THE SEMBALUN INDIGENOUS COMMUNITY, LOMBOK

Building consensus to save adat forest on Mount Selong

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I. INTRODUCTION

1. Location
Sembalun is an area in northeast Lombok on the slopes of Mount Rinjani. It lies in a valley at 1,200 m above sea level.

In administrative terms, Sembalun is a subdistrict of East Lombok in the province of West Nusa Tenggara. Located at about 35 km from the district capital, Kota Selong, and 114 km from the provincial capital, Mataram, it is possible to reach the village of Sembalun Lawang by motorbike or 4-wheel drive vehicle.

Sembalun is surrounded by hills which are dominated by the peak of Mt Rinjani (3,726 m), a semi-active volcano with its caldera lake - Segara Anak. Mature tropical forest grows on some of the hillsides while others are covered by coarse grassland dominated by Imperata cylindrica. The people of Sembalun have traditionally managed various parts of the forest (called gawar in the local language) in different ways, including as agroforests. The valleys and lower slopes are used to grow rice and vegetables.

Forest protection is important because the springs on the slopes of Mt Rinjani and the streams which flow from them are vital water sources for the whole population of Lombok. On 6 May 1990, the then forestry minister Hasjrul Harahap formally established Mount Rinjani National Park (Taman Nasional Gunung Rinjani, TNGR). It now has a total area of 41,330 ha. This overlaps the major part of the Sembalun customary domain, which covers roughly 10,000 ha.

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3 The province of West Nusa Tenggara (Nusa Tenggara Barat, NTB) comprises the islands of Lombok and Sumbawa.

4 Extensive, uncontrolled cattle grazing has, in recent years, been a cause of reduced forest cover and an increased area of coarse grassland.

5 The Dutch colonial administration originally decreed Mt Rinjani as a Nature Reserve in 1941. Harahap changed its status to a national park in an official statement (No. 448/ Menhut-VI/90) and this was confirmed in 1997 by (then) forestry minister Djamalud-din (KepMenHut No. 208/Kpts – VI/1997. See www.santoslolowang.com/data/view-ing/Lingkungan_Hidup/kepmenhut_280Kpts_VI_1997.pdf.)
Important plant species present in the national park include jelatang (*Laportea stimulan*), dedurenan (*Aglaia argentea*), bayur (*Pterospermum javanicum*), banyan tree (*Ficus benjamina*), guava and related species (*Syzygium sp.*), wild nutmeg (*Myristica fatna*), keruing (*Dipterocarpus hasseltii*), rerau (*D. imbricatus*), edelweis (*Anaphalis javanica*) and two endemic orchid species, *Peristylus rintjaniensis* and *P. lombokensis*. Among the interesting animals found there are barking deer (*Muntiacus muntjak*), rusa deer (*Cervus timorensis*), Javan Langur (long-tailed monkey - *Trachypithecus auratus*), Malayan Pangolin (scaly anteater - *Manis javanica*), an endemic species of civet (*Paradoxurus hemaproditus rinjanicus*), Helmeted Friarbird (*Philemon buceroides*), Dark-backed Imperial Pigeon (*Ducula lacernulata*), Black-naped Oriole (*Oriolus chinensis*) and various species of reptiles.

6 *Dedurenan* is a tree whose bark and leaves have medicinal properties; *bayu* is used locally for timber; *keruing, rerau* and *mahoni* are all commercially valuable tropical hardwood species; the term *jambu* (*Syzygium sp*) covers several types of fruit tree, including guava.

7 See National Park website: http://www.ditjenphka.go.id/index.php?a=kn&s=k&i=21&t=2
2. Population
The wealth of Sembalun’s natural resources, fertile soils, spectacular landscapes and local culture have all attracted outsiders to settle there and to ‘develop’ the area. This includes the district tourism authorities, travel companies and tour operators who are developing Sembalun’s tourist potential. However, the majority of the population is still indigenous to the area.

The inhabitants of the Sembalun highlands live in six villages: Obelobel and Belanting (in Sambelia subdistrict) and Sajang, Bilok Petung, Sembalun Lawang and Sembalun Bumbung (in Sembalun subdistrict). They are often called the ‘Sembalun people’ and identify themselves as descendents of the Sasak – the oldest ethnic group in the area and indeed in the whole island of Lombok, according to local history.

8 Sembalun Lawang village is the gateway to one of the main trails up Mt Rinjani. Trekkers stay overnight in guesthouses on their way to and from the volcano’s crater lake. The Rinjani Information Centre was set up there about 5 years ago as part of a New Zealand aid project for eco-tourism (source: www.lombok-network.com/rinjani/).

9 These ‘villages’ are administrative areas (desa) which include a number of settlements. The estimated population of Sembalun Lawang is 7,856 people.
During the last 25 years, Sembalun has experienced some immigration from neighbouring villages and from Bali and Java, but some 90% of the inhabitants are indigenous. The predominant religion is Islam.

The educational level in Sembalun is quite high compared with neighbouring areas. Most people here complete secondary education\textsuperscript{10}. There is a primary school in each village and there are state high schools in the area, as well as private schools. However, those who want to pursue higher education have to go to the provincial capital of Mataram.

3. Livelihoods
The Sembalun community depends largely on agriculture. This includes dry land crops, agroforestry gardens, irrigated rice and rearing livestock. Some inhabitants also earn a living as farm labourers\textsuperscript{11}. Traditionally, the main commodities grown in the area are jackfruit, banana, avocado, local and improved rice varieties, maize, cassava, sweet potato, cabbage, cauliflower, broccoli, tomatoes, potatoes, carrots, snow peas, garlic, onions, chillies, coffee, tobacco, cloves and vanilla\textsuperscript{12}. People also farm freshwater fish and rear cattle.

