



Agro-tourism Development in Indonesia

The Case of Yogyakarta and Bali

A SERIES OF ACTIVITIES IN THE FRAMEWORK
OF THE UN DECADE OF FAMILY FARMING

Activity 2. Documentation and systematic analysis of case studies about policies, strategies, initiatives, and programs successfully supporting family farming



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Case Writers:

Xyrus Godfrey B. Capiña and Deden Matra

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Acronyms and Abbreviations

BSP	Badan Pusat Statistik (Central Bureau of Statistics of Indonesia)
CSR	Corporate social responsibility
DIY	Daerah Istimewa Yogyakarta (Special Region of Yogyakarta)
GDP	Gross Domestic Product
KII	Key informant interview
KNPK	Komite Nasional Pertanian Keluarga (National Committee for Family Farming)
NAP	National Action Plan
NGOs	Non-government organizations
RAN-PK	Rencana Aksi Nasional-Pertanian Keluarga (National Action Plan for Family Agriculture)
RTUP	Rumah Tangga Usaha Pertanian (Agricultural Business Households)
SDGs	Sustainable Development Goals
PDAFF	Department of Agriculture, Forestry and Fisheries
PPP	Public-Private Partnership
R&D	Research and development
RGC	Royal Government of Cambodia
SCCCAP	Secretariat of Committee for Coordinating the Contract on Agricultural Production
SOA	Signature of Asia
SRP	Sustainable Rice Production
UNDF	United Nations Decade of Family Farming
WB	World Bank
WVC	World Vision Cambodia

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I. INTRODUCTION

Background

Agricultural development currently focuses primarily on increasing the production of food crops. However, horticultural agriculture is essential in producing and supplying other goods besides main food crops such as rice, corn, and soybeans. This condition causes agricultural development to not fully optimize its potential because each region has varying characteristics of agricultural development in horticulture. For example, in Bali, most farmers produce horticultural products (fruits and flowers) because they use them for religious purposes. Increasing production and area of horticulture products trigger economic growth in the community, such as the horticultural industry's growth of fruits, vegetables, flowers, and biopharmaceuticals. In the special district of Yogyakarta, Sabila farm developed a Dragon Fruits orchard based on family farming. The owners have successfully disseminated all cultivation and management practices to other newly developing dragon fruit orchards, such as the Sabila farm in Bogor, West Java, where the orchard serves as the venue for entrepreneurial training for university students. These present prospects for tourism-based regional development, also known as agro-tourism. Agricultural communities such as farming families can sell their products and expand their market through agro-tourism.

As an agricultural country, Indonesia has diverse natural and biological resources with agro-climatic conditions suitable for developing horticultural commodities. Moreover, with their diversity and uniqueness, horticultural commodities are strengthened by diverse cultural wealth and a strong appeal for agro-tourism. Therefore, they are likely to become a mainstay in the Indonesian economy.

Tourists' preferences and motivations develop dynamically. The tendency to fulfill needs in the form of enjoying specific objects such as fresh air, beautiful scenery, traditional product processing, and modern and specific agricultural products shows a rapid increase. Domestic tourism in 2017 reached 270.8 million trips, growing 2.4% over the previous year. In 2018, these numbers increased to 303.4 million visits, growing significantly to 12% and increasing the tourism growth rate from 1.6% in 2019 to 41.6% in 2022, after falling by 55.5% in 2020 due to the COVID-19 pandemic (OECD Tourism Statistics, 2020). This has consequently affected agro-tourism in Indonesia. However, despite this, the growth rate of tourism, including agro-tourism, is expected to increase over the years in the country.

Since the 2020 COVID-19 pandemic, health has been the most critical concern. Given this, agro-tourism has provided an option for people by providing good, healthy food and relaxation. This presents an excellent opportunity for agrotourism, mainly in horticulture villages or thematic areas for horticultural products. Moreover, this opens opportunities for developing agribusiness products, such as areas or agricultural products with a specific appeal.

The role of the farming community based on family farming is important to be developed as a model in supporting the agro-tourism industry. In Indonesia, farmers' family join their communities based on family relationships with their ancestors. Each farmer family has unique tasks in their community, such as production, marketing, and promotion. On a production scale, they will produce products based on the situation, such as religious purposes to produce flowers on religious days. The farmer family will expand their product outside the community through marketing and promotion.

This very high agro-tourism potential has not been fully developed and utilized optimally. Some regulations and support from the government are still being uncovered. The direction and coordination between central

and regional governments in implementing the rules do not usually entirely involve those at the bottom, such as in the community. Sometimes, they fail to consider the local culture of farming families, where some regulations or new things are not allowed to be implemented in their community. For this reason, it is necessary to formulate concrete and operational policy steps to achieve stable management of agro-tourism in the era of globalization and regional autonomy. Following the uniqueness of the location-specific wealth owned, each region and every object of agro-tourism requires synergistic cooperation between the actors involved in managing agro-tourism, namely the community, private sector, and government.

The development of agro-tourism generally includes human resource development, natural resources, promotion, facilities, and institutional support.

Human Resources

Human resources through family farming, starting from the agro-tourism manager to the community, play an essential role in the successful development of agro-tourism. The ability of agro-tourism managers to set targets and provide agro-tourism packages, as well as continuous promotions, following the community's potential, will determine success in bringing in tourists. Some capacity-building training is run by local government to provide a good leader who can manage the community and the facility to support tourism.

Natural Resources and Environment

The agro-tourism business relies heavily on the condition of natural resources and the environment. These natural and environmental resources include tourism resources that should be promoted, including society. For this reason, efforts to maintain the sustainability of natural and environmental resources will determine the sustainability of the agro-tourism business. In some cases, exploitation of land uses in horticultural production becomes dangerous for land health and erosion. The use of natural resources must be done wisely for the continuity of future generations in the development of agro-tourism areas.

Promotion

Promotional activities are essential in agro-tourism activities. Information and promotional messages can be done in various ways, such as through leaflets, booklets, exhibitions, souvenirs, mass media, and information in public places. Recently, social media (such as Facebook, Instagram, and TikTok) has been an effective platform for advertising places of agro-tourism. The young people in their farming families can start promoting news about agro-tourism in their area.

Support for Facilities and Infrastructure

The presence of agro-tourism is supported by good service, ease of accommodation, and transportation, as well as the awareness of the surrounding community. Efforts to eliminate formal and rigid things such as permission letters or unauthorized local tax, as well as to create a relaxed atmosphere and a clean and safe impression, are essential aspects that need to be considered. Therefore, the role of local governments in managing the community is critical, such as inventory of facilities and security problems, both criminal and social.

Institutional

The development of agro-tourism requires the support of all government parties, the private sector, especially agro-tourism entrepreneurs, tourism institutions, universities, and the community. The government is a facilitator in supporting agro-tourism development through licensing facilities and others. However, government intervention is currently limited to regulations avoiding a mutually exclusive business. For example, an institution such as a university can make a list of rules to improve agro-tourism management, such as maintaining an environment friendly in the agro-tourism concepts.

Research Methodology and Expected Outputs

A. Review of selected regulatory policies related to agro-tourism development

1. Review of central government regulations about the development of agrotourism (Decree number 13 of 2010 concerning Horticulture, Government Regulation of the Republic of Indonesia Number 110 of 2015 concerning Agro Horticulture Tourism Business)
2. Review of regional government regulations about the development of agrotourism (Regulation of the Special Region of Yogyakarta Number 1 of 2019 concerning Amendments to the Regional Regulation of the Province of the Special Region of Yogyakarta Number 1 of 2012 concerning the Master Plan for Regional Tourism Development of the Province of the Special Region of Yogyakarta in 2012–2025)
3. Review of Bali Provincial Regulation No. 2 of 2012 concerning Balinese Cultural Tourism

B. Discussion with the following stakeholders regarding the role of family farmers in the development of agro-tourism

1. Ministry of Agriculture
2. Province of the Special Region of Yogyakarta
3. Province of Bali

C. Interviews with farmer groups who have developed agro-tourism based on family farming

1. Province of the Special Region of Yogyakarta
 - a. Sabila Farm
 - b. Pagerharjo Village, Kulonprogo
2. Province of Bali
 - a. Jatiluwih, Subak Landscape of Catur Angga Batukaru, District of Penebel, Tabanan Regency

D. Expected Outputs

1. Understanding of the role of central and regional regulations in supporting family-based farming groups to run a sustainable agrotourism
2. Assess the implementation of regulations that have been made with programs that have been carried out and will be carried out in technical programs of ministries and local governments
3. Identify government support (central and local) through regulations encouraging community-based agrotourism.

