



# Optimization of Land Utilization Through Integrated Organic Agriculture Program for Disabilities with Productive Age as the Embodiment of National Food Security

Muhamad Alief Hidayat<sup>(✉)</sup> and Yohanes Suwanto

Faculty of Law, Universitas Sebelas Maret, Surakarta, Indonesia  
aliefhidayat85@gmail.com

**Abstract.** The increasing number of people with disabilities who are productive is certainly an important thing to pay attention to. This is due to the distinction between people with disabilities in obtaining jobs, especially in rural areas. So there needs to be a breakthrough to encourage people with disabilities to work well. One of them is through the establishment of integrated organic farming on village treasury lands as a means and employment opportunities for people with disabilities. Apart from being a driving force for productive disabled people, this program also aims to encourage fertility and optimize the use of agricultural land in villages to encourage the creation of national food security. Furthermore, this program and will realize prosperity, food self-sufficiency, and increase the economy in a region. This research uses descriptive qualitative analysis to formulate the ideal concept for the application of the agricultural program.

**Keywords:** Integrated Organic Agriculture · Disabilities · National Food Security

## 1 Introduction

The spread of the Covid-19 pandemic which has lasted for one year has succeeded in creating various changes in all sectors of life. Each individual must adapt quickly to maintain his life, both protecting himself from the plague and maintaining his welfare, and meeting his needs. The implementation of Large-Scale Social Restrictions and large-scale Termination of Work Rights have contributed to aggravating people's lives to maintain their welfare. This condition also causes the marginalization of society which is getting worse, there is no requirement for persons with disabilities. Law Number 8 of 2016 concerning Disabilities, defined persons with disabilities as having physical, intellectual, mental, and/or sensory limitations for a long period interacting with the environment that can experience obstacles and difficulties to participate fully and effectively with residents other countries based on equal rights. This article mandates that persons with disabilities have equal rights, both human rights and citizen rights.

The enactment of the new normal after the large-scale social restriction policy provides new with the re-opening of jobs. However, this does not necessarily reduce the high unemployment rate due to highly competitive labor competition, where the proportion of jobs and job applicants is not balanced. This will cause people with disabilities to be increasingly marginalized from the job market. Meanwhile, the number of people with disabilities in Indonesia shows high number. Data from the 2018 National Socio-Economic Survey shows the number of people with disabilities in Indonesia as many as 37,138,518 people or around 14.06% of the total population of Indonesia [1]. This number has increased quite a lot whereas in 2017 it only amounted to 12.15% or as many as 31,819,744 people. Most people with disabilities are in the productive age group (19–59 years) as many as 18,461,870 people.

This productive age group certainly has a great responsibility as an independent individuals and the backbone of the family. Where of course they must meet their needs and maintain their welfare. However, this limitation is often an obstacle for people with disabilities to be able to compete in the labor market and this is exacerbated by the fact that there are still many companies and jobs that are reluctant to accept people with disabilities without considering their abilities and skills possessed by people with disabilities. It is based on efficiency and demands to fulfill the post-Covid-19 economic recovery target that many companies do not recruit persons with disabilities.

The low productivity rate for people with disabilities indicates the low role of the government in fulfilling the rights of people with disabilities and enforcing regulations on the composition of the workforce for people with disabilities. Empowerment for people with disabilities to increase their income in this new normal era can start from the lowest government element, namely the village scope, which can be seen by the various village potentials that can be utilized to increase productivity and income in as an effort to restore the economy of the surrounding community and prevent an economic recession. Based on the background above, the discussion that will be described is:

- 1) What is the urgency of empowering persons with disabilities of productive age in the use of ground village treasury?
- 2) How is the implementation of the integrated organic farming program in increasing the income and productivity of persons with disabilities of productive age in the new normal era?