Vegetables have been grown in this area for many years due to the fertile soils and cool climate. Now these crops are grown not just for local consumption, but also for sale in Java and Bali or even overseas. Exactly what is planted depends on the market: there has been a surge in chilli and garlic production during the last two decades\textsuperscript{13}. The largest

\textsuperscript{10} In Indonesia, children attend Primary School (\textit{Sekolah Dasar, SD}) from 7-12 years old; Junior High School (\textit{Sekolah Lanjutan Tingkat Pertama, SLTP}) from 13-15; and Senior High School (\textit{Sekolah Lanjutan Tingkat Atas, SLTA}) from 16-18.

\textsuperscript{11} Most people own and work their own land. The crops they plant depend on the market. Much of the harvest is now purchased by the large commercial companies in the area. Only around 800 people worked as farm labourers in 2006 – the majority for other members of the indigenous community.

\textsuperscript{12} See also Section III

\textsuperscript{13} Chillies are commonly called \textit{lombok} in Bahasa Indonesia.
buyer of chilli in the area is the company PT Indofood. In 2000, 38,932 hectares in East Lombok province was used to produce a total of 50,449 tonnes of chilli and 51,240 tonnes of garlic.

Local incomes rose significantly from the 1980s onwards after large-scale investors established commercial farms and plantations in the area. These had a massive impact on the economic structure, agricultural practices and social fabric of the Sembalun people. Agriculture changed from small-scale production based on traditional knowledge, collective work and mutual support to a commercial system based on modern technology, paid labour, fertilisers and large-scale land clearing.

This has led to a number of social and environmental problems, including land conflicts, landslips and reduction in numbers of springs (see section IV). The ‘good news’ in this case is that there have been concerted efforts by indigenous leaders gradually to move land and natural resource management away from destructive forms of exploitation towards more sustainable practices by reviving adat values.

4. Ethnic origins
The Sasak community of Sembalun has its own oral history about its origins. In years gone by, the whole of Lombok was covered by thick forest called gawar saksak in the local language. It is said that at the time the island was inhabited by a mysterious people who were sometimes invisible.

Later, during the first century of the Muslim calendar, several waves of migrants arrived on the island. The first settlers are believed to have

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14 PT Indofood, a major Indonesian processed food company, produces instant noodles, edible oils, soy sauce and chilli sauce. It has formed a joint venture with Nestle SA to market its products internationally.
16 Big business was boosted by (then) President Suharto’s first visit to the area in 1987, but local elites benefited most from this – see section IV)
17 The term for the indigenous community of Lombok, its language and forests – generally called Sasak – can be spelt in different ways, including Saksak and Sasaq.
18 The 7th century AD
come from three different places: Persia, India and Samudera Pasai\(^{19}\). They landed in the north and followed the River Sangkabira south by boat, then climbed Mt Rinjani where they celebrated an ascetic ritual while looking for a suitable place to settle.

The second wave of migration - from Sumatra, Java and Sulawesi – occurred in the ninth or tenth century AD. It is not known how these people arrived or met up. They too travelled up the Sangkabira River, now the only river that flows all year long to the north coast. The new arrivals did not immediately start to occupy the slopes of Mt Rinjani, but stayed in a valley to the east called Mentagi before settling at a spring (*makem*) in what is now the hamlet of Lendang Luar.

The third group of migrants comprised seven couples who came from the south in the late twelfth century and settled in various places. They went first to Mt Selaparang before moving north along the slopes of Mt Nanggi to the top of Mt Seladara. From there they could see a beautiful valley. Each time they looked at it, the first words that came out of their mouths were “*Subhanallah Uluun*”, meaning Allah is the most

\(^{19}\) Also known as Samudera and sometimes called Samudera Darussalam, Samudera Pasai was an important Muslim kingdom on the north coast of Sumatra, near the present day town of Lhokseumawe, Aceh, from the 13th to the 15th centuries AD.
Holy and Highest of Gods. This phrase gradually changed into the word ‘Sembalun’, which has remained the name of the valley.

This group migrated several more times. After descending to the valley they went north, moved down Mt Anak Dara, and settled at the current site of the village Bleq on Mt Selong. Several historic buildings remain at this ancient settlement: seven traditional adat houses (a number permanently fixed by tradition), two traditional storehouses (geleng) for community heirlooms and a community hall for adat meetings. This community spread to the other side of the R. Sangkabira where they built a new village on the rocky hill called Bawaq Dewa. Eventually they moved further north to the area of Bayan, where their descendants ruled the land and continue to live there.

These old stories, passed down through the generations, show how the Sasak community which now lives in Sembalun and its customary social and governance systems evolved through the social and cultural interactions between different waves of migrants. One of the earliest community leaders was Datu Sembahulun who is said to have ruled over the whole ancestral area. He was succeeded by his two younger brothers: Datu Bayan and Datu Selaparang.

II. INDIGENOUS CULTURE AND ADAT RULES

1. Key elements of Sembalun beliefs

Wetu Telu is a traditional Sasak knowledge and culture system. There are different interpretations of the origin and meaning of the term. One points to the fact that the ancestors of the indigenous population came from three different places (Sumatra, Java and Bali).

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20 This building, known as poposan bale malang, is where the community gathers for communal decision-making and traditional ceremonies.

21 Datu is an honorific term for a Sasak headman. As there are few written records of Sasak history for this part of north Lombok, it is not known when Datuk Sembahulun ruled.

22 These are now names of settlements in the Sembalun customary domain.

23 Wetu Telu, also known as Metu Telu, literally means ‘three times’.
Another links the number three to the basic elements of society and environmental harmony: God, nature and human beings. Yet another suggests that it refers to the three main groups of living creature in Sasak tradition: menioq (plants), meneloq (birds and all egg-laying creatures) and menganaq (mammals, including humans and four-legged animals).

