

**International
Institute of
Social Studies**

Erasmus

How to address the regeneration crisis of farming? The “Petani Milenial” Program and the struggle of young farmers in West Java

A Research Paper presented by:

Meidoraeka Rigne

(Indonesia)

in partial fulfilment of the requirements for obtaining the degree of
MASTER OF ARTS IN DEVELOPMENT STUDIES

Major:

Agrarian, Food, and Environmental Studies

(AFES)

Members of the Examining Committee:

Dr. Julien-François Gerber

Dr. Helena Pérez Niño

The Hague, The Netherlands
December 2023

Disclaimer:

This document represents part of the author's study programme while at the International Institute of Social Studies. The views stated therein are those of the author and not necessarily those of the Institute.

Inquiries:

International Institute of Social Studies
P.O. Box 29776
2502 LT The Hague
The Netherlands

t: +31 70 426 0460
e: info@iss.nl
w: www.iss.nl
fb: <http://www.facebook.com/iss.nl>
twitter: [@issnl](https://twitter.com/issnl)

Location:

Kortenaerkade 12
2518 AX The Hague
The Netherlands

For

God, Family, loved ones, and people I cannot mention one by one

Thank you for inspiring me and helping me grow to live my life, especially to believe in me.

Contents

<i>List of Tables</i>	<i>v</i>
<i>List of Figures</i>	<i>v</i>
<i>List of Appendices</i>	<i>v</i>
<i>List of Acronyms</i>	<i>vi</i>
<i>Abstract</i>	<i>vii</i>
Chapter 1 Introduction	1
1.1 Overview	1
1.2 Research Problem and Objective	4
1.3 Research Question and Subquestions	5
Chapter 2 Theory and Analytical Framework	6
2.1 The Early Age of Rice Commercialization	6
2.2 Class, Generation, and Surplus Population	7
Chapter 3 Methodology	10
3.1 The case study approach: “Petani Milenial”	10
3.2 Data Collection	12
3.3 Ethical Choice, Limitations, and Positionality	14
Chapter 4 Present for Whom?: Class Position, Regeneration, and the Excess People	16
4.1 Introduce The Actors of “Petani Millenial”	16
4.2 “Petani Milenial”, Who they are?	18
4.3 “Petani Milenial” and Farmer’s Regeneration	23
4.4 Surplus Population Issue under “Petani Milenial”	27
Chapter 5 Conclusion	30
References	32

List of Tables

Table 1 Petani Milenial”s Participant Categorization	11
Table 2 Basic Information of Participants	14
Table 3 Additional Information Class Classification of Participants	19

List of Figures

Figure 1 Program Location in 2021	3
Figure 2 Diagram of “Petani Milenial” Participant	13

List of Appendices

Appendix 1 – Overview of Interviews	35
Appendix 2 – General Interview Questions for Participants	35
Appendix 3 – General Interview Questions for Organizers	36

List of Acronyms

BIMAS	<i>Bimbingan Masal</i>
FFP	Fully-Fledged' Proletariat
IMF	International Monetary Fund
INMAS	<i>Intensifikasi Massal</i>
KWT	<i>Kelompok Wanita Tani</i> (Woman Farmers Group)
PCP	Petty Commodity Producer
Perhutani	<i>Perusahaan Hutan Negara Indonesia</i> (Indonesian State Forest Company)
SOP	Standard Operational Procedure
SUTAS	<i>Survei Pertanian Antar Sensus</i>

Abstract

This study focuses on analysing an agricultural development program called “Petani Milenial” in West Java, Indonesia, in the context of agrarian studies. It uses the lens of class, generational problems, and surplus population. Historically, agricultural development programs typically aimed to reduce socioeconomic problems in rural areas, including by improving productivity and addressing the regeneration crisis in farming. The main research question investigates why does the West Java Government created the “Petani Milenial” Program and who benefits from it? I address this question through an analysis of several participants’ experiences while following how the program is deployed in the first and second batches of participants. I also explored the perspective of the organizers of the “Petani Milenial” program. The findings suggest that several aspects of the program are similar to other governmental programs in the agricultural sector in the past. Firstly, only participants belonging to certain classes feel the benefits from the program while the rest remains struggling. Secondly, there were several tensions between the young capitalist farmers and the so-called “old” farmers regarding the practices of land cultivation which were said to be often unsustainable and potentially undermining social reproduction in agriculture. Finally, my findings show that precariousness still haunts the participants’ life prospects under the employment conditions of the capitalist era. In the end, agricultural development programs such as “Petani Milenial” only target a handful of people from certain groups with certain qualities and are not inclusive.

Relevance to Development Studies

This topic is relevant to Development Studies firstly by problematizing a typical agriculture development program focussing on increasing yield and productivity for the sake of poverty alienation. The “Petani Milenial” program wants to address this issue through farming regeneration and technology utilization, promoting the idea that there are opportunities to overcome problems in rural West Java. Unfortunately, my study found shortcomings that were similar to other comparable programs in the past. As children of the Green Revolution, many agricultural development programs tend to benefit rich farmers and make social differentiation in rural areas increasingly clear. The study helps uncover the way the “Petani Milenial” program works and how it partially benefits the participants as it has failed to understand social differentiation in rural realms. It is relevant to the Agrarian, Food, and Environmental Studies (AFES) major as it discusses class, generational problems, and surplus population in relation to agrarian change in the context in rural West Java.

Keywords

Agricultural development, class position, farmer regeneration, “Petani Milenial” program, surplus population, West Java, Indonesia, young farmer

Chapter 1

Introduction

1.1 Overview

West Java is one of the provinces in Indonesia with the largest rice paddy producer in the third position after East Java and Central Java with an area of 928.218 hectares (Ministry of Agriculture, 2020). The agriculture sector is one of the development focuses of the West Java Provincial government, as can be seen from its participation as the fourth 2018-2023 West Java Provincial government mission, one of which aims to realize food security in the province through the agricultural, marine and fisheries sectors. (Bappeda Provinsi Jawa Barat, 2019). In 2023, The realization of food security was listed number 3 out of 11 West Java Development priorities (Bappeda Provinsi Jawa Barat, 2022). In realizing its long-term vision in the agricultural sector, the West Java Provincial Government is determined the information transparency over the national food stock data by expanding access to information and food utilization for its people, improving infrastructure and land conditions that utilize the latest knowledge to increase productivity and added value to agricultural products, and developing agricultural, forestry, marine and fisheries cluster areas in West Java (Bappeda Provinsi Jawa Barat, 2022).

However, development in this sector experiences obstacles such as low productivity of agricultural sector commodities which is triggered by things such as conversion of agricultural land due to the development of the non-agricultural sector, low mastery and implementation of technology in agricultural cultivation, low quality assurance of agricultural products from upstream to downstream, limited access to capital, the average age of farmers in West Java is at an unproductive age, and limited storage space for harvests (Bappeda Provinsi Jawa Barat, 2022). In fact, the reality in historical context, population growth that occurred in the 1950s on the island of Java grew faster than the food production capacity at that time, even though the government had tried various approaches to increase the quantity of rice production (Husken, 1982). Husken (1982) added that this was triggered by many government policies in the agricultural sector which were oriented towards technical improvement, while the targets of these policies targeted those who had rice fields and their credibility for providing credit was considered good. Indeed, at that time only around 30-35% of the village population met these criteria which means most of the rural population was not covered by the planning (Husken, 1982).

It continued with the pattern of agricultural modernization until the 1970s, it shows a pattern that is in line between agricultural differentiation and capitalism. This can be seen from the unequal condition of individual land control in Java, creating two groups between landlords and hired labour, several forms of relationship between the two including profit sharing between tenants and owners, work relationships between landlords and workers, as well as rental conditions for landless farmers with landlord capitalists (Husken, 1998). It makes a sense of control of large areas of land by a few "privilege" people and scattered plots of land for small farmers, creating an imbalance in agricultural productivity. Yet, the area of agricultural land in West Java itself tends to decrease from 2015 to 2019, seen from various types of land from rice fields, gardens/moors, and fields/weeds, an average decrease of 11.434 hectares based on data from the Ministry of Agriculture (2020). When explained referring to data held by the Ministry of Agriculture (2020), the area of rice fields in West Java has increased by 15.424 hectares, only from 2016 to 2017 and 2018 to 2019 there has been a

decrease of around 2.000 hectares. Agricultural land in the form of gardens/moors and fields/weeds in West Java tends to decrease from 2015-2019 by 26.560 hectares and 23.161 hectares respectively (Ministry of Agriculture, 2020).

Apart from the decreasing condition of land, other facts based on the 2018 Inter-Census Agricultural Survey (SUTAS) conducted by Indonesian Statistics show that the majority of farmers in West Java are in the age group of 45 years to more than 65 years at 71%, with details of age 45- 64 years old is around 53%, and 18% are over 65 years old. Generations younger than 40 years of age have minimal involvement in agricultural activities due to the perception that farmers tend to have low incomes, a job for old people which not worthwhile enough for them, and the work is considered not prosperous (Pemerintah Daerah Provinsi Jawa Barat, 2022).

On the other hand, the West Java Province has the desire to prevent a food supply crisis in West Java which is feared to have an impact on unstable global conditions (the Russian-Ukrainian war for example) or other pandemics in the future (Pemerintah Daerah Provinsi Jawa Barat, 2022). Therefore, in 2021, the West Java Government decided to establish a program called "Petani Milenial" as one of the policies to actualize food security in West Java. Pemerintah Daerah Provinsi Jawa Barat (2022) explains the program's background ground on demographic of young productive age in West Java, views on the economy of farmers in rural West Java, and initiation from the Governor of West Java who sees the potential of agriculture in West Java to develop the economy. These reasons are reinforced by data from the Ministry of Manpower (2020) which revealed that the West Java Province was the province with the most workers affected by Covid-19, both from the formal and non-formal sectors, amounting to 342.772 workers out of a total of 3,5 million people in the month July 2020. The impacts have varied, ranging from layoffs to temporary termination of contracts. The program itself is funded by several sources such as regional and state budget, crowd funding, program collaborators, and sponsorship (Pemerintah Daerah Provinsi Jawa Barat, 2022).

In the program document, it is explained certain purposes of the program apart from encouraging young people to become farmers, such as to absorb workers in the agriculture sector in West Java, re-branding agriculture sector as a prosperous sector, utilizing technology to maximize the production capacity both in quantity and quality, fostering an entrepreneurial spirit among young West Java farmers, and building advanced, independent and modern agriculture (Pemerintah Daerah Provinsi Jawa Barat, 2022). It is one of West Java's strategic programs under the Bureau of Economics in the context of post-Covid-19 economic recovery. It operates in 10 sub-districts around the West Java Province, under 5 bureaus related to agriculture broadly such as the Horticulture and Food Corps Services, Livestock Services, Fisheries Services, Forestry Services, and Plantation Service (Pemerintah Daerah Provinsi Jawa Barat, 2022). This program is also expected to answer the crisis in the regeneration of farming activities in West Java by targeting participants aged 19-39 who are citizens of West Java. In this program, the prospective young people who have selected to participate in the program will do certain things depends on their request upon the needs to support their plan to execute agriculture activities. The organizer will facilitate certain aspects such as training, internship to adapt and learn new technology, market access for sell the products, technology installation, networking with farmer's group and potential buyer, production equipment (financial, seedlings, fertilizers, pesticides, etc), insurance, land, until legalization or certification for their products (petanimilenial, 2023).