## **2 Discuss**

### **2.1 The Urgency of Empowering Persons with Disabilities of Productive Age in the Use of Ground Treasury**

The negative stigma regarding people with disabilities is still present and experiencing development in social life. This can be seen from the fact that there are still many companies or job providers who are reluctant to hire people with disabilities who are considered unable to work well because of their limitations. One example of a case that occurred at PT. Mondelez Indonesia, Klari, Karawang Regency, where employers terminated employment for workers who experienced permanent disabilities (disability) due to work accidents [2]. Cases like this show that there are still many arbitrary actions

against workers, which violate the principle of protection of persons with disabilities in the Convention on the Rights of Persons with Disabilities (CRPD) which has been ratified. Things like this cause the number of people with disabilities to increase every year and reduce productivity. The various cases of discrimination are because the majority of employers are only oriented to the paradigm of the productive economy, where the recruitment of disabled workers is considered uneconomical in terms of accessibility.

Meanwhile, the data shows that people with disabilities who are in the productive age category are classified as high which should be empowered to support their economy. The 2018 National Socio-Economic Survey data shows the number of people with disabilities of productive age (19–59 years) as many as 18,461,870 people (people with moderate disabilities are 15,834,339 people and severe disabilities are 2,627,531 people) [3]. In the child and productive age groups, more than half of persons with disabilities are male [4]. It should be noted that men are the party who is obliged to fulfill their needs which will also have an impact on the welfare of their families. This can be seen from the poverty rate of people with disabilities which is higher than that of non-disabled people. When Indonesia's poverty rate has reached single digits in 2018, the proportion of people with disabilities living below the poverty line is still around 14.97% [3].

The productivity of people with disabilities will certainly be directly correlated with the welfare and feasibility of family life which also contributes to a fairly high poverty rate. This is also supported by the 2018 Ministry of Health Basic Health Research data which states that 22.1% of disabled people of productive age live in rural areas, while 21.9% live in urban areas. Riskesdas data also states that 26.7% of disabled people of productive age do not have a job. The percentage of unemployed persons with disabilities is the largest number compared to the percentage of people with disabilities who have jobs, such as 19.8% self-employed, 23.9% fishermen, 21.6% farmers/farmers, 21.0% laborers/drivers/helpers, 16.5% TNI/POLRI/PNS/BUMD and 22.5% have other livelihoods.

The dominance of people with disabilities who live in rural areas will certainly further limit the job market that can be selected. Where it is known that rural areas certainly do not have many sources of employment that can absorb a lot of productive workers. This is because rural areas are the majority of the projected area for agricultural, plantation, livestock, and other processing activities. This is further exacerbated by the situation where all land areas in rural areas are certainly owned by individuals so that people who do not own land will only become farm laborers. The next problem is that there is still a stigma that people with disabilities are not able to work optimally and are still rooted in rural communities. This certainly narrows the space for people with disabilities to generate income and productivity. Limited capital and skills possessed by people with disabilities are also a problem that is often faced and becomes an obstacle for people with disabilities to become entrepreneurs. In this case, the government also seems to turn a blind eye to the disabled where with Covid-19, the government issued various social assistance such as assistance for traders/MSMEs, assistance for the elderly, and other direct cash assistance, but the government did not pay attention and did not provide special assistance for the disabled. Which are a vulnerable group and are affected by the economic downturn due to Covid-19.

Government intervention certainly has an important role in reducing the burden carried by the disabled and increasing their income which can be done through the smallest scope of government, namely the village government. Where the empowerment of people with disabilities in rural areas is very important considering the percentage of people with disabilities in rural areas is still high and there are limited job opportunities for people with disabilities. Empowerment refers to the ability of people, especially vulnerable and weak groups so that individuals have the strength or ability to fulfill their basic needs so that individuals have freedom, in the sense that they are not only free to express opinions but are free from hunger, free from ignorance, free from pain [5].

The village government also has its autonomy right in managing its territory, where the village authority is based on law number 6 of 2014 Article 33, one of which is the management of ground treasury. Ground treasury is a village asset that needs to be managed properly by dividing the Ground Treasury according to village needs [6].