The ‘figure of three’ also reflects the threefold syncretism of the Sembalun indigenous religion – the indigenous people say they are Muslims, but hold animist beliefs and carry out Hindu rituals - and the triumvirate adat leadership structure involving a religious leader (Pengulu Adat), resource manager (Pemangku Adat) and social executive (Pemekel Adat). Yet other interpretations relate it to the three main adat rituals of Loh Langgar, Loh Dewa and Loh Makem or the three original settlements (Sembalun I on Mt Rinjani, Sembalun II in the Mentagi valley of Mt Rinjani and Sembalun III - also known as the village of Bleq - on Mt Selong).

This blend of beliefs and religions is often associated with an account of a journey known as Lalo meta adat. The story goes that the village of Bleq once decided to send three representatives to trace its different ethnic origins in Sulawesi, Java and Sumatra. When the time arrived for them to return, the one who should have gone to Sulawesi had only reached Bali and brought back the knowledge and art of the Hindu culture. The
person who went to Java had gone to Cilacap and returned with Sanskrit scriptures, a papyrus book and the teachings of Islam combined with animism. The one who had left for Sumatra never came back.

The best way to describe the *Wetu Telu* culture is through its three main *adat* rituals.

**a. Loh Langgar:** a ceremony celebrated once a year to commemorate the birthday of the prophet Mohammed. The purpose is to pray to God (using Muslim prayers) for a good harvest, prosperity, safety, peace and the sustainability of nature’s resources.

It consists of a procession and prayers led by the customary religious leader. It starts by bringing various offerings to the *langgar* – usually fruits and other natural products arranged decoratively on special bamboo baskets called *ancak*. After the prayers, the leader’s assistants (*Kiyai*) share the offerings among the participants. People who did not enter the prayer house to attend the ritual go to the nearest trees and shake their branches while saying *Ammbein* (Amen).

This ceremony reflects the central roles played by religious observance and community service within Sembalun society. These features of everyday life are an integral part of people’s identity as Sembalun. A popular account of the derivation of their name is that it comes from the word *sembah* (meaning loyalty, obedience, submission and devotion) and *ulun* (meaning high, tall and powerful), so that Sembalun means ‘loyal to God Almighty’.

**b. Loh Dewa:** an *adat* ceremony to celebrate and express gratitude for the harvests from the paddy fields, upland fields, agroforestry plots and forests and the products obtained from livestock and other sources. This ritual is celebrated in that part of the customary forest which is still intact (*gawar kemaliq*), to pay respect to the forest spirits who are the source of the community’s livelihoods.

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24 On the twelfth day of *Rabi’ul Awal* (the third month of the Islamic lunar calendar).

25 This was originally a sacred place where animals were kept (for sacrifice). Nowadays, a Muslim prayer house (*musholla*) is used instead.

26 The term *gotong royong* can mean any form of collective work which is carried out by inhabitants of a settlement for the general benefit of the community, not for pay (see also chapter IV).
Loh Dewa is celebrated once a year and begins with a procession to the ritual site. Members of the community walk in groups, depending on their budut, each carrying offerings of their produce. The procession is accompanied by music played on the gamelan, drums, gong and other traditional instruments. Then the religious leader leads prayers to thank and praise the Almighty and the spirits.

c. Loh Makem: A ceremony celebrated close to a spring once a year at the beginning of the planting season. Its purpose is to acknowledge the spirits who protect the water sources and to pray to the Almighty to protect the crops from diseases and damage caused by prolonged drought or excessive rains.

During this ritual a buffalo or cow is sacrificed. The religious leader and his assistants read verses from the Koran and pray at the spring. The ceremonial chef (Ran) prepares the meat of the sacrificed animal which, with other food, is served on banana leaves to all the participants. On the following day the tasks of the planting season begin - sowing, planting and repairing irrigation channels. It is also the time to inspect the state of the forest, decide which trees can be felled and restore areas vulnerable to erosion that might otherwise get washed away during the rainy season.

The adat rituals of Loh Dewa and Loh Makem show the extent to which the Sembalun people value their natural environment and the importance placed on using natural resources in a rational, organised, sustainable way. These values are also expressed in the word sasak, a kind of working group.

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27 A kind of working group

28 A percussion orchestra made up of various brass instruments which is part of the traditional music of Java, Bali and Lombok.

29 In the past, the Sasak in the Sembalun area practised a form of rotational cultivation which involved clearing forests for agriculture. However, this practice gradually stopped in the 1970s. Now these ceremonies are used to encourage the whole community to value the forests and to get actively involved in reforestation schemes.

30 As the community has become more strictly Islamic (due to partly to the presence of the local Islamic training college) and most of the younger generation have been through formal education, traditional beliefs were increasingly regarded as heathen or old fashioned. Hence the adat ceremonies of Loh Dewa and Loh Makem were rarely practised. However, as is shown later in this chapter, attempts are being made to revitalise adat - in particular to reintroduce the values of sustainability celebrated in these traditional ceremonies to younger generations.
which can be translated as ‘equality’. This refers to the traditional belief that the relationship between humans and the resources for their livelihoods should be balanced and that all community members should co-operate and act according to the principles of *lomboq buaq* which promote the values of honesty, justice and integrity.\(^{31}\)

The *adat* rules (*awik-awik\(^{32}\)*) regulating the use of natural resources are described later (see section III)

2. Traditional institutions

The Sembalun people have a traditional governance structure called *Wik Tu Telu* comprising three institutions whose interrelated roles deal with judicial, cultural religious and other social affairs.

a. **Pengulu**: responsible for religious affairs and moral guidance. This body is mainly concerned with the value system of *lomboq buaq*, which promotes honesty, justice, integrity, sincerity and fairness in people’s lives, and the teachings of *sangkabira*, which require the Sembalun community to co-operate, be united and help one another. It is led by the *Pengulu Adat* (religious leader), who conducts religious ceremonies and *adat* rituals. He is supported by six assistants (*Kiyai*), each of whom lives in a different part of the village.

b. **Pemekel**: responsible for maintaining social structures and practices such as marriage, festivals, harvest festivals and other celebrations, and conflict resolution. The head of the *Pemekel* is called the *Mekel* or *Jero Kepala* who used to function as the village head. He has several assistants who all traditionally wear red clothes: the *Jero Warah* who is in charge of communications and public relations; the *Jakse* or *Jero Tulis* as the secretary; the *Keliang* as the head of the area; the *Langlang Jagat* who is in charge of security and also acts as an envoy; and the *Pekasih* or *Kesubakan* who implements *adat* regulations related to

\(^{31}\) *Lomboq buaq* is also the local name given to a type of tree which is very straight and beautiful (see also footnote 22, Chapter 5). The principle of co-operation for mutual benefit is locally called *sangkabira*.

