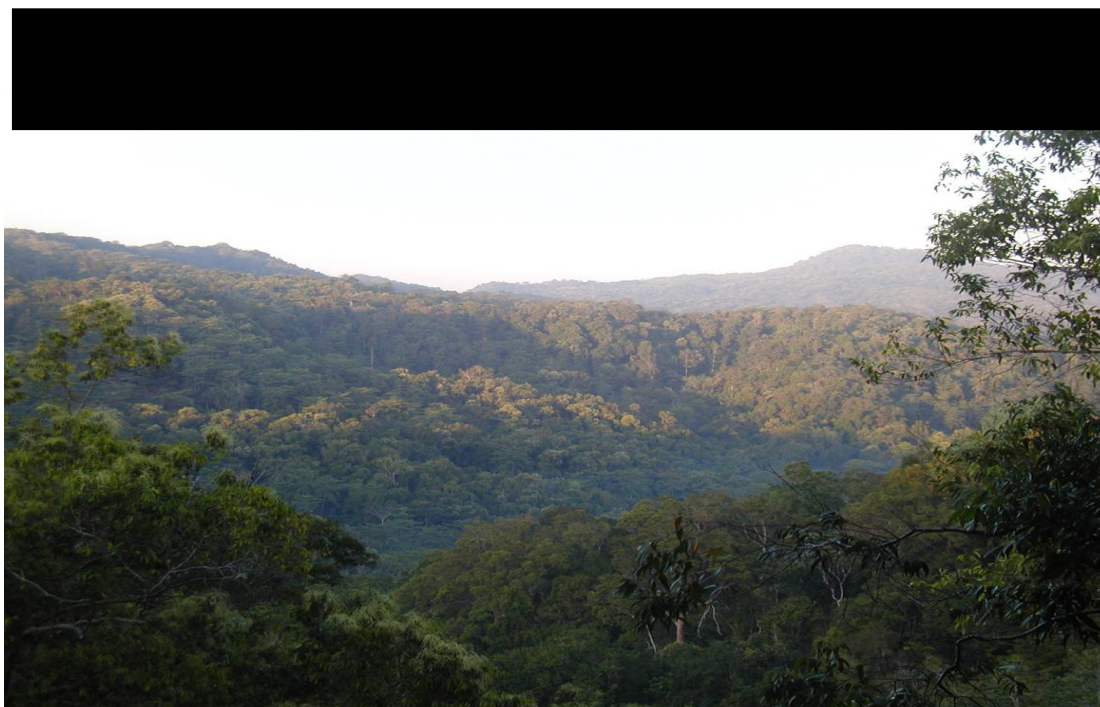


FINAL REPORT

Lambusango Forest Conservation Project, Buton, South East Sulawesi, Indonesia

GEF-MSP Grant No. TF 054815



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List of Abbreviations and Acronyms

APJMB	<i>Asosiasi Petani Jambu Mete Lambusango Buton (Lambusango Cashews Farmer Association)</i>
APJMB	<i>Asosiasi Petani Jambu Mete Barangka Buton (Barangka Cashews Farmer Association)</i>

