

Staple Food Development Strategy Based on Local Wisdom on Poor Households in Central Java Province of Indonesia

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Abstract: Current local staple food is getting marginalized because staple food consumption tend to a single consumption of rice. On the other hand, a local staple foods have good prospects to be development both in the food processing industry and non-food. The specific objective of this study is to formulate development strategies based on local wisdom staple food in poor households in Central Java Indonesia. Design research used exploratory research. Data were obtained in-depth qualitative and contextual nature as well as quantitative data. Data collection methods were used for FGD (Focus Group Discussion), observation and in-depth interviews. The results of the first study (2012) is used for FGD material. FGDs were conducted in three districts are Rembang, Blora and Grobogan in 2013 with consideration of these districts have the most disadvantaged households. To formulate development strategies based on local wisdom staple foods using SWOT (Strength, Weakness, Opportunities, Threats). The results based on the SWOT analysis showed that the strategy in developing staple foods based on local wisdom on poor households in Central Java, are (1) The increase in the cultivation and production of staple food locally, (2) introduction of local staple food processing technology that high market demand, (3) Optimization homestead land with local staple crops of economic value, (4) Dissemination and implementation of the local staple food menu in daily consumption, (5) government policies to rice for poor household, (6) Development of a home industry of processed products made from local staple food, (7) Development of staple food processing industry home instantly.

Key word: local food; increased production; local wisdom

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1. Introduction

One class of food-insecure are poor community. Nainggolan (2005) states that poverty will greatly affect the food security because poor families unable to provide food in sufficient quantity, safe, and nutritious either by producing or buying. If the programs strengthening food security less attention to this group will have an impact on increasing the poverty, food insecurity and poor nutritional status.

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The number of poor people (the population under the poverty line) in the province of Central Java in September 2013 reached 4.705 million people (14.44 percent), reduced 28.08 thousand people (0.13 percent) if it is compared with the poor in March 2013 which amounted to 4.733 million people (14.56 percent).

The poverty line in Central Java conditions September 2013 Rp 261,881 per capita per month. The poverty line for urban areas September 2013 amounted to Rp 268,397 per capita per month, up 5.34 percent from the condition in March 2013 (Rp 2548,00 per capita per month). The poverty line in rural areas also increased by 9.00 percent to Rp 256,368 per capita per month which is compared to March 2013, amounting to Rp 235,202 per capita per month. The role of food commodities to the poverty line is far greater than the role of non-food commodities (housing, clothing, education, and health). In September 2013 donation of the food poverty to line poverty line amounted to 72.78 percent is not much different from March 2013 which amounted to 72.69 percent. One major effect of food commodities to the value of poverty line is rice and “tempe” (Central Bureau of Statistics, 2014).

Staple food of non rice specific location has existed in a number of regions in Indonesia, but currently non rice is a staple food has a lot left. Actually, the staple food of non rice specific location can be used as early revival of diversification in the region, which in turn is expected to reduce rice consumption nationwide. Local non staple food of rice can be grouped into two, namely rice/rice and porridge (Abubakar, 2014). Based on this background, the aim of this scientific article writing strategy to develop the local staple food in poor households.

2. A Selected Review of Literature

Central Java has addiction problems in rice consumption of energy resources together with national issues. According to the research results Rahayu (2004) showed that in low income households in rural areas there is a tendency of rice became the main staple food, rice even be a substitute for corn and rice otherwise substituted instead of the local staple food but substituted by instant noodles. This is similar to Mewa Ariani (2006) that the consumption of staple food diversification program which is expected to consume more non rice staple food is not reached. In contrast to the rise of prices of various types of noodles, flavors and types have been able to influence consumers to try and enjoy it. This noodle consumption continues to increase from year to year, even the average consumption reached 28 packs of instant noodles per year. If it is not anticipated that it will result in a high dependency on rice and instant noodles. This condition can lead to high import dependence on rice and wheat so that the staple food based on local wisdom increasingly marginalized.

Local food wisdom means the provision of guarantees and authority in decision-making at the local level involving marginalized groups such as farmers and indigenous peoples and women’s groups. Furthermore, local food systems also means giving authority to the community to protect, conserve and utilize agricultural areas and other environments to ensure the fulfillment of their needs for food and income. Build a local food system also means strengthening the base for the realization of food sovereignty at regional and national level (Witoto, 2003).