\(^{32}\) Also spelt *awiq-awiq* or *awig-awig*
agriculture and water resources\textsuperscript{33}.

c. **Pemangku:** responsible for the management and use of natural resources including forests, water sources, agriculture and agroforestry, as well as other environmental issues. The head of the Pemangku, who is also called the Mangku Gumi, is assisted by several other Mangku. The Mangku Gawar is in charge of forests, especially the forest around Mt Rinjani and Segara Anak lake; the Mangku Gunung looks after Mt Pergasingan; the Mangku Makem manages water resources; the Mangku Rantemas controls the area of Rantemas and Mt Gunung Anak Dara; and the Mangku Majapahit preserves and manages sites of cultural importance such as Bleg village, Ketapahan Majapahit, Bencingah Kocit, Kraton Suranala, Mt Selong and Pangsormas.

The Mangku are responsible for resolving conflicts and imposing sanctions in cases related to natural resource management, based on local practice and adat law.

In addition to these three institutions, another body (the pande) has the more specific function of co-ordinating production of all equipment needed for adat rituals as well as the agricultural tools used by the community.

The participation of representatives of these adat institutions – Kiyai, Mekel, Mangku and Pande - is an important part of all major ceremonies, public meetings, family events and other social activities.

**III. LAND OWNERSHIP AND NATURAL RESOURCE MANAGEMENT SYSTEMS**

According to local history, during the rule of Datu Sembahulun, the Sembalun customary area extended north as far as the coast and the Java Sea, south to Mt Nanggi (Selaparang), west to Mt Sangkareang (Santong) and east to Mt Urat Suleman (Sambelia).

\textsuperscript{33} In Bali and Lombok, water for irrigating rice fields is regulated through a highly developed traditional system of ownership and control known as subak or kesubakan.
The Sembalun have customary rights to manage and exploit the land and forest resources within this area, except the forest zones designated as protected or sacred forest areas (gawar kemaliq). The management of natural resources was traditionally based on the local system of values, knowledge and custom and governed by the institutions under the Wik Tu Telu structure. Anyone who wanted to use any natural resources – without exception – had to first obtain permission and guidance from the local adat leader.

1. Land uses
The Sembalun’s customary land use system distinguishes between the following different kinds of land use:
- forest;
- upland agricultural plots;
- irrigated rice fields;
- pasture for livestock;
- areas for huts where harvests are stored temporarily (bale bleq) and rice barns (geleng);
- settlements.
Forests are further classified as:

- **Gawar elet**: mature, intact forest far from settlements;
- **Gawar kemaliq**: protected forest;
- **Gawar tu luwey**: forest where medicinal plants, fruits and other non-timber forest products may be harvested (agroforestry);
- **Kolan tu nyeran**: hunting forest;
- **Gawar aur**: bamboo groves.\(^{34}\)

Only the agroforestry zone is owned by individual families; all other forest categories are held collectively by the community. Various types of markers are used to show land boundaries – natural and man-made - such as long-lived tree species, bamboo clumps, rivers, irrigation channels, tracks, footpaths and the wooden or concrete gateways at the entrances of hamlets within the village (*lawangkuta*).

### 2. Customary regulations on land and resource use

A series of *adat* rules, also called *awik-awik*, traditionally controlled the Sembalun community’s use and management of natural resources.

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\(^{34}\) What is and isn’t included under these classifications – particularly *gawar kemaliq* - has shifted somewhat in recent years.
a. Entering the forest
Entry to the forest within the Sembalun customary area was only permitted at the following places:

- Pelawangan - for the peak of Mt Rinjani and Segara Anak lake;
- Urat Tibu Segara - for forests on Mt Pergasingan;
- Urat Pangсор - for forests on Mt Selong and Mt Seladarak;
- Lahamban – for forests on Mt Kukusan and the hot springs of Aik Kalak.

Before going to the forest, everyone had to obtain the permission and approval of the Mangku Gawar, whatever the reason. This included activities such as going for a walk, hunting, gathering fire wood, felling timber for building, catching birds, meditation or testing the strength of ancestral weapons at the hot springs.

Any known violations were punished by the local Mangku by adat fines, public shaming or expulsion from the community. If an offender escaped detection and punishment by the Mangku, the community believed that nature would punish him/her. The person may get lost in the forest, fall into a gorge or even die, depending on the seriousness of the offence.

b. Hunting

Before entering the forest, hunters had to say a prayer and make offerings to the spirits who guard the forest lest the forest guardians spoil the hunt. The Mangku gave directions to the hunters such as where they were allowed to camp, rules to observe when lighting fires or cooking, and which animal species may be hunted and in which quantities. For example, the rules for hunting muntjac (Muntiacus muntjak) and deer (Cervus timorensis) were that:

- It is only allowed to kill single adult animals - no fawns, pregnant or nursing does, or animals in herds.
- Meat from any muntjac caught may only be eaten outside the

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35 Hunting has been significantly reduced since much of the remaining areas of Sembalun customary forest became part of the Gunung Rinjani National Park.
village boundaries, for instance as supplies during a trip. Deer meat can be taken back home.

c. Logging
No tree could be felled for whatever purpose without permission from the Mangku, even if it was on privately-owned land. The Mangku first had to assess the social and environmental impact that felling the tree may cause and seek the agreement of community members who might be affected. He also protected the area around it with prayers. If a tree was cut down without permission, the spirits who guard it may cause unrest in the community and even kill the logger.

