



## „The National Park is where the slope becomes too steep for agriculture“ Forest tenure in a rainforest margin in Central Sulawesi, Indonesia

Sylvia Ebersberger

*Almost half of the forest area of Southeast Asia is located in Indonesia. The forest cover of Indonesia changes at an alarming rate: between 1.3 million and 1.8 million ha were lost in the year 2000. Even if one uses the conservative estimate, the area covered by forests diminishes at a rate of 1,2 % a year. This is one of the highest rates in Southeast Asia and more than five times the worldwide rate (-0,22%). (FAO: 2001: 174 ff).*

The designation of protected areas is a central policy means to halt the further conversion of designated forests in order to conserve the high biodiversity of tropical rainforests in South-East Asia.

„The national park is over there, where it is getting too steep (for cultivation)“ a colleague was told, when he asked a farmer in his research village about the location of the Lore Lindu National Park (LLNP). In this article I try to justify why this is a valid description in some communities that border this park in Central Sulawesi, Indonesia. I study the interplay of the implementation of national law and local regulations for forest utilization and land tenure in four villages - Sintuwu in the regency (*kabupaten*) Donggala, Watumaeta, Wanga and Rompo in the regency Poso - on the Eastern side of LLNP. In this area, deforestation is not caused by wood concessions, the industrial exploitation

of forests, but small holders, who are the driving force behind the conversion of forest into arable land. My research is based on the assumption that forest as a resource is socially constructed – among other things - through norms and sanctions that restrict its use. I thus concentrate on the legal aspects of the utilization of forest: Is the utilization of community forests regulated and sanctioned locally? How effective is the implementation of national statutory law of protected areas in the case of LLNP? Can both sets of regulations contribute to a stabilization of the remaining forested areas?

### Forest tenure

The system of land and forest tenure is uniform in the four research villages: We only find private property, which includes ownership of forest plots inside or outside the national park. They have

been opened a few years ago (the time limit being subject to interpretation though) and/or have been marked either with coffee trees or other planted marker trees or with paint in order to show their status. Officials proofs of ownership like tax letters or certificates are not issued for plots that have been established illegally inside LLNP, as this area belongs to the state. While the local languages differentiate kinds of forest based on their age, this distinction does not serve as a basis for varying rules of utilization. What is crucial is whether a patch of forest is perceived to have an owner or not.

Estimations to how much of the forest left outside the LLNP is already owned privately vary: In Rompo it might be half of it, in Wanga less than that, and in Sintuwu and Watumaeta there is few forest. In the first two villages one is supposed to ask the village head first and

to register that land. In the latter, vast areas of secondary forest (mainly outside the National Park) have been converted within the last five years, having been sold to migrants. Forest tenure as an independent legal object does not exist in all four villages. Forest is either perceived as being owned, and the same restriction apply as for private property of arable land. Or as community forest it constitutes a free access area for the villagers.

### Forest utilization

From private forest one might take firewood and other products not being perceived as being valuable. For timber and rattan, though, one would have to ask permission. In Wanga and Rompo, one is required to ask permission before cutting trees in the community forest from the *kepala desa*, which is usually granted if the wood is used for private purposes.

Many respondents remembered that there are rules that forbid to cut trees close to rivers and streams, but these are not enforced. The few rules that exist mirror that only a relatively small number of forest produce is still used, and not by all respondents.

The extent of forest utilization can serve as an indicator for direct benefits from the forest for the villagers. Forest products can be used for subsistence as well as income generation.

As it can be seen in *table No. 1*, fuel wood, timber and rattan are the main products that come from the community forest. As we can see only one third of the respondents still go to the forest on a regular basis: First, fuel wood and some timber can also be found on arable land opened from (secondary) forest. The second possibility for households is to grow perennials like cocoa, coffee, and shade trees that can provide fire wood. This is illustrated by the case of Sintuwu, the village with the smallest proportion of forest products collected as in this village cocoa is the main crop. Thus, the majority of respondents get their fuel wood from their plantations or are affluent enough to use gas.

Rattan for private consumption is needed for construction of temporary shelters close to paddy rice and corn fields. Subsistence products like fruit, honey and medical plants are gathered from a relatively small portion of local households only. Bamboo is mainly planted.

The commercial extraction of rattan (mainly from the area of the LLNP) is still common in two research sites. In Sintuwu it is not regarded as profitable enough anymore and in Wanga a lake provides the opportunity of fishing for off farm income. Cutting timber for commercial use does not appear in the table, as this is organized by wood merchants. As valuable trees are mainly found in the area of the LLNP, it is illegal and not readily admitted to.