APJMM	<i>Asosiasi Petani Jambu Mete Matanauwe</i> (Matanauwe Cashews Farmer Association)
BCFA	Barangka Cashews Farmer Association
BDFO	Buton District Forestry Office
BIPHUT	<u>B</u> adan <u>I</u> nventarisasi dan <u>P</u> emetaan <u>H</u> utan (Agency for Forest Inventory and Mapping)
BKSDA	<u>B</u> alai <u>K</u> onservasi <u>S</u> umber <u>D</u> aya <u>A</u> lam (Natural Resource Conservation Centre)
BPD	<u>B</u> adan <u>P</u> erwakilan <u>D</u> esa, Village Parliament
BRI	Bank Rakyat Indonesia
Camat	Head of sub-district
CARE	Canadian based NGO
CFMF	Community Forestry Management Forum
COREMAP	Coral Reef Rehabilitation and Management Project
Danramil	Head of sub-district army
DFID	Department for International Development
DPRD	<u>D</u> ewan <u>P</u> erwakilan <u>R</u> akyat <u>D</u> aerah (District Parliament)
FCUL	Forest Crime Unit Lambusango
FGD	Focus Group Discussion
FLO	Fair-trade Labelling Organization
Gerhan	Gerakan Rehabilitasi Hutan dan Lahan, National wide government project for land rehabilitation and reforestation
GIS	Geo-Information System
G-KDP	Green Kecamatan Development Program
GPS	Geo Positioning System
ICRAF	World Agro-forestry Centre
JC	Just Cashews
Kapolsek	Head of sub-district police officer
Kecamatan	Sub-district
KRPH	<u>K</u> epala <u>R</u> esort <u>P</u> olisi <u>H</u> utan (<i>Head of Forest Ranger at Kecamatan Level</i>)
KT	Kalende Tribe
KUHP	Kitab Undang-Undang Hukum Pidana/criminal law
LEAD	Legal Empowerment & Assistance for the Disadvantaged
LED	<u>L</u> embaga <u>E</u> konomi <u>D</u> usun/sub-village cooperative
LFCP	<u>L</u> ambusango <u>F</u> orest <u>C</u> onservation <u>P</u> roject
LF	Lambusango Forest
LK	Laporan Kejadian (crime evidence report)
LPEDM	<u>L</u> embaga <u>P</u> emberdayaan <u>E</u> konomi <u>M</u> asyarakat <u>D</u> esa/village cooperative
LSM	Lembaga Swadaya Masyarakat, non-government organization (NGO) or civil service organization (CSO)
MCFA	Matanauwe Cashews Farmer Association
Muspika	<u>M</u> usyawahar <u>P</u> impinan <u>K</u> ecamatan (Leaders Forum at sub-district level, composed of Camat, Kapolsek and Danramil)
NGO	See LSM
OFA	Oyster Farmer Association
Opwall	Operation Wallacea Ltd
OWT	<u>O</u> peration <u>W</u> allacea <u>T</u> rust
PC	Producer Certification
Perdes	<u>P</u> eraturan <u>D</u> esa, village regulation
PKI	Partai Komunis Indonesia/Indonesian Communist Party
PM	<u>P</u> roject <u>M</u> anager
Polres	District Police

Polres	Police office at District level
Polsek	Police Office at Kecamatan level
PPKAN	Pekan Penghijauan dan Konservasi Alam Nasional
PPNS	Penyidik Pegawai Negeri Sipil (Civil Police Investigator)
PT HBI	PT Hijau Bumi Indonesia
PT SSN	PT Supa Surya Niaga
PT SSN	PT Supa Surya Niaga
Rp	IDR
RS	Remote Sensing
SKSHH	<u>S</u> urat <u>K</u> eterangan <u>S</u> ahnya <u>H</u> asil <u>H</u> utan (legal document to transport forest products)
SOP	Standard Operating Procedure
TBI	Tropenbos International Indonesia
TIME	Tourism Indonesia Mart & Expo
ToT	Training of Trainer
TTL	<u>T</u> ask <u>T</u> eam <u>L</u> eaders
UNDP	United Nation Development Program
UPTD	<u>U</u> nit <u>P</u> elaksana <u>T</u> eknis <u>D</u> aerah, technical implementing unit of district agency at sub-district level
USD	US Dollar
VCEP	Village Conservation Extension Program
WBOJ	<u>W</u> orld <u>B</u> ank <u>O</u> ffice <u>J</u> akarta
WCP	Wildlife Conservation Products

Lambusango Forest Conservation Project, South East Sulawesi, Indonesia

Achievements, Lessons Learned and Outlook (1 June 2005 – 31 December 2008)