The other hand, Central Java has the potential to diversify the rice with other staple foods. According to Erlyna (2013) local staple foods other than rice from tubers such as *dioscorea esculenta*, *purse*, *canna*, *kesuwek*, *porang*, arrowroot, taro increasingly rare in the yard of the house residents. Staple food is increasingly marginalized as more rarely consume this staple food. Development of the local staple food is necessary to remember the needs of rice consumption is increasing.

3. Methodology

Design research is exploratory research (Ida Bagus M., 2004) is a study that is intended to get a picture or identification of the staple food development based on local wisdom in the province of Central Java. In the exploratory nature of qualitative document obtained deep and contextual and quantitative data. Data collection methods used are FGD (Focus Group Discussion), observation and in-depth interviews.

This article is part of the scientific research results Competitive Grant entitled “Model-Based Development of Staple Food Local Wisdom Poor Households in Central Java” in 2013 by a team of researchers Rhina Uchyani, et al. Of the 35 province and cities in Central Java taken three districts purposively with consideration of the proportion of districts that have the most underprivileged households are Grobogan, Rembang and Blora (Central Bureau Of Statistics, 2012). FGDs were conducted in three districts. In the implementation of the FGD, key informants purposively was taken in this study is derived from the representative: (1) Food Security Agency, (2) Department of Agriculture, (3) Agency logistics, (4) Farmers Group, (5) sub-district level government officials, (6) village government officials, (7) Field Extension Workers. Number of key informants for FGD in three districts of 75 people where each district as much as 25 key informants. Results of FGD activity is the identification of internal factors and external development of staple food in poor households. The identification results are used to formulate development strategies based on local wisdom staple foods using SWOT (Strength, Weakness, Opportunities, Threats) (Rangkuti, 2003).

4. Result

- Identify Internal and External Factors Staple Food Development Based Local Wisdom in Poor Households in Central Java.

FGD with various stakeholders in the three districts could be formulated internal and external factors that influence the development of staple foods based on local wisdom in Central Java. Internal factors such as factor strengths and weaknesses while external factors such as opportunities and threats factors that influence the development of staple food in poor households.

Internal factors such as strength (Strength) include: First, the staple food cultivation techniques mastered by farmers. Technics staple crops of rice, corn and tubers have mastered the farmers so far. Farmers have the knowledge, experience and skills in the crop cultivation techniques. For this type of staple foods derived from tubers such as *dioscorea esculenta*, *purse*, *canna*, *kesuwek*, *porang*, arrowroot, taro although rarely cultivated by the residents in the study area, but the technique of cultivation relatively easy to be mastered. With the support of local wisdom in the form of mastery and sustainability of local staple crops, the local staple crops other than rice will be easily developed.

Second, the habit of consuming food with a simple menu. Poor households in the study area are familiar with simple diet because according to the conditions of the household income. Eating habits *raskin* (rice for the poor) is a force for poor households to consume staple foods other than rice.

Third, the strong motivation of farmers in farming. Motivation is a key to business success in a person to develop their business. The amount of the increasing cost of living will increase the motivation of farmers for better farming. Strong motivation can increase agricultural production so as to increase household income.

Fourth, natural resources and environmental conditions that support for farming. Natural resources and the

environment is very beneficial to the life of living things such as plants, animals and humans. The third research area in the district is an area of land suitable for cultivation. Agricultural land consists of paddy dan dry fields, yard and forest.

Internal factors such as weakness (Weakness) includes: First, a shift in the local staple food consumption to a single staple food rice. Government policy on rice in which the regulations set by the government led to the rice easily available and relatively inexpensive price. This policy directly or indirectly shift the local staple food to a single rice. This is demonstrated by more than 70% of respondents in the study area consumes a single staple food rice (Erlyna et al., 2012). The habit of consuming a single staple food rice is not easily shifted back by the local staple food.

Second, the local staple food increasingly rare in the yard of a resident/on the market. Various ease in obtaining and processing rice and instant noodles in the daily diet to make the local staple foods such as tubers increasingly marginalized. Local staple food crops that were once commonly found in the yard of the existence of these houses are now rare. On the other hand, the storability of tubers which are not durable to make people unwilling to plant the tubers.

