



# The Viability of Agricultural Value Chain Financing in the Province of Nueva Ecija

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**Abstract**— Agriculture is one of the main industries in the Philippines, and Nueva Ecija is known as the country's "Rice Granary." However, many farmers in the province face financial constraints that limit their ability to invest in their farms and improve their yields. This descriptive study aimed to explore the viability of agricultural value chain financing in Nueva Ecija. The researchers used convenience sampling and a survey questionnaire with a consent form to collect data from farmers, traders, and other actors in the agricultural value chain. The researchers analyzed the data using frequency count, percentages, and weighted mean. The study found that agricultural value chain financing is viable in Nueva Ecija, but only if there is an entity that can act as a link between the different actors in the chain. This could be a government agency, a non-governmental organization, or a private sector company. The link entity would need to provide financial and other support services to farmers, such as training and technical assistance, as well as facilitate connections between farmers and other actors in the value chain, such as traders and processors. This study provides valuable insights into the potential of agricultural value chain financing in Nueva Ecija. By highlighting the importance of link entities, the findings can inform the development of policies and programs that support agricultural development and poverty reduction in the province and beyond.

**Keywords** — Aggregator, agricultural value chain, agriculture, consolidator, farmers, financing.

## I. INTRODUCTION

Agriculture is one of the major sectors of the Philippine economy. Crops like rice, coconut and sugar dominate the country's production. According to World Bank (2021), agriculture employs 23% of the Filipino workforce in 2021. When we talk about agriculture, Nueva Ecija is on its list. The Province of Nueva Ecija is recognized as the "Rice Granary" of the Philippines because it led to the production of the nation's food staple during the twentieth century (F.A. Santiago Jr., 2015). Philippines Statistic Authority (PSA) 2020 report on Palay production, Nueva Ecija alone produced up to 770,830 metric tons or 69.9% of the total Palay harvested in the whole of Central Luzon. Aside from rice, the province also produces a variety of vegetables. The Bangko Sentral ng Pilipinas

(2019) states that despite its important role in promoting inclusive economic growth, the agricultural sector faces persistent challenges in financing and is constraining its development. Farmers, traders, sellers, and buyers are facing capitalization problems and various challenges to sustain the agriculture sector such as limited buyers, storage problems and distributions, among others. Thus, a systematic approach is necessary to support the agricultural sector of the country.

The Bangko Sentral ng Pilipinas (2016) issued Circular No. 908 entitled Agricultural Value Chain Financing Framework. The agricultural value chain is how the world of producing, buying, and selling agricultural products works. Agricultural Value Chain Financing (AVCF) is concerned with the flow of funds to and within

a value chain to meet the needs of chain actors for finance, to secure sales, to buy inputs or produce, or to improve efficiency. Due to the high exposure to credit risk, the agriculture sector is now among the least preferred by the financial institution. Agricultural Value Chain Financing is one of the strategies to sustain the continuous production of agricultural products. This sector requires constant funding and the stability of its cycle may serve as security in mitigating the risk of non-payment to its source of funds.

This study defined all the needed components of Agricultural Value Chain Financing as stated in BSP Circular No. 908. The goal is to determine if these components are present in the Province of Nueva Ecija. The degree of willingness of these components to participate in the Agricultural Value Chain Financing was integrated into the study.

## II. METHODOLOGY

The study is Descriptive in nature which focuses on determining the components needed in the development of agriculture value chain financing programs in the Province of Nueva Ecija. The instruments utilized were survey questionnaires with a consent form and snowball sampling wherein the method is purely based on referrals and extensively used when a population is unknown. Nevertheless, the researchers conducted the study with at least 10 rice farm workers per legislative district of Nueva Ecija. A total of 40 respondents were selected as samples of this study. Basic descriptive statistics such as frequency count, percentages, and weighted mean were used.

## III. RESULTS AND DISCUSSION

In order to establish the viability of AVCF in the province of Nueva Ecija, the researcher must first determine the components needed in the framework as well as its existence in the province. After that, an analysis of the workflow must be laid down in order to understand the role of each component and determine its viability.

Presented below are the data gathered:

### a. Existence of AVCF Component in the Province of Nueva Ecija

Farmers/fisherfolks are the fuel of the AVCF. The crops and produce will start with the farmers/fisherfolks. As per Philippine Crop Insurance Corporation (2017), there are 265,200 farmers/fisherfolks in Nueva Ecija that are logged

at the Registry System for Basic Sectors in Agriculture (RSBSA).

