

PROPOSED MANAGEMENT SCHEME FOR LAMBUSANGO FORESTS

Rationale and Objectives

Indonesia has already been identified as the most biodiverse country in the World. Yet large parts of the country have had little biological investigation and additional species and important conservation areas are still being discovered. Given the relative ease that new species can be identified in remote provinces of the archipelago, it is likely that the current listing of the country's biodiversity is a considerable under-estimate of the true diversity.

However, there are significant threats to this biodiversity with an average of 1.7 million hectares of forest throughout Indonesia being converted to other uses in the period from 1985 - 1997 amounting to a 19% loss of forests in the SE Sulawesi province which includes Buton Island. There is also an indication from the data that the rates of forest loss particularly following the economic crisis in 1998 and the devolution of control of the forests to the approximately 350 Kabupaten level governments in 1999, may have increased in recent years. Moreover forest loss is just the most obvious aspect of the problem. Much of the remaining forest has been selectively logged and hunting for food or collection of birds for the pet trade has been widespread. From a global perspective such a catastrophic loss of forest in the world's most biodiverse country and often in areas where species are probably being lost before they have even been described, is one of the most serious issues that has to be addressed.

Investment in forest conservation projects in Indonesia by the donor community and international NGO's has had only a limited success and many of these schemes have been unable to address the problems of pressure for clearances from oil palm plantations, over capacity of Indonesia's sawmill industry driving illegal logging, forest clearance by an expanding rural population, institutional weakness in various government organisations, and now with devolution the separation of forest management powers between national and Kabupaten level. Under the Decentralization Law No. 22/1999 and its implementing guidelines, the Ministry of Forests continues to administer and manage all nationally important Protected Areas - PAs (national parks, *Cagar Alam* nature reserves, *Suaka Margasatwa* wildlife reserves and hunting reserves). Decisions on allocation and management of other forest areas including watershed and protection forests, production forests and local protected areas of limited conservation value such as recreational parks (*Tahura* and *Taman Wisata*) have now devolved to the Kabupaten level. This creates the added problem of ensuring effective co-ordination of forest management particularly since PA's occupy land that does not contribute land tax to the Kabupaten. From a biodiversity viewpoint many of these PA's will only survive as effective units if the surrounding limited and production forests are managed properly and act as an effective buffer zone.

It appears from this experience of funding conservation projects in Indonesia that the most urgent task is to develop an effective strategy for managing forests at the Kabupaten level since this is where most of the power now lies. An effective regime of Kabupaten forest management could have a huge impact on the management of forests throughout Indonesia and has the advantage over the old centrally controlled system of having a management structure much closer to the local people living adjacent or inside these PA's.

Mackinnon and Whitten (2001) have proposed dividing all Indonesian PA's into one of the following three categories:

- those where conservation values have been so severely compromised that the costs of conservation and restoration are so great that the sites should be turned over to local management and financing;
- those that are so remote and are experiencing so few problems that they will look after themselves to a large extent for the short and medium term futures; again the primary source of funding could be at the local level; and

- those under medium threat where the chances for conservation success are good with appropriate active assistance.

They have suggested that with limited funding only those in the third category should be supported. This project proposes a new model of forest management for PA's in an area of medium threat in the forest of central Buton in the province of SE Sulawesi. The proposal brings together under a single management system an area of forest which includes the Kakenauwe *Cagar Alam* forest and the Lambusango *Suaka Margasatwa* forest controlled nationally via a *Balai* KSDA office at provincial level, and watershed forest, limited production and production forest controlled at Kabupaten level. This forest area has been studied since 1999 by Operation Wallacea, a wildlife research organisation funded by paying university students who join the projects either for experience of working with expert biologists or who complete dissertation studies. These studies have revealed that the forests have 2006 biological case for Lambusango.htm for many groups, have discovered 21 new vertebrate species to science from the forests and revealed substantial populations of Endangered species such as the anoa and Vulnerable species such as macaque, tarsier and Dwarf Cuscus.

