

ROLES OF SOCIAL CAPITAL IN PROMOTING EFFECTIVE MANAGEMENT OF NON-TIMBER FOREST PRODUCTS FOR POVERTY ALLEVIATION AROUND RINJANI MOUNTAIN – LOMBOK INDONESIA¹

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ABSTRACT

Poverty and forest degradation has been discussed widely for their causal relationship. Poverty has been claimed as one source among the others for continuous forest degradation in West Nusa Tenggara province - Indonesia. Due to the poverty (about 25% of the total population of West Nusa Tenggara province), the communities who are living around the forest have direct and indirectly used the forest/the commons as the main source of income. They cut the trees for cash to fulfill their daily needs, and even they encroach the forest for agricultural activities. They may also work with illegal loggers from outside as labour to cut trees and get the cash to support their families. As results, some studies confirmed for continuous degradation of the Rinjani forest that to some extent has led to further impacts such as the lost of springs and decreasing of water supply, and these have affected agricultural practices. On the basis of this, it is interesting to learn what are the roles of social capital in the existing forest management, especially in helping the community to address their social and economic issues and problems through effective management of non-timber forest products (NTFPs). The main aim of this study is to understand the existence of all types of social capitals at the targeted communities and to find out the actual and expected roles of social capitals in the existing forest management, especially in managing the NTFPs. This study of the commons will be carried out at the Sasak Community who is living at the feet of Rinjani mountain (Lombok Island, West Nusa Tenggara province – Indonesia). Qualitative and quantitative methods will be applied for the study. Data collection will be done through observation, in-depth interview, focus group discussions and small survey.

Key Words: Social Capital, Poverty Alleviation, The Commons

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INTRODUCTION

Forest as a common goods (the term Common will be used for rest of the document) is now became a complex issue. Primarily, forestry development everywhere is supposed to achieve and to sustain forest functions such as ecological and socio-economic functions. However, due to fast *population growth, economic crisis* and the *emerge of reformation regime* (include perception and attitude changes toward forest and natural resources) and the *globalization* have had significant impacts on forest management – managing the common. These changes are going so fast that lead to community expansion to the forest areas. In many areas of the country in Indonesia, forest sustainability are at risk, where the surrounding communities stepping in, clearing trees, occupying and claiming for forest land ownership by ignoring issues of forest degradation and sustainability.

Research carried out by the Research Center for Rural Development - Mataram University reveals at least four major problems of forest management in Lombok Island. These problems are (1) *Bio-physical aspects*; continuous destruction of forest vegetation and land - tree clearing for timber/illegal logging and food crop cultivation, erosion, decreasing of water supply, lost of springs; (2) *Economic aspects*; lack of job opportunity, unemployment, limited land supply, low income or poverty, low price of agricultural products, and limited market access; (3) *Social institutions*; lack of awareness and knowledge in forest management and land conservation, lack of community participation in forestry development programs, ineffective groups, absence of rules and norms, negative perceptions and attitudes; and (4) *Policy aspects*; gap between policy formulation and policy implementation, lack of policy socialisation, and lack of community participation in policy formulation and implementation – more centralized and top-down policy development (Muktasam, et al. 2003).

These problems and issues highlight the importance of participatory and multi-stakeholder approach, inter-stakeholders coordination and collaboration to solve and address forest management, and this is one of among the other arguments for Department for International Development – Multistakeholder Forestry Program (DFID-MFP) involvement in supporting forestry development. In Nusa Tenggara, Multistakeholder Forestry Program (MFP) has been one of the supporting agencies for forestry development policies and programs that have involved various partners, agencies and stakeholders. In Nusa Tenggara provinces - Indonesia, MFP partners consist of Government and Non-government Organizations, Universities and Community Organizations and NGOs. A number and varies of activities have been supported by MFP covering several major islands in Nusa Tenggara such as Lombok, Sumbawa, Flores, West Timor and Lembata.

Policies and programs on community forest management have been initiated not only by MFP partners, but also by other stakeholders such as local government, non-governmental organization and even by local communities. These policies and programs might have been implemented in a “parallel mode of actions” with some unintended impacts which in turn lead to ineffective forest management – e.g. duplication and overlapping of efforts, redundancy, conflict of interest, negative image toward development (Muktasam, et al. 2003). There is a need to bring all those efforts and resources together in a convergence fashion of forest management, where such conditions are required (Gray 1985; Miller 1992).

