. The volume of milk production in 2014 was 6,000 – 7,000 litres/day, whereas it was 16 tons/day in 2013. The number of cows' population in 2014 was ± 3.000 cows, while in 2013 it achieved ± 5.000 – 6.000 cows.

# • Dairy supply chain



# ● **Factors associated with farm profitability and efficiency**

- The farmers receive an increase price when they sell to KUD because the milk price received from Cimory has annually adjusted to increase. From KUD and the farmers it is informed that there is a price gap, about 30 per cent, between KUD and Cimory.
- In 2014, Cimory gave a price of IDR 5.400/kg, though price from KUD was IDR 4.200/kg. It depends on the quality of milk that tested by processor. The increasing price in 2014 was due to the decrease in number of dairy cows.

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- Dairy farmers who engage with KUD Giri Tani, they filter and fill the milk into milk cans before picking by or delivering to the coop. The coop states that only one farmer from Bogor regency has been using a portable milking device.
  - To assure the quality of milk, the coop determines quality of milk based on Cimory's requirement. The coop uses test of Total Solid (TS) to identify contents of dry material in milk and test of Total Plate Count (TPC) to test contents of bacterial unit. The coop provide the tests at farmers' houses or collecting points and the processor (Cimory) tests again the milk quality at the factory.

# Opportunities and Challenges

## Opportunities:

1. Establishment of milk processors around Cisarua has given a better and larger market in downstream industries of dairy. The milk processors operating around Bogor and Sukabumi regents are Cimory and Nutri Food.
2. Cimory has offered some advantages such as the main dairy buyer, close location, applying a simple administration, and conducting a simple quality test (TS and TVC).
3. Milk processing is recently growing with variety of dairy products that gives more value added. The fresh milk can be processed to be yogurt, pasteurized milk, cheese, milk powder, ice cream etc.
4. Villas, hotels, and restaurants contribute to the increasing demand of fresh milk in the local area.

# Challenges

1. Breeding.
2. Limited land for grazing and forage
3. Increasing price of input, especially concentrated feed.
4. Fluctuated price of milk.
5. Cost of production tends to increase while price of milk does not get along with the increase of cost.
6. Environmental issue, such as smell of waste and its disposal point.

# Conclusion Remarks

- There are constraints and opportunities in developing dairy farm.
- Government should provide several policies, such as additional land for dairy and breeding.
- Farmers need to adopt technologies to improve quality of milk and production.
- KUD should actively search informations about potential dairy market and adoptable technologies to share it with farmers.

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