II. POLICY DESCRIPTION AND ANALYSIS

Agenda Setting

Indonesia has a total land area of approximately 1.88 million square kilometers. The agricultural land area of the country is around 623,000 square kilometers, or around 33.2% of the total land area (The World Bank, 2023). In terms of land holding, the distribution of agricultural land in Indonesia is concentrated, with a small portion of the population owning a large portion of agricultural land. There are as many as 27,682,117. Agricultural Business Households (RTUP) in Indonesia with an average area of 0.78 hectares of land controlled by them. On the other hand, as many as 15,890,427 RTUPs are occupying less than 0.5 hectare. (Kementerian Pertanian, 2019) Small family farmers dominate the agriculture sector, which has approximately 93% of the total number of farmers in the country. Small family farmers usually manage a farm size averaging 0.6 hectares and comprising 5 to 6 household members (FAO, 2018). On the other hand, the Central Bureau of Statistics of Indonesia or Badan Pusat Statistik (BSP) considers small family farmers as farmers with farm size of less than 0.5 ha (Purnawan, Brunori, & Prosperi, 2020). They are often

found in rural areas, and their livelihoods depend heavily on agriculture, mainly producing staples such as rice, corn, and cassava, as well as cash crops for exports, including palm oil and rubber (FAO, 2018).

Farmland continues to be the primary source of revenue for agricultural households from a commercial standpoint. However, agricultural and non-agricultural families have seen a steady decline in farmland ownership since 2000. This reduction in farmland might be the result of farmland being invested in non-agricultural industries, the land being transformed for industrialized purposes, or the land being inherited by and divided between children residing in various households (Moeis, Dartanto, Moeis, & Ikhsan, 2023).

In Indonesia, family farming also dominates the agricultural sector and contributes to the country's gross domestic product (GDP). Based on the data of BPS in 2018, from 2010 to 2017, the agricultural sector's contribution to GDP continued to increase. The agricultural sector contributes an estimated 13.4% of Indonesia's GDP and absorbs about 30.46% of the workforce (Kementerian Pertanian, 2019).

In Indonesia, family farming as the focus of policy and program interventions is critical because, according to BPS, there are 27.6 million RTUP food providers for around 265 million Indonesians (Kementerian Pertanian, 2019). However, the trend of farmers leaving agricultural employment to non-agricultural employment has been observed. In a study conducted by Sudaryanto et al. from 1990-1999, agriculture was the primary source of employment in rural areas. However, from 2000-2009, the trend was reversed when the non-farm sector accounted for 58.1% of total employment and continued steadily to 66.1% from 2010-2019. While the proportion of non-agricultural employees has grown, the proportion of workers in agriculture has been steadily declining. Further, the expansion of non-agricultural industries and rising urbanization have helped provide new employment opportunities, notably in the service industry (T Sudaryanto et al, 2021).

In addition, the farmers are already getting old, so it is very rare to innovate new ideas and things. Regarding labor age, an estimated 71.21% of the agricultural laborers are between 25-56 years old. On the other hand, 17.99% are in the old age group (more than 60 years of age), while 10.80% are in the young age group (15-24 years of age). Each year, the number of farmers declines by an estimated 90,251 (2.12%) individuals (Rafani & Sudaryanto, 2020). The high rate of urbanization, which has widened the gap between the urban and rural areas, is one of Indonesia's primary development problems. The bias in today's growth toward metropolitan regions resulted from prior development initiatives (ILO, 2012). This results in fewer young farmers in the village because they move to cities for a decent income.

Strengthening family farming programs is believed to increase food supply, improve nutrition, combat poverty, and improve family welfare. Other benefits of family farming include but are not limited to biodiversity conservation, environmental stewardship, employment generation, contribution to cultural enrichment, public health, and nutrition (FAO and IFAD, n.a.). This aligns with achieving the Sustainable Development Goals (SDGs), including no poverty, good health, and well-being. In addition, increasing the community's welfare to a higher level makes providing tourist attractions for recreation even more necessary.

The BPS data shows that the number of tourists visiting Indonesia in 2018 reached 15.81 million visits. Indonesia, well-known for its stunning natural surroundings, is an agricultural country with vast plains that have excellent opportunities to grow diverse enterprises (Furqan, Jusni, Mahyuddin, & Salman, 2020). Agro-tourism areas are widely chosen as an alternative recreation compared to other tourism areas because of their natural concept and the provision of support in the development of the surrounding community. Agritourism, put simply, is where the tourism industry and agriculture industry converge. Agritourism is a commercial enterprise that combines agricultural production or processing with tourism to draw tourists to farms or other agricultural businesses for entertainment or to educate visitors while generating income for the farm or business owner. Agro-tourism is engaged in the operation, management, or marketing of agriculture-related tourism businesses (NALC, n.a.) (AgMRC, 2022).

Developing agro-tourism areas is difficult because not all existing agricultural lands are suitable and can become tourist attractions. Different planting seasons, types of plants, and different plant cultivation techniques make agro-tourism areas challenging to manage, especially coinciding with tourist visits at best

and optimal times. Another limitation is the limited farmers' education on resource management that can be applied to agro-tourism areas. These challenges will not happen if several stakeholders make policies that support tourism development. For local governments, allocating for improving road access and proper public transportation to increase mobility to tourist areas. Youth organizations as non-government organizations (NGOs) in the community are essential in accommodating the younger generation in supporting their regions to develop agro-tourism areas.

Further, agro-tourism management is also challenged by social inequality in the surrounding community. The welfare gap among unemployed people is a severe problem. Some usually come from a demographic of individuals not interested in working yet expecting financial support. Small activities include illegal parking attendants, ticket brokers, and forcing tourists to purchase souvenirs. Many beggars and illegal levies in the agrotourism areas disturb the managers and visitors. Hence, it is necessary to resolve these types of incidents.

Furthermore, social inequality occurs due to the unclear contribution of agro-tourism areas to family farms, causing farmers to seem to be exploited by the management of the agro-tourism regions. This can happen because there is no transparency between the management of the tourist area and the surrounding farmers. For example, the sale of entrance tickets is not adequately reported to farmers, the distribution system is unclear, and there is no maintenance fee for agro-tourism areas owned by farmers. As a result of increased demand for products and services brought about by tourism, the local cost of living may rise significantly. Higher prices for land, housing, and primary goods and services may draw labor away from other traditional industries and local farming and agriculture. A relative decrease in buying power results from the cumulative impact (ILO, 2012).

The development of agro-tourism areas must certainly be built by various parties, both relevant ministries such as the Ministry of Finance in the financing, the Ministry of Public Works execution from supporting facilities and infrastructure, as well as the police and the TNI in maintaining order and security of agro-tourism areas, as well as the ministry of social affairs to overcome social insecurity.

Formulation

Since 1989, the Ministry of Agriculture and the Ministry of Tourism, Post, and Telecommunications have initiated a collaboration to support and develop the agro-tourism industry in Indonesia as part of its economic development program. The Joint Decree Number: 204/KPTS/HK. 050/4/1989, Number: KM.47/PW.004/MPPT'89 concerning the Coordination of AgroTourism Development regulates the cooperation and coordination in the development of agro-tourism between the two Ministries. Part of the coordination process is the planning, utilizing, nurturing, and developing the agro-tourism activities and funding for the collaboration. Although the two ministries' collaboration was always intended to control and specify the growth of agrotourism, cabinet changes prevented this arrangement from continuing in practice (Roslina et al, 2022).