Third, the time of staple food crops to local annum. Tubers form *dioscorea esculenta*, *purse*, *canna*, *kesuwek*, *porang*, arrowroot, taro and other features age/time to harvest a year. This led to the refusal of the farmer/community cultivate.

Fourth, a local staple food processing limited variety. Results of local production of staple crops is still limited dairy, which requires a long process and complicated as *tiwul* and corn rice. This is why people are reluctant to make the staple food.

Fifth, limited capital. Capital is one of the basic capital for farmers in farming. Capital constraints will hamper farming both in terms of production and processing. Banking institutions, rarely give credit to farmers farming. This is because the risk is so great that farming banks feel no benefit.

Sixth, a diversified food processing plants carried out by local households are still limited. Accelerated consumption of local food staples such as corn and tubers at the household level, the government intensified competition and copyright creations food menu. The competition starts from mothers to village level, district level. The government hopes to race, the mother-housewife as a decision maker daily consumption. But there was not so, the mother-housewife back consume staple food of rice after the race finished.

Seventh, low utilization of the yard of the house. So far, only a yard planted with shrubs/flowers/were left. Viewed from the side of beauty, aesthetic interest to the occupants of the house while the shrubs provide shade and coolness in the house. But cultivation is not economical impact for households. But on the other hand, the compound as one source of income can be used optimally.

External factors such as opportunity (Opportunity) include: First, the strategic plan of food security. Food Security Agency in the area of research, has had strategy plan food security. Strategic Plan as a reference/guide passage of a program/activities in achieving food security at both the household and the region.

Second, the development of the technology of food processing plants locally. This technology is growing rapidly on small, middle, and large scale producers. The development of these technologies ranging from snack, staple foods and food among which is used as a raw material processing industry food/non-food processing.

Third, FCDA Program (Food Consumption Diversification Acceleration). Governments in the three districts have implemented FCDA program since 2009 when the program is a national program. This program targets women's groups whose activities are productive yard optimization function, increase the added value of local food

and competition reserved diet food raw materials locally. The government provides a wide range of activities and equipment that lead to increased added value of local food.

Fourth, *Demapan* Program (Food Independent Village). The program is implemented in poor households of more than 30% of the total households (households). Poor households are expected to achieve food security, so that they can live a healthy and productive life every day. Programs and activities are almost the same FCDA program, only difference *Demapan* implemented in villages that have poor households more than 30%.

Fifth, the market is wide open. The rapid development of information technology in agriculture and non-agriculture facilitate the expansion of communication networks such as mobile phones that come in the countryside so that farmers use in accessing the market. News on television, radio and print media can be accessed by farmers in view of the development of commodity prices and marketing of agricultural products.

Sixth, the chances of earning additional income. During this time, a staple food has not worked optimally so as not providing maximum income. On the other hand, many resources are not used optimally in the development of this staple food so if these two things combined will provide optimal results.

External factors such as threats include: First, the more variations of instant food sold in the market. Developments in technology open up opportunities for more creative and innovative producers in food processing in accordance with the needs of consumers. Lifestyles and tastes of today's consumers want food processing is very practical and easy to make instant food production business opportunities greater. In the market, instant food products more outstanding and the price is relatively cheap.

Second, consumers increasingly varied tastes. Lifestyle changes wanting more varied food products. Increased consumer purchasing power and ease of access to information or cause consumers are faced with a variety of food choices.

Third, program *Raskin* (rice for the poor). Government assistance to improve food security in poor households by providing rice. Provision of rice to every poor households gained 15 kg every month by paying Rp 1,800 per kg. This program, poor households can access and buy rice with ease.

Fourth, imports of rice by the government. Government in stabilizing the stock of foodstuffs, especially rice take steps open rice import policy. On the one hand, this is to protect consumers against fluctuations in the price of rice and availability, but on the other hand causes the farmers are not able to obtain the highest price for the policy ceiling price set by the government. With a stable availability and price of rice, consumers are increasingly dependent on the consumption of rice so that the local staple food items left behind.

