

Household Livelihood Strategies in Bantimurung Bulusaraung National Park Maros District, South Sulawesi Province, Indonesia

Sitti Rahbiah Busaeri

Department of Social Economics
Faculty of Agriculture
University of Muslim Indonesia (UMI) Makassar
Indonesia

Darmawan Salman

Imam Mujahidin Fahmid

Department of Social Economics
Faculty of Agriculture
Hasanuddin University (UNHAS) Makassar
Indonesia

Yusran

Laboratorium Forest Policy Management
Faculty of Forestry
Hasanuddin University (UNHAS) Makassar

Fakultas Pertanian

Universitas Muslim Indonesian (UMI)
Jl . Urip Sumiharjo KM 5 Makassar (90 231)
Sulawesi Selatan, Indonesia

Abstract

The way of life of forest environmental services utilization and make economic, social and cultural function. Establishment of the National Park Bantimurung Bulusaraung cause social problems including decreased social welfare status as a result of limited public access to forests. The study was conducted in the village Samangki as special zone and Labuaja Village as traditional zones in November 2013 until January 2014. This study aims to identify the activity of fulfillment living, economic embeddedness level, and household livelihood strategies in the national park. Data was collected through a survey method. Activities meeting the needs of households living in and around the forest area covers activities in the planting paddy and crops, gardening, farming, livestock, cultivating, picking pecans, making brown sugar, take honey, make traditional wine "ballo" and mining. Level embeddedness before established as a national park is high level (overembeddedness). Change the status of a national park resulted embeddedness household and community levels in and around the forest area on the wane because each activity outside the region (underembeddedness). The entire farm households using multiple livelihood strategies for income from agricultural activities have not been able to make ends meet by working as construction workers, merchants, drivers and some other types of employment. Some households do that migration strategies to work as construction workers, teachers, employees in Makassar city, trades and gardening in Kalimantan and Papua, and became migrant workers in Malaysia. Choice of work by employment opportunities and relationships that are less and the low level of education.

Keywords: household activities, embeddedness level, and livelihood strategies

1. Introduction

Utilization of forest resources for subsistence forest make economic, social and cultural function. Establishment of the Bantimurung Bulusaraung National Park in 2004 cause social problems including a decrease in the status of public welfare as a result of limited public access to forests.

Before the establishment of conservation areas, protected forest, and production forest became Bantimurung National Park, advance local communities are already doing the activities of forest utilization and live in and around the area of the national park. In the utilization of forest areas, the public use of land around their dwellings located both outside and within the forest, and then process them into gardens, rice fields, cultivation or claim to the land, as their private land as a family legacy or their ancestors (Hasanuddin, 2011). Needs for food and livelihood (Sustenance needs) which is increasing due to population growth while the land area is limited probably, making man "forced" penetrated and to change the functions zone into land preservation and conservation "exploitative production". Therefore, most of the conservation area in Indonesia is currently experiencing strong pressure especially decentralization policy towards the severe damage caused by illegal logging, encroachment, uncontrolled logging, and forest fires.

The objective determination of conservation forest into Bantimurung Bulusaraung National Park, is expected to have a positive impact for the people of both ecological and socio-economic. In fact, in the early stages of its management, more people feel the negative impact as a result of the limited or even the loss of their access to areas that have been managed for generations that had been converted into a national park area. This causes the appearance of a conflict of national park management.

The objectives to be achieved in the study of this case study are:

1. Identify the activities of households in meeting the needs of families living in Bantimurung Bulusaraung National Park area.
2. Identify the level of households economic embeddedness in Bantimurung Bulusaraung National Park area.
3. Identify livelihood strategies patterns of households in Bantimurung Bulusaraung National Park area.

2. The Method Research

2.1. Place and Time

The research was conducted at Special Zone in Samangki village and Labuaja Village as Traditional Zones in the Bantimurung Bulusaraung National Parks Maros District, South Sulawesi Province in November 2013 until January 2014. The reason for choosing the location caused of the majority of the farm household is earning a living for generations in and around the Bantimurung Bulusaraung National Park area.