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I. Introduction

The focus of *Lambusango Forest Conservation Project* (LFCP) is \pm 65,000 ha of uninhabited lowland evergreen rainforest in the central Buton, South East (S.E.) Sulawesi, Indonesia. This block

of forests is popularly known as *Lambusango*¹ Forest. Much of this is intact and none faces the major pressures for forest clearance from oil palm plantations, pulp industry or sawmills that so threaten the forests in the rest of the country. This forest is made up of different categories: 29,320 ha of two protected areas, Kakenauwe Nature Reserve (\pm 810 ha) and Lambusango Wildlife Reserve (\pm 28,510 ha) which are managed by the Natural Resource Conservation Agency (BKSDA)² S.E. Sulawesi on behalf of the central government (Ministry of Forestry), and \pm 35,000 ha of protection forest and production forest which are managed by local government, i.e. the Buton District Forestry Office (BDFO/*Dishut* Buton).

Illegal logging, forest area encroachment and asphalt mining are the greatest threats that are likely to raze the remaining Lambusango Forests. The problem is particularly severe, as the forest resource is the only extensive and intact natural forest in Southern Buton. The continued economic crisis, compounded by recent regional development setting and obsession to gain local revenue from excessive natural resource extraction has put pressure on the current and future conservation of the Lambusango Forest.

Following are the major areas of concern:

- (1) Preservation of protected areas (Kakenauwe Nature Reserve and Lambusango Wildlife Reserve) has originally been a lower priority for the Buton District Government, because legislation decrees that the responsibility for conservation areas remains with the central government (Ministry Forestry). To the extent that these areas at present are a lost opportunity for revenue generation in comparison with production forests, the existence of protected areas even could be perceived as a burden rather than a blessing. While Ministry Forestry is lack of resources to manage the protected area.
- (2) The division of the original Buton District into four districts – Buton, Wakatobi, Bombana and Bau-Bau – has largely reduced the wealth of resources within Buton district itself. Most of the physical infrastructure and industrial facilities in the original district of Buton are now located within the jurisdiction of the Bau-Bau town. Large production forest and irrigated agriculture land in SE Sulawesi mainland are now within the jurisdiction of the Bombana district, while the internationally diver's paradise of the *Tukang Besi* islands are now under jurisdiction of Wakatobi district. As a consequence, Lambusango Forest has become an immediate source ('money machine') of District Buton revenue generation (PAD);
- (3) The partition has led the capital of Buton District to be moved (from Bau-Bau) to Pasarwajo, while Wakatobi has also built its own new District capital in Wanci. The development of both Buton and Wakatobi District capitals (Pasarwajo and Wanci) and Bau-Bau has remarkably raised sawn timber demand in those areas. Unfortunately, neither Wakatobi, Bau-Bau, even Raha (Muna) have forests, so the only source of timber for these areas is Lambusango Forest, or Buton Utara Nature Reserve. This has made the continuous flow of timber extraction from Lambusango Forest to surrounding areas.
- (4) Not surprisingly that the area experience big gaps between timber demand and supply. The legal annual allowable cut for the Buton District is 2,000 m³, but the real need is at least 10 times bigger than the legal supply. Timber business is so promising and thereby has involved politicians, government officials and law apparatus³.
- (5) Despite small size of Buton Island and its poor soil fertility, this area still becomes transmigration area destination. Unfortunately, all the transmigration areas have mostly been developed at the expense of Lambusango forests. After establishment of 10 (re)settlement

¹ Lambusango is a name of the nearest village at the edge of the forest block.

² BKSDA is the technical implementing unit of Directorate General of Protection and Nature Conservation, Ministry of Forestry

³ There have been popular joke: 'There are only three types of timber in Lambusango –Police timber, Army timber and Forestry Official timber.'

areas (SP1 to SP 10) in Lasalimu Selatan Sub-district, a new transmigration was established on December 16, 2004 at Barangka village/Kapontori Sub-District (Kamelanta Village). Rampant forest encroachment has occurred along settlement areas surrounding Lambusango Forest.