To promote more effective community-based forest management in Lombok Island – West Nusa Tenggara province, Indonesia, there is a need to study the roles of local institutions (as a social capital) in managing the forest, including the management of non timber forest products (NTFPs).

OBJECTIVES, EXPECTED OUTPUTS AND SIGNIFICANCES

The main objective of this study is to understand the roles of social capital in forest management, and in the management of non timber forest products. In more specific, this study is aimed:

- (1) To list all social capitals that exist at the communities at the selected sites;
- (2) To list all kinds of NTFPs that important for the local community livelihood;
- (3) To identify the roles of social capital in forest management and in managing non timber forest products (NTFPs); and
- (4) To develop alternative policies to improve the roles of social capital in forest management, including the management of NTFPs.

The expected outputs of the study are:

- (1) A complete list of social capitals that exist at the selected sites;
- (2) A list of NTFPs that are important for local community livelihood;
- (3) Knowledge and informations on the roles of social capitals in managing the forest and non timber forest products; and
- (4) Alternative policy options to improve the roles of social capital for effective management of forest and NTFPs.

The results of the study will be usefull as inputs to all stakeholders involved in forestry development such as the local and the provincial governments. More effective policy development and implementation could be promoted based on the study findings which in turn will lead to sustainable forest management and better community livelihood. In more specific, the results of the study will be used to support local government as well as other partners in facilitating policy formulation and implementation through capacity building activities.

METHODS

The study will be carried out in Lombok island – West Nusa Tenggara province, Indonesia using qualitative and quantitative research methods. The study sites will be consist of three area of protected forest around Rinjani mountain, namely Santong, Sedau and Setiling protected forest. These sites have been well known as pilot area for community-based forest management in Lombok island. Various techniques of data collection were applied such as focus group discussion, in-depth interviews, and field observation. Three major activities that will be carried out in the study are (i) desk study using all available documents and reports – secondary data collection and policy studies; (ii) in-depth investigation of the selected sites through primary data collection; and (iii) report and article writing – including preparing a paper that will be presented at 14th Global Commons Conference in Japan from June 3-7, 2013.

Several main variables that will be measured in the study are:

- (1) Local community perceptions of NTFPs that are important for their livelihood;
- (2) The existence of social capitals in the community;
- (3) Roles of social capital in forest management and the utilization of non timber forest products.

Primary and secondary data will used for the study. Secondary data will be collected from related institutions such as the provincial and district department of forestry or forestry and

plantations, Bureau of Statistic, and from other partners. Primary data was collected from various key informants, respondents from related key stakeholders, from field level to the provincial and district levels.

Qualitative and quantitative data analysis were applied. Content and process analysis were applied to identify issues in policy contents, policy formulation, policy implementation and policy outcomes. Gaps between “the concept” (policy statement) and “the fact” were identified using all concepts and theories for ideal policy development, implementation and evaluation. The focus of the study will be given to the management of the forest and non timber forest products by the community at the selected sites.

RESULTS AND DISCUSSION

Identified Social Capitals: Following Fukuyama’s definition of social capital that “*the ability of people to work together for common purposes in groups and organizations*” (Fukuyama 1995, p. 10)³, there are several types of forestry related social capitals identified at the study area such as *community forestry groups* (as a general group working for community forest), *honey production groups*, *farmer groups* (for agricultural crops and working with agricultural extension), *farmer cooperatives*, *environmental protection groups*, and *women farmer groups* (Table 1). These community groups were established in the three villages where government programs on community forestry were introduced. These data also demonstrate that the community groups or organisations that are specifically dealing with NTFPs have not exist yet.

Table 1. Types of Community Organizations at the Three Community Forest Areas of Lombok Island

Santong	Sedau	Setiling
<ul style="list-style-type: none"> • Community Forestry Groups • Honey Production Groups • Farmer Groups • Farmer Cooperatives 	<ul style="list-style-type: none"> • Community Forest Groups • Environmental protection Groups (Masyarakat Perduli Lingkungan) • Farmer Groups 	<ul style="list-style-type: none"> • Community Forest Groups • Women Farmer Groups

Source: Results of focus group discussions conducted in the three villages, and results of in-depth interviews with key leaders.