It is proper that ground treasury is managed properly and used to boost the economy of the community, applying for people with disabilities which will also increase village income. Optimizing the management of the ground treasury is an urgency in itself to overcome the events that are still happening today. Where there are still some ground treasuries that are not used according to their designation. Inhibiting factors that cause ground treasury assets to be unmanaged both in administration, planning, and, utilization, among others: The absence of village officials who have a background that is by the field of management, both knowledge, expertise in finance and reporting, and the status of the land is still unclear so that the ground treasury assets that should be used as village income and used for the public interest are managed by the community privately [7].

Returning the function of land according to its designation to increase village income and community income must be prioritized. Especially in its management, it is necessary to involve people who do not have jobs to increase productivity. With the prohibition on ground treasury as part of village assets to be handed over to other parties as collateral or pawns, it has a positive effect, where if the state treasury land can be managed properly it can create jobs and a sustainable source of village income. So the management of ground treasury by involving productive workers (disabled and non-disabled) needs to be implemented immediately for post-Covid-19 economic recovery in the community, which will also have an impact on increasing sources of income and new potential possessed by a village government.

## **2.2 Implementation of an Integrated Organic Farming Program in Increasing the Income and Productivity of Persons with Disabilities of Productive Age to Realize National Food Security**

Empowerment of the disabled of productive age, the majority of whom live in rural areas, can be done through the use of ground treasury by involving youth organizations and the active role of the village government as a stakeholder in program implementation. Youth groups will be the main movers who will be tasked with assisting, guiding, and managing the program together with people with disabilities. Ground treasury can be used as agricultural land, plantations, and livestock, where it is known that rural areas are the basis of areas that are projected to be a source of food supply to make national food needs. So utilization on an agrarian basis will have a great effect on villages to boost

village income and fulfill community welfare, especially for people with disabilities. The application of an integrated organic farming system in agricultural management on ground treasury is one of the most effective management methods to implement. Integrated farming patterns are a combination of traditional farming patterns with modern science in the field of agriculture that continues to develop. This agriculture is the use of land with various kinds of businesses, both agriculture and animal husbandry [8].

One of the advantages/benefits obtained in the application of an integrated farming system (including agroforestry systems) is the increase in output that is more varied in the form of food, feed, fiber, wood, fuel, green manure, and or manure [9]. Economically, the integrated farming system has another advantage, namely reducing the risk of crop failure. Moreover, this system is designed to be integrated, so that it will make it easier for people with disabilities to manage integrated agriculture where management will be carried out on an ongoing basis. So that the division of tasks and roles of each person with a disability will certainly be adjusted to the abilities and types of limitations they carry. This will certainly ease the management of integrated agriculture with the cooperation between people with disabilities who play a role. As a projection of the division of labor, people with physical disabilities (limited impairments in bodily functions/disability) can be placed in the administration, sales, and packaging sectors of crops. This sector does not require high mobilization, where processed products will be marketed online and harvested produce in the form of fresh ingredients are distributed to traditional markets and partner shops that are around. The distribution of this harvest will also be assisted by village-owned enterprises. Online sales are an effective step in the era of the new normal, where during the spread of Covid-19 social media activities increased to 82.70% and internet browsing activities increased to 75.10% [10].

The task of packing these crops will also be assisted by people with mental disabilities (bipolar, anxiety disorders, and people with mental disorders). Meanwhile, people with sensory disabilities (speech-impaired, deaf) will be placed in the agricultural and livestock land management sector, where physically the disabled can carry out activities without significant obstacles. Where the agriculture and livestock management sector will also be assisted by people with mental retardation who will be tasked with feeding livestock and watering plants. The activities given to mentally retarded people will of course also have a good effect on cognitive development such as memory formation to carry out animal feed activities and watering plants every day as well as the ability to communicate with other disabled people. Blind people will be placed as part of public relations (public relations) in agricultural management which is also projected as an educational tour that will be tasked with establishing communication with parties who want to know about this program as well as being a tour guide who will explain the integrated organic farming program.