The forests of central Buton are under medium threat with problems of forest clearance by an expanding local community, illegal selective logging and rattan collection and hunting throughout much of the PA's. However, much of the forest still remains intact and there are no oil palm or sawmills in the Kabupaten that would provide major pressures for forest clearance. There clearly exists a commitment within Kabupaten level government towards addressing what are seen as pressing environmental concerns particularly in relation to the degradation of limited forest resources. Both the Bupati and the Head of KSDA in Kendari have been in their respective positions for less than a year and already have managed to demonstrate a willingness to address deeply rooted environmental concerns. Attempts to open roads that would bisect forest areas covered by this proposal have been rejected by the Bupati on the grounds they would place at risk existing forest areas through increasing access to illegal forest clearing and timber extraction activities. Proposals to open up remaining forest areas for asphalt mining activities have also been rejected to date and no further official forest conversions have been carried out since the current national level moratorium came into effect. In addition the Head of KSDA has also been proactive in seeking to apprehend people illegally removing timber from within state managed forests.

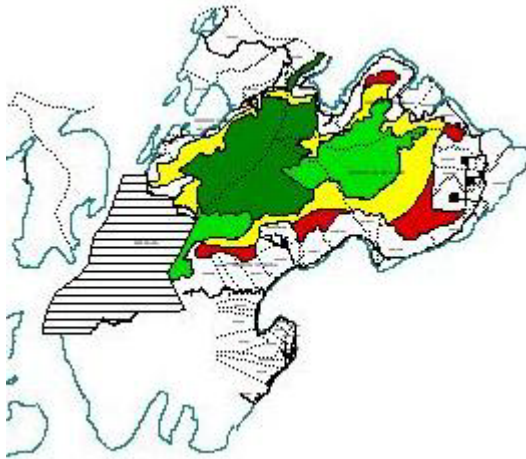
Walton (2001) described developing a system to broaden and guarantee access to forest benefits for forest dwellers and local communities, through ownership or secure, long-term use rights, in return for responsible forest management, as one of the key actions that needed to be taken to ensure protection of Indonesia's forests. At the heart of this proposal is the development of contracts for local villages to exploit the production forest which lies around the perimeter of the proposed forest management area in exchange for agreements to control all illegal logging and hunting activities in the limited production and conservation forests. It has been argued that direct payments to individuals to protect habitats would be a much more cost effective way of investing limited resources than in trying to capacity build protection agencies, increase awareness and develop alternate income streams. The main drawback of such an approach though is how it can be sustained without continual external funding. The proposed scheme for the forests of central Buton effectively gives direct payments to communities for protecting the forests but it is funded not by an external donor, but from income earned by the community in exploiting their adjacent areas of production forest.

Kepmen 31 (2001) provides an existing legal basis for community involvement in forestry management. The Lambusango Forest Management Area as it is to be known will be controlled by a *Forum Hutan Kemasyarakatan Lambusango* (FHKL) which is based on the requirements of Kepmen 31 (2001). The sustainability and risks of the project have been assessed and widespread consultation undertaken to ensure the proposal is in line with the views of government and local communities.

The overall goal of this project is to establish and demonstrate effective management of the Lambusango Forest Management Area for biodiversity conservation and utilise the lessons

learned from this approach to establish similar national/local conservation partnerships in other parts of SE Sulawesi. Given that so many aspects of this project are already in position (see section 9) it is proposed that the Lambusango Forest Management Area could be established as an effectively managed area in 3 years. A further year is required to monitor progress as many of the aspects of the funding are handed over to government departments and private sector organisations. However, much of the emphasis from 2007 onwards will be in assessing how transferable the concept could be to forests in other parts of Indonesia.

Proposed management scheme



Lambusango Forest Management Area. Dark green = conservation forests, light green = limited production forest, yellow = production forest and red = forest known to have been converted

The management scheme will be generated through six integrated components, namely:

- developing community benefits and support for biodiversity conservation,
- protected area management,
- public awareness,
- capacity building the next generation of Indonesian conservationists,
- developing an adaptive management system based on the results of an ongoing biological and social science monitoring programme,
- initiating similar forest management schemes.

Component A Developing community benefits and support for biodiversity conservation

The main difficulty faced by the conservation forests is from illegal logging and hunting by surrounding communities. One of the key strategies of this proposal is to create financial incentives for these communities such that they ensure that their own community members do not participate in such activities. This will be achieved by granting exploitation rights to areas of production forest adjacent to the villages within the Lambusango Forest Management Area on a contractual basis. One of the key conditions of the contract will be that the village ensure they eliminate illegal logging or hunting by their community members in the conservation forests.

