THE WAY FORWARD OF REGIONAL FOOD SECURITY ATTAINMENT THROUGH MAXIMIZING LAND UTILIZATION IN THE RESIDENCE AREA OF SEASONAL MIGRANT

Didit Purnomo[1, 1]*Departement of Development Economic, Faculty of Economic and Business – Muhmmadiyah University of Surakarta, dp274@ums.ac.id*

Indah Susilowati[2, 2]*Departement of Development Economic, Faculty of Economic and Business – Diponegoro University, indah-susilowati@rocketmail.com*

Abstract

The study aims to (1) determine potential food plants and land utilization in the center of the migrants; (2) analyze the condition of food in the center of the migrants; and (3) formulate the strategy of the achievement in the center of the migrants. The study was located in four districts of Wonogiri regency. The multi-stage sampling was employed to select the farmers as respondents where each district was represented by 3 to five informants. The focus group discussion (FGD) and in-depth interview with the stakeholders of academicians (A), business (B), government (G) and community (C) were involved to formulate the strategy in the study. Accordingly, the mix method of quantitative and qualitative was employed. The results of the study show that the role or function of institutional empowerment has been essentially useful. The commitment of the stakeholders (A-B-G-C) was helpful for institutional empowerment process of maximizing the land utilization because it will be able to achieve the food security of the central area of the migrants.

Keywords: *food security, dry-land, migrant, Wonogiri, Indonesia*
JEL: O130, J610

1. Introduction

Wonogiri regency is one of the territories in Central Java – Indonesia where a majority of of the population become a migrant in other areas. In his Network Theory, Oishi (2002) refers it to migration process through personal and socio-culture relations. Oishi (2002) states that in the migrants' hometown, the information of job and living standard in the foreign country is efficiently conveyed with personal network from people who have migrated to other areas. In the destination countries, the migrants frequently help their collegiality to migrate, get a job, and adapt to new surroundings. The most popular destination areas for the migrants include Jakarta, Bandung, Semarang, Medan, and some Indonesian big cities.

The migrants from Wonogiri regency have a unique and specific character where most of them work in an informal sector, for example, as *bakso* (a kind of meatball soup) food, *jamu* (herbal drink) traditional vendors and manual worker. The findings by Purnomo (2009) showed that the tendentious migrants from Wonogiri

regency are a temporary migrant. The labors from Wonogiri regency will live in hometown if it provides jobs or lands for making an earning. In the study, it is found that 4.8 percents of the migrants remained to live in the destination area and 15.6 percents of the migrants did not remain to live in it as firstly intended. The probability reached 0.235. The migrants who intended to live in the destination area remained to live there were 2.8 percents whereas those who did not intend to live in the destination area remained to live there were 76.8 percents.

The main objective of the study is to explore the strategy to maximize the land utilization in the study area where the seasonal migrants (Gartaula et all, 2012) were expected to attain food security in the region.

2. Materials and Method

According to Ariani (2007), there are four elements of achieving a food security: (1) the availability of sufficient foods in which most of the foods are provided by the people in the area; (2) the stability of the available foods without seasonal dependence; (3) the physical and economic accessibility to the foods; and (4) the quality of food consumption and safety.

The four elements are a reference to design a strategy of the achievement in the land utilization in consideration with 1) the kind of food plant for potential commodity, 2) the characteristics of the area as a source of food plant commodity, 3) the evaluation of the food security achievement with the aspects of *avaliability*, *accesibility*, *stability* and *affordibility*, 3) the empowerment of the people for optimal land utilization, and 4) the program served as a strategy of food security with the land utilization of food plant.

From the result of the analysis of identifying potential plant and land utilization, then, it is necessary to evaluate the food security achievement. Also, it is essential to analyze the empowerment of the people so that the problems of the social engine can be identified because the food security achievement of the people needs a social engine implemented in the institutional empowerment. The term *empowerment* is a process of transition from powerless to relative conditions of the life, fate, and surrounding (Priyatna, 2009). The food security index as used by Omonona et al., (2007); Fakoyode et al., (2009); Ukoha, A. Henri et al., (2011) was adopted for the purpose of this study.

The study used a multi-stages method with the respondents of 187 farmers. The data gathering employed an in-depth interview with the academicians, businesses, governments (Agricultural and Food Security Agencies), and community to formulate a strategy in the study.

The study applied a mix method in reference to Pomeroy's (2009) *Ecosystem-Based Fisheries Management* (EBFM). The stages of the study are as follows: 1) an analysis of identifying a potential food (such as paddy, corn, cassava, peanut and soybean) plant with a mix method. The analysis aims to explore a potential food plant in each district; 2) an analysis of

land utilization with a mix method. It aims to describe the land utilization implemented by the farmers in the central migrants; 3) an identification of the central migrants. It aims at identifying the central migrants to find the migrants' motive; and 4) an analysis of empowering community and institution. It aims to understand a potential community and institution in the central migrants for the land utilization.

