Barns Society as a Buffer Stock (Case in Nglaris Village Bener District Purworejo Regency)

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Abstract. Nglaris village is a mountainous area with most of its agricultural lands are used for growing annual crops, while only small agricultural areas are for growing rice. However, the post-harvest storage, in the form of barn society, can supply the people’s needs of rice. Article describes the function of barn society as a buffer for foods supply. Research design was exploratory research, aims to generate in-depth qualitative and contextual data. The technique applied in this research was a case study. The cost for barn society maintenance was collected from the joint venture between farmers united in the barn society group. The barn society has 20 tons capacity for unhulled rice. The farmers obtained the income from working during the harvest time and become a labour harvester to outside Nglaris or called “boro”. The farmer (field owner) gave natura wages (“bawon”). Bawon calculated based on the result of total harvested unhulled.

Supply for buffer of foods in the dry season was at least 50% of the capacity barn society’s, so that it can secure the supplies of staple foods. The barn society is specifically advantageous during the dry season because each farmer could lend and should be returned within one year.

1. Introduction
Foods insecurity is commonly occurred and become the defining characteristic at many developing countries and dry land ecosystems. People living in dry land region, continue to struggle with hunger, frequent famines and related consequences such as loss of lives, savings and wealth, disease and despair. Furthermore, the prevalent foods insecurity mitigation measures adopted by the inhabitants coupled with poor agricultural practises especially in soil and water conservation have also considerably impacted on the prevailing foods security situation in the area [5]. The main cause of foods insecurity resulting the low income and poverty experienced by smallholder farmers is low crop and animal productivity [2].

One of the indicator to measure foods security in a region is by reviewing the supply of foods crops production (rice and secondary/ “palawija” crops). In the middle of agricultural land constraints in Purworejo regency, the rice production increases for 7.89% in 2012 and 2013, with harvest productivity as many as 5.64 ton/ha [18]. Nglaris village is one of the mountainous area in Bener district, Purworejo regency where most of its residents are doing farming for living. The rice production is not enough for the residents’ needs. The village only has two hectares of rice field area. Meanwhile, the regency’s population is recorded more than 1,200 people [5]. The plantation crops grown in the village is coconut, while for fruits are thorny palm, duku and jackfruit. The crops harvest from the commodities are not enough for the staple food needs [9].

The community’s responds to adopt different adaptive strategy according to the available choices which are provided for them, such as by seeking for additional income from both on-farm and off-farm works [14]. People’s migration to urban centre area to seek employment wages [16].
force for villagers, mostly affected by some factors, such as family’s poor economy condition, marginal condition of natural resources, and attraction or driving factor which lead them for migrating [3].

The drought season, where the annual crops are not harvested, most of the residents in Ngalaris village migrate to the rice-producing region, as a hodge. They are paid with unhulledrice which is brought home for main consumption, while some of the unhulled rice are kept in the community’s barn society. The collective management of foods supply by community, in the form of barn society has become Indonesians tradition for a long time, including in Ngalaris village. The existence of barn society has ups and downs, while its role is adjusted with recent dynamics. The foods management is related to the issue of how to manage the foods supply. This means that the foods supply management is one of the aspect which commonly, has not been assessed well. The purpose of this research is to assess the barn society function as the buffer of foods.

2. Research Method
This research method used an exploratory research to generate an in-depth and contextual of quantitative and qualitative data. A case study was applied for this research technic. This research was conducted for “Subur Makmur” barn society in Ngaris village, Bener district in 2016. The key informant involves the members and committees of the community barn society, village officers, rice mills owners and rice traders. The data collected through in-depth interview, observation, and recording. The data were analyzed using analytic descriptive method.

3. Result
Most of the Ngalaris village residents did the farming for living, but the income from this work sector was not enough to meet the staple food needs. They were migrating in groups to meet their staple food needs by working as a hodge in the agricultural area during the drought season for fruits. Each group migrate for three to four times as a hodge in a year. these were the family respond or way to face the foods supply issue, and another strategy according to Maxwell and Caldwell [13], Ziaei, et al [22] and Gupta, et.al [10] in table 1.

| No. | Strategy                                      | Family Habit                                           |
|-----|-----------------------------------------------|--------------------------------------------------------|
| 1.  | Changing foods pattern                        | a. Relying on cheap and available foods                 |
| 2.  | Increasing the family’s short-term foods supply| a. Borrowing raw foods materials from friends or relatives |
|     |                                               | b. Paying foods by instalments                         |
|     |                                               | c. Collecting raw foods materials and crops            |
|     |                                               | d. Recycling the leftover raw foods materials for seeds during the next year growing season |
| 3.  | Decreasing the amount of foods consumption    | a. Sending kids to eat with the neighbours              |
| 4.  | Foods portion strategy                        | a. Controlling the foods portion for adults, so that kids are able to eat more foods |
|     |                                               | b. Mobilizing all family members                       |
|     |                                               | c. Reducing foods portion consumed in a day             |
|     |                                               | d. Fasting or committing a day without foods           |

Source: Maxwell and Caldwell [13], Ziaei, et al [22] and Gupta, et al [10].