In order to achieve this strategy which brings together management of the conservation forests and the surrounding limited production and production forests into a single management area known as the Lambusango Forest Management Area (LFMA), a new management vehicle has to be formed. The Bupati, relevant government departments, local academics and NGO's have proposed an organisation known as *Forum Hutan Kemasyarakatan Lambusango* (FHKL) which will comprise 7 government and 7 non government representatives. From government the following Kabupaten level departments will be represented: Bappeda (Regional Planning Agency), Kehutanan (Forestry), Pariwisata (Tourism), Tata Ruang (Spatial Regulatory Agency) and BAPPEDAL (Environmental Assessment Agency). In addition, the government representatives on the forum would comprise the leader for KSDA (Provincial Conservation Agency in Kendari) and the Chairman of Commission for the Environment within the House of Representatives at Kabupaten level.

Two academic representatives from the local university (Unidayan) and 5 NGO representatives would complete membership of the Forum.

The role of this Forum is seen as critical to ensuring there is both a high level of accountability over management of the LFMA and that individuals with a broad range of backgrounds are brought together each able to make significant contributions to project design. The Forum will report to the Bupati, Ketua DPR (House of Representatives Leader), Kapolres (Head of Police) and Dandim 1403. The Forum will meet monthly and will be responsible for the development of forest management policy within the Lambusango Forest Management Area in consultation with relevant government institutions and local communities. This Forum would need to develop into an effective management organisation and a full time secretary to service the Forum with papers for each item and record all decisions for implementation would be required.

The Forum will have a small executive comprising a the Project Manager and a team of 4 Community Facilitators who would be based in each of the four Kecamatan and would be involved in helping the villages in each Kecamatan develop proposed management plans for the production forests adjacent to the villages. In addition a consultant forest management expert would be contracted to provide specialist input to these plans. The benefits to villages in participating in the scheme is that they would gain the rights to the sale of timber harvested in a sustainable manner from the forests as well as the non timber extractive benefits from the production forests (eg rattan, herbs, honey). However, in exchange for being granted these rights the village would have to propose a plan for the production forests adjacent to their village including aspects such as:

- agreement on the boundaries with adjacent villages,
- commitment to mark the boundaries of the village area of production forest either by planting or with paint marking,
- commitment that all further conversion of production forest to agricultural land would be halted within their village,
- agreement that all the village members would halt any illegal logging and hunting in adjacent conservation areas,
- appointment of a Forest Guardian to help monitor implementation of the village forest management plan. Funding for this post would initially come from grant aid but the village would be committed to phasing in funding for the post from the exploitation income,
- ensuring that the rate of exploitation in the village managed forest was designed and implemented in a manner such that quantities taken per year did not exceed total wood production per annum for the managed area,
- agreement that a tree nursery scheme will be developed and a re-forestation programme for cleared areas of designated production forest implemented over following years,
- agreement that all timber and non timber income obtained from the village managed forest was declared in full to the government and all taxes paid

Villages that signed up to the scheme could then market the sustainable quantities of timber and other products from their managed areas in conjunction with the Forestry department such that all relevant taxes were paid. In addition they would also receive technical assistance in improving timber production on private and state owned land holdings through the development of agro forestry nurseries, micro-financing of small businesses and intensification of agriculture. This is considered particularly important to facilitate dependency away from timber taken from natural forest areas.

Villages breaking from the terms of their contractual agreement would have their participation benefits suspended for a 12 month period. This would put considerable peer group pressure on any community members trying to continue with illegal extraction or hunting from the non village managed forests.

The limited production forest and Kabupaten level conservation forests would not be included in the village management scheme. In these forests and the conservation forests of Kakenauwe and Lambusango only rattan extraction would be permitted. The KSDA/Forestry team would issue rattan permits to rattan collectors working for in the LFMA. Part of the condition of the rattan licence would be that all rattan collected would be reported to the KSDA/Forestry team and taxes paid. Each KSDA/Forestry team would allow an agreed tonnage of rattan to be collected from their sector each season and after that quota was achieved the collection would be closed down. Any rattan collector caught collecting after the quota had been achieved or caught with undeclared rattan would lose their licence to collect from within the LFMA for a 12 month period.