2.2. Method Of Collecting Data

This research used a survey method with a case study analysis unit. Qualitative data collection is done by using the method of interviewing informants selected intentionally (purposive sampling) are considered compatible in providing data. Informants in this study come from various backgrounds ranging from village officials, community leaders, farmers' case, as well as from the Forest Service, and the Authority Bantimurung Bulusaraung National Park. In addition, qualitative data was also obtained through field observations at the site to see the factual phenomena that occur and also reviewing existing documents, such as research data and other secondary sources.

2.3. Data Analysis

Data obtained from the location were analyzed descriptively according to regional conditions. Translation of field conditions analyzed by qualitatively case studies. This method makes the description, a picture of systematic, factual, and accurate information on the facts, the properties and the relationship between the observed phenomena. The results of the data analysis are described based on each of the goals to be achieved.

3. Results And Discussion

3.1. Household Livelihood Activities

Farm household livelihood activities in the national park is a series of attempts to use capital owned by households to obtain the required household income. Approach living activities carried out to explain the economic measures undertaken by members of the household to meet household needs and goals.

Based on the socio-economic conditions of the region, there are three important resource for household income, namely; natural capital, social capital and employment opportunities. Natural capital includes; land, livestock, and natural conditions. Social capital includes; social institutions and social ties. Job opportunities include; economic activity beyond the use of natural capital.

3.1.1. Livelihood Activities Based Use of Natural Capital

Natural capital for households include rice paddies, fields, gardens and land belonging to the Bantimurung Bulusaraung National Park. Dharmawan (2001), calls this natural capital resources as the economic sectors of agriculture, because these resources are used for agricultural activities to support farm household.

In carrying out this activity the use of natural capital (the rice fields, cultivation, gardens and livestock), there is a production process that must be followed to be able to reap the rewards farmers and use it to make a living household. Activity in running the use of this natural capital, carried out by the farmer and his family take turns and cooperate with each other. The content of natural capital in the region belong to the national parks are like; pecan trees, palm trees to making brown sugar or traditional wine “ballo”, honey, teak, fields, orchards and other agricultural products, to encourage people to engage in the exploitation of natural resources as one of the activities to meet the needs of the household life. Activity exploitation of forest products such as fuelwood, palm trees , pecans and grazing for livestock feed.

In general, the activity of community activities classified in five pattern: 1) farming and gardening; 2) farming, gardening, and livestock; 3) farming, gardening, livestock, and cultivation; 4) farming, gardening, livestock, cultivation, hunting, and mining; and 5) farming, gardening, livestock, and mining.

Farming and gardening is a community activity in and around the national park and is the main source of livelihood is done to meet the needs of family life. This farming activity in the form of major food ingredients such as; rice, crops (corn, beans and tubers), and horticulture (vegetables and fruits). While gardening activities generally with planting (coffee, chocolate, coconut and teak), forest products, such as; take pecans, palm trees to make brown sugar or traditional wine “ballo”, and coconut. Farming and gardening are the main activities that are generally carried out by the community.

In addition to farming and gardening activities, some people also keep cattle in the national park. Generally still on a limited scale. The types of animals kept are cattle; buffalo, goats, horses. ducks and chickens large livestock such as; horses, buffaloes and cows used to work on the wetland and as a means of public transportation (especially horses) and the transport of timber and other forest products from the national park. Farming is the planting of rice is done once a year. This is done by most people. Activities of this community still support forest conservation activities.

Hunting activities conducted by the public in a national park is hunting wild boar, deer, cows woods, partridge, possum, monkeys, jungle cats, lizards, snakes and birds rice fields. Results prey is consumed; deer, forest cows, and partridge. While there are some wild pig farmers who sell to Makassar on non-Muslims, and others wanted for this type of animal to be an enemy of farmers because they interfere with crop and livestock farmers. Hunting activity can lead to disruption of ecosystems within the park.

Making activities and excavation of mineral in the national park area consists of limestone, clay and silica sand. Generally mining activities carried out illegally. Mining activities have only limited community development needs of the house because if excessive can have a negative impact on the conservation of natural resources and environment of national parks.