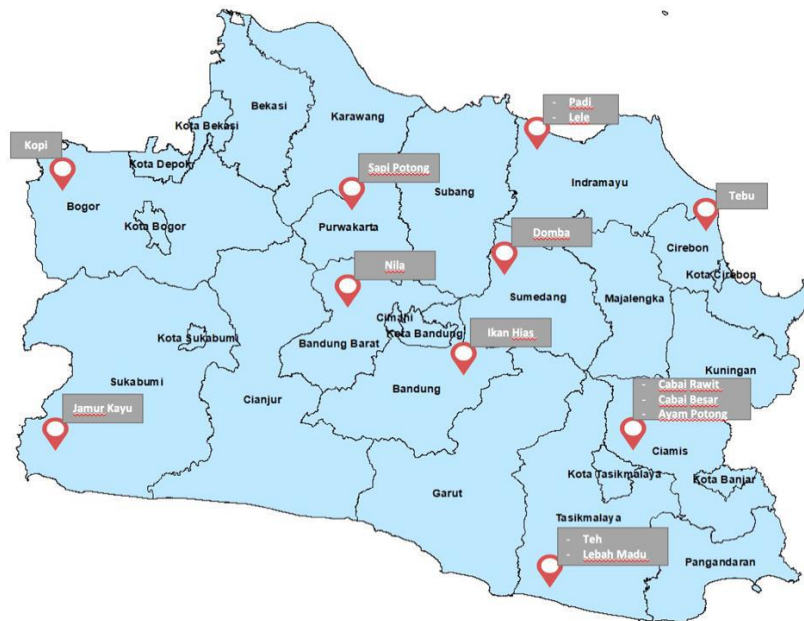


Figure 1. Program Location in 2021 (source: Pemerintah Daerah Provinsi Jawa Barat, 2022)

However, the overall results of the program were far from without flaws. In early 2023, there was a big issue widely reported in the newspaper about the program. One of the participants shared his unpleasant experience while following this program. He expressed disappointment with the program such as the support given by the government itself, the “impromptu” agreement arrangement, and interaction with the third party for the credit access which were considered detrimental to himself and other participants in the ornamental farming sector. (Fahmi, 2023). At the beginning, the group of Millennial Ornamental Plant Farmers had been arranged to receive 300 seeds from the seed's provider, but the quality did not match the specifications promised. Many seeds were diseased, which affected the harvest time backwards. When the harvest time came, a new problem arose from the third party (the same institution as the seed provider) who was responsible for buying the seeds, namely not being paid for their harvest. As a result, participants could not pay credit in time (Fahmi, 2023).

The situation was described similarly during the preliminary discussion I had with the resource person from this program in May 2023. In August 2023, I had a discussion with one of the participants who had a problem like what was reported in the media. He recounted that the implementation of the program seemed rushed and did not conform to the agreement between ornamental plant farmer participants and off-taker. Indeed the provided seeds did not meet the specified quality and problems when paying for crops which resulted in difficulties in bank credit payments. Apart from that, these issues also concerned participants from other commodities such as fisheries and livestock. While the tilapia farming participants could not reap any results since their fish all died and the vannamei shrimp participants had technical problems with the damage of embankments from the start, the two programs were eventually disbanded.

However, the initial discussion I had with an organizer in different sessions told different conditions among other participants. The organizer explained to me the case of a coffee farmer, who has his own coffee shop and coffee production and who is still joining this program. As another example from the fisheries branch, there is a participant who has successfully established his shrimp and tilapia fish commodities previously before joining the program. Once for sure, they have seen the program as the opportunity to expand, whether the market or another profitable commodity (Herlambang and Ashri, 2022; jabarprov, 2022).

These two contrasted situations point toward interesting research questions. How does the diversity of participants' backgrounds, particularly their class position as young people generate different results during their participation in "Petani Milenial" Program?

1.2 Research Problem and Objective

As evidenced above, West Java put an effort to focus on agricultural development with the province by making it one of the priority agendas by highlighting various problems in this sector such as low labour absorption in the agricultural sector, low productivity and economy of the agricultural sector, to high development. non-agricultural sector which puts pressure on land availability in the agricultural sector (Bappeda Provinsi Jawa Barat, 2018). Realistically, this is very complex and becomes a further challenge if we expect a generation of farmers beyond their productive age to overcome the problems that the government wants to address. A large number of development programs in rural areas carry topics related to agriculture and its relationship with young people, both of which are in a situation of crisis and threat because there are no successors in agriculture and a vulnerability of young people under the unemployment issue (White, 2020).

However, certain programs of development, which are quite a lot initiated by the government, can create new problems because the policy narratives designed by the government are often not on target and just end up creating more gaps between people in rural areas. The government's initial goal after the Dutch colonial era, for example, which focused on increasing production so that farmers could meet their own needs, was in fact only able to target the rich in rural areas, unable to be reached by all farmers. (Husken, 1982). Husken (1998) mentioned in his book in a way to catch up with the program's outcome during the *Green Revolution* era, it costed a lot of money to invent a new technology, seeds, and other equipment which only certain people from the "rich" group who were capable to follow the procedures. Although by the end of the program around 1970s, the smallholders were also involved by the government as the desire to increase the result of the production. As the result, the smallholders do not get significant profits compared to those who have entered first because the opportunity to develop themselves was small and they did not have capability to control the production process as the "rich" group did (Husken, 1998).

On the other hand, the *Green Revolution* process also creates new social differentiation in rural areas. As a result of the expensive investments made during participation in agricultural programs at that time, there was a significant rationalization process, especially in relation to employment in the agricultural sector and production equipment. (Husken, 1998). In fact, similar policies or programs in the agricultural sector are still repeated and one of them occurs in the context of the "Petani Milenial" program initiated by the West Java Government. This program really focuses on regenerating farming and increasing agricultural productivity by targeting young people to be involved in it. However, in their involvement, participants come from diverse backgrounds and various skills (Pemerintah Daerah Provinsi Jawa Barat, 2022). Based on the Pemerintah Daerah Provinsi Jawa Barat (2022), it is also explained that each participant will receive training and facilities that support the participant's business activities. Nevertheless, these variations of factors will affect how the participant will obtain results during the program also whether the program really becomes the benefit for them and how the participants and organizers view the agricultural development program in general if they have a similar framework and really achieved his/her goal of "develop agriculture sector".

Using the "Petani Milenial" program in West Java as a case study, this research explores the purpose of the launch of the program and who is actually the beneficiary of the program, through tracing the class position of the participants and its influence on achievements in agricultural activities in general, and the relationship between the program and generational

problems in the agricultural realm. As the previous background from the program also mentioned, there is still a lack of labour absorption in the agricultural sector and the impact of Covid-19 which has caused widespread layoffs in a number of industries in West Java, causing an increase in open unemployment in West Java (Pemerintah Daerah Provinsi Jawa Barat, 2022). Although the percentage of open unemployment in West Java continues to decrease from 2020 to 2022, this figure is still the highest in Indonesia at 8,31% (Indonesian Statistic, 2022). This phenomenon is interesting to look into; it will allow us to see how the program wants to play a role in overcoming the case of surplus population in West Java.

1.3 Research Question and Subquestions

Main Question: Why does the West Java Government create the “Petani Milenial” Program and who truly benefits from it?

Sub-Questions:

How does class affect the result obtained by each participant of the “Petani Milenial” Program?

How does the “Petani Milenial” Program relate to the generational problem in agriculture?

How does the “Petani Milenial” Program address the Surplus Population issue?

Chapter 2 Theory and Analytical Framework

2.1 The Early Age of Rice Commercialization

Indonesia is an agricultural country with rice as the main staple food of its population and the island of Java as its main producer (Pincus, 1996). Since the inception of the Indonesian government, the government has tried to pay more attention to agricultural development. In the era of Sukarno (Indonesian 1st President) agricultural-based policies had not developed rapidly and Indonesia was still dependent on food imports in the 1950s. Since that year, the core of improving domestic production has been focused on improving technology, but this idea has not shown results due to the lack of infrastructure improvements, intensification programs and credit for farmers which resulted in food production continuing to decline in the 1960s (Husken, 1982). Continuing efforts to increase local rice productivity, the New Order government under Suharto focused on the *Green Revolution* through technological improvements including superior seeds and providing guidance through two programs such as *Bimbingan Masal* (BIMAS) and *Intensifikasi Masal* (Inmas) (Hansen 1971 and Husken, 1982). The *Green Revolution* itself has IMF and The World Bank as well as part of the funding source (Husken, 1998)

However, this effort did not reduce rice imports from abroad because domestic demand continued to increase even though there had been an increase in rice production in the 1970s, specifically in Java, increasing by up to 25%. (Husken, 1982). Various other involvement of the state has emerged from the late 1960s to around the early 1990s, starting from the rehabilitation and multiplication of irrigation systems in Java, development of local fertilizer industry, national connection and facilities regarding storage and transportation related rice cultivation, till the policy to increase the utilization of fertilizer (Pincus, 1996). On the other hand, the New Order government, which demonstrated its role in a liberal economy, opened up opportunities for producers to compete in the free market, which encouraged agricultural actors to become trapped in a neoliberal economy which tended to force farmers to face a position of winning or losing. (Habibi and Juliawan, 2018).

Nevertheless, while governmental policies have had an impact on increasing Indonesian food production, contradictions are found in the implementation of these policies in the form of high costs incurred by farmers to facilitate seeds, fertilizers and pesticides in the maintenance process, so that only large (rich) farmers are able to participate in this matter (Husken, 1982). On the other hand, the small number of participants in these two programs also influences the lack of fulfillment of food production of domestic products because small farmers continue to plant rice with old varieties of seeds. Those two programs in fact only “accessible” for large farmers and they received certain benefits such as the networking and assistance from the government compared to small farmers in terms of limited capital to follow the procedures applied in program activities so that from the start there was very little access for them to be able to participate (Husken, 1982). In addition, employment conditions in the agricultural sector are increasingly limited because the capital required to be spent by Bimas and Inmas program participants is quite large, so the tendency to recruit workers is reduced, which of course affects the fate of landless labour (Husken, 1998).

The process of proletarianization and commercialization-based agricultural performance in Java has increasingly developed since the 1970s as it is more common for several "rich" farmers to control land of around 1 hectare or more and have wage labour to work on their land, leaving aside small farmers who have a small plot of land or even landless who can only enter the labour force market (Pincus, 1996). It got even worse in the 1990s when the inflation hit Indonesia, especially having a bad effect on the fate of workers whose wages

were increasingly reduced. The process of proletarianization has developed into impoverishment in that period (Breman, *et al.*, 2004). This historical trajectory, supported by the intervention of agricultural development programs from the government, also shaped the evolution of the agrarian classes in rural Java, a transition that emerged from the existence of a less differentiated peasantry to discrete agrarian classes under capitalist social relations (Habibi, 2023). The emergence of the terms "rich" and "poor" farmers in rural scope indicates the existence of class differences among farmers in Java when it is related to control over the accumulation of production, assets, and position in employment. Furthermore, this condition also affects social reproduction in household life in rural Java, which of course has an impact on the millennial generation, which in rural settings is the second or third generation of farmers.

2.2 Class, Generation, and Surplus Population

The Indonesian state's intervention in agriculture has played an important role in differentiating classes in rural Java. The classes referred to include Capitalist farmer, Petty Commodity Producer (PCP), Classes of Labour (semi-proletariat, proletariat, and fully-fledged proletariat farmers), and where the existence of these classes influences the dynamics of agrarian change in rural areas (Bernstein, 2010; Habibi, 2023). PCPs are farmers who carry out agricultural activities driven by commodity-based production, different from the concept of peasantry in the past which was subsistence-oriented (Bernstein, 2011). Even so, PCPs are still different from capitalist farmers because they provide labour from their own circle (family/group labour), in contrast to capitalist farmers who are able to employ other people in their farming activities (Habibi, 2023).

On the other hand, the three working sub-classes have similar characteristics so that they can be categorized as working class, namely struggle in terms of income and subsistence, limited control over resources, land ownership and production achievements, limited access to higher education, variety in survival strategies, and most importantly their status as workers (Habibi, 2023). Nevertheless, there are still differences between the three, such as: semi-proletariat farmers still have control over a very limited area of land and sell their labour power because the results of their cultivation are not enough for their daily needs, proletariat farmers do not have land or control over resources so that they inevitably enter the labour market and generally become a group that is against the landlord-capitalist/capitalist farmer, and finally the 'fully-fledged' proletariat' (FFP) does not engage in 'own-account' farming and does not have income from it" (Habibi, 2023).

This class identification was adopted based on empirical research conducted by Habibi (2023) in Central Java and North Sumatra combined with Marxist Political Economy. Habibi (2023) explains how capitalist farmers in Java have significantly influenced agriculture production, capital accumulation and get more access to government's support which benefits them to expand their cultivations and higher revenues. Meanwhile the PCPs defined as small-scale farmers who utilize the limited resources availability to meet their subsistence needs, and the classes of labour are basically the groups of farmers who are dependent on wage labour whether they have a small plot land or are land-less farmers (Habibi, 2023). These classes have been reproduced from generation to generation and still exist today.

Habibi (2023) explains that in processes of class reproduction mostly the successors of capitalist farmers have greater opportunity to acquire education up to university and returns to actively replacing his parents as a capitalist farmer both actively and non-actively when compared to other class positions. Meanwhile, opportunities are still open for those who are PCP descendants to access education until university or high school, but the continuation of life after that for PCP descendants is very diverse, starting from the potential to advance to

the class of becoming a capitalist farmer, returning to reproduction as a PCP, migrating to work in the non-agricultural sector, to transforming into part of the classes of labour (Habibi, 2023). Meanwhile, the classes of labour group still have the opportunity to send their offspring to high school, but the opportunity for their descendants to advance to a higher class is very low. These people, continue to belong to their parents' class, or stop reproducing in the rural sphere because they choose to work in the non-agricultural sector in urban areas as proletarians (Habibi, 2023).