- (6) The increase of kerosene price more than 186 percent. This has led villagers surrounding Lambusango forest (including Bau-Bau and Wakatobi) to use fuel wood as alternative energy. Fuel woods collections are widespread surrounding the forest area.
- (7) Efforts have been made to exploit Buton asphalt to meet national and international asphalt demands. Considering main deposit of Buton asphalt is under Lambusango Forest, when its production becomes a national priority, the pressures on those parts of the forest that containing economically exploitable deposits could well be greater than arise in other parts of Indonesia.

The purpose of the *World Bank/GEF Lambusango Forest Conservation Project* (LFCP) is to procure necessary technical services and related resources to facilitate the development of cohesive and comprehensive conservation activities involving all forest stakeholders, which enable to maximize protection and demonstrate reduction in the level of threat to the global significant of Lambusango Forest.

The *Operation Wallacea Trust* (OWT), with the World Bank as the implementing agency, received a USD 975,000 medium scale *Global Environment Facility* (GEF) fund to run the *Lambusango Forest Conservation Project* (LFCP, GEF-TF 054815). The original time-scale of the project was from 1 September 2004 until 31 January 2008. The grant agreement was signed by the World Bank Indonesia Country Director (*Andrew Steer*) on 29 March 2005 and countersigned by OWT chairman (*Rt. Hon. Kenneth Clarke QC, MP*) on 10 April 2005. Due to a delay with the first fund disbursement, the project start date was effectively postponed until 1 June 2005.

During project implementation, the project received six times World Bank supervision missions. First was conducted by *Sumaryo Soemardjo* (WBOJ, consultant) and *Bryony Morgan* (Junior Professional Associate, EASEN) on November 7 – 12, 2005. Second supervision with special emphasis on financial management and procurement was conducted by *Mrs. Novira K. Asra* (WBOJ, FMR Specialist) and *Mr Ilham Abila* (WBOJ, procurement specialist) on August 23-25, 2006. The third supervision, which was also called as midterm reviews, was conducted by *Mr. Sumaryo Soemardjo* and *Bryony Morgan* on December 3 – 10, 2006, and added by the visit of Task Team Leader (TTL) *Dr. Tony Whitten* on February 15-19, 2007. The fifth was conducted by *Dr. Tony Whitten* (TTL, EASRE), *Judith Schleicher* (JPA, EASRE) and *Sumaryo Soemardjo* (Consultant) on March 8 – 14, 2008. The sixth was conducted by *Dr. Tony Whitten* (TTL, EASRE), *Judith Schleicher* (JPA, EASRE) and *Sumaryo Soemardjo* (Consultant) on December 9 – 13, 2008. The project performance has been rated as satisfactory.

As a follow up of mid-term reviews recommendation supported with discussion with TTL and the Head of BKSDA (*Ir. Halasan Tulus*), on March 6, 2007 the Project Manager (PM, *Dr. Edi Purwanto*) sent a document entitled '*Proposed Adjustment on Project Design and Budgetary Allocation*' to OWT, TTL and *Bryony Morgan*, the document was prepared for the Trustee Meeting held in London on March 12, 2007.

Based on the summary of above mentioned document, on August 2007, OWT submitted undated letter to the Bank requesting amendments to the project description, an extension of the closing date and grant reallocation. In response to OWT request, on September 19, 2007 the Bank issued amendment to Letter of Agreement dated March 29, 2005, the letter was signed by World Bank Indonesia Country Director (*Joachim von Amsberg*), where the Bank accedes to OWT requests and

agrees, accordingly, to: **(a)** amend the project description as set out in subparagraphs **A.1** through **F2** of paragraph **1.2** of the Annex to the Letter Agreement; **(b)** reallocate the grant proceeds as shown in the table of withdrawal of grant proceeds in paragraph 4.2 of the Annex to the Letter Agreement; **(c)** establish December 31, 2008, as the latter date for purposed of *section 4.3 (b)* of the Annex to the Letter Agreement. The amendment letter was countersigned by OWT chairman (*Rt. Hon. Kenneth Clarke QC, MP*) on October 2, 2007.

The revised specific objectives as stated in the revised Grant Agreement is presented on **Appendix A**, while the detail outputs as outlined on the '*Proposed Adjustment on Project Design and Budgetary Allocation*' is presented in **Appendix B** of this report. The co-financing of BKSDA and BDFO is presented in **Appendix I**.