3.1.2. Livelihood Activities Based Use of Social Capital

Activities involving the use of social capital in the community surrounding the relationship between the national park. Households generally build social ties with other community members to behave in accordance with local social norms. Ties with the outside community members is done by good relations with the outside community. Social capital is done in two ways, namely: 1) the daily activity, and 2) the planned manner. Social relations among people in this region is very high because most people who live nearby have family ties are so close that the relationship between neighbors is very familiar. Daily activities commonly conducted among others; greeting and chatting with neighbors, giving each owned food, help neighbors who need help in gotong royong concept, look at the people who are sick or afflicted, and so on. Gotong royong is endogenous knowledge which meaning

everybody helping other. While the planned actions, among others; community service, attend the invitation, attend village meetings, and so on.

3.1.3. Livelihood Activities Based Use of Job Opportunities

Activity-based living is the use of employment opportunities regarding the work done by members of the family as a source of family income. These activities in the form of non-farm activities. These jobs are as; village officials, teachers, civil servants, traders, construction workers, farm workers, kiosks, drivers, and so on.

3.2. Embeddedness Level of Human Resources

The Embeddedness level in conducting activities in the household activities before the area became a national park status changed high level (*overembeddedness*) because all household members in each other's gotong royong (work together) to meet the needs of the family income. After changing the status of a national park, the majority of public lands (especially the special zone) converted into a national park. The community activities are increasingly constrained as to preserve natural resources. Some members of the family are looking for other sources of income outside the forest include a construction worker, public transport drivers, there are also family members who make a living in other provinces, so that the embeddedness level among family members is getting weaker (*underembeddedness*) because each activity respectively.

Efforts to build good relations between members of the community, can be seen from the arrangement of adjacent houses were laid side by side and face showed preservation of relations with neighbors. The closeness between neighbors is essential for the access to mutual interaction among people is very intensive. Social interaction is built based on the social norms prevailing. Norms set up an institutional community like; celebration, invitation, community service, etc. Based on these norms, every member of the community should help each other if there are community members who build houses, celebration, invitation, visit the sickness and people die, and so on. Help can be; manpower, money, or giving farm yields. This interaction should be reciprocal, or no visitation / support replies between community members. If not done, the community has given sanction to community members who violate the norms. The sanctions which can be given in the form of bad judgment, allowance or dismissal access social capital. Individuals in households responding to this norm with the set time and set aside part of the harvest and income to maintain relations among communities.

The embeddedness level between the household and community are high level (*overembeddedness*) before conservation forests converted into a national park because of the many activities that can be carried out activities together in the utilization. After the establishment of the status of a national park, the embeddedness level among members of the community to decline (*underembeddedness*) due to a community that has begun to come out of the area so that the time of togetherness between community members on the wane because of the activities of each.

3.3. Livelihood Strategies Pattern

Strategy is a choice of activities household income to meet household needs or achieve a goal. These activities are a form of household livelihood strategies that acted daily by every household.

3.3.1. Natural Capital (Agriculture) Strategy

Most people who live in this national park has a livelihood as farmers. Strategy living "extension" of agriculture-based strategy provides an overview of households that use natural capital in the face of limited land resources and revenues from land owned. Limited land owned overcome by utilizing the existing land within the park to meet their living needs. Households who use this livelihood strategy, also living activities beyond the use of natural capital, although the use of natural capital is the main source of livelihood.

3.3.2. Diversification Strategy (Dual Livelihoods)

Most of the agricultural land in the village was owned by people from outside the village so that the farmers were mostly just act as a laborer. As a laborer, the income they get is not worth the effort and hard work. Usually wages are obtained in the form of rice and other crops so that farmers in this village can be categorized as subsistence farmers due only to meet the primary needs. Based on these facts, the people who most livelihood as farmers sought other income from non-agricultural sector. Some of them work as; farm laborers, construction workers,

carpenters, merchants, traders, drivers and some other types of employment. Some communities also do the job as a side job.

3.3.3. Migration Strategy

In some cases, because of the needs of the family income is insufficient or because they want to improve the welfare of the family, then some people to migrate to seek additional work. Based on the interview, the village youth revealed that the village is no longer able to provide a decent living for them. After graduate school, junior high or high school either, some of them went to the city to look for a better job even in other islands include Kalimantan and Papua with gardening or to Malaysia as labor. However, limited education makes them less competitive with other job seekers are more likely in the city. Some residents of this village work as construction workers, transport drivers and employees. They earn substantial income than working in the village. These jobs performed by employment opportunities and relationships that are less and the low level of education they have.