- Alternative Staple Food Development Strategy Based Local Wisdom In Poor Households in Central Java

Strategy formulation is the process of preparing the next steps are intended to define the strategic objectives and devise a strategy to achieve objectives (David, 2009). The results of the identification of internal and external factors mentioned above, and then analyzed SWOT. SWOT analysis is developed alternative staple food development strategy based on local wisdom on poor households in Central Java. Development strategy as follows:

Table 1 Alternative Staple Food Development Strategy Based Local Wisdom In Poor Households in Central Java

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| | Strenght (S) <ul style="list-style-type: none"> • Technical cultivation of staple foods is controlled by farmers • The habit of consuming food with a simple menu. • Strong motivation of farmers in farming • The condition of natural resources and a supportive environment for farming • Natural resources and environmental conditions that support for farming. | Weakness (W) <ul style="list-style-type: none"> • Shifting the local staple food consumption to a single staple food rice. • Food local staple increasingly rare in the yard of a resident/on the market. • The local staple food crops a year. • Processed local staple foods limited manifold. • Capital limited. • Not optimal and use yard. • The diversification of the local staple food processing done by the household is limited to staple food menu competition. |
| Opportunities (O) <ul style="list-style-type: none"> • Strategic plan of food security. • The development of the local staple food processing technology. • FCDA Program (Food Consumption Diversification Acceleration). • Demapan Program (Food Independent Village). • Market is wide open. • Opportunities earn extra income. | S-O Strategy <ul style="list-style-type: none"> • The increase in the cultivation and production of staple food locally. • Introduction of local staple food processing technologies that demand high market. | W-O Strategy <ul style="list-style-type: none"> • Optimizing the yard land with local staple crops of economic value. • Dissemination and implementation of the local staple food menu in daily consumption. |
| Threats (T) <ul style="list-style-type: none"> • The more variations of instant food sold in the market. • Consumer tastes are increasingly varied. • Raskin Program (rice for the poor). • Import of rice by the government | S-T Strategy <ul style="list-style-type: none"> • The government's policy to Raskin reduced to poor households. • Introduction of local staple food processing technologies that demand high market. | W-T Strategy <ul style="list-style-type: none"> • Development of a home industry of processed products made from local staple food. • Development of staple food processing industry home instant. |

Source: Primary Data Analysis, 2013

The advantages of using the SWOT matrix is the ease in formulating a strategy based on a combination of internal factors and external factors. The main strategies that can be suggested is composed of four kinds of S-O, W-O, S-T and W-T strategies. The fourth type of strategy are:

(1) S-O Strategy (Strength-Opportunity)

SO strategy is a strategy that uses the internal strength development of the local staple food of poor households to seize the opportunities that exist in the external environment. SO alternative strategies can be formulated as follows: an increase in the cultivation and production of local staple foods and the introduction of a local staple food processing technology that high market demand. Cultivation and production of local staple foods such as maize and rice besides manioc/cassava need serious attention. Likewise dioscorea esculenta, purse, canna, *kesuwek*, *porang*, arrowroot, taro, bananas, and breadfruit need to cultivated either planted in the yard and planted on agricultural land. This is consistent with the local wisdom that has long existed in the local community. The plant requires a relatively long harvest time (approximately 1 year) so that the necessary technology cultivation harvest age is relatively short (less than 1 year). Plant seeds can be obtained from the Research Institute for Legumes and Tuber Crops through the Department of Agriculture.

Local staple foods such as dioscorea esculenta, purse, canna, *kesuwek*, *porang*, arrowroot, taro *bananas* andpumpkin have a lower selling price. This is the cause of the lack of interest of farmers/communities to cultivate them. Cultivate them so that people interested in increasing the value added to the selling price increases.

Increasing the added value is done by among others, made of flour, chips or other food preparations.

(2) W-O Strategy (Weakness-Opportunity)

WO is a strategy that aims to minimize the weaknesses of the internal development of the local staple food of poor households to take advantage of external opportunities. WO alternative strategies that can be formulated as follows: optimization of yard area home with a local staple crops of economic value and dissemination and implementation of the local staple food menu in daily consumption.

Yard function as a source of revenue can be optimized functions. Among other functions work yard barns and stalls life. Yard serves as a living stalls that can help provide food occupants living (granary life) as crops, food crops and horticulture, the results of pets, and fish. While the function of living shop, yard provides a variety of plants and pets are at all times ready for sale to the needs of the owner family. This is one way to restore local knowledge is increasingly marginalized.