The report outlines project implementation from 1 June 2005 – 31 December 2008, the main outputs; outcomes, lesson learned and outlook are discussed.

II. Project Implementation

A1. Formation of a Community Forest Management Forum (CFMF) as a mature organization able to conduct independent conservation movements

The formation of the CFMF is part of the exit strategy for the LFCP, in that the CFMF is expected to follow-up and sustain conservation programmes that have been initiated by the project. The CFMF, as a representative of the local community, should become an important pressure group for the implementation of good forest governance in the Buton District. The CFMF is not intended to substitute or provide opposition to the Government, indeed the CFMF should become a strategic partner of the Government. Authority to manage forests remains in the hand of the government, but the CFMF, as a representative of the local community, should take a role in influencing forest governance policy. The CFMF, as a community-based organization, must remain independent; however, considering the future role of the CFMF as a facilitator and driving agent of the conservation movement, its existence should be recognized, accepted and politically supported by local authorities.

CFMF members are composed mainly of village elders from Lambusango forest constituencies, supplemented with other forest stakeholders, i.e. NGOs, Universities, and head of government agencies (*ex officio*). CFMF members were recruited, the organization structure created and its associated board formulated on 24 September 2005. However, due to political rivalry between the elected Forum Chairperson (*Pak Mahufi*) and the Head of District Government/*Bupati* (*Ir. H.L.M. Sjafei Kahar*), the organization did not receive political endorsement until 22 March 2006. As such, between 24 September 2005 and the end of March 2006, the CFMF was practically dormant. Only after the CFMF Chairperson⁴ was replaced by his Vice-Chairman (*Pak Abdul Syukur*), did the CFMF receive political endorsement from the *Bupati*. The political endorsement was formalised through the issuing of Bupati Decree No. 211/2006 on 17 May 2006⁵.

After receiving this clear sign of endorsement, the CFMF conducted successive informal public meetings in each sub-district to socialize its legal existence, vision and mission, as well as inviting ideas from the local community in attendance. As of May 2006 LFCP started to delegate some of its tasks to the CFMF, specifically those regarding: (a) Improving forest governance policy; (b) Changing community attitudes towards sustainable forest resource management; (c) Strengthening community based forest protection.

The aim was to provide a manageable exercise and learning process for the newly established CFMF. Since January 2007, CFMF management has been decentralized at kecamatan level, meaning that all activities and decision are organized at sub-district level, while the District CFMF coordinator mainly acts as a political figurehead.

A list of activities conducted by the CFMF from May 2006 until end of February 2008 along with associated achievements follows:

A.1.1. Improving Forest Governance Policy

⁴ On January 18, 2006, *Pak Mahufi* was appointed as caretaker of Bupati Wakatobi District.

⁵ *Pak Sjafei Kahar* was successfully secured his position during July 2006's Buton Regent Election. He was appointed as the Buton District for the second period (2006–2011) in October 5, 2006.

A.1.1.1. Regular monthly meeting in the Kecamatan

A regular monthly meeting is organized by the head of sub-district (*Camat*) at the beginning of each month in the Kecamatan office. The meeting is aimed towards coordinating progress, monitoring and evaluation of development as well as understanding any associated problems and constraints. The meeting is attended by *Muspika* (*Camat*, *Kapolsek*, and *Danramil*), the head of UPTDs, *Puskesmas* (public health service), extension workers and village headmen (*Lurah* and *Kepala Desa*). As of February 2007, CFMF coordinators from all kecamatan have been invited by the Camat to attend the regular monthly meeting. This can be considered as a fundamental achievement, as it proves the existence of the CFMF has been appreciated by government agencies at grass root level. This provides more freedom for the CFMF to control forest governance policy away from internal government structure at the grass root level.

A.1.1.2. Organized meetings with District Parliament (DPRD) and government.