4. Conclusion

Activities of households Bantimurung National Park based on three important resource for household livelihood activities, they are; natural capital (in the fields of activity, gardening, farming, livestock, hunting, and harvesting of forest products such as pecan picking, tapping palm trees to make brown sugar or traditional wine “ballo”, honey, and so on); social capital (say hello to the neighbors, visit the sick, celebration, sharing the harvest, helping neighbors, community service, and so on) and employment (agricultural laborers/farm workers, construction workers, traders, employees, drivers, teachers, civil servants, gardening in the province or island another, even migrant workers in Malaysia).

Embeddedness level between families and the community in the activities of regional activity before changing the status of a national park is high level (*overembeddedness*). After changing the status, some members of the family are looking for a source of income outside the forest area, so that the embeddedness level is weakness (*underembeddedness*).

All farm households using multiple livelihood strategies because the income of the agricultural sector has not been able to suffice needs for family life. They sought other income from non-agricultural sector with little relationship and low level education only work as; farm laborers, construction workers, drivers, merchants and some other types of employment. Some households do that migration strategies as construction workers, teachers, employees, civil servants, trades, gardening in Kalimantan, Papua and migrant workers in Malaysia. These jobs performed by employment opportunities and relationships that are less and the low level of education they have.

5. Acknowledgements

Thanks to the Ministry of Research, Technology and Higher Education of the Republic of Indonesia on doctoral education scholarships at Hasanuddin University, Makassar. The paper have been presented at the Tokyo International Conference on Social Science, 2014. Thanks to the audience referees for helpful comments on the research.

6. References

- Balai Taman Nasional Bantimurung Bulusaraung. 2012. Zonasi Taman Nasional Bantimurung Bulusaraung. Kabupaten Maros. Provinsi Sulsel. Indonesia.
- Bourdieu, P. 1996. *Distinction : A Social Critique of The Judgement of Taste*. Cetakan ke-8, translated by Richard Nice. Cambridge. Harvard University Press.
- Conway, G dan Chambers, R. 1991. *Sustainable Rural Livelihood: Practical Concept for 21st Century*. IDS Discussion Paper 296.
- Damsar. 2011. *Pengantar Sosiologi Ekonomi*. Kencana Prenada Media Group. Jakarta
- Derkyi.M, M.Tonen, B.Kyereh, and T.Dietz. 2013. *Emerging Forest Regimes and Livelihoods in The Tano Offin Forest Reserve, Ghana: Implications for Social Safeguards*. *Forest Policy and Economics*, Vol.32, Juli: p.49-56.
- Dharmawan.A.H. 2001. *Farm Household Livelihood Strategies and Social-Economic Changes in Rural Indonesia*. Disertation, University of Gottingen, Jerman.