People co-operated to fell large trees. They first removed twigs and branches, then fastened ropes around the trunk to minimise the risk of damaging the surrounding vegetation. Whoever felled a tree must plant at least ten new trees and take care of them to ensure that they grow. If any saplings died, they must be replaced.

d. Water
Water is a very important resource for the Sembalun people. In addition to its uses for irrigation, drinking and bathing, water was also believed to cure diseases in plants and humans, keep people young and enhance fertility. Before any water could be used for such purposes, the Mangku had to give approval and could set certain conditions in addition to holding a ceremony.

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*A process called mangku memangar*
These following rules applied to the use and management of springs:

- No-one was allowed to approach directly the place where water emerges from a spring, except the three adat leaders (Tu Telu Datu). Even they should only do so as part of an annual adat ritual or in an emergency, for example, if there were signs that floods or mudslides had disrupted the flow of water.

- Anyone passing a water source on a horse or water buffalo had to dismount, to avoid the risk of mudslides or disturbing the forest spirits around the spring. Anybody caught breaking this rule could be punished according to adat rules. Alternatively, s/he may experience some sort of natural punishment – the rider might fall from his horse or become ill or the horse may die.

- Certain celebrations could only be held at particular locations within a 500 – 1,000 m radius of a spring and had to be led by the Mangku.

- Collecting water for its special properties without permission was considered theft. Any stolen water would not benefit the thief anyway – on the contrary, s/he would be punished by nature or by adat.

- Only the Mangku, or the irrigation manager (Pekasih Subak) acting on his behalf, was allowed to take or redirect water for irrigating fields.

e. Forests, agroforestry gardens and agricultural land

Until around thirty years ago, the people of Sembalun still practised rotational cultivation: clearing patches of forest to grow upland rice. At the same time, bamboo and tree crops such as fruit trees, timber species, coffee and bananas would be planted. These would shade out the rice crop within a few seasons and form a stand of man-made forest which would be cleared several decades later to grow more rice.

One crop of swamp rice was grown each year on the lower marshy areas near seasonal water sources. During the dry season, this land was used to grow vegetables.

Community members could request a plot of land anywhere they liked and as large as they could handle, as long as adat requirements were
met and the land use was in accordance with *adat* zoning. Before a piece of land was settled or farmed, the location had to be checked by the *adat* leader. Only then could the boundaries be marked, usually by planting special trees\(^3\). The *adat* leader would establish how many trees needed to be planted to make up for clearing the land to create fields for vegetables or irrigated rice, or to build a house.

**IV. CONFLICTS OVER LAND AND RESOURCES**

1. Land shortages

The policies of the colonial authorities and subsequent national governments significantly eroded traditional systems for controlling the ownership and use of land and natural resources\(^3^8\). The customary governance structure was co-opted in the interests of those in power and its roles and responsibilities weakened through legislation and bureaucratisation. Economic pressures have also contributed to widespread violations of *adat* law.

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\(^3\) These trees are locally known as *gerungsa*.

\(^3^8\) As communities represented in the other case studies in this book also report, the 1979 village administration law severely restricted Sembalun’s *adat* governance.
At the time of Dutch colonial rule, customary forests and land were nationalised and classified into areas for farming, protected forest, wildlife reserves and other uses\(^{39}\). Land in private ownership was registered and certified in order to make it easier to collect property taxes – and this trend has continued\(^{40}\).

Pressures on land for agriculture really began when the Dutch designated the Rinjani area as a natural reserve in 1941, but land conflicts increased under the Suharto regime\(^{41}\). First the government declared all non-certified land to be state property\(^{42}\). It then handed over large parts of this ‘state land’ as concession rights to private companies, zoned some of the Rinjani area as Protection Forest (\textit{hutan lindung}) and later established Gunung Rinjani National Park. These policies significantly limited the Sembalun people’s access to the land and natural resources that were the basis of their traditional livelihoods.

Natural population increase has further compounded the problems of lack of secure land title and reduced land availability. Land ownership is quite uneven, ranging from several hectares to just enough to build a house on. However, on average, people in Sembalun Lawang only have 6 \textit{are} (0.06 ha). Typically, a family will use their land to grow a crop of rice in the rainy season and to plant vegetables (garlic, chilli, potatoes and tomatoes) in the dry season.

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\(^{39}\) State-controlled land which local people are sometimes allowed to use for farming is still known as ‘\textit{tanah GG}’ which probably refers to the colonial term \textit{Gouverneurs Grond} (lit. the governor’s land). Farmers must pay tax but are allowed to transfer usage rights to others. See also footnote 22 in Chapter 3.

\(^{40}\) Communal-held customary land has progressively become certified individual land and this has weakened \textit{adat} controls over its use. For example, some \textit{GG} land has become privately owned, certificated plots.

\(^{41}\) Indonesia’s first president, Sukarno, promoted state control over land as an alternative to ownership by foreign powers, including the Dutch. His left-leaning government was also opposed to control by large commercial interests. He was succeeded by General Suharto after a bloody coup in 1965. Suharto’s ‘New Order’ government actively supported Western capitalism.

\(^{42}\) This included much of the indigenous community’s customary lands – both communal and some individually-held - since not all Dutch land certificates (\textit{pipil}) were recognised by the Indonesian authorities.
Since the 1980s, the fertile soils in this part of Lombok have attracted many big investors who have established agribusinesses there, such as PT Sampoerna Agro, PT Agro Indo Nusantara, PT Putra Agro Sam Lestari, PT Cipta Karya Sarana, PT Benete and PT Sembalun Kusuma Emas. These large-scale enterprises use modern methods and require a lot of land which they obtain either by clearing forest or by buying it off the indigenous population at low prices.