The historical and current generational relations, as well as the inequalities and divisions of labour, have had an impact on the reproduction of agrarian communities. These factors also affect the options and decisions that different generations have in terms of their participation in agriculture. The degree of young individuals' access to agricultural activities will be contingent upon the intergenerational transfer of agrarian resources (White, 2020). It means that the process of transitioning from the older generation to the new one will influence the decision for the youth, whether they will replace or reproduce the same class of their generation or end up differently. For example, the struggle of parents from labour classes to send their children to school is not without reason but with the hope that their children can pave the way for a better future than their parents (Habibi, 2023). One of the tensions that occurs between generations is when parents' hopes are a door-stopper for children who may still want to become farmers but are continuously given advice to get higher education and work in the city for a more prosperous life. Apart from that, limited family resources also become a barrier for the next generation to continue working in the agricultural sector.

On the other hand, the descendants of capitalist farmers tend to have more profits and options because their families have sufficient resources to make their wishes come true. Often this condition encourages successors to become landowners and continue working in urban areas or get other prestigious jobs in rural areas, while still maintaining their family land (Habibi, 2023). It shows the distinction among different level of classes. The obstacle in their hometown affects the younger generation and forces them to look for alternative livelihood strategies apart from relying on work in agriculture. Urban areas have described as appealing, adventurous, and describe prosperity for a better future. Urban life is synonymous with formal work which is seen as being able to secure an independent future to achieve a better definition of life for young people, regardless of the elderly "pressure" from their hometown (Antonova, *et al.*, 2020, White, 2020). In addition, the characteristics of the young people in question are the generation born in 1980-2000 which was influenced by computers and raised in a more digital age. Smith and Nichols (2015) interpret this group as having a greater acceptance of non-traditional families and values because they have been exposed to a more diverse and inclusive society compared to the previous generation. It makes them bolder in expressing opinions, seeking opportunities to grow, making change which drives to success, and they are more concerned about their passions and values. This connection to the digital world influence this generation and makes it perceive agriculture as not beneficial enough to continue in the longer term (Widiyanti, *et al.*, 2018).

The Basic Regulations on Agrarian Principles in 1960 are the basis for the state to control land rights, including their distribution to private parties and smallholders. Unfortunately, the state interpreted the law to carry out activities that are market-oriented policies and support for agribusiness which affects the lead of industrialization and modernism in rural area, including land use change (Widodo, 2017). It shows how the state has transformed and how it became a key actor in the neoliberal framework (Cahill, 2014). Meanwhile, the descendants of capitalist farmers and PCP are expected as much as they can to reach out the highest education in the hope of living a life more worthy than their parents. In reality, education cannot be a guarantee of accessing other, more promising jobs (Li, 2013). Young people desire lucrative job, access to mainstream modernity, and well-lighted future life in

several countries she has researched (Li, 2013). In fact, the employment opportunities in a big city are not as easier as it is thought, and the absorption capacity in the labour market cannot fulfilled the number of people who are looking for a job. This condition has been known as “relative surplus population”, it refers to the phenomenon by which the people of productive age in the job search market are more numerous than the vacant job positions, and it includes those who are employed but “not permanent” because their employment status is under the capitalist system (Marx, 1976). In addition, conditions in rural areas are also less favourable for the productive generation as there is not enough place for them to start farming which force them to find another strategic livelihood alternative, in this case, including returning to try their luck in urban areas (White, 2020).

The high rate of open unemployment in West Java, indicating that the surplus population phenomenon is also occurring in the province, is related to the unsynchronized development of agriculture and industry which is driving the creation of workforce vulnerability in Indonesia. (Habibi and Juliawan, 2018). The World Bank (2008) depicts that productive farmers should be able to produce effective harvests and follow global production chains, while those who are unable to compete with free market conditions slowly give up and leave the world of agriculture (Habibi and Juliawan, 2018). The competition tends to lead to proletarianization or stereotype of farmer’s life is close with poverty. It is challenging to have a decent life for farmers because it requires large amounts of capital in a fluctuating market as well as the access to education which more open for people in rural area which included to influence them to choose another sector than agriculture yet as precarious as farmer’s life itself (Saleh, *et al.*, 2021, Habibi and Juliawan, 2018).

Chapter 3

Methodology

The research will use qualitative methodology to examine the participants' experiences regarding their live experiences in the rural setting, their activities on the farm, and their experiences while participating in the program. Apart from that, this research will also reveal the organizer's perspective regarding the story behind this program, the challenges, and expected outcomes from the participants after joining the program. Throughout analysing the data, this method aims to uncover the people's responses and perceptions on the program under study. This chapter will explain the study's, the methodology, data collection, researcher's positionality in the research as well as the study's limitations and ethics.

3.1 The case study approach: “Petani Milenial”

The sub-chapter provides more details about the case study of “Petani Milenial” Program. According to Yin (2018), there are five stages on doing a case study research started from defining the case, bounding the case, identifying rival explanations, data collection and analysis, and the last reporting and generalizing findings. The research will focus to analyze the behind story and the benefit for young people in rural West Java under the “Petani Milenial” program which is one of the agricultural development programs in Indonesia at the provincial level. Yin (2018) stated that the study is not always related to geographical context but can be related to other contexts such as history, socio-cultural, economic, organizational and political conditions. This study wants to connect with the historical and political context of agricultural development in Indonesia from the old order, the new order, until nowadays. Those context will be part of the analytical basis for examining “Petani Milenial” program. The advantages of case study method in this research are allowing certain observations of a phenomenon in a holistic perspective, capture the complexity of the case in contextual circumstances, eliminating biases, and its complementary with the other methods (Yin, 2018).

Due to this study, the case of “Petani Milenial” program is taking place under the Economic Bureau of West Java Province which coordinates with the five services in the provincial and city/regency level. There are Horticulture and Food Crops Service, Forestry Service, Marine and Fisheries Service, Livestock Service, and Plantation Service (Pemerintah Daerah Provinsi Jawa Barat, 2022). The government of West Java seeks between the need to accelerate productivity and the generational problem in the rural areas. It therefore focuses on the youth because it will be difficult to implement technological changes with old farmers which are in general at least aged 50 years old in West Java. Since 2021, the program has had 1.249 young farmer participants and around 5.000 young farmer for the second batch in 2022 (YMS, 7 August 2023).

The varieties among the program participants' stimulated organizers to put them into 4 different categories based on their characteristics. The categories are “Beginner” for participants who do not have understanding and experience in the agricultural sector, “intermediate” for participants who have started simple agricultural activities and are still at the establishment level, “advanced” stage where participants have had experience in agriculture for quite a long time and are focused on business expansion agriculture, and “independent” for young farmers who are already involved in agriculture and have had their basic and marketing needs met from this activity (Pemerintah Daerah Provinsi Jawa Barat, 2022). Table 1 below illustrates the categorization made by the organizer of “Petani Milenial” which included the

criterion, the target as assessment of participants to measure development program, dan expectation within each classification

Table 1 “Petani Milenial”’s Participant Categorization

Classification	Criteria	Target	Outcome
Beginner	<ul style="list-style-type: none"> - Have not started agriculture activity - Have no market 	<ul style="list-style-type: none"> - Fulfilment of basic knowledge in agriculture - Fulfilment of basic needs (daily life) 	<ul style="list-style-type: none"> - Readiness and good comprehension to enter agriculture sector
Intermediate	<ul style="list-style-type: none"> - Recently started the agriculture activity - In early stage of basic needs fulfilment 	<ul style="list-style-type: none"> - Fulfilment of advance knowledge in agriculture - Fulfilment of basic needs (daily life) - Fulfilment of capital, upgrade the product quality, and certification for the product - Average income similar to regional minimum wage 	<ul style="list-style-type: none"> - Increasing income and productivity
Advance	<ul style="list-style-type: none"> - Have established agriculture activity - Has a local market scale - Conventional cultivation 	<ul style="list-style-type: none"> - Increasing demands in domestic market - Fulfilment of the tertiary needs - Apply technology in their agriculture activity - Establish farmers group - Average income similar or more than regional minimum wage 	<ul style="list-style-type: none"> - Market expansion and technology utilization
Independent	<ul style="list-style-type: none"> - Stable agriculture activity (routine) - Technology utilization - Have independent ecosystem 	<ul style="list-style-type: none"> - Help encourage the new farmer regeneration - Fulfilment of the tertiary needs - Demand from international market - Income more than the minimum wage 	<ul style="list-style-type: none"> - Regenerate new young farmer - Impact the economic improvement for farmers around his/her neighbourhood

At the end, this study attempted to understand the actual condition of the case in “Petani Milenial” program extensively. To make it more reliable, the method will combine with qualitative interview which will be describe in the next sub-chapter. Besides, some supporting data is also taken from secondary data such as newspapers and official websites from related institutions.

3.2 Data Collection

The data collection was conducted via a qualitative interview method which was carried out online through a zoom meeting. Zoom meeting is another internet based communication method similar to Skype. It is currently accessible especially during the pandemic and now it is quiet common to utilize the application to conduct a meeting or even interview from a far distance using voice and video (Lo Iacono, *et al.*, 2016). Although I faced certain challenges to collect data online, this method helps researchers do their work without having to be in the same place at one time. This method helps researchers to maintain dialogue with sources from different time zones in real time, efficiently, and at low-cost (Lo Iacono, *et al.*, 2016). However, during the data collection most of the time the dialogue ran smoothly with the interviewee and was not disturbed by connections or difficulties in using the platform. Apart from that, the age range of the people who are speakers is millennials who are quite fluent in using the latest technology (Apergis, 2019). I conducted the interview by myself, dialogued with the interviewees using Indonesian and a little Sundanese vocabulary which is the local language where the participants come from.

The interview has been conducted from August to September 2023. I chose purposive sampling which aims to the discovery and collection of comprehensive information cases with limited resources in a constructive way (Patton, 2002). The interviewees are consisting of the participants from the program (ongoing and finished), agriculture advisor under the Horticulture and Food Corps Service branch Bandung Regency and Garut Regency, and the representative of Economic Bureau. I chose Garut and Bandung Regencies as research locations for the ongoing participants because these two locations had participant representation from the four categorizations claimed by the organizers, starting from the beginner, intermediate, advanced, and ending up with the independent farmers. I gained access to resources from the ongoing program through one of the staff at the West Java Economic Bureau who connected me to the Bureau, Service, and the participants.

Due to the bureaucracy within the institution, the agricultural advisor in horticulture and food corps service office asked me to submit a request of permission in order to access the information and data related to the program for the research purpose beforehand as well as for support purpose. The person in charge in the office also asked the preliminary (possible) questions for the interview before she disposed the communication to the officer in the field. Then the field advisor sent me the contact information to make interview’s appointment directly with them and lead the interviews one-by-one between me and the interviewees.

Besides this, I also reached out to participants who have finished the program directly through social media and asked their willingness to become one of the resource persons in this research. What I did relates to snowball sampling method which led me to approach another people based on the referral from the other person (Edmonds, 2019). The reasons for sample selection from finished participants were to avoid bias which probably occurred

during the data gathering from the interviewees which has been chosen from the agricultural advisor in horticulture and food corps service office.

There are six ongoing participants from beginner till advanced level available to be the resource person of my data collection. However, the representative of independent hierarchy was absence because it is difficult to find one due to their availability and match schedule. Along with the other interviewees, there are three alumni of the program who had participated in the research, two field advisor staff each from Bandung and Garut Regencies, the Head of Economic Bureau accompanied by her staff. For the finished participants, I acquired diverse backgrounds of people, starting from those who are still working in the agricultural sector, who are postponing but have a desire to continue in the agricultural sector, and people who are not continuing their profession in the agricultural sector at all.