- Dharmawan.A.H. 2007. Sistem Penghidupan dan Nafkah Pedesaan: Pandangan Sosiologi Nafkah (*Livelihood Sociology*) Mazhab Barat dan Mashab Bogor. *Sodality: Jurnal Transdisiplin Sosiologi, Komunikasi dan Ekologi Manusia*. Agustus:p. 169-192.
- Ellis,F., 2000. *Rural Livelihoods and Diversity in Developing Countries*. Oxford University Press
- Granovetter,M, dan R.Swedberg. 1992. *The Sociology of Economic Life*. Westview Press, Inc.
- Harper,C.L. 2012. *Environment and Society (Human Perspectives on Environmental Issues)*. Pearson Education, Inc. New Jersey.
- Hasanuddin, 2011. Tingkat Ketergantungan Masyarakat Desa Labuaja Terhadap Zona Tradisional Taman Nasional Bantimurung Bulusarauang. *Jurnal Hutan dan Masyarakat*, Volume 6 No. 2: 101-110.
- Jusuf. Y, Sahide M.A.K., 2010,. Pendekatan Kolaborasi dalam Pengelolaan Taman Nasional Bantimurung Bulusaraung : Strategi Menyiapkan Kepentingan Ekologi dan Sosial Ekonomi. *Opinion Brief*, No. ECICBFM II-2010.02. Makassar
- Mardiyarningsih.D.I, A.H.Dharmawan dan F.Tonny. 2010. Dinamika Sistem Penghidupan Masyarakat Tani Tradisional dan Modern di Jawa Barat. *Sodality: Jurnal Transdisiplin Sosiologi, Komunikasi, dan Ekologi Manusia*. April, p.115-145.
- McLennan and T.Garvin. 2012. Intra-Regional Variation in Land Use and Livelihood Change During a Forest Transition in Costa Rica's Dry North West. *Journal Land Use Policy*, Vol. 29, Issue1, January:p.119-130.
- Mosiane.B. 2011. Livelihoods and The Transformative Potential of Cities: Challenges of Inclusive Development in Rustenburg, Nort West Province, South Africa. *Singapore Journal of Tropical Geography* 32: p.38-52.
- Nasi.R, A.Taber and N.V.Vliet. 2011. Empty Forests, Empty Stomachs? Bushmeat and Livelihoods in The Congo and Amazon Basins. *International Forestry Review* Vol. 13(3): 355-368.
- Nielsen.O.J, S.Rayamajhi, P.Uberhuags, H.Meilby, C.S.Hall. 2013. Quantifying Rural Livelihood Strategies in Developing Countries Using and Activity Choice Approach. *Agricultural Economics* 44: 57-71.
- Nurrani. L. 2011. Karakteristik Pemanfaatan Lahan Hutan oleh Masyarakat Sekitar Kawasan Taman Nasional Bogani Nani Wartabone, *Jurnal Balai Penelitian Kehutanan Manado*, Vol.1 No.1, Nov: p.71-87.
- Orsi.F, R.L.Church, and D.Geneletti. 2011, Restoring Forest Landscapes for Biodiversity Conservation and Rural livelihoods: A Spatial Optim namely as ation Model. *Journal Environmental Modelling and Software*, Vol.28, Issue 12, December: p.1622-1636.
- Oxfam. 2009. *Building Opportunities: Ensuring Food and Income Security, Stories from Buton, Muna, Tunda, Tanibar, and Aru Islands*. Oxfam GB Indonesia Program.
- Persha.L, H.Fischer, A.Chhatre, A.Agrawal and C. Denson. 2010. Biodiversity Conservation and Livelihoods in Human-Dominated Landscapes: Forest Commons in South Asia. *Journal Biological Conservation*, Vol.143, Issue 12, Desember: p.2918-2925.
- Sabar. A & Supratman, 2011. Analisis Kompatibilitas Pemanfaatan Lahan Masyarakat Di Zona Khusus Taman Nasional Bantimurung Bulusurauang. *Jurnal Hutan dan Masyarakat*, Volume 6, No. 1: 43-51.
- Salman,D. 2012. *Sosiologi Desa, Revolusi Senyap dan Tarian Kompleksitas*. Innawa. Makassar.
- Smelser.J.Neil dan Richard Swedberg. 2005. *Introducing Economic Sociology (eds), in the Handbook of Economic Sociology*. Princeton University Press.
- Sunderland, T.C.H. 2011 Food security: why is biodiversity important? *International Forestry Review*, 13 (3): 355-368.
- Wasito, U.Suwarman, E.Ananta, E.Sunarti, dan A.H.Dharmawan^a, 2011. Model Nafkah dan Pemenuhan Kebutuhan Pangan Keluarga Petani Miskin Di Hutan Jati Di Kabupaten Blora. *Jurnal Penelitian Hutan Tanaman*, Vol. 8 No. 2: 59-80.
- Wasito, U.Suwarman, E.Ananta, E.Sunarti, dan A.H.Dharmawan^b, 2011. Nafkah Keluarga Petani Miskin dan Keberlanjutan Hutan Jati Kabupaten Blora, Jawa Tengah. *Jurnal Penelitian Sosial dan Ekonomi Kehutanan* Vol.8 No.1 Maret: 71-92.
- Yusran. 2012. *Hutan dan Masyarakat: Tinjauan dalam Perspektif Kebijakan dan Sosial Ekonomi*. IPB Press. Bogor.