Corporate agriculture in and around Sembalun has further contributed to pressures on land and natural resources in two ways: modern cultivation systems demand substantial, reliable supplies of water in an area where supplies are diminishing due to deforestation and droughts; and outsiders have been attracted into the area seeking employment, thus increasing the local population and also demand for land. In neighbouring areas, an increase in land transactions has also led to more conflicts over land in recent years.

2. Lack of adat control
For many years, adat leaders seemed powerless in the face of pressure from the government and commercial operators and controls imposed by them. They tended to collaborate with the government and private sector in promoting commercial development rather than fulfilling their traditional obligations towards their community.

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43 PT Sembalun Kusuma Emas withdrew from the area in the late 1990s. Its concession was taken over by PT Sampoerna Agro - a subsidiary of one of Indonesia’s largest clove cigarette manufacturers. In 2002 it established one of the first high-tech greenhouse systems in southeast Asia to produce tomatoes, peppers, lettuce, broccoli, strawberries and grapes on some 200 ha – mostly for export (http://www.pu.go.id/Humas/infoterkini/pww2005022.htm). The West Java tea company PT Airmas announced in March 2007 that it would set up a 300 ha tea plantation in Sembalun with a sprinkler system to overcome any water shortages (http://lomboknews.wordpress.com/2007/03/24).

44 Companies with close links to the Suharto family were able to clear forest and procure land with impunity until the late 1990s. Local people throughout Indonesia found their forest land had been taken from them without their knowledge or for very low prices and did not dare to protest.

45 Another significant issue is that the boundaries of the national park and Protection Forest are unclear on maps and/or not marked on the ground, so it is easy to move the boundaries in line with the interests of investors and government.
This elite also gained access to certificated land for which they were later able to claim compensation when government-supported projects came in\(^46\).

The final blow to customary control systems in Sembalun was the rise in price of various agricultural products, particularly garlic. Traditionally, the Sembalun community had grown a wide range of different crops. However, the reduction of land availability due to the establishment of the national park, the entry of agribusiness and population growth increased pressure to generate more profit from smaller plots. The surge in garlic prices, which peaked around 1997, encouraged local farmers to turn their backs on *adat* practices such as the communal management of customary forests and to plant as much garlic wherever they could.

Both forests and traditional culture suffered as a result. The forested slopes were increasingly cleared to make fields. The rise in local

\(^{46}\) In the early 1960s, the government started to register communal land for taxation purposes. Often this was recorded in the name of a respected person in the community or an *adat* leader. As the majority of the Sembalun community is indigenous, it was usually the *adat* leaders who were selected to be the official village administration after the 1979 village governance act was introduced. So, in many cases, the village head had the power to allow developments or even sell customary land without consulting the community.
incomes was obvious from the number of new brick-built houses and increase in pilgrimages to Mecca.

However, the growth period was short: the boom in production caused gluts; the 1997 financial crisis followed by a long economic slump further depressed prices; the costs of fertilisers and pesticides rose sharply; yields fell due to droughts, pests and reduced soil fertility; some companies laid off workers; some people sold their land to meet their religious obligation to visit Mecca. The shortages of land and work led to illegal logging in the area. And, as yet, the indigenous community gains little financial benefit from tourism since trekking to Mt Rinjani is generally controlled by external operators.

3. Environmental impacts
By the mid-1990s there were serious concerns about the state of Sembalun’s forests, which continue today. The indigenous community is well aware that forest degradation and a reduction in the area of forest cover have occurred. The number of springs has also declined over the last 15 years. There used to be over 44 springs in the area; now only 14 of them still carry water in the rainy season and only three in the dry season. Even the water levels in Segara Anak lake have fallen. Droughts and floods are becoming increasingly frequent. A total of 157 cases of conflict over water were reported in Lombok in 2002.

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47 The NTB governor reportedly stated that forests in the northern part of Lombok have been badly damaged and that there are 1,700 ha of ‘critical land’ in Sembalun sub-district (Suara NTB 26/Jan/06).

48 A landslide on Mt Rinjani is blamed for flash floods in East Lombok on 21st January 2006. The worst hit areas were Sembalun and Sambelia subdistricts. Three people were killed and several hundred made homeless as at least 300 houses were badly damaged by the floodwaters and the large boulders which they carried. Large areas of rice, vegetables and other crops were also damaged together with bridges and roads. Government and voluntary organisations provided some aid for the communities (Tempo Interaktip 23/Jan/06).

49 LP3ES, cited at http://www.worldagroforestry.org/sea/Networks/RUPES/mapsite_indonesia.htm
These symptoms are closely linked to the progressive ‘conversion’ of forest to agriculture and plantations, logging, forest fires and population growth in and around Sembalun. The forests on hillsides closest to settlements are the most vulnerable, as are the sacred forests surrounding springs, because they are more accessible.

Other problems have been caused by grazing livestock and hunting by groups from the city. Local people believe that fires were deliberately set to clear the mountainsides of secondary forest, scrub and coarse grasses so that new grass would grow. This would provide better grazing for cattle but would also attract deer. It is then easier for visitors from the coastal towns (and the armed forces) to shoot their prey with rifles and automatic weapons instead of stalking wildlife through the forests with dogs and spears as the indigenous community has traditionally done.
The excessively rapid modernisation promulgated by the Suharto regime was not balanced by education to promote critical thinking in the Sembalun community. This has resulted in social and cultural degradation and devastating environmental impacts. The government and our leaders have got rich while the rest of the community has been left behind impoverished\(^5\).  

V. USING *ADAT* RULES TO SAVE CUSTOMARY FOREST

These challenges inspired indigenous community leaders to try to convince everyone in Sembalun about the importance of saving their environment, customary lands and natural resources.

One of their strategies has been to develop local people’s skills and to provide models of sustainable natural resource management. The establishment of an Islamic agricultural training centre in Sembalun Lawang has been a key part of this. The *pesantren* was set up in 1996 as a direct response to the impacts of commercial operations. The aim was to reduce local farmers’ reliance on pesticides and artificial fertilisers and to promote diversification of the crops cultivated. The *pesantren*, which has been very successful, not only teaches about Islam but also trains local people to manage their natural resources better, to develop environmentally-friendly agriculture and animal husbandry and to develop their own agricultural enterprises\(^5\)\(^1\).