Since 19 May 2006, CFMF has successfully organized meetings with the district parliament and government on forestry development issues. Seven meetings have been conducted by the CFMF on 19 May 2006, 23 August 2006, 8 December 2006, 15 April 2007, 9 January 2008, 13 March 2008 and 11 December 2008. The meeting on 9 January 2008 was conducted in Watumotobe Village (capital of Kecamatan Kapontori) and organized together with '*Pekan Penghijauan dan Konservasi Alam Nasional/PPKAN*'. The meeting was attended by the head of district government (*Pak Sjafei Kahar*). *Pak Bupati* asked to the CFMF and its networks to intensively fight forest crime through intensive vigilance and surveillance. He stated '*anyone who bravely reports and shows forest crime, evidence of encroachment and illegal logging supported with photographic evidence and whom is willing to be an eye witness in the court, will be awarded with a new motor-bike*';

A.1.1.3. CFMF refused the development of oil palm plantation in Kecamatan Lasalimu

A major issue arose in January 2006 when it became clear that *PT. Wira Caraka Adi Lasalimu* intended to develop 15,000 ha of oil palm plantation in Kecamatan Lasalimu (*Sri Batara*, *Lasembangi* and *Wasuamba* villages). There was no information on the extent of the area of the proposed plantation. However, considering the limited arable land in those villages, the proposed oil palm plantation areas would certainly be developed at the expense of Lambusango Forests. During April 2006, LFCP together with CFMF members conducted field investigations and interviewed elders in those villages and found that there were pros and cons concerning the oil palm plantation among community living in those three villages. Some villagers have had extremely high expectations as to the benefits of the project, while others were pessimistic after already having experience dealing with the company⁶. During a meeting on 19 May 2006, CFMF expressed that it did not agree with the planned oil palm development to the government; the recommendations were supported by district parliament on 23 May 2006, the government refused to licence the development of oil palm plantations in those villages.

A.1.1.4. Facilitated law enforcement patrols of Mangan (Mn) mining in Kombewaha

On 8 March 2008, *PT. Malindo Bara Murni*, a Kalimantan based mining company, received mining concession rights (*Kuasa Pertambangan/KP*) from the Bupati of Buton (Bupati Decree No. 130/2008). The concession was to exploit the Mangan deposit (114 ha) for a period of ten years near Kombewaha Village, Siotapina Sub-District. Understanding that the concession shares border with the Lambusango forest, on 30 May 2008, the CFMF Coordinator of Siotapina Sub-District

⁶ During the 1990s, *PT. Wira Caraka Adi Lasalimu* (together with *PT Tirta Rimba Raya*) held official permits to develop cacao plantations in the area. The company logged thousands hectares of forests in Lasalimu Selatan, yet the cocoa plantation never came to fruition. This destructive logging was the alleged cause of a flash flood in the Sub-District in 1999.

(*Pak La Dangka*) asked BDFO to oversee the mining operation. Based on an inspection conducted on 3 June 2008, BDFO together with Buton District Mining Agency and CFMF found that the current operation had occupied around 3 ha of state forest land. This finding was published in the *Radar Buton* local newspaper on 18 June 2008. So far, there has been no action by the legal or enforcement bodies to follow-up these findings.

A.1.1.5. CFMF objected to Gerhan Project at Kakenauwe Village

The *Gerhan*⁷ project has been running since 2004 in Buton and the project has been especially targeted at six sub-districts surrounding the Lambusango Forest. Ironically, a forested area near Kakenauwe village where the natural forest is still intact was proposed by UPTD Lasalimu as *Gerhan* area. It was planned to grow teak (*Tectona grandis*) seedlings of 25 ha with planting space in plots of 5 m x 5 m, with five new tracks being developed to provide access for inspections. It was clear that impact of the proposed planting would be the degradation of the natural forest (an area that provides the source of two important springs), so, on 9 June 2008, the Forum Coordinator of Lasalimu Sub-District (*Pak La Aete*) sent a letter highlighting the issue to the Head of BDFO (*Drs. Abidin Baso*). On 12 June 2008, *Pak Abidin*, together with BKSDA staff (*La Kaida* and *La Pare*) visited the proposed planting site and realized that the area was unsuitable for the project. *Pak Abidin Baso* decided to change the reforestation site to other state forest areas which badly needed to be reforested.