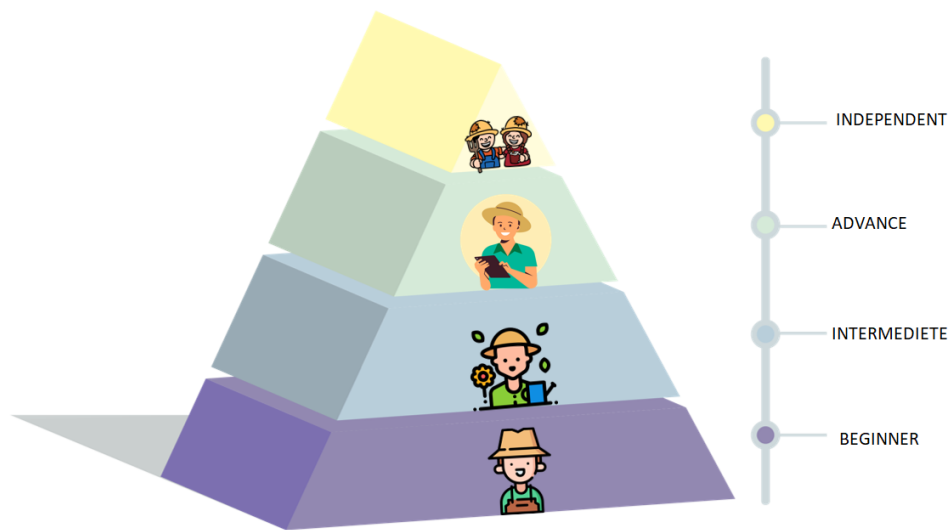


Figure 2. Diagram of “Petani Milenial” Participant (source: Pemerintah Daerah Provinsi Jawa Barat, 2022)

The interview question aimed to collect data regarding to participants background (family, education, experience, etc), their reasons for joining this program and comparison to other working condition outside rural area, impact of this program for themselves, their activity in the land, labour condition, output and means of production, income from farming activity, the participants’ access to credit, their activity outside farming, participants working conditions, and technological development. For the organizer (Horticulture and Food Corps Service and secretariat of “Petani Milenial” in Economic Bureau), the interview questions were related to the aims of the program, recruitment process, forms of assistance and support provided to participants, and the benefit from this program, how they define participants.

The resource persons who have completed the program are 3 young people, each of whom lives outside the program area. They are RA, an agricultural technology student who lives in Malang, IH, a young man from Subang who currently works as a consultant in a private company, and lastly, DMA, the rice entrepreneur from Bogor who is currently considered successful with his business. Meanwhile, from Garut and Bandung Regencies, 4 male participants and 2 female participants were successfully interviewed. The young people from Garut consist of EA who is the chairman of a farmer's association that focuses on cultivating potato seeds, PH, a successful entrepreneur in the wine sector, AAF, a smallholder farmer

who focuses on potato cultivation together with his family, and the last is AR potato farmers who have the largest workforce and land area among other sources. From Bandung there are TP, a housewife who is passionate about banana chips (ready-made food) entrepreneurship and TSA, a wife who has been used to working as a farm labourer since young age. Meanwhile, from the organizer side, they were represented by the economic bureau of West Java which was headed by YMS and accompanied by its staff F dan each agriculture advisor from Garut Regency with the initials J who had worked for approximately 10 years and AC who worked for the Bandung Regency horticulture service.

In table 2 there is general information about all participants who are resource persons consisting of age, gender, area of origin, level of education, their current location (either in their hometown or abroad), the background of their parents and families who could be one of the drivers for their decision to join the program, and the categorization of each participant based on the classification carried out by the organizer “Petani Milenial”.

Table 2 Basic Information of Participants

Initial	Sex	Age	Region	Education	Location	Parents' Background	“Petani Milenial” Categorization
TSA	F	26 years old	Bandung	Junior High-school	Hometown (agriculture labour)	Farmer	Beginner
TP	F	39 years old	Bandung	High School	Hometown (entrepreneur and housewife)	Factory worker	Intermediate-Advance
RA	M	22 years old	Bandung Barat	Undergraduate	Migrate (study)	Factory worker	Beginner
IH	M	27 years old	Bandung Barat	Undergraduate	Migrate (work)	Furniture craftsman	Beginner
AAF	M	29 years old	Garut	Undergraduate	Hometown (farmer)	Farmer	Beginner
DMA	M	26 years old	Bogor	Undergraduate	Hometown(work)	Factory worker	Beginner + Intermediate
EA	M	32 years old	Garut	High School	Hometown (farmer)	Farmer	Beginner
PH	M	23 years old	Garut	Undergraduate	Hometown (entrepreneur)	Shoe and leather jacket small business owner	Intermediate
AR	M	31 years old	Garut	High School	Hometown (Farmer and agriculture entrepreneur)	Farmer	Advance

3.3 Ethical Choice, Limitations, and Positionality

This research relates to myself as someone who worked for almost four years in a partnership management scheme between socio-enterprises and community farmers through

Sosial Bisnis Indonesia which gets along with certain so called empowerment program for improve rural habitant's living conditions. My subjectivity certainly affected my judgment with the object of my research. However, in this research I was forced to reflect on how my background, experiences, assumptions, biases and values could have an impact on the ongoing process of the research (Hennink, *et al.*, 2020). I get the connections to the sources and research objects from good acquaintances of my close friends during college, and my gatekeeper was also an alumni of the same university as me and also came from the same batch when studying as an undergraduate degree in the past. He is working under the Economic Bureau of West Java and it was my entry door into the program. Thanks to him, the researcher was able to extend my network to Horticulture and Food Service to get into detail of the program's participants as the service has in charge to direct connection to the participants.

As a part of the protection purpose, Horticulture and Food Service wanted to see the general interview questions and decides to choose the participants based on their availability and ability to speak with external stakeholders. This was so, it was claimed, because not all the people willing to be interviewed or have a spare time to do so. To avoid this bias, I also look for different resource person from another gatekeeper who was the past participant of this program that I approach directly on social media. He was one of the participants in the first batch who has been reported in the mass media because of the unpleasant experience he went through from this program (Fahmi, 2023). From this person I gained access to other finished participants who chose to work outside the agricultural sector and one of the young people who was not very successful from this program, but when an interview was conducted, it turned out that he had an ongoing business in rice marketing in his region.

When the interviews have been conducted with the ongoing participants and past participants, I did not really find any significant differences in the ways the interviews were conducted. Both representatives answered questions openly according to their experience and knowledge. However, I am not the one who works in the area where this program is designed and implemented, so my position can be more objective regarding the activities carried out through the implementation of the "Petani Milenial" program and not take sides when conducting research. Even so, the close connection from my alma mater and track record of interacting with the government and Sundanese people in general made me careful. As much as possible, I tried my own stereotype before starting interactions with sources. My experiences of living in Bandung around 4 years for example has helped me to build a connection with some participants as I can relate with the physical conditions and their "daily" living condition.

I personally do not come from the same ethnic roots as the people located in this research and I do not speak Sundanese, but I know several words to my study in the past which made some impression in front of the interviewees. Nonetheless, I have never been living in rural areas for longer time period myself nor am I originally come from West Java. All of this makes me aware of contextualizing the findings and carefully reflecting on every process of the research. All of the interviewees have been asked for consent permission before starting the data gathering. The research focuses on looking at the connections between agrarian changes that occurred in West Java from the perspective of the program's activities, not necessarily to evaluate the success of the program that will produce certain goals, but to explore the connections between agrarian changes that influence the millennial generation in responding to life in rural areas as a peasant (*petani*) or even an agribusiness.

Chapter 4 Present for Whom?: Class Position, Regeneration, and the Excess People

4.1 Introduce The Actors of “Petani Millenial”

In chapter 4, I will present my findings from interviews with several participants who have completed or are still joining the program. There are two batches that have been running from this program. The majority of participants from batch 1 were already familiar with the agricultural sector, while participants from batch 2 mostly started from scratch, so the treatment given was different. The Program design for batch 1 took place in 2021, and after receiving training, the participants received loan facilitation in collaboration with the *offtaker* who provided seeds and collected the harvest. Meanwhile, batch 2 received basic training, starting from an introduction to agriculture and to the concept of farming entrepreneurship, and after the training, there would be a re-assessment regarding the participants' needs to be supported by the organizer according to their abilities due to the increasing number of participants and varying conditions (F, 7th August 2023). This program involves several stakeholders such as the young farmers, seed providers and buyers, financial institutions (banks/other loans), avalists co-debtor), technology services, production facilities and infrastructure services. , government (policy makers), and training institutions. This program wants to create an ecosystem that covers all agricultural activities from upstream to downstream that can be built within the "Petani Milenial" community so that it is easier to record the needs and availability of agricultural production. With this concept, the government does not provide everything in one place but also involves other parties who can help and collaborate in the program (Pemerintah Daerah Provinsi Jawa Barat, 2022).

All participants took part in the same program but from different classes. The approach method used when RA, IH, and DMA underwent the program, for example, was also different from other colleagues who are currently still members of the program. According to DMA (14th August 2023), when he became a participant, the scope of this program was very broad, wanting to cover all kinds of basic needs of farmers, while the program in the following period was more focused on developing and returning participants to cultivate their respective areas of origin so that it was more realistic. Apart from exploring the participants' perspective, I also took the organizers' point of view, in this case the two agriculture advisors from Horticulture and Food Corps Service who worked closely with farmers with the initials J in Garut Regency and AC in Bandung Regency.

As the requirements of the program, the participants are in the age of millennial generation and also originally come from West Java. They were recruited with two different option mechanisms. Firstly, the candidates can apply directly through “Petani Milenial”’s website and following the application process online. Secondly, the agriculture advisor of each regency/city in West Java has specific task to recruit directly the potential young farmer through recommendations of farmer’s group and respective community leader. Normally, the respective people will inform who is the youth who has been actively involved in village activities previously. From the information given by those people, the advisor will offer the prospective young farmer to join the program and explain the purpose of the program and certain benefits following within it if they are willing to participate. If the person agree to participate then the advisors will continue the application process through the system themselves.

However, the approach in looking for participants in the second batch is similar to that described by Husken (1998) where the government in this case provides information about

the *Bimbingan Masal* (Bimas) program in the 1960s to rich farmers on the first place. Of the nine sources who were successfully interviewed, the majority of participants registered directly via the website and then had their data checked directly by the Horticulture and Food Crops Services, while participants who participated as a result of recommendations were asked directly about their willingness by the instructor and then registered their participation by the advisor.

All participants are scheduled to receive technical training from each supervisory service in turn. The training received is not only about cultivation but also other soft skills related to entrepreneurial abilities, financial recording, and mastery of technology. However, from the results of discussions with resource persons, not all participants received the same benefits, depending on the capacity and strategies of their respective regional agricultural instructors. Apart from that, not all participants were active in and enthusiastic about taking part in the activities. Participants must also actively communicate in groups or with instructors in the communication network created after joining the program to obtain information that is relevant for participants' self-development. For example, from the training program that TP participated in, there were only less than 10 participants who attended out of the many on the name list. (TP, 23rd August 2023).

"Yes, this program is useful for participants who want to be active and participate. "This program will be useful if the knowledge is applied back to the agricultural sector. For participants who decide not to pursue agriculture, in the end it will certainly not provide benefits" (RA, 15th July 2023).

"This program is very important because as an agricultural country, there are still very few young people who want to get involved in the agricultural sector. This program is needed to open up other perspectives on agriculture that this agricultural sector is promising, especially if the focus is on human resource development. The integration of the trade system from upstream to downstream can be applied, especially to meet the needs of just one region first. For example, we want Garut to be known as a potato production centre, so we will focus first on fulfilling seed production in Garut, for our local consumption first." (EA, 21st August 2023).

Despite the positive impression of the program implementation, the facilitators felt that there was a burden from implementing this program because of expectations from the results of the guidance carried out by the organizers on the impact of improving the economy and skills of young farmers. One of them came from J (24th August 2023), the Garut Regency agricultural instructor who admitted that his work had doubled, apart from assisting existing farmers, he also had to assist young farmers who tended to be more critical and needed proof. However, the facilities provided by the program are still limited in support of networks and information. Regarding loans, participants still predominantly make loans to middlemen rather than formal financial institutions such as banks due to procedures that are too complicated and lengthy, while farmers need funds within a brief period frame, applied for the conventional farmers and participants (J, 24th August 2023).

Another unpleasant experience happened to RA and IH's batch as the first generation of the program. When participating in the program, both worked on ornamental plants in a greenhouse and cultivate them together in a group of 20 people. RA and IH received all the needs for growing ornamental plants facilitated by West Java government, starting from borrowing greenhouses, housing locations, funding, seed providers and buyers, to basic and technology-related training for approximately one year following the program (RA, 15th July 2023 and IH, 19th July 2023). The facilitation provided looks complete but it does not guarantee that their participation will run smoothly. There are times when the quality of the seeds

provided does not comply with the provisions, thus affecting the calculation of the potential cycle and the number of harvests which affects the final income they get. Aside that, the living allowance support which is charged as a loan ultimately reduces the final amount that can be pocketed by each participant. Some participants said this arrangement was not in accordance with the initial agreement agreed upon by the participants and organizers. (Fahmi, 2023 and RA, 15th July 2023).

