Improving Farmers Capability Through Local Potencies in Wukir Sawit Village, Jatiyoso Subdistrict, Karanganyar

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Abstract. The aim of this study is to know the empowerment process conducted by Himpunan Tani Ngudi Makmur (HTNM) in improving Jatiyoso farmers capability through local resources. The research method used in this study is qualitative descriptive. The research result shows that Jatiyoso farmers took the initiative to form Himpunan Tani Ngudi Makmur (HTNM) as organization trying to increase the independence of farmers and improving agricultural technology that is environmentally friendly and can improve the standard of living of farmers. One of the innovation that improved in Jatiyoso is cassava processing into Modified Cassava Flour (Mocaf) as wheat flour substitute. This Mocaf processing involving farmers and is expected to increase the economic value of cassava.

Keywords: Public Empowerment, Agricultural Technology, Mocaf Flour

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1. Introduction

Agriculture is one of priority sector in sustainable national development of an agrarian country. Agricultural sector become the key to open food security, economic growth, socio-cultural development, environmental sustainability, stability and security. Public dependency is high to the agriculture. Agriculture embedded to farmers life in countryside. Various agricultural activity occupied by farmers and become inseparable important part in agrarian countryside people's life.

Wukir Sawit Village, Jatiyoso Subdistrict is one of potential agricultural area which placed in Karanganyar District of Central Java. This village is surrounded by nature and highlands. In this village there is a farmers group which has activity to empower people to have prosperous live.

Himpunan Tani Ngudi Makmur (HTNM) established due to the concern of farmers condition when the farmer actually was increasingly eliminated in the development plan. Even, the farmers feel far from the government's attention. Started from problems felt by farmers group about information access lackness, especially problems in agriculture (plant cultivation), local agricultural product marketing, local and national policies such as the appearance of new variety increase dependence on farmers, the appearance of fake fertilizer, and other problems related to farmers income improvement. Those conditions raise the concerns of farmers to fight for it through a forum that has been organized in activities to increase farmers' capabilities. Himpunan Tani Ngudi Makmur (HTNM) become forum for Jatiyoso farmers to get access in agriculture sector and to become a civilized community so as not to be marginalized by the progress of the modernization era.

Even though it is a fertile area, Jatiyoso farmers also has problems in increasing their income from agriculture sector. Some problems faced are: 1) Jatiyoso farmers cultivating certain plants according to their harvest time. It caused the selling price of the plants in harvest time falls due to abundance of same commodity in the harvest time. This was because of farmers lack of knowledge in seeing market opportunities. 2) Lackness of goverment support in helping farmers to improve their harvest. For example,
with subsidies for fertilizers and plant seeds. 3) Farmers considered as a traditional uneducated group, because Jatiyoso farmers commonly get knowledge about agriculture based on knowledge passed down from generation to generation not from formal education. This makes farmers underestimated and not included in policy-making concerning the survival of farmers. 4) Lackness in information access, especially agriculture problems (plants cultivation), local agriculture products management, local and national policies such as the appearance of new variety increase dependence on farmers, the appearance of fake fertilizer, and other problems related to increasing the farmers income.

Food security program is hoped able to serve foods in terms of quantity and quality for community, especially local staple food material sources of carbohydrates or calories. Currently Indonesia is still far from expectations to get to food self-sufficiency, in the sense that the entire region can fulfill the diverse food needs, so that at certain times there is inequality between food demand that always increases with food supplies, which in turn imports of various foods from other countries. Therefore, it is necessary to socialize and promote a variety of local food utilization programs for the community in an effort to achieve food security and or actual food self-sufficiency (not just self-sufficiency in rice).

One of current farmers capability improvement program developed by Himpunan Tani Ngudi Makmur (HTNM) is making Modified Cassava Flour (Mocaf) program. The background of Mocaf flour making is Himpunan Tani Ngudi Makmur (HTNM) concerns on farmers group in Jatiyoso which majority has dry land. Then, farmers only cultivating seasonal corps so, farmers economy development still far from expected. This Mocaf production involving farmers and is expected to increase the economic value of cassava which underestimated by people.

The raw material of Mocaf is very easy to get in Jatiyoso. Commonly, people planting cassava in their backyard. Making it easier in provide ingredients if people want to sell Mocaf. Besides, Mocaf sell-price tend to be cheaper 40% to 60% than wheat flour. Mocaf also can used for various foods process such as noodle, cake, bread, fried food, etc. The producing process that does not require high technology makes it easier for farmers to make mocaf.

So that, it needs to have activities that can improve farmers capability in utilizing local potency. In conclusion, this study aimed to know the farmers capability improvement through local potency conducted by Himpunan Tani Ngudi Makmur in Wukir Sawit Village, Jatiyoso Subdistrict, Karanganyar District.

2. Method

Research type used in this study is descriptive qualitative study. This study meant to explain and describe about how farmers group process in improving farmers capability through local potency. This study located in Wukir Sawit Village, Jatiyoso Subdistrict, Karanganyar, Central Java. The primary data of this study is main data obtained from interview to informants: Head and member of Himpunan Tani Ngudi Makmur (HTNM).