Table 1 - Components of AVCF and the reported number of existing in Nueva Ecija

| Component   | Count   |
|---|---------|
| Farmer/ Fisherfolks                                   | 265,200 |
| Value Chain Aggregators/ Consolidators                | 20      |
| Agricultural Input Suppliers                          | 22      |
| Government Agricultural Credit and Financing Programs | 6       |
| Financial Institutions                                | 190     |

Another component needed is the value chain aggregators. This component initiates the formalization and/or organization of a value chain and/or offers services that aim to strengthen existing value chains while consolidators are farm-equipment operators or traders who agreed to provide farm-level services (e.g tractor, thresher, freight, etc.) and to facilitate the handling of harvested crops and coordination with possible buyers during harvest. In Nueva Ecija, these components are commonly performed by agriculture/multi-purpose cooperatives duly registered with the Cooperative Development Authority. Per CDA (2018), there are more than 900 registered cooperatives in Nueva Ecija, but in 2020, there are only thirty-eight (38) Cooperatives that became operational during the pandemic. Of these, twenty (20) Coops are engaged in the agriculture business that can be part of the value chain as aggregators/consolidators. As to the agricultural input suppliers, they will serve as sources of production input supplies and in Nueva Ecija, there are 22 business establishments, of medium size, offering agricultural supplies.

Government agricultural credit and financing programs will also play a vital role in the AVCF. As most banks treated farmers with high credit risks, these government programs will serve as a cushion for banks to reduce the impact of non-payment in the event of natural calamities and the inability of the farmers to pay their loans. For the fiscal year 2020, the Department of Agriculture, through the Agriculture Credit Policy Council was able to release a total of P5.3 million funds to farmers/fisherfolks as a loan through their partner lending conduit.

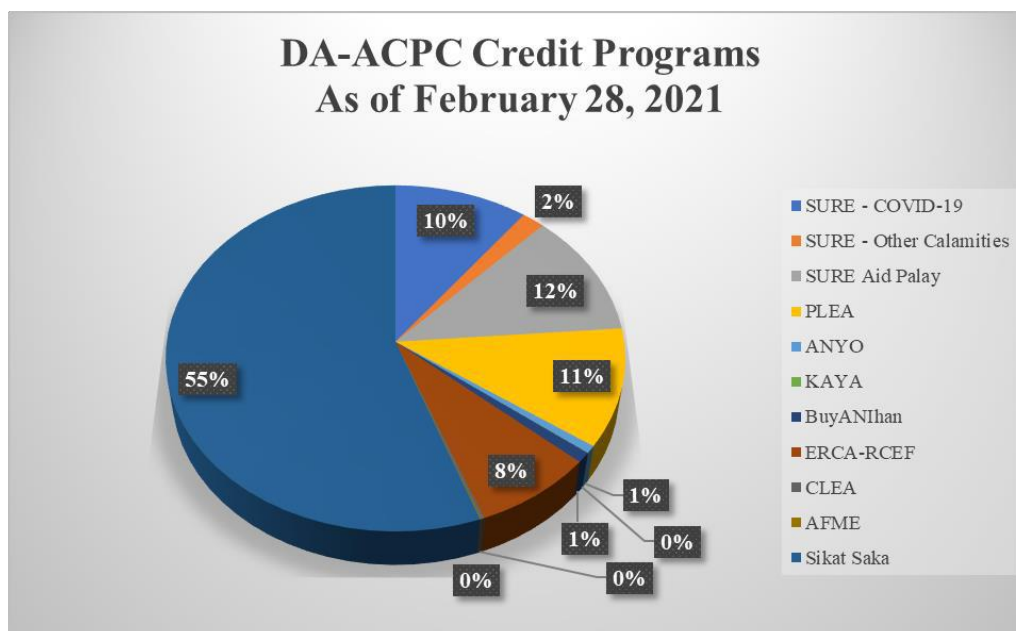


Fig.1 – DA-ACPC distribution of credit programs

Presented in Figure 1 is the distribution of DA-ACPC's credit program through their partner lending conduit. Findings show that a total of P21,314,233,499.00 was disbursed to 333,780 borrowers. Data shows that the 'Sikat Kaya' program had 55% or P11,823,700,000.00 of the total disbursed funds.

The DA-ACPC has their Partner Lending Conduit in Nueva Ecija, most were rural banks and credit cooperatives. For purposes of this study, the researcher's focus is on the rural banks. Per the BSP website (2022), there are eleven (11) rural banks with head offices within Nueva Ecija. These rural banks mainly cater to agriculture clients up to the far-flung municipalities of the province. As of the June 30, 2022 report of the BSP, all cities and municipalities in the province of Nueva Ecija have banks.