Identified NTFPs: There are five major and potential non-timber forest products identified in Rinjani Community Forest areas, namely *bamboo*, *candle nut*, *honey*, *medicinal plant*, and *fruits* such as durian and jack fruits. The selection of these NTFPs has been based on four main criteri such as in-line with the national government policies, supported and in-line with lical government (district government), cultivated and supported by the local community, and have a potential for production and to improve the livelihood of the local community. At indicated in the Table 2, all those five NTFPs got a total scores of 5 (five).

³ “*The existence of a certain set of informal values or norms shared among members of a group that permit cooperation among them*” (Fukuyama 1997),

Table 2. Identified Common Non Timber Forest Products at the Three Community Forest Areas of Lombok Island

NTFPs	In-line with the Ministry of Forestry Regulation (P.35/Menhut-II/2007)	Supported by the Local Government	Cultivated and support by the community	Potency		Total Score
				Production	Market	
Durian	1	1	1	1	1	5
Candle nut	1	1	1	1	1	5
Jack fruit	1	1	1	1	1	5
Apocadro	1	1	1	1	1	5
Honey	1	1	1	1	1	5
Bamboo	1	1	1	1	1	5
Tumeric, ginger, curcuma, and other medicinal plants	1	1	1	1	1	5

Notes: Score 1: Yes, and 0: No

The existing and the ideal management of NTFPs: These study found that the local community have not managed these commodities intensively for their livelihood. They just grow the trees of NTFP in the traditional ways such as getting the seed from the nature, planting wherever they found enough space, do not use certified and high yield varieties, and not using some modern inputs such as fertilizers and pesticides.

In regards to the product processing, this study found that limited processing activities done by the local community, especially for the fruits such as jack fruit. The local community processing the jack fruit into crispy, and *jack fruit cake*.

Even though NTFPs have contributed to the local community's household income, the management of trees and their products are mostly done by individual in subsistent way without any value added activities. The local community just harvest and sell the products. During the harvesting season, fruits products such as jack fruit and durian are sold with low prices and in most cases, farmers just a price takers. Farmers are also involved in money lenders where this lead to the low price for their products (sell the fruits while flowering or on the trees). The study also found that the local community hae limited skills to process the fruits and medicinal plants. For bamboo as an example, the village community just sell the simple ctafts whenever any demand for it. The entrepreneurship has not exist at the community level.

For most of medicinal and spices plants such as ginger, curcuma, tumeric and other, local community mostly use for their own daily needs. Not for commercial markets.

Honey is the only NTFP that to some extent has been managed well by the local community for their additional income. Farmers in one of the study area (Santong) cultivated honey bees for honey production.

District level workshop identified some expectations in managing the NTFPs in the selected areas as presented in the following section:

- (1) **Production:** Higher production and productivity, managed intensively, inventory of NTFP species, sustainable management, adopt new and inovative technologies, skillful farmers, special nursery, intensive cultivation and extensivifcation, high yield variety.

- (2) **Processing:** Skillfull human resource; effective support and supervision by the field agents; new and modern processing technologies are available at the local level; more types of processing products; strong community groups; processing industries are develop; related processing equipments and tools are available.
- (3) **Marketing:** Better access to market and market information; marketing through farmer cooperatives; develop effective partnership with processing industries; supporting policies; effective internal and external networking; better price; effective roles of government in promoting partnership; and strong bargaining position of farmers.

The Existing Roles of Social Capitals in NTFP Management: Even though there have been few community groups in the study sites, this study found that the groups performed limited roles. According to the key informants and the participants of the focus group discussion, the groups have been mostly focused their programs and activities on community forestry programs, and in particular for forest protection or to secure the forest from outside illegal logging activities.

Moreover, limited roles of social capitals were identified in managing non-timber forest products for poverty reduction as the social capital such as groups and network have not performed liberate activities to cultivate/produce and to process the products for value added and job creation. The community around the forest mostly produce the products for their own and limited purposes – subsistence form of production.