Table 1: Definition of the Operational Variable

Objective	Target	Superficial	Methodology
Identifying potential plants	Identifying potential plants of foods in the central area of the migrants	Identifying the kinds of potential plants of foods in the central area of the migrants	**Research question:** What are the kinds of potential plants of foods in the central area of the migrants? **Data Technique Gathering**: Observation, interview, FGD, and documentation
Identifying the land utilization in the central area the migrants	Identifying the land utilization	Identifying the size of land not optimally utilized	**Research question:** What size of the central area of the migrants is not optimally utilized? **Data Technique Gathering**: Observation, interview, FGD, and documentation
Identifying the characteristics of the people in the central area the migrants	Identifying the kind of the migration in the central area the migrants	Identifying the the household of the migrants' family based on **motive adventurer** and **motive opportunity economy**	**Research question:** What is the motive adventurer and motive opportunity of the migrants? **Data Technique Gathering:** Questionnaires, interview and FGD
Analyzing the food security	Evaluating the food security in the central area of the migrants	Identifying the food security in the central area of the migrants	**Research question:** What is the condition of the food security in the central area of the migrants? **Data Technique Gathering:** Questionnaires and documentation

3. Result and Discussion

3.1. Potential Plants of Foods in the Central Area of the Migrants

The results of the analysis of identifying potential plants of foods with a qualitative-quantitative approach are described in Table 2. The results of the research samples with a qualitative-descriptive approach of land utilization are described below:

Table 2: Potential Plants of Foods in the Central Area of the Migrants

No	Data Gathering Method	Analysis Method	Result	Justification of FGD Result
1	Qualitative	Observation, interview, and FGD	Paddy, corn, cassava, soybean, and mung bean	Paddy, corn, and cassava
2	Quantitative	*Loqation Quetient*	Paddy, corn, cassava, soybean, and mung bean	

3.2. The results of the research samples with a qualitative-descriptive approach of land utilization are described below.

In Table 3, it is stated that the lands of the rice fields, non-rice fields, and non-agricultural fields are 7,079 ha, 10,256 ha, and 645,249 ha, respectively. It means that the lands that can be used for agricultural areas amount to 17,335 ha.

The land utilization of the rice fields in the four samples is described below

Table 3: Size and Kind of Lands

No	Districts	Kinds of Lands			Amount (Ha)
		Rice Fields (Ha)	Non-Rice Fields (Ha)	Non-Agricultural Fields (Ha)	
1	Baturetno	2,330	3,338	3,239	8,910
2	Selogiri	2,056	1,434	1,528	5,018
3	Wonogiri	1,268	2,542	4,482	8,292
4	Jatisrono	1,425	2,942	636	5,003
Total amount		**7,079**	**10,256**	**645,249**	**27,223**

Table 4: Land Utilization of the Rice Fields

Districts	Total Amount				
	Crop Yields		Non-Land Utilization	Not Used for Paddy Plant	Amount
	Once	Twice or more			
Baturetno	550	1,060	-	723	2,333
Selogiri	257	1,795	-	-	2,056
Wonogiri	622	571	-	75	1,268
Jatisrono	-	1,425	-	-	1,425
Total Amount	**1429**	**4851**		**798**	**7079**

In Table 4, it is reported that there were 2 districts for the optimal land utilization, including Baturetno and Wonogiri districts. The not-optimal land

utilizations in Baturetno and Wonogiri districts amounted to 723 ha or 30.99% and 75 ha or 5.91%, respectively.

Based on the identification of potential plants of foods, evaluation of land utilization, food security analysis, and instructional empowerment, it is essential to formulate a strategy of the food security achievement in the land utilization in the central area of the migrants.

3.3. Strategy of the Food Security Achievement in the Land Utilization in the Central Area of the Migrants

The strategy proposed in the study focuses on the not-optimal land utilizations condition of the people' empowerment in the areas.

Scenario 1: there were two potential plants of foods, not-optimal land utilizations, and people's high empowerment. The strategy is developing an agricultural technique as carried out by the farmers when planting rice with the technique of *jejer legowo* – the implementation of diversification plants and land utilization in seasonal dependence.

Scenario 2: there were potential plants of foods, the not-optimal land utilization, and people's low empowerment. The strategy is improving the condition of lands by using alternative organic and non-organics as suggested by the teams of Agricultural Agency.

The strategy of the food security achievement in the land utilization in the central area of the migrants is described in Table below.

Table 5: The Formulation of the Food Security Strategy

Plants of Foods	Land Utilization	The People's Potential and Institutional Empowerments and Migrants' Motives and the Central Area of the Migrants	
		High	Low
Potential	Not-optimal	• Developing an agricultural technique • Developing the diversification plants • Utilizing the lands in seasonal dependence	• Improving the condition of lands by using alternative organic and non-organics as suggested by the teams of Agricultural Agency.

4. Conclusion and Recommendations

Strengthening the land utilization with an agricultural technique, developing the diversification plants, and determining appropriately potential plants of foods are very essential to maximize the land utilization. Similarly, the institutional empowerment in the central area of the migrants is an important factor. The other factors of the stakeholders (the people [C] in particular, academicians [A], private sectors [B], and government [G]) are

very helpful for a process of the institutional empowerment to maximize the land utilization in which it can be able to achieve the food security in the central area of the migrants. Thus, it is expected that the optimal land utilization in the central area of the migrants can raise the welfare of economic growth in a local area; and finally it will develop the migrants' insight and knowledge for building their hometowns more seriously.

Recommendations

1. Each area should posses a potential plant of foods. It is expected that the governments (local, provincial, and central) make a policy in supporting the production of food plants in each area.
2. Socialization and training in efficient agricultural management by the Agricultural Agency can maximize the land utilization. Therefore, it will be able to realize a food security.
3. It is hoped that a local government can empower and facilitate the institutional farmers (*lumbung pangan masyarakat desa* [a central food for rural people]) with the accessibility to the distribution of food plants; therefore, it will protect them from making a loss and accessibility to *Bulog* (the Logistic Agency).

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