The definition of Agro-tourism has been determined through the Joint Decree of the Minister Number 204 / KPS / HK / 050 / 4/1989 and KM.47 / PW. DOW / MPPT / 89. Agro-tourism is a tourism activity that utilizes agro-business as a tourist attraction to expand knowledge, recreational experience, and business relations in agriculture. With the commitment of these two ministries, agro-tourism development in Indonesia continues to grow. The role of each ministry is evident. On the one hand, the agriculture ministry focuses on developing agriculture by highlighting superior commodities from upstream to downstream. On the other hand, the tourism ministry opens access to information and roads to agro-tourism places in collaboration with travel agencies and local governments. This regulation had a favorable effect on the advancement of agro-tourism, leading to the establishment of several agro-tourism sites since the 1990s, such as Taman Buah (fruit garden) Mekar Sari in Bogor (West Java), agro-tourism of apple in Malang Regency (East Java), and agro-tourism of salak (snake fruit) in Sibatana Village, Karangasem Regencies (Bali Province) (Sarhana et al, 2021).

The government of Indonesia established an agro-tourism commission in 2003 through the Decree of the Minister of Agriculture No. 319/Kpts/KP.150/6/2003. Its goal is to utilize agricultural resources as a tourist attraction to contribute to national economic development and promote agro-tourism products (Furqan, Jusni, Mahyuddin, & Salman, 2020). The commission is chaired by the Secretary of the Agricultural Planning Bureau and the Daily Executive, which is chaired by the Head of the Ministry of Agriculture's Planning and Finance Bureau. The Ministry of Agriculture's Bureau of Planning and Finance is where the secretariat is based (Roslina et al, 2022). A Guideline for Horticulture Business Licensing was also established through the Decree of the Ministry of Agriculture Number 348/Kpts/TP.240/6/2003. The decree defines Horticulture Business as a cultivation, post-harvest, or agro-tourism horticulture business. It further defines agro-tourism business as a series of activities that utilize horticulture, including cultivation business horticulture, as a tourist attraction for commercial purposes (Ministry of Agriculture, 2003).

In 2009, the government of Indonesia passed the Law Number 41 of 2009 concerning the Protection of Sustainable Food Agricultural Land. The law considers that *"Indonesia as an agrarian country needs to guarantee the provision of food-agricultural land sustainably as a source of work and a decent livelihood for humanity by prioritizing the principles of togetherness, efficiency with justice, sustainability, environmental awareness, and self-reliance, as well as by maintaining balance, progress, and national economic unity."* The Law recognizes that *"the increasing population growth and economic and industrial developments have resulted in degradation, conversion of functions and fragmentation of food-agriculture land which has threatened the carrying capacity of the region nationally in maintaining food self-sufficiency, security, and sovereignty."* Therefore, considering such necessities stipulating a Law on the Protection of Sustainable Food Agricultural Land. The protection of Sustainable Food Agricultural Land is guided based on the principles of benefits, sustainability and consistency, togetherness and cooperation, environmental sustainability and local wisdom, diversity, and social and cultural, among others. It aims to protect areas and food agricultural land sustainably, protect ownership of agricultural land owned by farmers, increase the prosperity of farmers and society, increase employment opportunities for a decent life, and achieve agricultural revitalization, among others. The development of Sustainable Food Agriculture Areas/Lands includes land intensification (e.g., diversification of food crops, development of agricultural innovations, and agricultural extension, among others) and extensification (development of food crop agribusinesses) (Republic of Indonesia, 2009).

The government of Indonesia also established Law Number 10 of 2009 concerning Tourism. The considers that *"tourism is an integral part of national development which is carried out in a systematic, planned, integrated, sustainable and responsible manner while still protecting religious values, a culture that lives in society, preservation and quality of the environment, as well as national interests"* and that *"tourism development is needed to encourage the equal distribution of business opportunities and to obtain benefits and to be able to face the challenges of changes in local, national and global life."* Tourism is guided by the principles of benefit, participation, and sustainability. It aims to increase economic growth, improve people's welfare, overcome unemployment, promote culture, and others. A tourism attraction business is defined as a business whose activities are managing natural tourist attractions, cultural tourist attractions, and man-made tourist attractions (Republic of Indonesia, 2009).

Policy Adoption

To further stimulate the growth and development of the agriculture sector and ensure its stability, the government of Indonesia introduced the Law of the Republic of Indonesia Number 13 of 2010 concerning Horticulture. It is recognized that horticultural plants, which are biologically diverse and of Indonesia's most valuable natural resources, must be managed and developed in a way that is both efficient and sustainable as they serve as a source of nutritious food, plant drugs ingredients, and aesthetic, useful and plays a significant role in improving the quality of community's life. In this law, horticulture-based agro-tourism is defined (Article 1 Section18), specified agro-tourism as one of the horticulture businesses (Article 50 Section1), and defined the Agro-Tourism Business (Paragraph 8 Article 77) (Republic of Indonesia, 2010).

“Article 1 Section 18.

Horticulture-based agro-tourism, hereinafter called agro-tourism, is an area or horticulture business development activities as a tourist attraction, either alone or as part of a wider tourist area with the other tourist attractions.”

“Article 77

- (1) Horticulture cultivation zone and/or unit can be used and developed for agro-tourism business.
- (2) The Government, local government, and/or entrepreneurs who manage agro-tourist businesses shall involve local communities.
- (3) Agro-tourism businesses must consider the preservation of the environment function and local policy.
- (4) The Government shall establish agro-tourism norms, standards, guidelines, and criteria.
- (5) The government and/or the local government determine the horticulture cultivation business zone and/or the unit that becomes the agro-tourism business
- (6) Further provisions on the use and development of the horticulture cultivation business zone and/or unit as intended in paragraph (1) establish norms, standards, guidelines, and criteria for horticultural cultivation business zone and/or unit as intended in paragraph (4) shall be regulated by or based on the Government Regulation.”

The development of Law of the Republic of Indonesia Number 13 of 2010 concerning Horticulture involved several stakeholders. According to Ms. Niza Arumta, crafting the concept, developing strategies, and signing the Law takes several years, and each strategy involves coordinating different stakeholders. The national government agency crafting the Law had to invite all the stakeholders involved, including family farmers, the private sector, and other government agencies, among others, before it was enacted. Further, it was highlighted that this Law is designed for small-scale and large-scale farmers.

To implement the provisions of Article 77 of the Law of the Republic of Indonesia Number 13 of 2010 concerning Horticulture, the government has recognized the need to stipulate a Government Regulation concerning Agro-Horticultural Tourism Business. The government introduced the Government Regulation of the Republic of Indonesia Number 110 of 2015. In this Government Regulation, Horticulture-based Agro-Tourism is defined as a productive and innovative business enterprise performed professionally, offering and/or managing goods and/or services to satisfy tourists in setting up horticulture-based agro-tourism. On the other hand, agro-tourism business actors are farmers, farmer organizations, other individuals, or companies engaged in agro-tourism business, whether in the form of legal entities or non-legal entities established and based in the jurisdiction of the Republic of Indonesia. The Government Regulation emphasized that implementing the Agro-tourism business must involve the local community and pay close attention to the sustainability of the environmental functions and local culture. The involvement of the local community may include empowerment, partnership, and/or involvement in the business. On the other hand, preservation of the environment and local culture may include preserving the security of genetic resources, preventing the spread of organisms affecting plants, and preventing the damage or pollution of the environment as well as continuing activities that are in line with the socio-cultural surroundings of the agro-tourism business.