The foundation which supported the *pesantren*, YAMI (Yayasan Al Madu Islamiyah) reached out to other organisations, including student groups in Lombok and Java. Together they held an NGO ‘jamboree’ in Sembalun, attended by 700 people from NTB province, to do conservation work along the main trail to the peak of Mt Rinjani and Segera Anak lake.

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\(^{50}\) Statement made by a leading member of the Sembalun community.

\(^{51}\) The *pesantren* has been very successful in promoting ‘green’ farming techniques and in improving local livelihoods but, as an Islamic institution, it is difficult to use this vehicle to promote the revival of all aspects of *adat*, particularly traditional beliefs. Some devout Muslims in the community are also resistant to the reintroduction of *adat* law.
Through this and other initiatives, a number of environment and development organisations and members of the community met to discuss local problems. They identified local governance institutions and the *adat* law system (*awik-awik*) as important factors with the potential to counter the negative social and environmental impacts caused by current changes in the Sembalun area.

**AMAL**

The Alliance of Indigenous Peoples in Lombok was established in Sembalun Lawang in 1999 in order to strengthen the position of indigenous communities by increasing their understanding and practising of *adat*. The founders, including Abdulrahman Sembahalun, were concerned that the Sasak culture was being eroded to the extent that only the older generation knew anything about the indigenous belief system of Wik Tu Telu and the rules governing customary forest (*gawar kemaliq*)\(^1\).

AMAL aims to improve the status of indigenous peoples and restore their self-respect through several parallel initiatives including education through Islamic colleges about sustainable agriculture and protecting natural resources; co-operatives to provide more security for farmers and improve incomes; advocacy; and *adat* justice.

The organisation feels that it is making progress through the *pesantren* in Sembalun but needs more external support for its other projects, including the *adat* forest. It is also interested in carrying out participatory mapping of the Sembalun’s customary lands. It is now a member of the national indigenous alliance, AMAN.

\(^{1}\) Abdulrahman Sembahalun has been a key person in reviving *adat* ceremonies in Sembalun over the past 10 years; see Section II.1.
AMAL, the indigenous peoples alliance for Lombok, proposed that the priority should be to provide additional protection for remaining areas of customary forest such as Hutan Selong, Hutan Rembang, Hutan Nap-Nap, Hutan Pusuq and Hutan Sajang. These forests all surround important water sources. The concern was that, unless adat rules were strengthened, the forests and the springs they protected would vanish due to uncontrolled logging, forest fires and livestock grazing. So AMAL initiated a series of meetings within the adat community of Sembalun. This was particularly important as one of the Mangku in the adat structure has a mandate to manage natural resources.

It was agreed to focus initially on the protected forest (gawar kemaliq) on Mt Selong as this area has particular cultural and historic significance for the Sembalun community. The presence of the Islamic college (pesantren) nearby was a significant factor because it plays an important part in community life. Also, this forest is relatively close to the village so it is easier to prevent and tackle forest fires. Covering an area of approximately 300 ha, it is bounded to the north by the main road through the district; to the south by the River Lokok Julu; to the west by the R. Sangkabira; and to the east by Mt Anak Dara and Mt Bao Seladarak.

The forest is subject to three different types of tenure regime:
- the land around the foot of Mt Selong is privately owned;
- the lower slopes of Mt Selong are classified as state land;
- the upper slopes of the mountain, including its peak, are the common property of the community.

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52 Another indigenous alliance (Perekat Ombara - Persekutuan Masyarakat Adat Lombok Utara) has carried out similar initiatives to protect adat forest on the western slopes of Mt Rinjani. For more information see http://dte.gn.apc.org/AMAN/kearifan/ombara.html. The International Centre for Research on Agroforestry (ICRAF) and WWF also started a joint project Payment for Environmental Services project in 2007 in the Rinjani area in 2007: see http://www.worldagroforestry.org/SEA/Networks/RUPES/ENews/index_edition8.htm.

53 This is the community’s view of land status. In the eyes of the government, the whole area is state forest zoned as Protection Forest (hutan lindung), apart from the parts which are privately owned and certificated.

54 The community still uses the old Dutch term, GG (see footnote 39 of this chapter).

55 Under customary law this is gawar elet and gawar kemaliq (see Section III.1).
Ideas about using *adat* to manage the forest were then discussed with representatives of the village administration and village assembly. The result of these negotiations was an agreement between the community, their *adat* institutions and the local authorities. They decided that the *adat* forest around Mt Selong should be co-managed by the different stakeholders under the umbrella of a forest management organisation called *Pengaraksa Gawai Kemaliq Gunung Selong* (PGKGS). The key figures are the Mangku, village head and Park representative. *Adat* rules (*awik-awik*), drafted by consensus, would form the basis of the new forest management regime. They also agreed that the protected forest zone may be used for nature tourism, cultural events and *adat* ceremonies, as well as to harvest medicinal plants and fruits.

In April 2004, the *bupati* of East Lombok district, Ali Dachlan, formally recognised the 300 ha area as Mt Selong customary forest and the National Park authorities approved the management agreements. The

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56 *Pangaraksa* is an institution or person who has authority to manage and protect natural resources.
local government also provided 2,200 mahogany seedlings\textsuperscript{57} to replant areas of *adat* forest that have been damaged or destroyed in order to restore their original environmental functions\textsuperscript{58}.