This is different from other sources who focus on carrying out agricultural activities in their respective hometowns and are already familiar with the conditions in their area, both with the community (surrounding residents) and land conditions. DMA did join programs outside its domicile area just like RA and IH. DMA followed the program as participant in ornamental plants, he also has “Swaratani” as the rice business. “Swaratani” was growing well and this attracted the attention of the Department of Agriculture and Horticulture to facilitate its marketing development through a similar program. He mentioned about “the acquisition” claimed of his success by the government as he have established and running his business before the government reached him out (DMA, 14th August 2023). The approach taken by the government seems to want to make the program look good from the efforts carried out by DMA before receiving an offer of program access, even though he had participated in “Petani Milenial” Batch 1. DMA's experience raises the question of whether the "Petani Milenial" program really helps farmer regeneration and who benefits from the program's success?

"To me, the impression is that the government of West Java (through the horticulture and food service) wants to acquire businesses that have been started by young farmers even though they were not previously part of the "Petani Milenial", recruiting young farmers who had started before this program existed to become part of the program." (DMA, 14th August 2023).

4.2 “Petani Milenial”, Who they are?

"Petani Milenial" participants have diverse backgrounds, ranging from age, level of education, experience and interaction with the agricultural sector, as well as family background. Some are local residents where they carry out the program, while others are not because they take part in placements from locations provided by the Food Crops and Horticulture Service. The commodities grown vary from ornamental plants, potatoes, grapes, to finished food products such as banana chips. One of the striking things about what the participants did was that they not only focused on cultivation activities but also combined them with agricultural best practices and entrepreneurship. All speakers agreed that the innovation and support provided through this program could help improve the quality of life of participants compared to existing farmers.

In the context of rural life in Java, it is found that there are several class classifications starting from capitalist farmer and landlord capitalist, petty commodity producer (PCP), and proletariat farmer class of labour (Habibi, 2023). Habibi (2023) developed this concept with a Marxist class approach which focuses on their roles in production, their relationship to the means of production, and their patterns of accumulation and reproduction combined with empirical evidence in the field. Capitalist farmers are those who have control over workers and have significant means of production which enable them to control production activities, while PCP is a class between farmer/employer and classes of labour who generally use their own family labour for farming, lastly from the proletariat or class of labour groups who depend on labour/intensive activities for their livelihood because of the small or non-existent

land they own so they do not provide significant results from their agricultural activities (Habibi, 2023).

Table 3 Additional Information Class Classification of Participants

Initial	Class	Commodity	Down-stream/Upstream	Land (m ²)	Land Status	Income Nett (aveage/month)	Number of Worker
TSA	Proletariat Farmer	Potato and Goat	Upstream	600	Rent	(Not informed)	-
TP	PCP	Banana Chips	Down-stream	280	Right of ownership	IDR 1.000.000 (61 Eur)	2 workers (non-fix)
RA	PCP	Ornamental Plant	Upstream	280	Borrowing rights	IDR 1.667.000 (101,2 Eur)	Work together within the group members
IH	PCP	Ornamental Plant	Upstream	280	Borrowing rights	IDR 1.667.000 (101,2 Eur)	Work together within the group members
AAF	PCP	Potato	Upstream	4.000	Borrowing rights	IDR 4.000.000 (243 Eur)	Work together with family
DMA	Capitalist Farmer	Rice	Down-stream	4.000	Right of ownership	IDR 32.000.000 (1.944 Eur)	8 in production, 70s farmers in partnership
EA	Capitalist Farmer	Potato (seed)	Upstream-Semi-downstream	400	Right of ownership	IDR 7.500.000 (455,5 Eur)	2 workers in the greenhouse
PH	Capitalist Farmer	Grape	Upstream till down-stream	1.000	Right of ownership	IDR 40.000.000 (2.430 Eur)	8 workers in the greenhouse, 10 freelances for greenhouse instalation
AR	Capitalist Farmer	Potato	Upstream	12.500	Borrowing rights and right of ownership (half)	IDR 8.000.000 (486 Eur)	12 workers

Table 3 above contains additional information about the informants. Based on the results of interviews with participants, it can be identified that the definitions of the three classes presented in Habibi's discussion are related to land ownership condition, agrarian activities carried out (the role of each participant), income, relationship with workers, and position in the "farmer" group in each area. We start from the first class, namely the farmer proletariat.

A farmer's wife who also works as a farmer lives in Pangalengan, Bandung Regency. TSA is the woman's initials; she has experience working as a labourer since the age of 16. For her, the only possible job for residents in Pangalengan is farming, especially for those who generally have dropped out of school/have low education. The skills and knowledge she had since childhood made her not decide to continue to live as farmer. TSA's parents also started agricultural activities as farm labourers, as well as his older brother, over time he was given the trust to "hold" several square meters of land to cultivate potato plants. Most of her time now she uses to support her husband's work in the livestock sector and work part time in the tiny land of her which has been rented out since few years ago. Lately, she has not cultivated the land due to the water crisis in her hometown. TSA and her family struggle to survive in supporting their household needs through various alternative sources of income in livestock or farming activity including as farm labour (TSA, 23rd August 2023).

White (1991) emphasized the opportunity inside agriculture is not sufficient including the activity as the labour, one of the factors to encourage TSA's husband to carry out economic activities outside agriculture such as selling worms for fishing bait as one of the survival strategies carried out by his family. The various activities carried out by TSA and her husband increasingly show the vulnerability of their position to survive. There is another woman from Bandung who is developing her product in banana chips and one of the oldest participants initials TP. She lives in Cimenyan, also part of Bandung Regency. TP is a housewife like TSA. Her main job is to take care of household care including her children but in her spare time she uses her time as a vegetable grower on her rooftop for self-consumption and also her home-industry business. As a housewife, TP does not make agricultural activities her main focus, including relying on her main income from these activities, her husband's work as an employee in a factory in the Bandung area is the main income for her family.. In general, household in her neighbourhood also consider income from farming as a side income, their main income comes from commerce or working in the factory. In her home-scale business, TP is usually assisted by her mother and 1-2 people from the farmer's woman group (KWT) who live around her neighbourhood which she has just started. Her position shows the characteristic of PCP and she can produce up to 2 kg of banana chips per day is with the gross sales around IDR 400.000 (24,3 euro) (TP, 23rd August 2023).

Even though both women in the story prioritize their activities in taking care of the household including their husband and children, it cannot be denied that they also play a role in helping to supplement their household income (Deere, 2005). Even so, Deere (2005) revealed that the process of balancing roles between household and agricultural activity for women is influenced by "woman's familial position" which shows that the freedom that TP has to initiate women's farmer groups (KWT) is a privilege in itself, unlike TSA which still focus on helping the family economically together with her husband (TP, 23rd August 2023 and TSA, 23rd August 2023). Both TSA and TP are participants in the "Petani Milenial" program in the Bandung Regency area. TP feels the impact of the program on her life more because she has received training and facilitation in marketing her chips product through exhibitions and packaging collaboration. On the other hand, TSA admitted she does not understand the direction of the program apart from the training she had. She is currently not cultivating her potato land due to the long dry season and has not received any other assistance from the program to encourage her to carry out agricultural activities properly. (TP, 23rd August 2023 and TSA 23rd August 2023).

The duration of the two women's participation in the program was still relatively short, less than one year. The programs they follow have not been proven to be able to change their class position in rural society. Until now, TP is still trying to develop her business as a side job from being a housewife and from TSA's story, she still often works to help her husband rather than taking care of her own agricultural activities. Come after, there were 2

young ex-"Petani Milenial" (RA and IH) and AAF potato smallholder from Garut who also entered the PCP group. RA and IH had no previous agricultural background, however IH admitted that her family had a small plot of land in their hometown to grow rice even though it was not the main focus of income for the household (IH, 19th July 2023). Meanwhile RA (15th July 2023) has been interested in agriculture since helping his father's hobby of keeping ornamental plants at home. When participating in the program, both worked on ornamental plants in a greenhouse and cultivate its together in a group of 20 people. RA and IH received all the needs for growing ornamental plants facilitated by West Java government, starting from borrowing greenhouses, housing locations, funding, seed providers and buyers, to basic and technology-related training for approximately one year following the program (RA, 15th July 2023 and IH, 19th July 2023).

Despite to work individually, they decided to organize and work as a team then at the end share the profits from sales of the work they did together (RA, 15th July 2023). The division of work carried out in groups without involving outside labour is similar to the PCP focus where family members share the task of working on the family's common land, although in this case IH, RA and their friends are part of the group which act like household. Apart from that, this group depends on the facilities provided by the government, which means they have limited space for movement and ultimately focus on pursuing the process while following the program compared to the final results they get (RA, 15th July 2023 and IH, 19th July 2023). The average of monthly income which was earned by RA, IH, and team was still under the minimum wage of West Bandung Regency, even after their enrolment in "Petani Milenial". From this perspective, it appears that the program did not radically improve their lives.

Different experience from the ex-participants, AAF, from Karamatwangi Village, who cultivate potato land together with his family does not receive complete facilities such as RA and IH. So far, the real support that has been provided through the program is land loans belonging to local agricultural service officials which can be used for agricultural activities, training, and access to quality seedlings are some of the benefits felt by AAF and several people in the area from this program (AAF, 26th August 2023). He himself has cultivation rights on Perhutani land covering an area of 4.000 m² and the total area managed by his family is around 1.5 hectares. In contrast to participants who have been able to develop their products, AAF is still struggling to ensure its agricultural production is sufficient to meet daily needs. The situation is in line with the difference between PCPs and capitalist farmers regarding limited access to capital control by PCPs, while Capitalist Farmers have more freedom to gain access to production equipment including hiring labour. (Habibi, 2023). Here again, the enrolment in the program did not radically improve things for AAF.

The latest group is capitalist farmer which consist of DMA, EA, PH, and AR. Their farming activity is more or less deliberate on accommodate the market demand. Mastery of production tools and freedom in decision making during the production process are the characteristics of capitalist farmers owned by these four young men. DMA (14th August 2023) is an ex-participant of "Petani Milenial" who had more or less the same experience as RA and IH during the program. Limitations on capital and means of production meant that he had more or less the same fate when viewed from the perspective of the program. Beyond the program, he himself owns an enterprise called "Swaratani" which focus on specific rice (brown, black or red rice) commerce and sell their brands through e-commerce (DMA, 14th August 2023).

"Initially, my grandmother had brown rice production. When she finished milling, it turned out to be about a sack surplus for her own consumption. I tried to help post the red rice product via e-commerce (Tokopedia), I weighed the packaging and it was around one kilo. From there I

started getting orders for red rice and was invited to collaborate with Bogor Agricultural University (IPB) to help supply red rice. From that moment I realized the opportunity of this specific rice and focused on growing this business. Until now, there are around 70 farmers who collaborate with me to purchase their rice production and I have 8 employees to help with the production process. My company guarantees these farmers who provided the seeds from his company to buy back the harvest product in "stable price" so that whatever the external market conditions are, fluctuating, rice is still purchased at the standard price set by "Swaratani" since the beginning of the agreement ” (DMA, 14th August 2023)

From Garut Regency, there are three capitalist farmers who control production activities directly, in contrast to DMA which only provides seed sources and buys products from farmers and does not take part in production activities. EA, a potato seed producer from Cikajang Village, PH a grape greenhouse entrepreneur, and AR a potato farmer in Cisarupan Village.

"I counted as a late comer on the first time I decided to enter the agriculture sector. My parents had no longer any land (sold out). Therefore, I chose to move into the seed sector to take advantage of the current limited land but the economic value is still quite good. I focus on producing potato seeds for planting by farmers around my area. In the current system, we accommodate the production of assisted farmers who supply seeds from us for grading. For production products that comply with the grading, they will enter our market, but for those that do not enter the grade, we will open access to local middlemen to be absorbed by them. Till now, we are still focusing on the local market, but we are also starting to supply outside the island because in Indonesia in general the source of potato seeds is still mostly imported. I currently only have 2 workers, 1 person is from the "Petani Milenial" program too, the other 1 is from my village " (EA, 21st August 2023).