Each group migrates with five to eight adult members both men and women, which commonly has family relationship. The group members work as a hodge to the farmers or wholesaler. The farmers (rice field owner) will pay them with natura wages (“bawon”). Bawon calculated based on the result of total harvested dry grain or unhulled rice, with comparison 1 : 8 or 1 : 7 from the total harvested unhulled rice. It means one part for them and eight (or seven) part for the farmers. Meanwhile, the wholesaler
will pay them with comparison 1:10. from total harvested unhulled rice. The wholesaler give smaller 
budget based on routine work. The unhulled rice collected to pay living expenses during the migration period 
and to pay staple food needs. Meanwhile, the remains supply of unhulled rice is stored inside the barn 
society. This is according to Rahman, et al [17] who said that the importance to develop community 
tradition in an individual way to practise for foods supply. Each group brings at least four to five tons 
of unhulled rice once migration. Unhulled rice wages of working in the agricultural center which 
contrast with the results of other researchers in cropping strategy.

The effort to increase foods supply could be done with community’s foods supply development [12]. 
A program of raw foods materials storage is essential to support for ourselves and our family members 
in an emergency situation. This may be resulted in a situation where financial resources to purchase 
foods would not be available or may be appreciably decreased [7,8]. The good management of foods 
supply in the family level, community, regional government and central government, is one of the key 
actor to achieve the foods security and to minimalize the risk of foods insecurity [17]. Foods supply in 
the community level, is responded by the government with the issuance of minister regulation No. 30 in 
2008 about the village foods supply.

The barn society socially functioned in collecting unhulled rice from the migrated farmers and to 
overcome the foods insecurity during drought season. The barn society has been proven in overcoming 
villagers problems during the drought season or foods insecurity period, according to Witoro, et.al, [21] 
and Ahmad, et.al. [1]. Furthermore, the barn society functioned as the foods price controller. In this 
case, the farmers will store the harvested crops (due to overproduction or during harvest time) in several 
months, then sell them in the period when the rice hit its most profitable price [1,4].

The case occurred at “Subur Makmur” barn society in Nglaris village, is that the barn society is filled 
with the remains amount of unhulled rice after it is reduced for basic foods needs and household foods 
supply. The barn society’s active members are as many as 148 people. The ability of smallholder 
farmers, individually or in groups to effectively and efficiently store a several part of their harvest at 
farm level, can be a major contributing factor for attaining foods sufficiency and eliminate wide spread 
of hunger in the region [2].

The farmers who are also the community barn society members, sell between 25 kg and 50 kg of 
unhulled rice with 12% of water content to the barn society’s committee. This is the form of social 
responsibility in maintaining the barn society. The 20 tons of barn society capacity is fulfilled when the 
migrated farmers back to their village while bringing the unhulled rice. If the barn society is 
overcapacity, then the committee will sell the unhulled rice to the wholesaler or rice mill owners who 
are able to pay the highest price.

During the drought season, the barn society’s committee sell the unhulled rice to the community 
members, with at least 10% to 20% below the average price. In addition, the barn society community 
also gives a lend to the members with maximal 50 kg of unhulled rice. The unhulled rice should be 
returned within a year, by giving additional 10% from the amount of borrowed unhulled rice. This 
activity has reduced seasonal gap in foods consumption [11]. Besides that, barn society also has social 
function, which is to give maximal 40 kg of rice for social aids to the disadvantaged families, such as 
experiencing death of family member, sickness and unable to work due to several conditions, or any 
other disadvantages condition.

The supply of unhulled rice in the barn society during the drought season is minimal 50% of the barn 
society capacity. This is to anticipate the emergency needs. The committee of barn society should 
be responsive toward the unhulled rice supply availability and should be able to predict the members needs, 
so that the unhulled supply in the barn society is always available. The rice mills owners/ wholesaler 
has prohibited to conduct a speculation act against the market price, because the barn society function as a 
buffer of supply during the drought season, according to the research conducted by Wahyudi, et.al [19] 
and Wahyudi, et.al. [20]. The impact is that farmers are easy to access unhulled rice in lower price than 
the market price. Thus, it needs serious steps in securing the buffer of supply in the barn society, in order 
to avoid the market from speculation act [6].

Local wisdom is shown by the migrated farmers who bring home the unhulled rice. The customs
should be maintained due to its importance for the foods security at the family and village level. The community empowerment is developed to strengthen the local wisdom above, from the power of management side, where the barn society functions for buffer of supply. The form of community empowerment goals is to enhance the farmers’ role in managing the barn society management by storing the harvested crops.

4. Conclusion
Nglaris village has a local wisdom where the migrated farmers has their customs to bring household their wage in the form of unhulled rice. The remains unhulled rice after it is reduced for the family’s consumption and foods supply, is sold to to the community barn society to fill the barn society’s supply. The community barn society functions as the buffer of supply during the drought season and is proved to maintain the price stability in the Nglaris village.

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