In implementing the national policies contained in central government regulations about the development of agro-tourism (Law of the Republic of Indonesia Number 13 of 2010 and Government Regulation of the Republic of Indonesia Number 110 of 2015), it is hoped that the development of agro-tourism in the horticulture sector will be more advanced. Especially horticultural products, which often experience price fluctuations so that there is no guarantee for farmers, sometimes resulting in some farmers leaving their land and taking on non-farm employment. Since government regulation stabilizes prices in horticultural products such as buying and reselling products, these activities effectively maintain the number of farmers that sustain work in agriculture. Therefore, an agro-tourism program in horticulture is expected to encourage other alternatives in business development carried out by farmers and the surrounding community in improving welfare other than farming.

Over the years, the government policies on Agro-tourism have progressed since the establishment of Joint Decree Number: 204/KPTS/HK. 050/4/1989, Number: KM.47/PW.004/MPPT89 concerning the

Coordination of AgroTourism Development. In summary, the important milestones of policy development are shown below:

- Joint Decree of the Minister of Agriculture and the Minister of Tourism, Post and Telecommunications Number: 204/KPTS/HK. 050/4/1989, Number: KM.47/PW.004/MPPT89 concerning the Coordination of AgroTourism Development
- Decree of the Minister of Agriculture Number 319/Kpts/KP.150/2003 concerning the Agro Tourism Commission.
- Decree of the Minister of Agriculture Number 348/Kpts/TP.240/6/2003 concerning Guidelines for Horticulture Business Licensing.
- Law of the Republic of Indonesia Number 13 of 2010 concerning Horticulture.
- Government Regulation of the Republic of Indonesia Number 110 of 2015 concerning Agro Horticultural Tourism Business.

Based on the key informant interview (KII) with Mr. Jamil Musanif, agro-tourism is only one of the approaches at the national level to popularize and provide additional benefits from Agriculture activities. This was supported by KII with Ms. Arumta, who mentioned that the main focus of the agriculture sector is mainly on food production, food security, and innovation. Agro-tourism is part of the innovation strategy of family farmers. For example, family farmers use their farms as a venue for tourists to pick up and eat the harvest, while some farmers open restaurants and coffee shops. Similar to the Law of the Republic of Indonesia Number 13 of 2010 concerning Horticulture in this case study, Agro-tourism is one of the many strategies to complement and support the agriculture activities of different departments under the Ministry of Agriculture. As an example highlighting Family Farming, the Ministry of Agriculture (2019) made the National Action Plan for Family Agriculture 2020-2024 (RAN-PK 2020-2024) policies that prepared to massively and sustainably develop family farms. This RAN-PK is a cross-sectoral coordination between the central and regional governments (Ministry of Agriculture, 2019).

The objectives of implementing the RAN for Family Agriculture are: (1) to increase availability, accessibility, and utilization of appropriate family food balanced nutritional needs, and (2) to increase family income. The impact is expected to be in accordance with the target of SDG 1, "Poverty alleviation," and SDG 2, "End hunger." The focus of implementation locations is in vulnerable areas. This action plan is prepared from the main ingredients of national policies. This material is also compiled from a series of discussions and workshops at the national level involving various parties, both from the government and NGO farmer organizations (Kementerian Pertanian, 2019).

At the national level, activities in the National Action Plan (NAP) on Family Farming are a shared responsibility across agencies and non-governmental organizations. Responsibilities, roles, and functions remain attached to each agency or sector, following their duties and responsibilities. The person in charge of the action plan carries out the coordination mechanism in implementing the Family Farm NAP. Family Farming is carried out with a multistakeholder principle that involves all relevant cross-sectors, including the Coordinating Ministry for Economic Affairs of the Coordinating Ministry of PMK, Ministry of PPA, Bappenas, Ministry of Agriculture, Ministry of Environment and Forestry, KKP, Ministry of Cooperatives, Ministry of Trade, Ministry of Law and Human Rights, and non-governmental organizations (KNPK). In this regard, the Ministry of Agriculture acts as a coordinator in implementing the activities of the Family Farm Action Plan. Funding for implementing family farming comes from the State budget attached to their respective agencies and other funding sources legally following the law and non-binding.

For provinces and regencies/cities, a Family Agriculture Regional Action Plan (RAN-PK) is prepared following each region's agricultural potential and characteristics. In RAN-PK design, the role of local governments is to support family farms in agro-tourism areas. Several RAN-PK programs can be carried out in support of agro-tourism development activities, such as:

- Identification of food insecure, vulnerable areas and target farming families
- Central and regional policy formulation
- Youth engagement and gender equality
- Provision of vocational education, training, and mentoring

- Strengthening access of farming families to capital, production facilities, and farming insurance
- Development of diverse food cultivation, processing, and marketing of agricultural products for sustainable farming and maintaining biodiversity

In regional government, policymakers are more precise because the local government knows the condition of the community and the environment, so the policies made are more targeted. By holding group discussion forums, it is possible to filter people's aspirations from various views so that policies will follow the community's wishes and community support will also occur. In addition, existing institutions in the community can play a role in policy formulation by providing actual conditions in the community itself. According to the Regional Government's authority, the implementation of regional policies plays a vital role in the development of Agro-tourism in Indonesia. Ms. Arumta highlighted that the Law of the Republic of Indonesia Number 13 of 2010 concerning Horticulture is at the national level. At the regional/provincial level, there will be different regulations depending on the priority of each local government on how to utilize their resources. Further, the local government can formulate and implement its regulations. Such is the case in Yogyakarta and Bali, where the local government has recognized the area's potential for agro-tourism activities.

In the special area of Yogyakarta, the regional government has introduced Peraturan Daerah Istimewa Yogyakarta Nomor 1 Tahun 2019 Tentang Perubahan Atas Peraturan Daerah Provinsi Daerah Istimewa Yogyakarta Nomor 1 Tahun 2012 Tentang Rencana Induk Pembangunan Kepariwisata Daerah Provinsi Daerah Istimewa Yogyakarta Tahun 2012–2025 or Regional Regulation of the Special Region of Yogyakarta Number 1 of 2019 concerning Amendments to the Regional Regulation of the Special Region of Yogyakarta Province Number 1 of 2012 concerning the Regional Tourism Development Master Plan of the Province of the Special Region of Yogyakarta Year 2012–2025, which regulates the development of agro-tourism areas in the Daerah Istimewa Yogyakarta (DIY; Special Region of Yogyakarta) area so that they can be integrated into a regional agro-tourism area of DIY. This arrangement will make the development of agro-tourism areas more organized in terms of management, implementation, and evaluation.

The DIY Regional Tourism Development Master Plan 2012-2025 must be adapted to regional development and based on the current issues in the tourism sector. The goal is to develop DIY as a leading cultural tourism destination, world-class, competitive, and sustainable, and ensure the welfare of society. The regional government has identified tourism strategic areas for development, which include:

- i. has main tourism function or potential development;
- ii. has potential tourism resources to become a leading tourist attraction and have a widely known image;
- iii. has market potential, both on a national and especially international scale;
- iv. has a potential position and role as an investment mover;
- v. has a strategic location and plays an important role in territorial unity and integrity;
- vi. has a strategic function and role in maintaining the function and carrying capacity of the environment;
- vii. has strategic function and roles in business preservation and utilization of cultural assets;
- viii. has community readiness and support;
- ix. has the specificity of the region;
- x. located in the destination area of the main tourist market and potential regional and national tourist markets; and
- xi. has potential for future tourism product trends based on product authentication.

Regarding agro-tourism development, the Regional Regulation has identified a strategy for developing various tourism destinations and surrounding areas, such as Mount Nglanggeran, Mt. Merapi, Glagah Beach, and Kalibawang. Some of the programs identified include fruit picking, development of viewpoints in the agro-tourism area, development of agro-tourism village, and development of educational tourism in tea gardens, among others. Further, program indicators and responsible agencies were identified to implement the proposed strategies (DIY, 2012).