The division of the proportion of tasks can also be carried out flexibly by the development of the abilities of the disabled. In its application, non-disabled productive workers can also take part in it. So that all the productive forces of a village can be empowered and reduce unemployment. Integrated organic agriculture was chosen as the main program to be developed based on the effectiveness and efficiency of land to produce various crops, both from the agricultural, livestock, and fishery sectors. In the agricultural sector, various kinds of vegetables, fruit, and carbohydrate sources will be planted which are

adapted to local commodities and the weather to maximize plant growth. For example, the lowlands can be used as a producer of brown rice, beans, secondary crops, and so on. Meanwhile, the livestock sector can be maximized for cattle, goats, and poultry and the fishery sector can be maximized for raising freshwater fish (catfish, carp, tilapia, carp, and so on). The integrated system between the three sectors in the form of agricultural land will get organic fertilizer from livestock manure and fishery wastewater. Then livestock will get a source of feed from agricultural waste, such as cows and goats will get straw and vegetables that are not suitable for human consumption, while poultry will get bran and bran (rice milling) feed. Even livestock waste can be used as fish feed which will be composted first to become fish pellet feed.

It can be seen that the three sectors are interrelated where waste from one sector can be utilized to optimize processing in other sectors. The existence of an integrated system in one land will certainly increase crop productivity and save expenses that must be allocated for the management of the three sectors. This integrated management will also produce organic harvested products because its management does not use chemical fertilizers or other chemical substances. This is certainly an added value where the spread of Covid-19 encourages all people to live healthy lives as reflected in the trend of healthy living that is developing in the community. Where the increase in food needs to be increased by 41.40%, consumption of vegetables and fruit increased by 32.10%, and consumption of multivitamins increased by 51.60% [10]. The increasing trend of healthy living will certainly be an opportunity for the organic product market, especially for the fulfillment of organic fruits and vegetables as well as the fulfillment of balanced protein through the consumption of meat and fish which will encourage the majority of people to choose organic products whose processing does not involve the use of chemicals that can have negative effects. A bad side that certainly correlates to a decrease in body resistance amid the spread of Covid-19.

The pattern of healthy life development which will certainly continue to run in this new normal era is an opportunity that can be utilized optimally, especially for rural areas where the condition of the soil element is still maintained to become a supplier of organic food sources that are needed by the national community. The existence of integrated organic farming is a step toward sustainable agricultural development that will have a positive impact on the sustainability of the soil and the rural environment. Coupled with the application of internet technology to the management and marketing of agricultural, livestock, and fishery products, it will certainly create sustainable economic activities that can continue to run and are ready to face the development of globalization and meet the needs of health-oriented food ingredients through the use of natural/organic ingredients which will also directly correlated to the fulfillment of community nutrition, to support the Sustainable Development Goals program which contains programs to fulfill public welfare and health. This sustainable agriculture will certainly become a field of income and productivity for people with disabilities amid the dynamics of the development of the new normal and globalization where this program is projected to continue to be competitive and productive in the future.

### **3 Conclusion**

Based on the analysis that has been presented above, it can be concluded that:

1. Empowerment of people with disabilities of productive age is very important to do, where it is known that the unemployment rate of people with disabilities of productive age is relatively high which also has an impact on the number of people with disabilities living below the poverty line, especially the majority of people with disabilities live in rural areas. Employment discrimination is also an obstacle for people with disabilities to find work. So it is important for people with disabilities, especially those in rural areas, to be empowered through the use of ground treasury to suit its designation for the welfare of rural communities with the involvement of youth groups as the main movers and the village government as a supporter of the implementation of activities.
2. The integrated organic farming program is the right step to optimize the management of ground treasury by involving the role of the disabled to increase the productivity of the disabled to increase their income and village treasury income. In addition, the harvest in the form of organic materials can meet the increasing need for healthy food due to the increasing awareness of healthy living in the community amid the spread of the Covid-19 pandemic. This program is also a sustainable agricultural program as an effort to preserve the environment and with the involvement of internet technology, this program will continue to develop amid the very rapid progress of globalization.

There is a need for synergy and concern from the government and the community to jointly provide guidance and empowerment for persons with disabilities to remain productive to fulfill their welfare. Because the empowerment of people with disabilities will have a good impact on the economy of the community as a whole, and neglect of the welfare of people with disabilities will also have an impact on the decline in the economy and the burden of government responsibilities.

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