With the exception of rattan and sometimes timber the forest products are perceived as abundant. It probably is also the outcome that the forest until a few years ago was not regarded as a scarce resource. Its main function was to act as a land reserve if the need for more arable land arose.

Only recently in the village of Rompo, the village with the largest areas of community forest left, the village government and assembly jointly established formal rules that aim to keep the majority of the young male population from collecting rattan (which mainly comes from the LLNP). So far, this objective has not been met with success, but at the same time the village officials manage to tax the rattan extracted to generate revenue for the village.

### Factors contributing to forest conversion

Ultimately the villages do not represent forest dependent communities. Forest use will diminish continuously with

- a growing number of migrants who use fewer products than locals, and
- a reorientation from cultivation of wet rice farming and annual crops like corn to cultivation of perennials like cocoa.

The demand for further conversion of forest to fields will increase as

- cocoa as a labour extensive cultivation system becomes more dominant, and
- further population growth is likely to occur.

The relatively small number of rules and institutions that restrict forest use and forest conversion can be explained by the fact that until recently this resource has not been regarded as scarce and therefore there was little need to regulate its use.

Now this situation changes. All fallow land/secondary forest outside LLNP has been converted in Sintuwu or is very scarce e.g. in Watumaeta. It is in these two villages that several hundred ha of the national park have already been opened on within the last three years.

What are the conditions in these villages, that there -in contrast to Rompo and Wanga- is heavy encroachment into the LLNP?

Both villages have faced rapid population growth due to migration in the 80s (Sintuwu) and since the middle of the 90s (Watumaeta). There is no „free“ forest that could serve as a buffer left outside the national park. Also, in both villages the village governments take advantage of their key position as middle men between the state institutions on the higher levels and the local population

**Table No. 1**

Forest use	Villages				Average
	Watumaeta	Rompo	Sintuwu	Wanga	
fuel wood	20,8	50,0	33,3	38,9	35,2
timber	62,5	68,2	33,3	83,3	60,2
rattan: private use	08,3	22,7	08,3	66,7	23,8
rattan: commercial use	12,5	40,9	0	0	13,6
leaves for mats	0	22,7	8,33	44,4	17,1
medical plants	0	13,6	0	05,6	04,5
fruit	0	0	0	05,6	01,1
honey	0	04,55	0	11,1	03,4
bamboo	04,2	09,1	08,3	0	05,7



rights. They are both involved in land sales of plots inside the LLNP. As both mayors do not support the LLNP, the task of enforcing the national law (here the institution of the LLNP) solely rests on the rangers of the park. This is not the case in the villages of Wanga and Rompo, where the local government often remind the villagers of the relevant state regulations and their reasons.

Another difference is the topography in the two non-compliance villages: Here the LLNP is now very close to the village and easily accessible.

#### Attitudes toward LLNP

The LLNP formally came into being in the 1995. While this meant a change in protection status and in organizational structure, it did not alter the regulations on the ground level for the area, that was formed out of four nature reserves protected since the beginning of the 80s. One difference, the zonation, is so badly communicated to the villagers, that only some of the village officials know about it, and still less understand it: There is a

Watumaeta it is gone and in the other villages none of the villagers would name it as one of the kinds of forest and only two or three had heard about it at all, when presented with the concept. While it may exist on paper, in reality it does not.

While the most respondents claim not to be informed sufficiently about the reasons for the establishment of the national park, which clearly points to an implementation failure by the LLNP's administration, the rationale of the park is not contested as such. The advantages of the park are acknowledged by a vast majority of the respondents: They range from the protections of animals, which should be preserved, to the protection of the trees, to the maintenance of regular rainfall and the protection from erosion and against floods, to the provision of material aid because of the park, to the attractions of tourists by the park. Even the respondents who can not think of a direct advantage or benefit due to the park, do not argue the fact that the state declared this forest protected. The ar-

gument of resistance in Sintuwu and Watumaeta is made along the lines, that parts of the park should be returned to these villages, because the border is too close to the village, and because it covers parts of the customary land (in the case of Watumaeta). Interestingly, this seems to be a rather recent claim, again probably since the end of the nineties. At that time the need for additional land became obvious and/or the political environment seemed to be more favourable for stating it. Even though some villagers complained about the consequences of the recent conversion of arable land, and although the majority of respondents seemed to respect and appreciate the national park, there is still no discussion in any of the villages in terms of ways or needs to protect the forest.