In the case of Bali, the Bali Provincial Regulation No. 2 of 2012 concerning Balinese Cultural Tourism (Province of Bali, 2012), specifies that the synergy of the development of the tourism and agricultural sectors as a Balinese culture will be able to provide welfare to the community as well as cultural and environmental preservation. The Provincial Government of Bali has committed to developing cultural tourism as a regional icon. This is contained in the Regional Regulation of the Province of Bali No. 3 of 1974, as amended to become Regional Regulation 3 of 1991 concerning Cultural Tourism and amended to become Regional Regulation of the Province of Bali Number 2 of 2012 concerning Bali Cultural Tourism.

In terms of agriculture, the Bali Provincial Regulation No. 2 of 2012 has emphasized that local agricultural products must have the opportunity to be showcased in hotels, restaurants, and other tourist attractions to contribute to the community's economic potential (Article 11). Tourism entrepreneurs are obliged to prioritize the use of local community products, especially agricultural commodity products. The Provincial Regulation also stipulates the funding for the development of Bali Cultural Tourism, which is a joint responsibility of the Provincial Government, entrepreneurs, and the community (Article 30). While the Provincial Government can provide funding support for tourism development managed by villages or traditional institutions (Article 31).

Policy Implementation

The transformation/process of developing agricultural / agribusiness areas into agro-tourism areas can be classified into 3 (three) strata: Preparation of Agro-tourism Areas, Pre-Regions, and Agro-tourism Areas. During the preparation of agro-tourism areas, the government will identify the potential that can be developed and which will be the potential for sources of conflict in the future. The prospect of a good area is seen from the natural carrying capacity mapped by the local government so that the potential of the site can be obtained optimally. In addition, the potential for social conflict must be watched with the arrival of new cultures imported by migrants.

The ideal process for developing agro-tourism based on the General Guidelines for Agro-Tourism published by the Ministry of Agriculture starts with the local government's planning, assisted by tourism entrepreneurs and the surrounding community, to accommodate the aspirations of tourism development (Figure 1). After that, in its implementation, the regional government asked the central government through the relevant ministries to check the feasibility of developing agro-tourism areas regarding social, economic, and environmental aspects. Lastly, the implementation is carried out jointly between local governments, farming communities, and agro-tourism entrepreneurs.

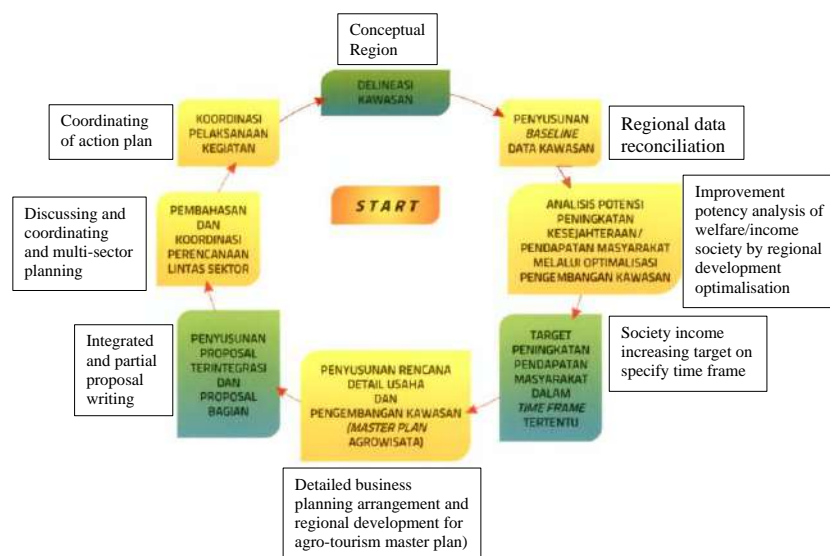


Figure 1. The ideal process of agro-tourism development (Ministry of Agriculture, 2012)

Regarding support to family farmers at the national level, according to Ms. Arumta and Mr. Musanif, the horticulture sector provides support for seeds, inputs, infrastructure, postharvest facilities, and the marketing of produce. The support being provided is mainly focused on food security, production, and innovation. However, engaging in agro-tourism depends on the area's potential. It is voluntary on the part of the community or individual family farmer - the decision to establish an agro-tourism area does not come from the government. It is an additional activity of family farmers to optimize the benefits of their farm, which becomes their business enterprise. Thus, in general, agro-tourism activities develop from agricultural cultivation activities that have been started by the community, which they develop into tourist attractions. For example, the agricultural system with Subak irrigation in Bali has been passed down for generations in the community. The dragon fruit garden Sabila farm developed from the hobby of Yogyakarta garden owners under Mount Merapi's foot and several government experimental gardens such as mango plantations in Cukur gondang, East Java. Every element of both the government and the community can create this sustainable agro-tourism activity.

Implementation of Agro-tourism in the case of Yogyakarta

The role of local governments is critical in implementing top-down policies. Local governments can determine which regional policies or areas will be used for agro-tourism so that the area, both infrastructure and non-infrastructure, supports agro-tourism activities. For example, in Yogyakarta, the local government has a regulation on their local regulation to develop and manage the agro-tourism area in the future (Peraturan Daerah Daerah Istimewa Yogyakarta Nomor 1 Tahun 2019 Tentang Perubahan Atas Peraturan Daerah Provinsi Daerah Istimewa Yogyakarta Nomor 1 Tahun 2012 Tentang Rencana Induk Pembangunan Kepariwisata Daerah Provinsi Daerah Istimewa Yogyakarta Tahun 2012–2025) "Regulation of the Special Region of Yogyakarta Number 1 of 2019 concerning Amendments to the Regional Regulation of the Province of the Special Region of Yogyakarta Number 1 of 2012 concerning the Master Plan for Regional Tourism Development of the Province of the Special Region of Yogyakarta in 2012–2025)." Following the KII with Mr. Arif Sulfiyanto of the Yogyakarta Provincial Tourism Office. The purpose of creating the above provincial regulation is to serve as a background or umbrella document for creating specific programs and preparing the budget. The policy development followed a participatory process with consultation and discussion among the Tourism agency, University, practitioners or beneficiaries, Forestry agency, Agriculture agency, Disaster agency, and Private sector (e.g., Travel and Tours agency). To operationalize the agro-tourism policy, the village develops its village master plan with the support of the provincial government. The provincial government facilitates discussion with the villages and supports identifying potential agro-tourism areas of activity. However, it was emphasized that the decision-making remains with the villages. To implement the Village Master Plan, the provincial government provides funding support. According to Mr. Sulfiyanto, an allocation of 1 billion Rupiah (around USD 66,000.00) is provided to the village. However, the villages should first propose how to use the funds before it is disbursed to the village. The villages are empowered to implement the proposed project. The village can receive more funding support depending on the project's success.

Sabila Farm is a farm located in Jl Kaliurang KM 18,5, Pakem, Sleman, D.I. Yogyakarta. The primary commodities are dragon fruit and other tropical fruits. The visitors can enjoy touring the farm while learning. The relaxed atmosphere, the beautiful panorama of Mount Merapi, and the charm of exotic fruits will give a pleasant experience. Sabila Farm also provides agricultural training on organic farming, food security, agro-tourism management, agriculture product marketing, and the cultivation of tropical fruits. The visitors come from outside this region, including students from schools and universities, the community, and foreign visitors. In addition, the owners can spread out their activities through social media since this is a powerful tool for promotion.