"I have been farming grapes for 5 years. For initial capital, I was given a loan from my family amounting to IDR 100 million. Within two years, I returned the capital and gave 30% of the harvest to my family. After two years, the results of this wine business will be completely mine. The total number of employees I work with is 8 people, but for construction it's different. "Usually I hire around 10 other freelance workers within the *Borong* (a group of workers) system for this greenhouse construction purpose." (PH, 21st August 2023).

"In terms of family, I myself was born from a family that is active in the agricultural sector, but the types of agricultural businesses vary, some focus on supplying seeds, some transport them to the market, some "bring" the vegetables. There are various types of business carried out by families in agriculture. In the past, in agriculture, farmers waited for the harvest before making money and the types of plants they chose were also "random" without looking at potential prices in the market, therefore they often suffered losses. Currently we are trying to anticipate losses. For example, I have half a hectare of land, I arrange the planting pattern so that the types of plants are different according to the weather, so I will harvest when the market price is good and I can plant and harvest these types at specific different time to secure the 'monthly income'" (AR, 6th September 2023).

All of them have workers and land for their cultivation process. Although DMA does not own a huge land, the partnership mechanism he offered to the other farmers making it have large production results without direct ownership or control over the production process and equipment needed by the farmer. On the one hand, this cooperation mechanism provides price certainty for farmers compared to selling to local intermediaries at fluctuating prices, but there are weaknesses in this mechanism such as having to follow standards set by buyers, weak power to make decisions regarding production and the risk of losses if operational costs are incurred. turned out to be greater than the selling price obtained (Will, 2013).

In general, participants who deal with the production and operate in the downstream sector feel more benefits from the "Petani Milenial" program, such as facilities for marketing products in exhibition activities and expanding market share, packaging facilities, as well as product certification facilities (DMA, 14th August 2023; PH, 21st August 2023; and TP, 23rd August 2023). Meanwhile, participants who work in the upstream sector have less benefits, especially if they do not work on special commodities such as EA (21st August 2023) with potato seeds and division of crop rotations when carrying out agricultural practices such as AR (6th September 2023). The other upstream farmer who comes from non-capitalist class has not felt the maximum results from their participation during the program as felt by AAF who farms potatoes with his family. He does not receive assistance from the government other than training. Meanwhile the difficulties faced by farmers, such as the long dry season which resulted in drought and price volatility, have not been addressed by the program action (AAF, 26th August 2023). The conditions stated by AAF are not much different from those that occurred in the 1960s, which forced farmers to take a break from agricultural activities, and even worsened the conditions of farmers who took part in credit programs at that time due to crop failures that occurred (Pincus, 1996). In addition, the results of participation in similar programs from the government in the 1960s were more in favor of rich farmers and left residual profits for small farmers and a disaster for landless labour (Husken, 1998). Although AAF (26th August 2023) did not explain in detail the effects of the conditions it faced, the evidence it presented is a record of the government's failure to deal with classic problems in the agricultural sector from time to time.

Habibi (2023) strengthens the factor behind this failure when the government failed to identify the relationships between different agrarian classes and assumed that all farmers were in one class which ended in giving "similar" treatment to all participants despite the follow-up given at the end. The training design and certain knowledge provided to participants are examples of the same treatment as the case of "Petani Milenial". At the end, the program assesses the suitability of participants to be categorized in certain groups (see table 1) based on the final results obtained by the participants .

4.3 “Petani Milenial” and Farmer’s Regeneration

The context of discussing generations is often not separated from the class position of each actor in rural areas. The diversity of each participant, spread from the working class to capitalist farmers, for example, shows the differences in how the cycle of agricultural activities they undertake is not immune from the influence of class position and family background. Several participants are descendants of or have relatives who work in agriculture, either their parents or their grandparents. DMA, IH, TP, and RA are the second generation of industrial workers, their parents were no longer participating in farming activities or concern in farming on the first place. Although, DMA and TP's grandparents are farmers, IH's parents own a small plot of rice field but do not actively use it for concentrated production activities, and RA gains his interest in agriculture after helping his father whose hobby is taking care of ornamental plants (RA, 15th July 2023; IH, 19th July 2023; DMA, 14th August 2023; and TP, 23rd August 2023).

On the other hand, TSA, AAF, EA, and AR are offspring of farmers parent and their relatives are also active in agriculture activities (EA, 21st August 2023; TSA, 23rd August 2023; AAF, 26th August 2023; AR, 6th September 2023). In contrast with PH, who is purely involved in agriculture because the business opportunities he sees such opportunities as still rare in the grape trade. PH's own family members were workers in the textile industry before finally opening their own business which they also passed on to him (PH, 21st August 2023). As mentioned by White (2020), the history and conditions of gender and generational

connections are factors that determine the choice of the next generation to involve themselves or not in agriculture and this will influence the agrarian community's configuration from time to time. The experiences of the participants' parents and grandparents influenced the decision to continue their activities in the agricultural sector. TSA, who grew up living surrounded by relatives and neighbors in the Pangalengan area who work as agricultural labour, inspired her to continue working in the agricultural sector. TSA is not a person who has a higher education so access to professions other than agriculture is limited and it is difficult for him to see hope outside of farming as his livelihood. Migration to urban areas is not an option for agricultural workers if they do not have the skills or contacts who can find them work and there is no place to find work in the city (Pincus, 1996). However, her family's life as landless labour meant that her parents could not inherit land and TSA had to rent land if he wanted to farm. (TSA, 23rd August 2023).

In the opposite, four out of five participants, who have the opportunity to receive education up to an undergraduate degree, which of course has an effect on decision making and perspective on agricultural activities. The fourth of them were able to see opportunities in the agricultural sector to support their lives in the future by taking steps as players or people who have higher power relations so that they are able to have an influence on farmers or other actors in the agricultural sector, one of which is their view of workers (RA, 15th July 2023; IH, 19th July 2023; DMA, 14th August 2023; and PH, 21st August 2023).

"My own parents encouraged their children, if possible, not to become farmers first, only later when they are old (successful). If I have children in the future, it depends on what they want to be. However, I have the hope that one day they can continue my business. I don't want them to become a farmer, just continue my business later. I have a dream that I just have to work to earn capital (to grow my business) and then my children will continue the business." (IH, 19th July 2023)

They believe that managerial skills as farmers are very important and encourage them to become "owners" and business actors, not just work in the field. The mindset of farming life which tends to pursue a subsistence life has also shifted as seen from the aspirations of the three of them to see themselves in the future to be actively involved in agribusiness with the outcome of optimizing results which influences their decision to use workers or switch to technology. (RA, 15th July 2023; IH, 19th July 2023; DMA, 14th August 2023; PH, 21st August 2023). Another block pathway for entering the world of agriculture is encouragement from parents who have seen the life experiences of farmers directly where the participants live which tends to influence them to influence their children not to enter the world of agriculture seen from the farmers' unpromising income, which is one proof Intergenerational tensions in rural areas also influenced participants' decisions. (White, 2000 and IH, 19th July 2023).

"For me, the agricultural sector is quite profitable when you know the economic value of which commodities are profitable. I looked at the grape business and finally was able to develop it not only focusing on production but also greenhouse replication for the grape business. In the future, I want to open a grape-growing greenhouse. Now there is enough interest in the market for a grape-picking tourism business." (PH, 21st August 2023)

On top of education, there is no knowledge transfer factor from previous generations regarding farming life to these four young people, so it is not surprising that they have seen agriculture as part of diversification of income sources (White, 2000). Meanwhile, the descendants of other farmers, initially AR, EA, and AAF, who both come from Garut and cultivate potatoes, have different principles from TSA. AR and EA, who come from the capitalist farmer class, adhere to farming principles that are similar to the four previous

colleagues, maximizing production results in efficient ways and considering environmental aspects in their activities, so that knowledge regarding the latest agricultural best practices encourages them to innovate and choose a different method from existing conventional farmers. The environmental aspect mentioned above is something that participants have compared between their generation and the older generation in cultivation. In fact, the current generation claims they have complied with the best practice agriculture rules which have been outlined in the Standard Operational Procedure (SOP) as a result of socialization carried out by agriculture advisor in their respective regions (EA, 21st August 2023; J, 24th August 2023; and AR, 6th September 2023).

“Old farmers usually use fertilizers and pesticides according to their usual doses. The assumption is that if there isn't a lot, it won't work, even though it is enough to give fertilizer and pesticides according to the dose and time needed (for example, pesticides when plants are sick), they don't need to be given all the time. This is different from us "Petani Milenial" who are starting to apply measurements and usage according to the "SOP" that the plants really need, not according to habit.” (EA, 21st August 2023).

Although, there is no definite proof that the consideration of environmental aspects claimed by the participants and agricultural advisors is truly in favor of preventing environmental degradation, but at least the current millennial generation is trying to improve the quality of previous farmers generation's methods which tended to be excessive. The work methods applied by several capitalist farmers such as AR, EA and PH are still classified as simple mechanisms, not yet implemented on a mass scale due to limited infrastructure in rural areas (EA 21st August 2023; PH, 21st August 2023; and AR, 6th September 2023). Besides, AR and EA are known as important actors in their community who make their position an influence on the majority of people in their area. EA is one of the leaders of the farmer group in his village and AR has a really strong network inside his relatives who have already been successful in the agricultural sector (EA 21st August 2023 and AR 6th September 2023).

"This potato seed business is profitable because it does not require a large area of land but the economy is high. My focus is to help supply potato seeds in my village, the seeds are mainly sold to farmers in the village and I will later buy their harvest back. We apply a grading system so that it is more profitable, we will develop potatoes with grade A for re-seedlings, while those with grade B will be sold on the market for consumption." (EA, 21st August 2023)

Disparity from AAF experiences, which still continues traditional farming methods and applies the principle of mutual cooperation in farming together with his parents and the rest of his siblings. Even though AAF has undergraduate degree qualification, AAF remains closely involved in his daily life as a smallholder farmer, which shows that intergenerational transfer regarding knowledge and resources is still maintained within his family circle. He cultivates on land that his parents passed down to him and his siblings and manages it alternately and collectively (AAF, 26th August 2023).

“Since 2006, my parents have been farming on Perhutani's land. Now, the land that was previously fully cultivated by my parents has also been given to me and my four siblings. We manage it together, including me, assisted by my wife, who also participates. In my village it is still common to pass on land from parents to children, although in general most young people in my village rarely want to become farmers. Those with low education generally stay in the village, joining their parents as farmers. If many people with higher education work outside the

city, agriculture is usually used as a last resort if they don't succeed in the city.” (AAF, 26th August 2023).

Despite of the existing conditions of each participant, their class position and the origin of their generation (which is millennial generation) also influences the way they view their intake of technology. Technology is one of the keywords that the West Java Government encourages participants to apply because it is considered to really help the process of agricultural activities. It is hoped that with technology, the problem of limited land can be overcome and West Java farmers can get the best harvests every season (YMS, 7th August 2023). All of the participants agree upon technology application in agriculture sector. They thought it will be useful and help their work. Meanwhile for the older or conventional farmer, technology is complex and it has become a habit to work on their land directly as they already know.

“The cost of basic production for farmers is expensive, especially for those who are still manual, use planting patterns based on habit, and care for plants based on habit, not according to the needs of the plant. That's what many conventional farmers do, many of them are old farmers. For us young people, we agree that technology can be more effective in helping work in the field.” (EA, 21st August 2023).

Despite that, the pattern of mastering technology and implementing agricultural best practices based on international demands is in fact displacing traditional values that grow in society. For example, the inclusion of *Bimas* and *Inmas* projects in the history of Indonesian agriculture, in fact requires a lot of use of chemical fertilizers and seeds that have been modified in the laboratory. The demands of a *Green Revolution* have clearly changed agricultural culture in Indonesia and have had a negative impact on the environment to this day (Husken, 1998). Again, what was done by the participants in justifying "environmentally friendly" and improvements "according to standards" regarding the use of fertilizers and pesticides requires further research to prove it.

Furthermore, class factors are one of the things that influence farmers' thinking, such as EA. AR (6th September 2023), another capitalist farmer believes that applying technology in the Farming process will help to automate everything and save cost due to fertilizer/pesticides schedule and dose. The use of these tools is more efficient even compared to the size and duration of work carried out by humans. Besides that, they also realize that labour is expensive. By utilizing technology, it could be expensive in the beginning but the future cost will not be as expensive as manual labour (AR, 6th September 2023).

PCP farmers like AAF and proletariat farmers like TSA do agree with the aim of having technology that helps work in the agricultural sector. However, they do realize that their position is vulnerable to being replaced if everything can be done automatically or using robot power. It showed with the conversation I had with TSA. When I asked TSA, she (23rd August 2023) answered: “Yes Teh, I agree that technology is needed in agriculture. Easing work in the field... Eh, but that's true, isn't it?”