Table 3. The Existing Roles of Community Organizations in Managing Non Timber Forest Products at the Three Community Forest Areas of Lombok Island

The existing conditions of Community Organisations in the Study Sites	
(1)	No specific groups are working on the NTFPs (production and processing)
(2)	The existing groups and organisations performed limited roles. The groups are mostly for the common management of forest (in particular to get forest management permit, facilitate communication and coordination, and data collection)
(3)	There has been a community groups working on honey bees culture and production
(4)	The groups has a very simple structure that consist of head, secretary and treasurer
(5)	No shared vision for forestry and NTFP management
(6)	No shared values and norms for forestry and NTFP management
(7)	A conflict between the local community and the government are identified
(8)	No partnership established to support farmers in production, marketing and processing of NTFPs.
(9)	Training to improve local communities' technical capacity in forestry and NTFP management has been very limited and partial (lack of continous support to help farmers and the groups to intiate partnership)

Source: Summarised from the Results of Village level Focus Group Discussions.

Expected and Ideal Roles of Social Capital in NTFP Management: The study confirmed for the lack of clear vision within the community in forestry and NTFP management. However, farmers and local government staff agreed that community organisations as a form of social capital could play significant and statergic roles in helping to improve local community

livelihood. The following table provides a list of features of an ideal community groups dealing with NTFPs.

Table 4. The Expected Ideal Roles of Community Organizations in Managing Non Timber Forest Products at the Three Community Forest Areas of Lombok Island

An Ideal Feature of Community Organisations dealing with NTFPs	
(1)	Active, self-reliance, productive and open
(2)	Creative leaders and members, have good standard skills and entrepreneurship soul
(3)	Supervise and support by the local government agents continuously
(4)	Established through participatory approach
(5)	Understand the needs of their members, and are able to manage forest and NTFPs effectively and sustainably
(6)	Have a clear status, and capacity to improve members socio economic performance
(7)	Members are aware of their membership and have a good understanding of the groups' goals
(8)	Group leadership are clear and effective
(9)	Effective group rules
(10)	Formed based on community needs
(11)	Sustainable
(12)	Involved in producing, processing and marketing activities of NTFPs
(13)	Groups should have clear plan to achieve their visions.

Source: Data collected for a project on “Participatory Forest Management for Sustainable Utilization of Non Timber Forest Products (NTFP) surrounding the Protected Area of Rinjani and Mutis Timau Mt, Nusa Tenggara Indonesia”, a project of WWF Nusa Tenggara – Indonesia in collaboration with International Tropical Timber Organization (ITTO).

Social capital such as network could play roles in promoting effective management of NTFPs such as in *improving the capacity of their members* (improving the knowledge, skills and change attitudes, perceptions and motivations), *promoting inter-agency collaborations*, and *contribute to NTFP policy development and implementation*.

CONCLUSIONS

- (1) There are several types of social capital identified at the study area such as community forest groups (as a general group working for community forest), honey farmer groups, environmental protection farmer groups, etc.
- (2) There five major non-timber forest products identified in Rinjani Community Forest areas, namely bamboo, candle nut, honey, medicinal plant, and fruits such as durian and jack fruits. Limited roles of social capitals were identified in managing these non-timber forest products for poverty reduction as the social capital such as groups and network have not performed liberate activities to cultivate/produce and to process the products for value added and job creation. The community around the forest mostly produce the products for their own and limited purposes – subsistence form of production.
- (3) However, these groups performed limited roles that mostly focus on community forestry program, and in particular for forest protection or to secure the forest from outside illegal logging activities.

- (4) The study confirmed that the local community has had a clear vision that the NTFPs could be used to improve their social and economic status, but they do not really understand the ways to reach and materialised it.
- (5) Social capital such as network could play roles in promoting effective management of NTFPs such as in improving the capacity of their members (improving the knowledge, skills and change attitudes, perceptions and motivations), promoting inter-agency collaborations, and contribute to NTFP policy development and implementation.

On the basis of these findings and conclusions, it is suggested that:

- (1) The existing forms of social capitals could be revitalised to help improve the effectiveness of NTFP management.
- (2) These revitalization process could be in the form of capacity building activities such as training to help groups and network to realise the importance of NTFPs for their social, economic and environmental conditions. The contents of the training could be for example the ideal roles of social capital in NTFP management, value chain analysis, partnership development, NTFP cultivation and processing.
- (3) A strong policy support and enable economic environmental support is needed to promote effective management of NTFPs and for poverty alleviation.

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