Thus although the principal of rattan collection from within the conservation forests will have been conceded (in practice there is already widespread violation of this ruling), this concession and the tying of villages to financially beneficial contracts which are suspended if their community members are involved in hunting or logging in the conservation forests, will result in much better protection. In addition the substantial stands of limited production forest will be brought into effectively the same management strategy as for the conservation forests effectively extending the protected forests.

One of the problems when introducing a scheme such as this, is that if it is thought that a new line of forest clearance is going to be enforced as part of the village contracts, this might spark a wave of land grabs before the new scheme is introduced. It is therefore proposed to make it a condition of participation in the scheme that the line of clearance of production forest in any participating village must have advanced no further than that identified on the 2002 satellite analysis of forest cover.

Component B Protected Area Management

The second component of the strategy is to strengthen the effectiveness of the management of the forests within the Lambusango Forest Management Area. This will comprise two parts:

- developing a management plan for the whole Lambusango Forest Management Area in conjunction with the Forum and relevant government departments,
- strengthening of the KSDA/Forestry team in patrolling and enforcing against illegal logging and hunting in the non village management areas of the Lambusango Forest Management Area

A concise management plan for the whole Lambusango Forest Management Area comprising the management strategies for each of the village managed areas of production forest and the management approach to be used for the non production forest (ie Suaka Margasatwa, Cagar Alam, Limited Production Forest and Watershed Protection Forest) will be produced for agreement by the Forum and relevant government departments. The agreed management plan will be distributed widely amongst relevant government departments and to all villages participating in the Lambusango Forest Management Project.

Much of the control of villagers illegally entering the non timber production areas of the forest will be carried out at community level from peer group pressure and by the work of the Forest Guardian appointed by the village. This individual has to be someone who has wide respect in the community and who is unafraid to tackle any transgressors of agreed regulations. The Forest Guardians would report both to the Head Man of the village and to the joint KSDA/Forestry ranger team. Although with selection of the right individuals as Forest Guardians, community compliance should be high, there will also be a need to have an independent well organised ranger force to identify outside transgressors and organise prosecutions. The KSDA team is currently responsible for the conservation forests whilst the PHPA ranger team is responsible for patrolling the production and limited production team. It

is proposed to produce a single combined KSDA/PHPA ranger team of 12 and to strengthen the capacity of this team to undertake patrolling in all the non timber production areas of the LFMA. KSDA/PHPA are intending to increase their ranger numbers to 12. Support however, would be required in helping develop existing offices into suitable field bases for the enforcement teams to be based, so that there is a good spread of staff around the LFMA. One of the main obstacles to the success of placing rangers at field stations though is that under the current government rulings the appointed ranger receives no assistance for their family to move to the new posting. As a result most of the families do not accompany the rangers, who then return to headquarters at the earliest opportunity, from where they can visit their families easily. In the nearby Wakatobi National Park for example where such a system prevails, of the 50+ rangers stationed in the Park there are rarely more than 10 on site at any one time. In order to overcome this problem for the Lambusango Forest Management Area, assistance would be provided in providing re-location expenses for the families of the rangers.

A second problem that needs addressing is for the appointed rangers to receive training such that they have the power of arrest. This is an element of the programme that KSDA have agreed to fund together with training for the whole ranger team on how to record evidence and prepare papers for prosecution.

The current problem of a lack of motivation by the rangers will be partly addressed by the greater value their work will be perceived as having under the new management regime. However, strong leadership will also be required from the Senior Ranger based at Labundo and mentoring assistance will be given to this postholder in the early stages of the implementation of the scheme to ensure monitoring regimes are fully established. An initial training course with the KSDA/Forestry team will involve a week long jungle survival course that will not only help build their confidence in operating in a forest environment but also help to bond the team together. Similar courses will be run for groups of newly appointed Forest Guardians.

Each pair of rangers would have a segment of the reserve that they were required to patrol 3 times a week and to gather evidence for prosecutions on any observations of illegal activities such as hunting for anoa or logging. Since limited rattan collection would be allowed in all the non timber production forest, a further role of the patrols would be to check the licences of all rattan collectors. A technical expert on the exploitation of rattan will be contracted to define the annual quotas of rattan that could be extracted from each patrol sector. It is proposed that although initially government funding would be required to assist with the costs of running the KSDA/Forestry ranger team for the first year, from this point onwards part of the tax funds raised from legal extraction of rattan from the non timber extraction parts of the LFMA would be used to fund the enforcement costs and make it self sustaining.