While the general advantages of a protected forest are acknowledged (mainly providing rain, protecting from floods, landslides and erosion) and conservation of habitats for animals, they are perceived of a lesser value than the potential for opening more arable land.

#### The LLNP's policy

Actually, the rules state that no one is to take any products out of the park, not to speak of opening it. In practise however, it is acknowledged that in certain villages, there is no forest left outside the park, where people can find trees that are big enough as construction wood, and that rattan is necessary for building the traditional way.

The field station in Wuasa currently employs 16 rangers to protect a border that is 150 km long, and an area that would need 50 rangers by standards set for national parks. It therefore seems understandable that the rangers concentrate on checking the commercial exploitation of wood and rattan, and are not too strict on extraction of products for private use. Illegal logging and rattan collection organized by traders in the provincial capital Palu still does take place. This is facilitated by three factors:

- 1) The forestry department on the regency level still issues licences for logging and rattan collection in the valleys in questions. Although it is obvious that the produce



does not come from the production forest there, which is more difficult to access and already more depleted, the forestry department does not check on the origin of the produce.

2) The local police probably is involved in the trade.

3) Village heads in the particular villages do not interfere or are involved themselves.

The rangers are asked to issue warnings first before turning someone to the police, but their position, supposingly, became very weak since the events of organized large scale clearing in another part of the park (see FAUST 2001)

took place. They have to justify why locals are not allowed to use the forest (which means opening it), while there outsiders can clear-cut much larger areas and nothing happens. While this might be a debatable argument it points to a problem of legitimacy, not because the park as such is questioned (see below), but the way how it is protected (or not protected for this matter) is perceived as unfair. The field station in the Palolo valley, where Sintuwu is located, had to be closed after violent conflicts in the course of the events of Dongi-Dongi and in other already existing communities there.

Encroachment on a bigger scale that is not sanctioned provides an inroad for people to encroach, who would not have dared to break the law before. A number of respondents in Watumaeta stated, that fields inside the LLNP have only been opened since the head man set the example. However, it is important to point out, that still it is not the majority of villagers who have the courage and have an interest to open fields inside the LLNP.

## Conclusion

In a situation where land becomes very scarce and implementation of policies of



(c) S. Ebersberger

Concrete boundary marker in the village of Wanga

forest conversation is weak, the question where the park exactly commences is then a matter of definition. Where agricultural land is in strong demand, the definition of what is „too steep“, and under which condition it is still worthwhile to invest the labour to open it, changes. Not necessarily for the community as a whole, as many villagers after 20 years of living with it came to terms with the existence of the park and do not wish to open land there. But a considerable number of farmers do either want to replace land that they have sold or enlarge their cultivation of cash crops (mainly cocoa).

For the conservation of the LLNP this means, that as one can not rely on „traditional rules“, and highly coercive

policy (as described by PELUSO 1993 for concession areas on Java) is not desirable, new approaches need to be tested. They should build e.g. on graduated, but definitely enforced sanctions, better information about the public goods the park provides and about the reasons it was established there, on lobbying the village assemblies to issue rules concerning forest, on better extension to enhance the productivity of existing plots. Also, the people who bear the costs of nature conservation, might need to be compensated materially for their loss of income opportunities. But as the weak institutional support for LLNP and its current enforcement show, forest conservation is not a high priority of the Indonesian state.

## References

- FAUST, HEIKO 2001: „A Park Divided“: *Naturschutz contra Landnutzung*. In: *Pacific News* Nr. 17/ Dezember. p.22.
- FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS (FAO) (ed.) 2001: *Global Forest Resources 2000. Main report*. FAO Forestry paper 140. Rome.
- LÖFFLER, ULRICH 1996: *Land Tenure Developments in Indonesia*. Eschborn: GTZ.
- PELUSO, NANCY LEE 1993: *Coercing Conservation: The Politics of State Resource Control*. In: Lipschutz, R.D.; Conca, K. (eds.): *The State and Social Power in Global Environmental Politics*. New York: Columbia University Press. p. 46-70.
- LI, TANIA MURRAY 2001: *Local Histories, Global Markets: Cocoa and Class in Upland Sulawesi*. In: *Development and Change*. Vol. 33/3 (June). p. 415-437.