A.1.1.6. CFMF objected to nickel mining in Lambusango Village

On 31 March 2008, *PT. Bumi Buton Delta Megah*, a Surabaya based mining company, received mining exploration rights from the Bupati of Buton (Bupati Decree No. 186/2008) to exploit a nickel deposit (675 ha) for two years in Lambusango Village, Kapontori Sub-District. The mining activities will certainly have a huge detrimental effect on the Kapontori Gulf; erosion and sedimentation will soar, degrading the marine ecosystem, leading to the failure of the oyster and seaweed farming already established in region. So far, intensive campaigns have been conducted by LFCP and CFMF to persuade the local community to focus their livelihoods on lowland and coastal areas and abandon their farming around the forest, which often develops at the expense of state forest land. These initiatives were very successful and many former farmers now make a much better living from sustainable marine industries. It is very disappointing that the government decided to allow a mining operation which will have a huge negative environmental impact on forest, lowland and coastal areas as well as potentially damaging the livelihoods of many families in the local community. To help give the community a voice on the decision, on 21 June 2008, CFMF organised meetings involving key villagers who will potentially suffer from the direct impacts of the mining activities (Wowoncusu, Lambusango and Lambusango Timur Villages). The meeting was chaired by CFMF Chairman (*Pak Abdul Syukur*), and attended by seventy-two people, including the Camat of Kapontori (*Drs. Harsila*) and the village headmen of Lambusango and Lambusango Timur. The meeting concluded that the local community objected very strongly to the mining concession and that efforts should be made to stop it going ahead. A mandate was declared for the CFMF Coordinator to write a letter to the President and relevant ministers. On 20 July 2008, the CFMF sent a letter to the President with copy to the Head of Parliament, Ministry of Forestry, Ministry of Environment, Ministry of Home Affairs, Ministry of Public Works, and Governor of SE Sulawesi Province. The letter received strong response from high officials in Jakarta and on September 2008, the Bupati was instructed to cancel the issues. The nickel mining activities on site were stopped since November 2008.

A.1.1.7. Buton District Government allocates operational costs for CFMF

⁷ *Gerhan* (*gerakan reboisasi dan rehabilitasi lahan nasional*), a nationwide project to restore critical land and degraded state forest land.

The Bupati of Buton gave a very positive response to a letter from LFCP dated 17 March 2008, regarding the operational costs of CFMF. He allocated Rp. 30,000,000 (thirty million rupiah/USD 3,298⁸) to support CFMF operational costs between July and December 2008 (the last six months of the project). The decision was made during the budget revision in April 2008. As CFMF is not a structural agency within the Buton District, the fund was put under the '*Land Rehabilitation and Forest Conservation*' budget line of the Buton District Forestry Office (BDFO). As such, BDFO will be charged with disbursing and accounting for the fund in a correct and proper manner. The fund is aimed as a test-case for the CFMF; if the CFMF can use the money effectively for forest conservation, then the government will maintain (and even increase) its investment to the CFMF (*Ahmad Mulia*⁹, July 2008, personal-communication). CFMF will receive the fund (with the same amount) from Buton District Government on the coming November 2009.

A.1.1.8. CFMF monitored forest encroachment using operational funds provided by the Buton District Government

As stated above, the Buton District Government allocated a fund of IDR 30 millions to support CFMF's operational costs. Due to administration reasons, the fund was only ready to disburse in November 2008 and had to be spent before 15 December 2008. In addition, the fund was only available to support travel costs. Considering such limitations, the Forum decided to make use the fund to support state forest encroachment monitoring during the end of 2008. The activities included: *(a)* defining the sites and extent of the encroachment areas; *(b)* describing the current uses (agriculture activities) of the land; *(c)* describing the underlined socio-economic problems and *(d)* recommending actions to Buton District Forestry Office (BDFO) and BKSDA. In November 2008, CFMF completed encroachment monitoring, after the sites and underlined problems had been defined, the CFMF called GIS Forum (which also received operational cost from Buton District Government) to map the encroached areas using GPS.