I continued my question: What will happen if the job is replaced by a machine? And then she answered again: "It's also difficult because you don't have a source of work anymore."

Meanwhile, AAF himself is quite pessimistic about the technology intended by the government because of its experience of being disappointed many times with these promises.

“In the past there was a collaboration project with the CSR private sector to build a potato chip factory. Unfortunately, the project was not accompanied by adequate training and the power

required to use the equipment in the factory was too large so it could not be used. "The electricity capacity in the village is not yet capable of operating that amount of power, as a result now it is just a waste, unused." (AAF, 26th August 2023).

The application of this technology is one of the things that can influence the regeneration process in agriculture in the future. From time to time, conventional agriculture is closely associated with hiring workers in certain seasons and has established agricultural communities with structures based on *gotong-royong* and family culture. (Pincus 1996, White, 2000). In the future, this historical heritage may shift if the existence of technology such as modern agriculture that the government desires can be realized in the next couple of generations.

4.4 Surplus Population Issue under “Petani Milenial”

It is obvious since the program has started that the government has tried to capitalize on the mutual needs between the urgency of food security stock and the concern of millennial generations who want to do productive work in their active age supported by the advantages of this generation which is resilient to the use of the latest technology (YMS, 7th August 2023). The factors driving strong structural transformation that occur from the perspective of the "Petani Milenial" program can be seen from the focus on increasing productivity with low capital, installing qualified technology, and the skills of the workers themselves (Timmer, 2014).

The successors to agriculture in West Java can be said to be quite low. This is why the West Java government wants to encourage the future agricultural sector on a technological basis to encourage productivity which will influence the third factor to prepare for food security in West Java in 2045 which is projected to have a population of around 61 million people. (YMS, 7th August 2023). According to her, limited land is still a challenge in the agricultural sector. For example, in 2020, the area of rice fields will be around 900.000 hectares and in 2022 it has decreased into 860.000 hectares to provide crops for 55 million people. This change in land use occurs because land is needed to build housing. In the future, she encouraged that agricultural activities can continue by using the remaining land area. The West Java government has calculated the minimum land area that must be maintained as agricultural land until 2045 (YMS, 7th August 2023).

"There is indeed a gap in the availability of land and its needs, so in the future we have calculated the minimum land conditions required according to the population until 2045. For example, until 2045, we have calculated the need for *sawah* is up to 800.000 hectares. So, now what if the land area decreases until 2045? What's the solution? Yes, that means we have to play with technology. I once read that in Japan, rice fields are planted inside buildings, no longer in the form of beds. So what do we need to do? Develop seeds which ready to plant and adapt with current conditions. Land is indeed needed for the agricultural sector, but on the other hand, we have to adapt to plant crops quickly and we also have to pay attention to the application of technology." (YMS, 7th August 2023)

Yet, limited land is one of the reasons why the younger generation chooses to emigrate, apart from other external factors which ultimately influence young people to continue leaving their hometown. Young people need to make important decisions in their lives on how to live their lives in the future through alternative livelihood strategies such as looking for work outside their hometown (White, 1991). Several stories from Garut were told by PH who lives near urban areas and EA who lives in rural Garut.

“I live in Karangpawitan, in North Garut. The problem is most likely farmers here cultivate rice paddy and orange. However, the selling value of these products is considered less profitable (low economic value) so many farmers switch to other sectors or rent their land to other people and choose to migrate to work for other people. Increasingly, the trend for migration is increasing, especially since people who have migrated from abroad have returned home and can open their own businesses and continue with the business. This becomes an attraction for other young people to follow in the same stepstone. Those people migrate to Korea or Japan to work in factories or construction industry. Once they collect enough money, they decide return to their hometown and start a store/business instead of develop agriculture. It is the reason of less interest among young people in farming and affect the land converted into housing.” (PH, 21st August 2023).

A different story is, PH;s (21st August 2023). He described young people in his area as most likely to migrate to Korea or Japan to work in factories or working as construction labourers. The current trend is like that in North Garut, the push from the increasingly limited agricultural land is forcing young people to work in overseas factories. According to him, this is a continuation of the lack of interest among young people in farming, coupled with the decreasing number of agricultural lands that has been converted into housing. It is relevant to Breman, *et al.*'s (2004) statement that when people who get structured and well-paid jobs visit the village back, they act as a base for many other people in the village who want to follow in their footsteps.

“Most of those who migrate do not actually want to but because they need to. In the village, if there is no land, what work can they do? As a result, they return and migrate, either to the island of Java or even outside Java, and become a trader to survive in life.” (EA, 21st August 2023).

In line with the statement made by these two young people from Garut, Habibi (2014) stated that it is the group of petty peasants and landless labourers in rural areas who generally look for non-agriculture sector job outside the countryside because their wages in rural area are mostly insufficient for their family. It drives them to work in the non-formal sector as domestic servants, construction workers, food sellers, and another casual work (Firman, 1994), which is enough to live for so many of them. Others work in factories or construction jobs such as in Bekasi or Karawang. The life of the working class in rural areas is illustrated by the situation of TSA, a housewife from Pangalengan who helps her husband with odd jobs. The results from their farming business are not enough, so they have to survive with various other types of work from livestock business to selling fishing rods where the income they get from this business is unstable. (TSA, 23rd August 2023).

It is worth asking whether by implementing entrepreneurial and technology-based agriculture, we can overcome the crisis and prospective food needs in the future. Or will it produce similar results, as in the policies made by the government since the 1960s? In the end, agricultural development programs such as “Petani Milenial” only target a handful of people from certain groups with certain qualities and are not inclusive. This can be seen from the continuing cycle of urbanization of young people in rural areas to work outside their hometown. Personal reflection from IH who is afraid to enter the agricultural realm is a contradiction to the bright prospects of the agroindustry and for people like RA who chose to focus on continuing his studies as preparation for entering the world of agriculture rather than pursuing agriculture in between his studies. It does not mean young people are willing to stay overseas forever. It means they perceive themselves as not capable enough to adapt

to the rural life's living conditions after a couple of years living abroad since their parents sent them to pursue a higher education (IH, 19th July 2023).

"For now, I prefer to live and work in the city, farming life is like gambling. It requires large capital and sufficient experience to be stable in the agricultural sector. Right now, I don't have either of those and I'm not mentally prepared for my monthly income to fluctuate." (IH, 19th July 2023)

On the other hand, the government has realized the lack of employment in rural areas has become a problem arising from urbanization.

"Urbanization or migration occurs because one of the reasons they leave the village (farming) is that there are no jobs available in the village. What can you do in the village? Farming. Our efforts (government) are to prepare jobs in villages, inviting young people to change. We have to prepare from upstream to downstream so that marketing can be carried out. That way they no longer need to go to the city because sales facilities and infrastructure can also be done from the village, one of which is through Tokopedia (e-commerce)" (YMS, 7th August 2023).

However, there is still potential of failure to address surplus population issue in West Java due to limited land itself and the skills of the millennial participants. The government hopes that the program can reduce the rate of urbanization and succeed in inviting young people to increase agriculture productivity through modernization methods, but most of the previous policies which delivered similar purpose failed to achieve this goal. In the capitalist era, it tends to be a process of producing winners and losers. Those who succeed in surviving in the system of accumulation of production in the capitalist system will continue to strive to maintain their position, while those who are unable to adjust to the rhythm will return to precariousness, only being able to become residual actors in the production system who are seen as not making a big contribution. As Habibi and Juliawan (2018) said, policies that support increasing production output and accelerating the process will still lead to work conditions that are not ideal and maintain precarious conditions, especially for the working class who have temporary employment and tend to look for other side businesses to survive.

Chapter 5

Conclusion

“Petani Milenial” was labelled as a breakthrough program to solve regeneration issues in agriculture as West Java’s government was concerned with the future of farmers in the province. However, the basic idea behind this program is not new to focus on improving quantity to pursue increased production in the agricultural sector. After colonialism, Indonesia had the ambition to increase domestic food production but the efforts made always failed. Domestic rice production was not balanced with population growth which resulted in continued imports and ultimately the price of local rice remained suppressed which caused the bad conditions of farmers in the 1950s-. These conditions then got even worse due to the inflation that is occurred (Husken, 1998). The failure that occurred during President Suharto's era in the 1960s occurred due to the governmental policies’ bias towards large entrepreneurs in the *Green Revolution* scheme. This policy tends to favour the large capitalist class who obtains large-scale land control rights compared to smallholder farmers in rural areas, the majority of whom have land areas of less than 1 hectare. Besides this, the expensive aspects of seeds, fertilizer and other basic necessities for agricultural activities further worsened the process of marginalization of small farmers. (Husken, 1998). It is also caused by the government's failure in understanding the hierarchical differentiation that occurs in rural areas, which is one of the drivers of the failure of the program which considers all farmers in rural areas to be traditional people who are in the same class (Husken, 1998).

In fact, the premises of programs in the past are more or less the same as those found in the "Petani Milenial" program which has been running since 2022. The facilities provided by the program make it easier for participants who have a mature production base and the struggle remains for participants who are starting from scratch to apply the training material obtained from the program. For example, the majority of participants from the capitalist and PCP classes have already attended training and participants from the proletariat farmer class have not yet received a schedule to attend training. The majority of participants were of the opinion that the program could not accommodate the needs of farmers as a whole. For participants who focus downstream, this is easier because exhibition and networking facilities are one of the advantages that can be utilized from the program. Meanwhile, on the upstream side, participants such as those from PCP felt that the government was slow in facilitating the agricultural activities they needed. One of the main ones is the scarcity of fertilizer and also capital assistance (AAF, 26th August 2023).

The participant's class position from the interview process also influences a number of aspects in agriculture, from the decision to take part in the program to the future prospects they make for their future career path. Some people are reluctant to take part in the program because it does not have a big influence on the decision to choose a job outside village life or because they already have a farming business before. However, for some parties, they wish that the program can be a tool to lead a better life. Knowledge regarding managerial and financial skills is one of the keys to this program which is expected to make young farmers have a different mindset from conventional farmers so that they are wiser in making decisions and avoid incurring losses when selling their crops (Pemerintah Daerah Provinsi Jawa Barat, 2022). However, this knowledge for farmers cannot be applied by all participants as it, depends on their position in the rural community, whether they have the power to do something or are the ones who follow the flow (Habibi, 2023).

Regarding the regeneration of farming, there were several tensions between participants (especially from the capitalist class) and conventional ‘old’ farmers. In some cases, reforms

that embrace modern agriculture tend to endanger the process of reducing the values of social reproduction in agriculture and shift the family values that have existed for centuries in rural areas. This shift could create differences in derived values between the millennial generation of farmers and the next generation of farmers, something that can create new dynamics in rural areas. This will be interesting to investigate further in the future, whether in Indonesia where the shift in agricultural principles applied by smallholder farmers will shift to larger-scale industrial agriculture. Until now, indeed the population of smallholder farmers and landless labour remains abundant in rural areas and it is still considered sufficient to support a living (Breman, *et al.*, 2004)

Availability of land for agricultural activities is a key modality, while the "Petani Milenial" program does not address efforts to expand agricultural land and tends to emphasize utilizing the existing land area and prioritizing the application of planting technology and innovation. Intensification is clearly preferred over agrarian reform. Even though the generation targeted is the millennial generation, not all millennials can quickly master technology and land is a crucial thing for those who want to do business in the upstream sector. In the end, migration and precarious working conditions will likely still occur in the near future because there is nothing else for these young people to do in the countryside apart from farming. This encourages them to keep leaving the village or look for non-agricultural work, thereby reinforcing the ranks of the surplus population.

It would be interesting to investigate further regarding the participants' dynamics when interacting with each other, whether their class position influences their process of being together as participants during the "Petani Milenial" program. Apart from that, other factors related to environmental degradation and regenerative agriculture need to be explored further, to see the effectiveness of the "Petani Milenial" program against the decline in environmental functions as happened in the *Bimas* or *Inmas* programs in the past.