The researchers were able to determine the components present in the province of Nueva Ecija. Identified were the number of farmers/fisherfolks enrolled in RSBSA, the potential aggregators and consolidators as well as input suppliers. Also identified were the various government support programs that can cater for the identified components in funding through loans. Finally, the partner lending conduits were also identified to serve as a medium for the release of government financing support programs.

#### **b. Understanding the Agricultural Value Chain Financing (AVCF) Flow**

A sort of financing specifically created to help the agricultural value chain is called agricultural value chain

financing (AVCF). It aims to make it easier for smallholder farmers, agribusinesses, and other players in the agricultural value chain to access financing. A variety of activities, including funding for inputs, farm equipment, agricultural training, and post-harvest handling and storage, can be included in AVCF. It is frequently used to support smallholder farmers in raising their output, enhancing the quality of their goods, cutting expenses, and expanding access to markets. Additionally, AVCF can give farmers access to technical support and aid in enhancing their ability to conduct business.

As illustrated above, the actors/components have their distinct roles in the value chain. The production will start with the farmers/fisherfolks that are responsible for producing raw agricultural products such as crops, livestock, and other agricultural inputs. The aggregators, consolidators and cooperatives will process such and are responsible for transforming the raw agricultural products into value-added products such as canned fruits, dried grains, and milk powder. This also includes transporting the value-added products to retailers, wholesalers, and other buyers. Lastly, retailers are responsible for selling value-added products to consumers. Consumers can be cooperative members also together with the regular consumers of agriculture products.

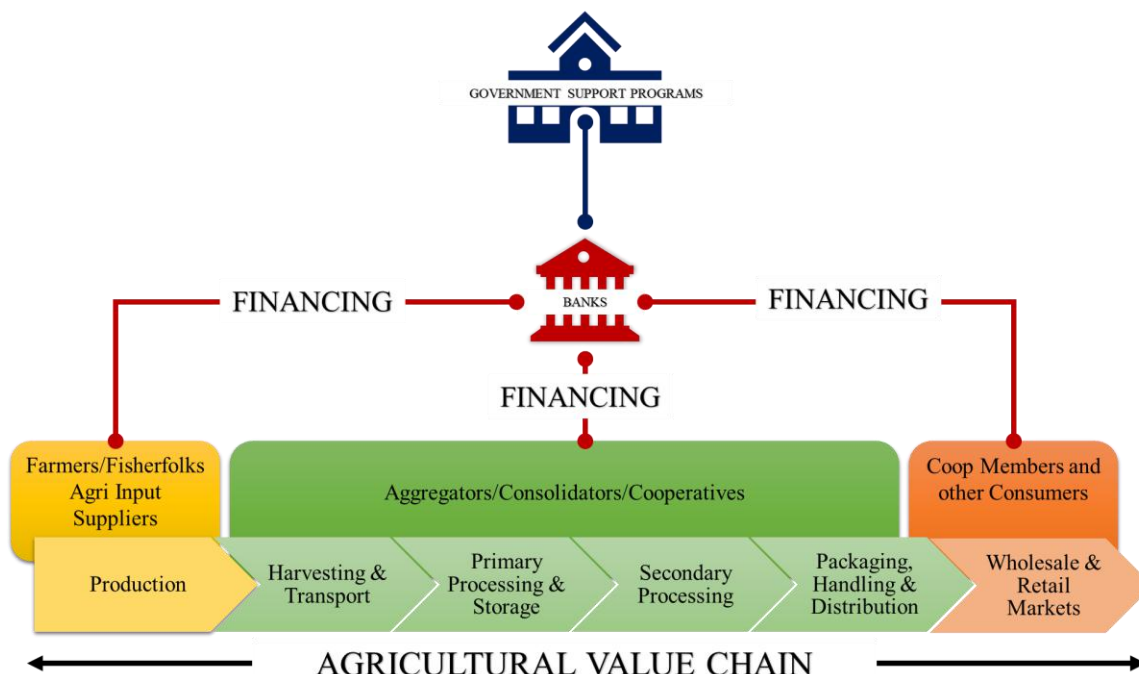


Fig.2 – Business Model of Agricultural Value Chain Financing

#### IV. CONCLUSIONS AND RECOMMENDATIONS

Farmers, agribusinesses, and financial institutions can all benefit from agricultural value chain finance in a variety of ways. It can improve food security, lower post-harvest losses, and increase farmer incomes. Financial institutions gain from expanding their clientele, lowering risk, and improving profitability. Value chain financing can help reduce poverty and open up prospects for economic growth by facilitating access to funding. The creation of successful collaborations between financial institutions, farmers, and agribusinesses is the key to value chain financing success. Value chain financing can have a hugely positive effect on the agricultural industry with the appropriate relationships in place.