Based on the report by Izzati (Izzati, 2017), Sabila Farm is one of the agro-tourism areas that produce fruits on Jalan Kaliurang KM 18.5 Dusun Kertodadi Pakem Sleman Yogyakarta. Sabila Farm is a horticultural company, especially fruits, founded in 2005. The name "Sabila" is taken from the name of the youngest child of the owner of this company. In addition, the word "Sabila" means Ways of Learning God's Knowledge. Sabila Farm has a vision and mission to achieve. Sabila Farm's vision is to increase the quantity and quality of dragon fruit and other fruit commodities and increase public knowledge about agriculture, while Sabila Farm's mission is to expand the land for planting dragon fruit and other fruits, apple cultivation

and postharvest technology for dragon fruit and other fruits and organize training and research for the community and students. At first, the Sabila Farm garden only functioned as a production garden. However, along with the development of visitors' desires, the function of the Sabila Farm garden grew into a recreational garden. Therefore, the company improved the garden arrangement and added tourist facilities such as a Joglo hall (traditional vernacular house of the Javanese people), a gazebo, and lodging. In recent years, Sabila Farm has also become a place of education. Many students and students do street vendors, internships, and research at Sabila Farm Gardens. They come from various universities throughout Indonesia, and some of them even come from abroad.

In the case of Pagerharjo Village, Kulonprogo, following the KII, the process of implementing Agro-Tourism activities in the area related to the family farming program is supported by the: Village Government; Village Head; Female Farmer Group (PWT) "Madu Lestari," Sarigono; Suburdabud Organic Farm Edu-tourism; Badan Usaha Milik Desa (BUMdes)/Village-Owned Enterprises; Karang Taruna (Youth Group); Coffee Agro-edu tourism/Estra Barata (millennials Group); and Kelompok Sadar Wisata (POKDARWIS)/ Local Community Tourism Awareness Group. The main feature of the agro-tourism area consists of Tea plantation, Edu-tourism organic agriculture/farming, coffee plantation, and agro-products (e.g., banana chips, talas chips, palm sugar).

The role of the national government in the village's agro-tourism area is through support from the "Dana Desa, a village funds program managed by the village (20% funds for food security programs), and the agriculture ministry also provides the village with assistance through extension and training program. The national government also provides support through the village office. On the other hand, the provincial government supports the village through special funds for the village and communities; extension, coaching, and training of the Agriculture District Office; support in securing legal permits to sell products, as well as developing value-added products from the village through the Small, Medium Enterprise and Cooperatives District Office; training program through the Female Empowerment and Child Protection District Office; culinary training, management, and online marketing through the Tourism Office, research support and other programs from the academe.

The benefits of agro-tourism, as highlighted during the KII, are the value adding of commodities, motivation to practice organic farming, development of the agriculture mindset/values among the young generation (hard work, responsibility, and discipline), additional technical skills, upscaling farmers, increasing family income, opening new job opportunities, as well as conserving the village's natural resources and the village itself. On the other hand. It was underscored that the current challenges in implementing agro-tourism business in the village are the aging practitioners and few younger generation practitioners, limited land and land ownership (some farmers do not own the land), marketing challenges (e.g., limited local market, lack of promotion), poor technology adaptation in particular aging farmers, challenges in getting certification as a tourism area, extreme and unpredictable weather (climate change), as well as more funding to create interesting tourist destinations.

In Yogyakarta, policies were developed at the Provincial level, which supports agro-tourism development. Some of these policies include:

- Regulation of the Governor of the Special Region of Yogyakarta No. 93 of 2020 about Cultural Independent Village, which considers the village a legal community unit with jurisdiction for organizing and managing government affairs, the interest of local community rights, origin rights, or traditional rights. The regulation is an implementation guideline for Cultural Independent Villages in Yogyakarta, formed from Cultural Village, where there are tourism activities, empowerment of small businesses, and women empowerment.
- Technical Instruction for Providing Special Financial Assistance to the Sub-district Government in the Framework of Developing a Cultural Independent Village for the 2022 Budget Year, which serves as a basis for Village Governments and related parties to submit proposals for program activities through a special fund scheme.

In the case of agro-tourism activities in Yogyakarta, Education is one of its major components. The community refers to their area as Agro-edu tourism.

Implementation of Agro-tourism in the case of Bali

Since the 9th century, Subak has been the water management (irrigation) system for the paddy fields on Bali Island, Indonesia. In Bali, this irrigation system is not simply providing water for plant growth. Still, water is used to construct a complex, pulsed artificial ecosystem and has also become interesting in agro-tourism development (Lansing, 1987). The Bali Province Legal Regulation No. 02/PD/DPRD/1972 provides legal status to Subak. It is defined as “Customary law societies with socio-agrarian-religious nature which were established since long time ago and developed continuously as landholding organizations in the sphere of water distribution and other for rice field in one irrigation area” (UPTD Museum Subak, n.a)

Subak is one of the World Cultural Heritage designated by UNESCO on June 29, 2012, with the label Cultural Landscape of Bali Province: the Subak System as a Manifestation of the Tri Hita Karana Philosophy (three causes for achieving happiness). The three principles include Parhyangan (a harmonious relationship between humans and God), Pawongan (a harmonious relationship among humans themselves), and Palemahan (a harmonious relationship between human and their environment) (UPTD Museum Subak, n.a). Subak is a social institution in Bali that traditionally consists of irrigation associations and rice field water distribution. The primary function of Subak, besides managing the distribution and maintenance of irrigation water, is to mobilize resources. Therefore, Subak is declared a customary law community with a socio-agrarian-religious function. There are 1,611 Subak in Bali following the inventory performed in 1993 (UPTD Museum Subak, n.a).

Agro-tourism areas built by local wisdom, such as in Bali with the Subak irrigation system, certainly provide a unique attraction for the surrounding community in the scope of family farming. In this case, with a family farming-based community built from local wisdom, management by the local government is easier to do. For example, the local government provides easy access roads for transportation in and out of agricultural equipment, transportation of crops, and also access for tourists to visit their places (Figure 2). In gender management, the number of farmers in Bali in 2018 showed male and female farmers on average at a ratio of 4:1 (BPS, 2019) (Tabel X). This shows the role of women in supporting family farming activities.