The data collection technique was using observation, interview and documentation. Observation was started with observing the typography of Jatiyoso subdistrict through data of farmers activity, observing people jobs, and socio-cultural conditions of Jatiyoso people. In observation, the next stage was researcher observing the habit of research subject in mocaf flour making activity.

In this study, researcher conducted indepth interview with head and member of Himpunan Tani Ngudi Makmur (HTNM). This interview aimed to know the cultivate process conducted by Himpunan Tani Ngudi Makmur (HTNM) to improve farmers capability of Jatiyoso through local source.

After the data was obtained, analysis was conducted to process the data. Data analysis is process of organizing and sequincing data into pattern, category and basic description unit and then determine the theme and can formulate small hypothesis as sugested in the data [1]. This data analysis was conducted to make the obtained data arrangement process in the study can be explained. The data analysis used in this study was using Miles and Huberman data analysis model (interactive of analysis) which has stages of: data collection, data reduction, data interpretation, and conclusion, where the researcher describing the situation or the phenomena obtained and then can be analyzed in the form of worda to get the conclusion.

In the end, this research describing the findings or the activities happen, seen, and found in the field, both in direct observation and in interview result formed as words, then the researcher analyze it with theories related to this study.
3. Result and Discussion

3.1 Mocaf Product as Flour Based Food Alternative

Mocaf is a new product from science and technology development. Mocaf is abbreviation of words Modified Cassava Flour. Character of mocaf flour is different from tapioca and cassava flour. The production of mocaf processed with the principle of modifying cassava cells through fermentation of lactic acid bacteria. Mocaf flour color is whiter than cassava flour and is having netral smell.

The advantages of mocaf flour as food commodity such as: (1) cheaper than wheat flour (2) gluten free, which means can prevent human from various disease such as autism, memory loss, symptoms of acid reflux and heart disease. Mocaf flour can be used to make noodle, cake, bread, and fried food. For business people, the use of mocaf flour can push the production cost compared to the use of wheat flour.

Mocaf flour price in the market cheaper 40% to 60% than wheat flour because of mocaf raw material (cassava) is easy to find and easy to cultivate. Besides, the production process is no need a high technology. It makes people can easily to learn making mocaf without having to establish a large-scale food processing industry.

In Jatiyoso, cassava plants are easy to grow. Almost in every house have cassava plant. This is a distinct advantage for Jatiyoso people. Therefore, the production of cassava becoming mocaf flour give means for Himpunan Tani Ngudi Makmur (HTNM) to conduct farmers capability improvement activity in Jatiyoso. Besides it can increase the farmers prosperity, the making and the marketing of mocaf flour sharpening mutual cooperation and teamwork of farmers to build entrepreneurial spirit through utilizing local sourced to achieve food self-sufficiency.

![Fig. 1. Local Potential of Jatiyoso District.](image)

In improving farmers capability, Himpunan Tani Ngudi Makmur (HTNM) utilizing cassava from Jatiyoso farmers. From this cassava processed into mocaf flour. Mocaf flour production involve farmers, because when producing mocaf in big scale need farmers help to peel and soak the cassava. Cassava from farmers submitted to koperasi. The koperasi then managing production and marketing mocaf flour. Milling Mocaf raw materials is done with grinding machine technology. When the flour ready, the flour packaged to plastic bag. Mocaf sold at price Rp. 1500 and Rp. 5000. In marketing, it using PKK mothers with consideration can promote to other housewives.
In the future, *Himpunan Tani Ngudi Makmur* (HTNM) has a plan to empower high school/vocational high school graduates to get involved in the processing and marketing of mocaf flour. In addition to looking for a successor to the mocaf flour development business, it is also intended that this business can provide jobs for local residents. Vocational youth graduates are expected to be able to provide innovations related to marketing techniques and product packaging.

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**Fig. 2.** Mocaf Flour chip making machine.

**Fig. 3.** The Mocaf flour ready for market.

**Fig. 4.** Mocaf flour processed food.
3.2 Farmers Capability Improvement Concept from Armatya Sein Theory Review

Functions. The importance of beings and doings as human.

One of effort done to improve economic value from mocaf flour is through giving P-IRT label in the product packaging. P-IRT (Home Industry Food) certificate can be owned after farmers apply for a P-IRT number to the Health Office and DISPERINDAG.

P-IRT number can support small business capability. The P-IRT number will give life chance for farmers lifestyle. Life style means of micro business developed to middle level business even to macro business. If this happened, the empowerment means raise someone's life through ability/capability improvement. Prosperous living condition will improve life quality condition.

Ability. The combination of functions that a person chooses and is capable to accomplishing. Humans should be seen as agents of development, not just as givers or beneficiaries.