The following *adat* rules now apply to the management of the Mt Selong protected forest:

- It is forbidden to damage or fell trees; to collect any sort of timber, even dead wood; and to hunt or capture wild animals, including jungle fowl.
- Only individual owners may use the privately owned forest and they must obtain prior permission from the PGKGS to cut down any trees.
- The areas classified as state land and communal property may only be accessed with a permit from the PGKGS and only via two approved entry points: Ketapahan Majapahit and Pangsor Mas.
- The *adat* forest of Mt Selong may only be used for nature tourism and to collect medicinal plants and fruits for local consumption – not for commercial trade. Exceptions may be granted by the PGKGS\textsuperscript{59}.

These *awik-awik* are enforceable by penalties. For example, the old rule that anyone who cuts down a tree without permission must plant ten more trees has been revived. However, the social sanctions, plus the threat of legal action under the formal system have, so far, proved effective.

\textsuperscript{57} Mahogany (*Swietenia macrophylla*) is native to the neotropics but, like teak, has been cultivated in Indonesia for centuries.

\textsuperscript{58} Another indigenous alliance (*Perekat Ombara - Persekutuan Masyarakat Adat Lombok Barat*) has carried out similar initiatives to protect *adat* forest on the western slopes of Mt Rinjani. For more information see http://dte.gn.apc.org/AMAN/kearifan/ombara.html. The International Centre for Research on Agroforestry (ICRAF) and WWF also started a joint project Payment for Environmental Services project in 2007 in the Rinjani area in 2007: see http://www.worldagroforestry.org/SEA/Networks/RUPES/ENews/index\_edition8.htm.

\textsuperscript{59} The negotiations between the community, National Park and local government were relatively easy because a Provincial Regulation on community forestry was also in the pipeline (*Perda Propinsi* No. 6/2004). East Lombok has since passed a local regulation on community-based forest resource management (*Perda* No. 13/2006 - *Pedoman Pengelolaan Sumber Daya Hutan Berbasis Masyarakat*).
In addition, the community decided to protect the following locations as sites of cultural significance and water sources:

- The ancestral settlement of Bleq (see Section I, 4).)
- Ketapahan Majapahit – the grave of Gajah Mada⁶⁰ and a stone marked with a footprint once used as a throne by Datu Sembahulun.
- Rantemas Waterfall, Pangsor Mas spring (a source of drinking water for all the people of Sembalun since ancient times) and Sembaga spring (the source of the R. Sangkabira which flows into the Java Sea).

The group has even bought up forest land within a 3 km radius of any springs in order to protect them.

These initiatives by community organisations have attracted attention and support from the authorities and NGOs.

These *adat* rules are not a panacea to end all the problems associated with the ways that the indigenous community has been using its land and forest resources. Changing people’s behaviour requires a sustained effort over a long period of time.

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⁶⁰ A famous military leader of the Majapahit Kingdom in the 14th century
AGROFORESTRY AND AWIK-AWIK

Agroforestry is basically seen as a secondary support system by the Sembalun people as their main livelihood is agriculture. However, agroforestry has always provided an additional source of income (from fruits such as banana and jackfruit) in addition to supplying materials constructing homes (bamboo and timber). Furthermore it helps to maintain the hydrological balance, making water available for agriculture activities.

The severe flooding and landslides which afflicted Sembalun and adjacent areas in late 2005 and early 2006 began to change local attitudes. While the majority of the community was only interested in making money as quickly as possible, through annual crops such as garlic and chillies, many now realise the importance of environmental protection. So people have responded positively to initiatives to revitalise knowledge to rehabilitate customary forest and to protect it with regulations based on traditional law (awik-awik).

Some villagers are already replanting their land with fruit trees like mangos and jackfruit and timber species. As they begin to realise the potential of high value commodities such as vanilla and coffee, the indigenous people of Sembalun will be encouraged to develop agroforestry further, for the economic as well as environmental benefits.
REVIVING ADAT VALUES

In early September 2004, hundreds of people from the Sembalun highlands and further afield gathered at the village of Sembalun Bumbung to celebrate the festival of Ngayuayu. The purpose of this gathering was to thank the Creator for all that He provides and to pray for protection of the environment and water sources on which the livelihoods of the Sembalun community and the people of Lombok as a whole depend. A central feature of the ceremony is when water from fifteen different sources on Mt Rinjani is presented to be blessed so that they will continue to support people’s lives.

The customary leader (pengulu adat), Haji Purnifa, explained that Ngayuayu is also an opportunity for everyone to reflect on the state of the local environment, including the forested slopes of Mt Rinjani which are an important water catchment area. He hopes that the four-yearly ritual which has been recently revived will raise public awareness about the need to manage resources sustainably and that it will stimulate discussion within the community about behaving responsibly.

Although Abdulrahman Sembahulun is one of the founders of the Islamic training college, he too strongly supports efforts to revive adat ceremonies and laws and the principles of honesty, fairness, openness and sincerity which underpin them. He sees the restoration of adat forest on Mt Selong as an important step towards strengthening people’s understanding and developing skills and social solidarity as people get involved in replanting trees. He also hopes that the community will, once again celebrate the rituals of Loh Dewa and Loh Makam which acknowledge the guardians of the forests and water supplies and revive the annual practice of paying respect to the founders of the settlements that make up Sembalun.

Source: KPSHK, 2005 (www.kpshk.org)
RESTORED FORESTS

In 2003, YAMI and WALHI NTB developed a community-based forestry project (SHK) in the Sembalun area. Its aims were to help replace forests in important watersheds but also to revive and strengthen traditional governance structures. The focus was on replanting fruit and timber species in forests near the three main settlements: Sembalun Bumbung (500 ha); Sembalun Lawang (300 ha); and Sembalun Sajang (100 ha). The project had mixed results. Some of the saplings were eaten by cattle allowed to graze freely in the planted area. Other were destroyed in fires, possibly set deliberately by people who wanted the place to remain grassland for livestock or hunting. But there were successes too: 100,000 trees planted at Memerong survived to form a 52 ha forest.

Source: KPSHK, 2005 (www.kpshk.org)
FORESTS FOR THE FUTURE
Indigenous forest management in a changing world
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Abdulrahman Sembahulun, the author