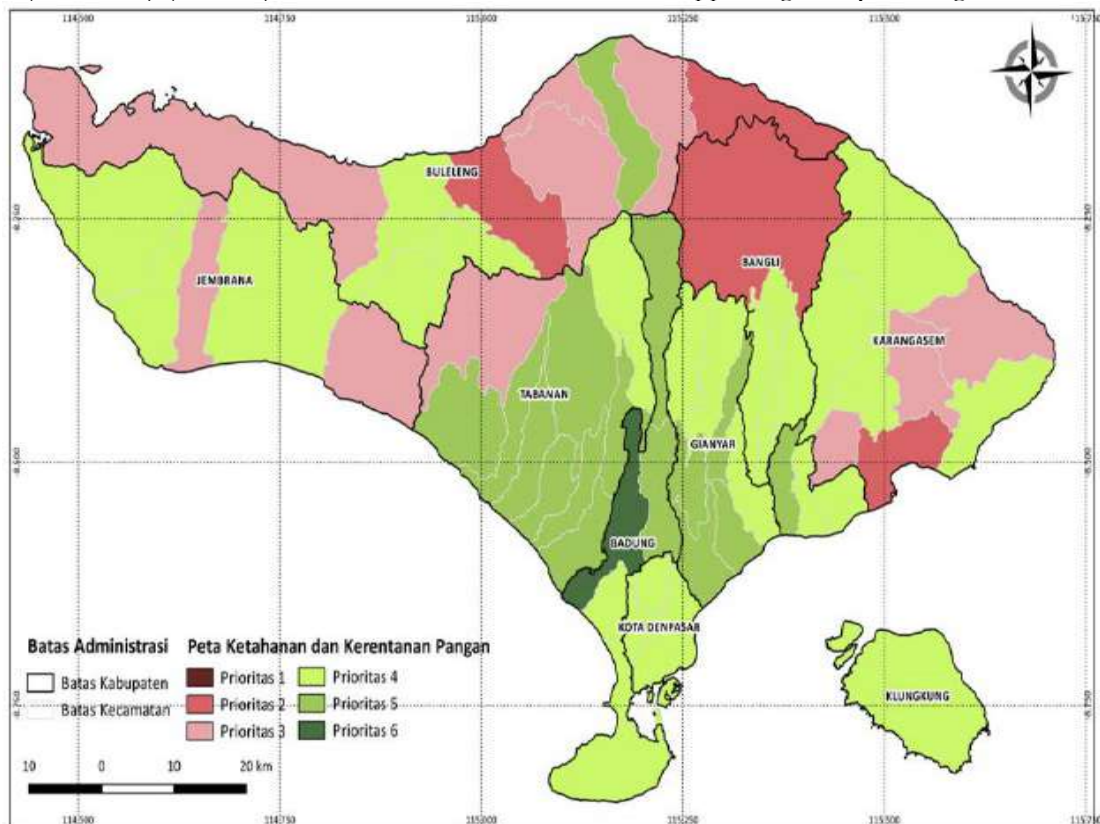


Figure 2. 2018 national and provincial food security and vulnerability atlas map

Table 1. Number of Bali Provincial Farmers By Regency/City Results of the 2018 Inter-Census Agricultural Survey (SUTAS)

Kabupaten/Kota	Laki-Laki	Perempuan	Jumlah
<i>Regency/Municipality</i>	<i>Male</i>	<i>Female</i>	<i>Total</i>
Jembrana	37 573	12 734	50 307
Tabanan	57 434	12 762	70 196
Badung	28 572	8 015	36 587
Gianyar	39 210	9 494	48 704
Klungkung	18 618	3 841	22 459
Bangli	40 228	9 923	50 151
Karangasem	63 148	26 243	89 391
Buleleng	74 630	28 709	103 339
Denpasar	4 909	1 396	6 305
BALI	364 322	113 117	477 439

Subak's tourism potential can be seen from three aspects, including (1) the physical (natural) aspect, subak produces stunning views with terracing as a subak ecosystem; (2) biotic aspects, the subak ecosystem produces various types of plants, especially local rice and superior varieties of rice, vegetables and the development of various types of organic farming, including organic rice; and (3) socio-cultural aspects, subak has produced various forms of community social and cultural activities such as agricultural culture, various types of ceremonies related to subak. These three aspects will provide various opportunities for developing tourism commodities, such as trekking in the Subak ecosystem, plowing attractions, rice planting attractions, cultural tourism related to ceremonies in Subak, and so on (Herawati, 2015).

The Subak area is an attraction for tourist areas and other areas that can be developed into agro-tourism areas. The central government coordinating with regional governments with policies in implementing the development of agro-tourism areas is very supportive. The central government, through the Ministry of Public Works, for example, will provide infrastructure facilities in the form of roads and modes of transportation such as bus terminals or other supporting means of transportation. At the same time, the regional government plays a role in structuring institutional management in the tourist area. Structuring agro-tourism areas that involve the surrounding community will provide positive feedback and align programs planned by the central government and regional governments.

Developing community-based tourism areas such as Subak and the other regions is by structuring the site through existing regulations made by the local government. Inventory of material and immaterial supporting facilities in the area that can be used to harmonize the programs planned by the central government in developing this agro-tourism area. In more detail, the local government invites the role of the local community to jointly improve the site so that it becomes a strong tourist attraction, both domestic and foreign. After that, the promotion of agro-tourism regions so that many enthusiasts visit with supporting facilities and infrastructure.

In the case of Family Farming in Jatiluwih, an organic rice-producing community that is also one of the Subak areas in Bali, the community has benefited from agro-tourism activities. Jatiluwih has 303 hectares of Subak areas with 500 household farmers who primarily produce rice. Most household farmers have 1-2 hectares of land, considered Family Farmers. From the discussions with the Village Management Office, it was highlighted that agriculture or family farming is the main sector in their community. At the same time, tourism adds value and benefit through economic growth brought about by income generated from entrance fees, which are then shared by the community, employment in the agro-tourism sector, subsidies,

and additional income to family farmers through off-farm enterprises (e.g., selling of products, vehicle driving, tour guides, and others side jobs related to agro-tourism).

The youth also play an essential role in the generational sustainability of Subak and family farming. Although it was highlighted that most farmers are already aging, youth are encouraged to participate and contribute to farming activities in the community. Likewise, the community has a team of young individuals who lead the promotional activities of the agro-tourism area through various digital platforms such as Facebook, Instagram, and TikTok. At the Regency level, as mentioned by the Tourism Officer, it is recognized that the young generation tends to move to other sectors, and few are engaging in farming. Thus, the Tourism office has campaigns to promote the agro-tourism sector among the youth and highlights the need for the next generation to sustain agro-tourism activities such as Subak.

On the other hand, to sustain farming activities in the Subak area, the Agriculture office provides inputs to farmers such as seedlings, organic fertilizers, and other inputs. The government also promotes regenerative and organic farming to protect and conserve the environment. The government also supports production training and capacity-building activities, including training on managing an agro-tourism enterprise.

In Bali, new policies were developed at the Provincial level, which supports agro-tourism development. Some of these policies include:

- Bali Governor Regulation No. 97 of 2018 concerning Restrictions on the Generation of Single-Use Plastic Waste. The objective of the regulation is to reduce plastic waste and protect the environment, including agro-tourism areas.
- Government Regulation No. 99 of 2018 concerning Marketing and Utilization of Balinese Agricultural, Fishery, and Local Industry Products. Policies that require hotels and restaurants to use agricultural products and local people's handicrafts. The regulated products are food crop products, horticulture, plantations, livestock at least 60% of the total volume of products marketed, and fishery products and local Balinese industries at least 30%.
- Regional Regulation No. 4 of 2012 was issued concerning Rural and Urban Land and Building Taxes to ease the burden of farmers and prevent land conversion.
- In addition, there are various programs implemented which include:
 - Development of Subak institutions,
 - Provision of Special Financial Assistance to Subak and Traditional Villages,
 - Development of Women Farmers Group, among others.

In the case of agro-tourism in Bali, activities focus on rice commodities and give importance to the harmonious relationship between humans, God, and the environment.

Monitoring and Evaluation

The development of agro-tourism generally includes human resources through family farming, starting from the manager to the community, which plays a vital role in the successful development of agro-tourism. Then, natural and environmental resources include tourism object resources sold and the surrounding environment, including the community. Promotional activities are also vital in agro-tourism activities. The presence of tourists is supported by good service, ease of accommodation, and transportation to the awareness of the surrounding community. The development of agro-tourism requires the support of all government parties, the private sector, especially agro-tourism entrepreneurs, tourism institutions, universities, and the community. The government is a facilitator in supporting agro-tourism development in licensing facilities and others. In terms of Monitoring and Evaluation activities, Ms. Arumta highlighted that the Monitoring and Evaluation is done at the district or local government level, which prepares and submits reports to the provincial level and subsequently to the national level. The local government will conduct the main facilitation and operations with participation from the community, including the farmers. Every year, the local government will monitor, evaluate, and plan a budget to maintain a program that supports agro-tourism development.

The local government certainly supervises the area for one year through various community and government discussions. At the community level, local governments hold monthly discussions, which are managed by local communities, and assign special officers to monitor ongoing activities. Evaluations are carried out in addition to being reported in periodic reports and implemented directly on cases that can be resolved in the field. At the government level, evaluation is carried out towards the end of the year in a regional planning and development meeting (musrenbang), which will evaluate and plan activities based on the one-year activity report.