In farmers capability improvement activity at Jatiyoso, skill/softskill developed in line with farmers' ability. Through training and socialization carried out as an effort to maximize the natural potential in Jatiyoso and empower human resources in this area. This was aimed to improve the farmers independence so that they do not have to wait for subsidies from the government to develop their agricultural businesses. To make them as creative and innovative modern farmer without forgetting local wisdom.

Development as freedom. Amartya Sen look at development as a freedom. Freedom is an important thing because it has a) intrinsic value – considered important because its worth b) effort value – considered important as efforts to raise other things.

In the establishment history, mentioned that Himpunan Tani Ngudi Makmur (HTNM) established due to the concern of farmers condition when the farmer actually was increasingly eliminated in the development plan. Even, the farmers feel far from the government's attention. Started from problems felt by farmers group about information access lackness, especially problems in agriculture (plant cultivation), local agriculture product marketing, local and national policies such as the appearance of new variety increase dependence of farmers, the appearance of fake fertilizer, and other problems related to farmers income improvement. Those condition raise the concerns of farmers to fight for it through a forum that has been organized in field school activities. Field school have opened a new awareness of the importance of building strength at the farmer base level, both in terms of membership, expertise and networks at the horizontal and vertical levels. Himpunan Tani Ngudi Makmur (HTNM) as a forum for Jatiyoso farmers to get access in agriculture sector and to become civilized society so as not to be marginalized by the progress of modernization era.

3.3 Amartya Sen Theory Analysis in Improving Farmers Capability

Improving individual capability is not temporary, but with efforts to improve the ability to access a resource that valuable to raise the dream and the individual ability to concervate it into alternative choices which giving evaluation equal to human freedom. According to Amartya Sen, the cause of the persistence of poverty, powerlessness and underdevelopment is a matter of accessibility. In this case, poverty caused by access limitation. If human has limitation in choices to improve their life, human will only do what they have to do, not what should be done. Further, the potential of human to improve their life become obstructed and the contribution in welfare become smaller. Accessibility means by Sen is flicituated freedom in politics, economy opportunity, social opportunity (education, health, etc), transparency and the existence of social safety nets. Himpunan Tani Ngudi Makmur (HTNM) conduct farmers capability improvement activity, analyzing the local resources of Jatiyoso first, then Himpunan Tani Ngudi Makmur (HTNM) conduct a direct socialization to people about potential that can be produced well and profitable. In this case, Himpunan Tani Ngudi Makmur (HTNM) has many farmers capability improvement programs such as the making of mocaf flour, animal feed, organic fertilizer, etc.

Freedom related on understanding of someone's achievement. In ownership of some major goods, or someone having equal ability in raising something, but the difference caused by individual election in alternative funcionality in convert their ability, causing different result. People actually have ability to utilize natural resource around and independence with it, compared to push them to use foreign product.

In the freedom of farmers to choose their decision become dilematics when faced with confusion of government programs. For examples were in the terms of pest management, until now government can not handle pest completely, fertilizer scarcity, also standarizations determined by government. This make dependence for people in managing agriculture or other local nature resources.

Different tactics and strategies between government and Himpunan Tani Ngudi Makmur (HTNM) in JCRS (Journal of Community Research and Service), 6(2), 2022
giving opportunities for better people lives got many conflicts, finally empowerment approach allows freedom to choose and decide the alternatives in raising ideal condition of life. People complete life as purpose of life which placed in certain condition and as that background people freely to decide which way to go to push them in the success of their bussiness.

![Fig. 5. Community Empowerment in making mocaf flour.](image)

Farmers capability improvement activity conducted by *Himpunan Tani Ngudi Makmur* (HTNM) emphasis on Jatiyoso people in raising things which is considered valuable in their life. Efforts in raising life opportunity can be seen from the effective resources and opportunities in functioning the people's ability and the people's freedom to create alternative choices in that achievement. Capability improvement in farmers community become important to increase their independences in decreasing the over dependence to government and capital industrial products, which caused them trapped in poverty circle. According to Amartya Sen, poverty happened because of capability deprivation (freedom to reach something in someone's life). In this case, substantive unfreedom of society directly related to poverty.

### 4. Conclusion

Government did a lot of things in improving farmers capability with purpose to relieve society from economic downturn. Many programs have been conducted, include Social Security Net, Urban to Suburban PNPM Mandiri, but none of them are perfectly realized to the community. This because of the concept applied was top-down not bottom-up. The point is how the people ability to apply the freedom concept declared by Sen. Development is not only about physical development, but also potencies seen by Jatiyoso people that can be developed in farmers group which able to start changes. Changes here is they are trying to improve farmers capability through taking role in the mocaf flour production.

The development carried out is not without any concept. They try to apply principles of life through local wisdom of their own area. Sticking to the local wisdom values to the nobility of farmers is their basic to become modern. They try to interpret that traditional values and local wisdom from farmers, in modernity merge into a beautiful harmony. Because the main goal of empowerment is to make people and individuals independent. This independence includes the independence of thinking, acting and being able to find solutions to the problems.

### References