References

- Antonova, N.L., Musaev, T.I. and Antonova, P.O. (2020) "Right to the city: youth's view to live in the city", *IOP conference series. Materials Science and Engineering*, 962(3), pp. 32076. doi: 10.1088/1757-899X/962/3/032076.
- Apergis, E. (2019) "Who Is Tech Savvy? Exploring the Adoption of Smartphones and Tablets: An Empirical Investigation", *Journal of High Technology Management Research*, 30(2). doi: 10.1016/j.hitech.2019.100351.
- Bappeda Provinsi Jawa Barat (2018) *Rancangan Akhir Rencana Pembangunan Jangka Menengah Daerah (RPJMD) Provinsi Jawa Barat Tahun 2018-2023*. Bandung: Badan Perencanaan Pembangunan Daerah Provinsi Jawa Barat. Available at: <https://bappeda.jabarprov.go.id/wp-content/uploads/2018/11/RANCANGAN-AKHIR-RPJMD-JAWA-BARAT-2018-2023.pdf> (Accessed: 16 October 2023).
- Bappeda Provinsi Jawa Barat (2019) *Rencana Strategis Tahun 2018-2023*. Bandung: Badan Perencanaan Pembangunan Daerah Provinsi Jawa Barat. Available at: <https://bappeda.jabarprov.go.id/wp-content/uploads/2020/05/1.-RENSTRA-BAPPEDA-2018-2023.pdf> (Accessed: 16 October 2023).
- Bappeda Provinsi Jawa Barat (2022) *Rencana Kerja Pemerintah Daerah (Rkpd) Provinsi Jawa Barat Tahun 2023*. Bandung: Badan Perencanaan Pembangunan Daerah Provinsi Jawa Barat. Available at: <https://bappeda.jabarprov.go.id/dokumen/rkpd/> (Accessed: 16 October 2023).
- Bernstein, H. (2010) *Class dynamics of agrarian change*. Halifax, N.S.: Fernwood Pub (Agrarian change and peasant studies series).
- Bernstein, H. (2011) "farewells to the Peasantry?" and Its Relevance to Recent South African Debates," *Transformation: Critical Perspectives on Southern Africa*, 75(1), pp. 44–52.
- Breman, J. et al. (2004) *Masa cerah dan masa suram di pedesaan jawa : studi kasus dinamika sosio-ekonomi di dua desa menjelang akhir abad ke-20*. Cet. 1 edn. Jakarta: Lembaga Penelitian, Pendidikan dan Penerangan Ekonomi dan Sosial (LP3ES) : Koninklijk Instituut voor Taal-, Land- en Volkenkunde (KITLV).
- Cahill, D. (2014) The idealist view of neoliberalism. In *The End of Laissez-Faire?: On the Durability of Embedded Neoliberalism*. Cheltenham: Edward Elgar Publishing Limited.
- Deere, C.D 2005, "The feminization of agriculture?: Economic restructuring in rural latin America", *Occasional Paper*, 1, Geneva: United Nations Research Institute for Social Development.
- Edmonds, W. M. (2019) *Snowballing ... #prayforme : a qualitative study using snowball sampling*. London: SAGE Publications (SAGE Research Methods. Cases).
- Fahmi, R.A. (2023) 'Jerit Peserta Program Petani Milenial yang Merasa Harus Bekerja Sendiri untuk Hadapi Banyak Masalah', *Pikiran Rakyat*, 2 February. Available at: <https://prfmnews.pikiran-rakyat.com/jawa-barat/pr-136194270/jerit-peserta-program-petani-milenial-yang-merasa-harus-bekerja-sendiri-untuk-hadapi-banyak-masalah> (Accessed: 29 March 2023).

Firman, T (1994) “Labour Allocation, Mobility, and Remittances in Rural Households: A Case from Central Java, Indonesia”, *Journal of Social Issues in Southeast Asia*, 9 (1), pp: 81-101.

Habibi, M. and Juliawan, B. H. (2018) “Creating Surplus Labour: Neo-Liberal Transformations and the Development of Relative Surplus Population in Indonesia,” *Journal of Contemporary Asia*, 48(4), pp. 649–670. doi: 10.1080/00472336.2018.1429007.

Habibi, M. (2023) *Capitalism and agrarian change: class, production and reproduction in indonesia*. Abingdon, Oxon: Routledge, Taylor & Francis Group (Routledge frontiers of political economy).

Hansen, G. (1971) “Episodes in Rural Modernization: Problems in the Bimas Program,” *Indonesia*, 11, pp. 63–63. doi: 10.2307/3350744.

Hennink, M., Hutter, I., & Bailey, A. (2020) The Nature of Qualitative Research and Our Approach. In *Qualitative research methods*. (pp. 9-25).

Herlambang, C.H. and Ashri, A.F. (2022) ‘Petani Milenial Penjaga Harapan Masa Depan Jabar’, *Kompas*, 12 September. Available at: <https://www.kompas.id/baca/nusantara/2022/09/12/petani-milenial-penjaga-harapan-masa-depan-jabar> (Accessed: 29 March 2023).

Hüsken, F. (1982) *Peasants and policy in colonial and post-colonial Java : the underlying continuity*. Amsterdam: Univ. van Amsterdam.

Hüsken, F. (1998) *Masyarakat desa dalam perubahan zaman : sejarah diferensiasi sosial di Jawa, 1830-1980*. Jakarta: Gramedia Widiasarana Indonesia Grasindo : [Perwakilan] KITLV.

Indonesian Statistic (2022) *Keadaan Angkatan Kerja di Indonesia Agustus 2022*. Jakarta: Badan Pusat Statistik. Available at: <https://www.bps.go.id/publication/2022/12/07/a64afccf38fbf6deb81a5dc0/keadaan-angkatan-kerja-di-indonesia-agustus-2022.html> (Accessed: 20 October 2023).

jabarprov. (2022) ‘Wagub Jabar Launching Petani Milenial di Kabupaten Garut’, *Jabarprov*, 24 May. Available at: <https://jabarprov.go.id/berita/wagub-jabar-launching-petani-milenial-di-kabupaten-garut-2112> (Accessed: 29 March 2023).

Lo Iacono, V., Symonds, P. and Brown, D. H. K. (2016) “Skype As a Tool for Qualitative Research Interviews,” *Sociological Research Online*, 21(2), pp. 103–117. doi: 10.5153/sro.3952.

Li, T. M. (2013) “Jobless Growth and Relative Surplus Populations,” *Anthropology Today*, 29(3), pp. 1–2.

Marx, K. (1976) *Capital: A critique of political economy*. Harmondsworth: Penguin Books.

Ministry of Agriculture (2020) *Statistik Laban Pertanian Tabun 2015-2019*. Jakarta: Pusat Data dan Sistem Informasi Pertanian Sekretariat Jenderal – Kementerian Pertanian 2020.

Ministry of Manpower (2020) ‘Menaker Ida: Jawa Barat, Provinsi Paling Banyak Pekerjaannya Yang Terdampak Covid-19’. Available at: <https://blkbekasi.kemnaker.go.id/Berita/detail/Menaker-Ida-Jawa-Barat-Provinsi-Paling-Banyak-Pekerjanya-Yang-Terdampak-Covid-19-31ZHQ> (Accessed: 12 May 2023).

Patton, M. Q. (2002) *Qualitative research and evaluation methods* (3rd ed.). Thousand Oaks, CA: Sage Publications.

Pemerintah Daerah Provinsi Jawa Barat (2022) 'Road Map Program Petani Milenial Provinsi Jawa Barat Tahun 2021-2027'. Provinsi Jawa Barat. Unpublished.

petanimilenial (2023) 'Petani Milenial Juara' Available at: <https://petanimilenial.jab-arprov.go.id/> (Accessed: 28 March 2023).

Pincus, J. R. (1996) *Class power and agrarian change : land and labour in rural west java*. Basingstoke: Macmillan (Studies in the economies of East and South-East Asia).

Saleh, R., Oktafiani, I., and Sitohang, M. Y. (2021). "Sulitnya Regenerasi Petani pada Kelompok Generasi Muda". *Jurnal Studi Pemuda*, 10(1), doi: <https://doi.org/10.22146/studipe-mudaugm.62533>.

Smith, T. J. and Nichols, T. (2015) Understanding the millennial generation. *The Journal of Business Diversity*, 15(1), pp. 39-47.

Timmer, P. (2014) *Managing Structural Transformation: A Political Economy Approach*. WIDER Annual Lecture 018. Helsinki: UNU-WIDER.

White, B. (1991) *In the shadow of agriculture: economic diversification and agrarian change in Java, 1900-1990*. Institute of Social Studies.

White, B. (2020) *Agriculture and the generation problem*. Rugby, Warwickshire: Practical Action Publishing Ltd (Agrarian change & peasant studies, 10).

Widiyanti, E., Setyowati, N. and Ardianto, D.T. (2018) 'Young generation's perception on the agricultural sector', IOP conference series. *Earth and environmental science*, 200(1), pp. 12060 doi: [10.1088/1755-1315/200/1/012060](https://doi.org/10.1088/1755-1315/200/1/012060).

Widodo, S. (2017) 'A critical review of Indonesia's agrarian reform policy', *Journal of Regional and City Planning* 28(3), pp. 204–218. DOI: <https://doi.org/10.5614/jrcp.2017.28.3.4>.

Will, M. (2013) *Contract farming handbook*. Bonn, Germany: Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH.

World Bank (2008) *Agriculture for Development*. Washington, DC: World Bank

Yin, R. K. (2018) *Case study research and applications : design and methods*. 6th edn. Los Angeles: Sage.

Appendix

Appendix 1 – Overview of Interviews

	Numb of People	Representing	Date	Via
Participants of the program	6	Young farmer	August-September 2023	Online interview
Ex-participant of the program	3	Young farmer	July-August 2023	Online interview
Economic Bureau	2	The Organizer	August 2023	Online interview
Horticulture and Food Service Garut Regency	1	The Organizer	August 2023	Online interview
Horticulture and Food Service Bandung Regency	1	The Organizer	August 2023	Online interview

Appendix 2 – General Interview Questions for Participants

- Sex (F/M)?
- Last Education?
- Current occupation?
- How is the agriculture activity in your region from time to time?
- Tell me about your family background?
- Why do you want to experience as a farmer?
- Where did you learn farming?
- What makes it appeal it you compared to other job in other sectors?
- How about your family background? Are there also farmers in your family?
- How is the transition of agriculture activities from previous generation to yours in your region if you could explain?
- What is the difference between modern and traditional agriculture?
- Tell me your experience about the change from traditional to modern agriculture
- How do you describe the farming transition in your region if you know?
- Do you own/rent land? How large do you have?
- How about land ownership by farmers in your region in general?
- Is there any big landlord who having many labours in your region?
- Do you own your own production modal?
- How many harvest you have per year? (kg/time)
- Do you have another occupation?
- Tell me about your income from farming activity?
- How much do you spend back as modal for agriculture activity? How much it is compared to your daily expenses?

- Do you know another farmers in your region? Are you joining any farmers group?
- Who are they? (the other farmers) (if you could explain)
- How is the experience to interact with the group?
- Why do you want to join an agriculture development program such as “Petani Milenial”?
- What its benefit for you?
- How do you experience the program so far?
- Why the “Petani Milenial” program has to be existed?
- Who determines the commodities that participants will cultivate? How does the program help to improve your life or further contribute to alleviating the rural problems?
- Is there any difference you feel before and after joining the program? Something improve your life?
- Is there any assistance or support from the government apart from the program? What is it?
- What is your dream job?
- From your perspective if you could compare, do you prefer live in the city or stay in your hometown?
- For you, is working in agriculture sector promising? Why?
- What is the biggest challenge in agriculture you face today?
- Are you going to continue the profession for longer time? Why?
- What is your future plan for your career?
- Could you tell me about the migration happened in your region?
- How does it affect the downgrade of agricultural activity in your region?
- Do you have children? What is your hope for your children’s future?
- Do you want them to continue to be a farmer?
- In the past, what was your parents’ hope for you?
- If you could say, what kind of program or solution that rural people really need to improve their life?

Appendix 3 – General Interview Questions for Organizers

- What is the agricultural problem in West Java?
- How does West Java Province address the issues above?
- What is the background story behind the “Petani Milenial” program?
- What does the young people (participants) need to start farming?
- Could you explain the relation between the program and migration issue in West Java?
- How does the program relate to farmer regeneration in West Java? What does the program want to address?
- For your organization itself, how do you look the agricultural problem to address it during the program preparation?
- Is there any criterion to select the participants?
- Why the program runs under your organization?
- What is the difference between batch 1 and batch 2 of the program?
- How does the program give effect to participants so far?

- What kind of innovation given to the participants?
- What kind of challenges you face when running the program? How do you solve it?
- How about the land access and financial support for the participants? Could you explain about that?
- What is the government plan to support agriculture activities in West Java?
- How does West Java Province understand the needs of farmers so far?
- What is your hope for the young farmers?
- Is there any tension between the participants (young farmers) and the conventional one (older generation)?