During this time, a menu staple foods other than rice is processed only at certain times or during the race copyright and dining menu creations. Once the race is finished, there is no follow-up or implementation of sustainability activities. Participants and winners only make the diet at the time of the race course. In fact, the purpose of the contest processing food menu made from local staple food is to bring the mother-housewife in the local staple food processing. Awareness to the community in general and mothers in particular households on the importance of local staple foods in the daily consumption needs to be activated continuously. This is because the mother-housewife has a considerable role in determining the daily diet.

(3) S-T Strategy ST (Strength-Threat)

ST strategy is a strategy used local staple food development of poor households to avoid or reduce the impact of external threats. Or a tactic to survive by reducing internal weaknesses and avoid threats. Alternative strategies can be formulated ST include: government policy for rice for poor households reduced.

Government policy on rice granting rule, every poor households are entitled to *raskin* by 15 kg of rice per month to pay Rp 1,800 per kilogram. This policy provides an ambiguous effect where one hand the government has a responsibility towards food security for poor households by providing cheap rice subsidy, but on the other hand this would lead to high dependence on rice for poor households. Poor households leaving the local staple food around it because rice is cheap and easy to obtain. Policies reduce rations of rice to poor households is likely to lead to social conflict, but this needs to be done to reduce dependence. If the dependency is left to the good food security at the household level/area will be disturbed. Reduction ration rice for poor households need to be compensated by the local staple food which is processed and consumed by poor households. Governments need to work together among agencies in the reduction of rice, among others, the Food Security Agency, Ministry of Agriculture, Bulog, and the Ministry of Industry and Trade in the handling of rice and a local staple foods and their distribution.

(4) W-T Strategy (Weakness-Threat)

WT strategy is a strategy that minimizes the weaknesses and avoid the threat of the development of the local staple food of poor households. WT alternative strategies that can be formulated as follows: the development of home industry processed products made from local staple foods and the development of staple food processing industry home instantly. Implementation of diversification should be conducted simultaneously, can begin by observing the behavior of rural households are households of farmers as producers and consumers of food. In addition, by empowering local institutions as social capital in efforts to accelerate diversification in rural areas (Englberger L. & Johnson E., 2013).

Poor households to improve access and the purchasing power of the basic food needs to be improved with an increase in household income. The increase in revenue can be reached by optimizing the utilization yard with cultivation of staple crops and raw material processing business local staple food. Home gardens have been discussed in previous strategy while the home industry scale processing enterprises should be given adequate provisions for poor households in developing their business. Processed products made from local staple foods will compete in a competitive market. Marketable food product is the key to a successful product can be accepted by the market, carried out by, among others, marketable packaging, health licensing (household food industry), certified kosher, branding /brand that is easily remembered by consumers. Poor households need to be empowered in terms of business management capability through integrated training programs include training in production, marketing, management and access to financing.

Local staple foods in the daily consumption requires processing that is not easy and time is long. The reluctance of poor households in the local staple food consumption one caused by it. To get closer to consumption, poor households to make processed into instant food products. In the market, have met many instant food product which has been accepted by the market. With a case like this, the instant food processing business can be developed at the household level. Before developing this instant food products, the necessary technical provisioning and management of the business group/poor households who will start this business. Starting a business is much easier than maintaining or even expanding a business.

5. Concluding Remarks

Staple food development strategy based on local wisdom in poor households, namely: (1) The increase in the cultivation and production of staple food locally, (2) introduction of local staple food processing technology that high market demand, (3) Optimizing the house yard area with a local staple crops of economic value, (4) Dissemination and implementation of the local staple food menu in daily consumption, (5) government policies to *raskin* reduced to poor households, (6) Introductions local staple food processing technology that high market demand, (7) Development of a home industry raw material processed food products local staple and Development staple food processing industry home instantly.

6. Suggestion

Awareness to poor households importance of local staple food consumption in addition to rice is important to be made considering the poor households of high dependence on rice consumption reduces the risk of food insecurity in households is also high. Poor households can improve their own food security by providing their own local staple foods other than rice from the optimization of home gardens and local staple food processing business. Home industry processing businesses run of poor households are processing business that has a bright prospect market and processing technology controlled by the poor households. Need grown strong motivation and institutional seeks business so that the business can thrive.

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