In the province of Nueva Ecija, the researchers determined that the agricultural value chain is viable and can be initiated by financial institutions. Although there is a limited aggregator/consolidator, this can be worked out by government support programs, training, and information dissemination. In addition, the rural banks in the province have a strong client pool which covers all the components of the chain. It is convenient to consolidate this pool of clients to collaborate for the agricultural value chain with the help of the bank through financing.

The researchers recommend the following based on the findings and conclusions of this study:

- a. Risk assessment: Risk assessment involves understanding the risks associated with agricultural value chain financing, such as market price volatility, weather-related risks, and credit risk. It is important to understand the potential risks involved in agricultural value chain financing to ensure that all stakeholders understand the potential risks associated with the financing.
- b. Financial instruments: Financial instruments such as loans, equity investments, and other forms of debt financing can be used to finance agricultural value chains. These instruments can provide both short-term and long-term financing, depending on the needs of the value chain.
- c. Financial intermediaries: Financial intermediaries, such as banks, microfinance institutions, and credit unions, are necessary for the successful implementation of agricultural value chain financing. These intermediaries provide the necessary capital, liquidity, and risk management to ensure that the value chain is properly funded.
- d. Capacity building: Capacity building is essential for the successful implementation of agricultural value chain financing. It involves providing training and technical

assistance to farmers, as well as providing access to financial services.

- e. Stakeholder engagement: Stakeholder engagement is necessary for the successful implementation of agricultural value chain financing. This involves bringing together all the stakeholders in the value chain, including farmers

## REFERENCES

- [1] (n.d.). Agricultural Value Chain Finance. Assignment Point. <https://assignmentpoint.com/agricultural-value-chain-finance/>
- [2] Shinozaki, S. (2017, October 30). Financing Agriculture Value Chains in the Digital Age. Asian Development Blog. <https://blogs.adb.org/blog/financing-agriculture-value-chains-digital-age>
- [3] Farm Radio International (n.d.). An introduction to agricultural value chains. <https://idl-bnc-idrc.dspacedirect.org/bitstream/handle/10625/52685/IDL-52685.pdf>
- [4] (2022, March 10). DA registers 5.4 M farmers, and fishers in RSBSA. Department of Agriculture. <https://www.da.gov.ph/da-registers-5-4-m-farmers-fishers-in-rsbsa/>
- [5] (n.d.). Partner Lending Conduits (PLCs). Department of Agriculture. <https://acpc.gov.ph/partner-lending-conduits-plcs/>
- [6] Cooperative Development Authority (2018, December 31). REGISTERED COOPERATIVES under R.A. 9520. <https://cda.gov.ph/cooperative-masterlist/>
- [7] Cooperative Development Authority (2020, April 24). UPDATED LIST OF COOPERATIVES PROVIDING SERVICES TO THEIR RESPECTIVE MEMBERS AND COMMUNITIES DURING THIS TIME OF NATIONAL HEALTH EMERGENCY. [https://cda.gov.ph/wp-content/uploads/2021/01/Updated\\_list\\_coops\\_ECQ\\_2020\\_April\\_24.pdf](https://cda.gov.ph/wp-content/uploads/2021/01/Updated_list_coops_ECQ_2020_April_24.pdf)
- [8] Department of Agriculture (2022, May 31). Status Update Report on DA-ACPC Credit Programs as of March 31, 2022. DA-ACPC. [https://acpc.gov.ph/download/march-2022-status-update-report/?wpdmdl=9806&\\_wpdmkey=63ac15c26cda5&subscriber=pSXG4i7xi8SvlijccOD8CXfuq-0jv-yre35qLBFO5wTakzG16paW5P\\_nSdtiT6FUHrjy-TF5O2kiCKa2PSN3jA](https://acpc.gov.ph/download/march-2022-status-update-report/?wpdmdl=9806&_wpdmkey=63ac15c26cda5&subscriber=pSXG4i7xi8SvlijccOD8CXfuq-0jv-yre35qLBFO5wTakzG16paW5P_nSdtiT6FUHrjy-TF5O2kiCKa2PSN3jA)
- [9] Rural Bank Association of the Philippines (2016, April 25). BSP Circular No. 908: Agricultural Value Chain Financing Framework. RBAP. <https://rbap.org/bsp-circular-no-908agricultural-value-chain-financing-framework/>
- [10] Bangko Sentral ng Pilipinas (2021, May 31). *BSP Circular No. 908: Agricultural Value Chain Financing Framework*. <https://www.bsp.gov.ph/Lists/Directories/Attachments/6/mand.pdf>