Monitoring and Evaluation in the case of Yogyakarta and Bali

In the Province of Yogyakarta, as part of the monitoring and evaluation of the village master plan, the village prepares its report following the guidelines provided by the provincial government. To validate the report and monitor the implementation of the funded projects, the provincial tourism office conducts monthly monitoring visits and spot evaluations in the villages. According to the KII with Mr. Arif Sulfiyanto, the village leaders will be informed of the results if there are findings and gaps in the implementation following the monitoring and evaluation activities. Then, the village and the provincial office will agree on strategies for improvement and sign an agreement. The process is consultative and participatory. Likewise, the utilization of funds provided by the provincial office is made known to the public. The success of the implementation serves as a basis for the provincial government to provide more funding to the village for the implementation of their proposed project. Consequently, if the village does not meet its target (e.g., target profit in the third year of implementation), there may be a reduced budget.

Similar to Yogyakarta, the monitoring and evaluation of the implementation of the Subak area agro-tourism activities are done with the participation of the community. In the case of Bali, the organization in the Subak area is well organized, and the management of the agro-tourism activities is the community's responsibility. The tourism office conducts monitoring and evaluation with the community through field visits for validation purposes. The monitoring and evaluation results are presented in a report, which is then shared with the community officials and other stakeholders, such as other government officials from other units. According to the Tourism Office, monitoring and evaluation are conducted twice a year at the regency level. The regency will conduct more monitoring when there are events or special occasions. They follow a checklist and reporting format that includes information on the number of visitors and income, among others. Likewise, since the Subak area is part of the UNESCO heritage sites, a separate team is conducting monitoring specifically for this purpose.

The interview with the Tourism Officer highlighted that most of the issues and challenges are on the tourism side. These include, but are not limited to, problems with illegal structures, lack of parking lots, and internal conflicts due to lodging businesses with the best view getting more guests.

In terms of the benefits that the community reaps from the agro-tourism activities, the main benefits that were highlighted in the KII with the Tourism Officer include economic growth in the community brought about by new businesses, employment, subsidy and support from the government (e.g., seedlings, inputs, training), and additional income to family farmers. In the Subak area, when entering the village, there is an entrance fee for tourists. The community shares the income from the entrance fee. The KII mentioned that previously when there is a religious ceremony, the community chips in and shares the cost. However, with the income from agro-tourism, the community gets a portion of the income for the ceremony. Likewise, the community provides sponsorship support to Bali travel agents in their events, which serves as a venue to promote the community agro-tourism area. Agro-tourism is also considered a success in the agricultural production of organic red rice since the community sells its produce to tourists visiting the Subak area and outside the community. Likewise, some of the family farmers have turned organic red rice into processed products such as red rice tea, which they sell through online markets (Shopee and Lazada). However, it was highlighted that the community's local product supporting agro-tourism is still minimal since the focus is still agriculture. Further support to the community is needed to develop other small-medium enterprise products.

Several researchers have previously studied the study related to tourism development with integrated agriculture. They are Budiasa et al. (2014), Pramesti et al. (2020), and Wisnumurti et al. (2020). The study by Budiasa et al. (2014) examined community-based Agro-Tourism as an Innovative Integrated Farming System Development Model for Sustainable Agriculture and Tourism in Bali. Their study showed that to continually support sustainable agro-tourism, the government should intensively and consistently facilitate the local community through capacity-building programs related to agro-tourism development. Some corporate social responsibility (CSRs) activities might become additional financial sources to accelerate and improve the community-based agro-tourism development sustainably. Meanwhile, a study conducted by Pramesti et al. (2020) that focused on The Role of Agrotourism in Sustainable Tourism Development in Bali Province revealed that agrotourism will slowly push Bali Province into an agro-tourism destination that has the concept of a green economy, namely the economy of Bali Province that can improve the welfare of the community while maintaining environmental sustainability for the sake of generational continuity in the future. In addition, a study conducted by Wisnumurti et al. (2020) that examined Tourism Policy and the Impact of Tourism on Bali Island showed that destination quality negatively moderated the relationship between cultural activity policies and tourism development. In contrast, destination quality did not moderate the relationship between infrastructure development policies and tourism development. The research results also show that the relationship between policies for nature and recreational activities and tourism development is positively moderated by destination quality. Thus, based on the previous studies above, it can be stated that tourism development with integrated agriculture needs to be discussed in depth, especially from the perspective of law, since the legal arrangements related to tourism development with integrated agriculture in Bali have not been made yet. Therefore, this study aims to examine the legal arrangements related to tourism development with integrated agriculture in Bali and to examine the efforts that the government can take to integrate tourism development with agriculture in Bali (Ariyudha, Nahak, & Senastri, 2021).

III. CONCLUSION AND RECOMMENDATIONS

The development of agrotourism in Indonesia involves the community, especially the youth. They need special attention regarding their education level and developing relevant skills in public communication. The pertinent policies of the public to be implemented must also be able to target the development of human resources through regular training. Training is carried out to develop resources that can manage natural resources wisely and properly. For example, Subak irrigation is one of the agrotourism types created by natural resources management in agriculture. From this case, agrotourism is made by nature coupled with good management to use land resources such as the Sabila farm. The local government can easily control and manage what they need with the farmers, such as infrastructure development or promotion outside. In addition, through the Ministry of Agriculture, the central government can build programs with the farmers to create, manage, and control agrotourism.

The policies developed by the central government through legislation and implementation through the local governments should consider the availability of nature that supports agrotourism. In addition, gender equality should also be considered when managing agrotourism in the region. Many farmers are men, so women do not participate in gardening activities. Therefore, with the training of women, they can take advantage of activities at home to support the development of agrotourism areas, such as providing good typical souvenirs from food to souvenirs that have become representative of the agrotourism area.

However, based on the Indonesian Statistics database (2013), only 23% of female farmers were distributed (Figure 3). Only 1% of farmers involved are youth (below 25 years old). This condition needs the government's attention in increasing the role of the younger generation and women's participation in agriculture. The role of women in agriculture indirectly has an important role in supporting family farming. The younger generation also needs to get more involved in every activity to increase the capacity of resources to support agrotourism.

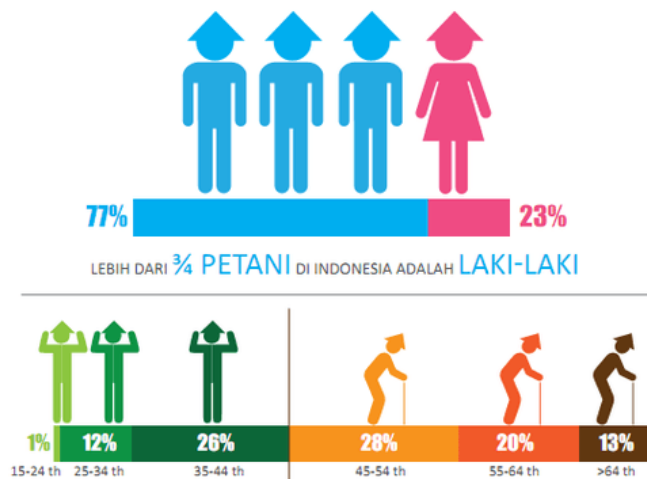


Figure 3. Infographic for farmers' distribution of female males and youth in 2013 (BPS, 2013)

Natural resource management, especially in agro-tourism development, is a natural form because the landscape in nature is a management problem not to be exploited. In addition, agro-tourism development can still be maintained by coordinating central government, local government, and society. For this reason, the Ministry of Environment and the Police have an essential role in managing natural damage caused by agro-tourism activities. In addition, social conflicts that often occur due to land disputes and actions need to be appropriately resolved with the mediation of the police.

Developing community-based tourism areas such as Subak in Bali, Agro-edu tourism in Yogyakarta, and other regions is done by structuring the site through existing regulations made by the local government. There is a need to have an inventory of the materials and facilities in the area that can be used to harmonize the programs planned by the central government in developing this agro-tourism area. Furthermore, the local government invites the local community to jointly improve the site so that it becomes a strong tourist attraction, both domestically and overseas. Subsequently, these sites must be promoted so that many enthusiasts will visit, given the facilities and infrastructure.

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