Component C Public awareness

Operation Wallacea surveys have indicated a fairly low level of awareness amongst surrounding communities about the conservation value of the Lambusango forests or the many endemic Sulawesi species found in the forests. The quickest way to spread knowledge quickly amongst communities is by inviting primary and secondary school groups and scouts and women's groups from villages around the edge of the Lambusango Forest Management Area to join short courses. There is an abandoned Dutch house (Wanda Wolio) set on a hilltop close to the Labundo base which could be developed into accommodation for small groups (15) to stay. Local staff have developed jungle training courses and a modified version of this course would be run including natural history trips to see easily observed species such as the macaques, tarsiers and some of the bird species. These short field trip stays could include a trek through the Kakenauwe forest grid down to the Labundo Research Centre for PowerPoint presentations about the endemic species found in the forests. 450 people from villages around the edge of the LFMA could be given this forest experience course under this proposal.

Component D Capacity building the next generation of Indonesian conservationists

There are very few opportunities for Indonesian biology, forestry, environmental science or geography undergraduates to participate in field research. Without such experience it is difficult for these graduates to have a practical basis for applying their knowledge when appointed to various management posts. The Operation Wallacea multi-disciplinary biological and social science survey teams which operate in the July to September period each year provide an ideal opportunity for Indonesian undergraduates to gain practical experience. A competitive grant available to 12 Indonesian university students each year to cover the costs of their participation in the surveys for a 10 week period would give valuable experience of working with a range of leading biologists and social scientists to a reasonable cohort of undergraduates each year. Over the years this would help build capacity in biodiversity protection in the various government departments in which the students eventually worked. It would also mean that there would be key individuals around the country who had the basic knowledge and field skills to help design similar Kabupaten based management schemes and to develop biodiversity and social science monitoring programmes.

Much of the programme for biodiversity and population monitoring in the LFMA (see component E) it is proposed will be carried out by Indonesian doctoral students. Completion of the monitoring programme will therefore result in 4 PhD level Indonesian biologists graduating from completion of studies with a very strong field based component at the end of the 4 year programme.

Component E Developing an adaptive management system based on the results of an ongoing biological and social science monitoring programme

The proposed [social and biological science monitoring programme](#) to assess performance against the management objectives is described elsewhere. Many of the costs can be incorporated into the existing Operation Wallacea social science and biological research programme. However, in order to achieve the geographical spread of some of the monitoring programmes which are checking for changes in biodiversity indicators or populations of key species across the whole of the LFMA, additional sampling nodes will need to be added. It is proposed that four Indonesian doctoral students are employed to complete some of the aspects of the programme (birds and butterflies: forest herpetofauna: population levels of anoa and Sulawesi Wild Pig, population levels of tarsiers and macaques) over a field season extending from April to September each year. Nine sampling nodes (three in production forest, three in limited production forest and three in the heart of the conservation forests) would be sampled with a week being spent at each node over the sampling period. A contract would need to be let for a population ecologist to ensure the programme was successfully launched, to supervise the various studies and to assist with analysis. The Labundo Research Centre would be operational from April to September each year to support the field survey teams.

Component F Initiating similar forest management schemes

The main purpose of integrating the management of production, limited production and conservation forests in Lambusango is to demonstrate that by so doing, the effectiveness of biodiversity protection in the conservation forests can be substantially enhanced. If successful, the lessons can be applied to other forests across Indonesia to help halt the massive annual losses of lowland rainforest. Given the urgency of the problem in Indonesia, it is important that during the 4 year period of the project significant progress is made in determining the applicability of the Lambusango approach to other forests. It is proposed that in year 4, consultation over the development of similar joint KSDA and Bupati office control of forests in north Buton and Kabaena is undertaken. In addition by year 2 of the programme the

forests along the south eastern edge of the Lambusango Forest Management Area would be brought under similar management. Bau Bau has recently achieved city status and as a result is in the process of establishing duplicate government departments to those for Buton. The south eastern corner of the Lambusango Forest Management Area will therefore need to have its own separate management structure.

By the mid point of year 4 of the programme there should be substantial amounts of social and biological data to demonstrate the effectiveness of the Lambusango Forest Management Area approach, as well as initial experience in transplanting the concept to other forests. These data will be used to prepare a report and presentation to key government ministers in Jakarta to lobby for extension of the concept beyond the South East Sulawesi province.