A.1.1.9. CFMF Chairman attended a Lambusango workshop in the Ministry of Forestry (MoF), Jakarta

On the suggestion of TTL (*Dr. Tony Whitten*), the project facilitated the visit of *Pak Abdul Syukur* (CFMF Chairman) to Jakarta to attend the Lambusango workshop hosted by MoF. In this workshop, *Pak Abdul Syukur* pointed out the limited efforts of MoF (BKSDA) towards conserving the Lambusango Wildlife Reserve and Kakenauwe Nature Reserve, he also proposed to MoF the possibility of reviewing the current state forest boundary, as some boundary markings are very close to settlement areas. MoF seems to have limited resources to put into the Lambusango Forest and the area is low on their priority agenda. At present, BKSDA SE Sulawesi themselves is fighting to save their conservation areas against nickel mining and oil palm plantation. *Tanjung Peropa* Nature Reserve (Konawe Selatan District), which is home of Anoa, now is threaten by nickel mining, Watubangga Hunting Reserve (Kolaka District) has been partly converted to oil palm plantation while the rest is in a critical state and *Uma Island Nature Reserve* (Kolaka District) has been destroyed by nickel mining.

Indeed, nature conservation in SE Sulawesi Province is now highly threatened by nickel mining. The Governor (*Pak Nur Alam*) has recently put mining activity as the major economic driving force of the province. He also set policy to review the current state forest land which is suitable to be converted into mining concession. This will be the case for all areas in Sulawesi, and possibly for the whole of eastern Indonesia, where nickel deposits are abundant such as Halmahera Island etc. The rate of exploitation seems to be in full gear, after the global economic crisis effectively hit the country. The national export of manufactured products (textile, shoes, electronic etc.) to developed

⁸ 1 USD = Rp. (IDR) 9,100

⁹ Senior staff of Buton District Planning Agency, he is in charge of designing annual government budgets.

countries has sharply declined and there is a serious risk that the country will return to natural resource extraction at the expense of the natural ecosystem. The problems have become severe since international demand for mining commodities (coal, nickel etc.) has risen during the last few years. In this context, CFMF efforts to save the Lambusango Forest from nickel mining in Kecamatan (sub-district) Kapontori and also successfully protest against oil palm plantation in Kecamatan Lasalimu and Lasalimu Selatan can be considered a great achievement!

A.1.2. Changing community attitudes towards sustainable forest resource management

A.1.2.1. CFMF developed conservation campaign boards.

Throughout May and June 2006, the CFMF organized the production of conservation information boards. This was a collaborative effort involving all CFMF members and partners at village level. The boards were installed in all villages surrounding the Lambusango Forest. The size of the boards ranged from 60 x 40 cm² until 100 x 60 cm². The boards contained various conservation messages, such as ‘*Lambusango forest is our life and the future of our grand- children*’, ‘*No cutting without planting*’, ‘*Logging will create floods and landslides*’, ‘*The Forum is ready to help you to save Lambusango Forest*’ etc. The main objectives of the activity were: (a) raising awareness and creating a sense of belonging of local community to the Lambusango Forests; (b) public declaration and socialization of the existence of the Lambusango Forest Management Forum; (c) general forest conservation messages; (d) raising a sense of belonging in the local community towards the CFMF. Fifty boards were produced and production costs were shared between LFCP and CFMF. LFCP provided the paint while other costs were covered by CFMF and its partners.

A.1.2.2. CFMF facilitated the development of village conservation regulation (Perdes).

Since May 2006, the CFMF has facilitated the formulation of village’s conservation regulations (or popularly known as *Perdes*, See Box 2.1). During September 2006, the CFMF facilitated the formulation of Kakenauwe *Perdes* and followed by Siotapina, Labuhandiri and Siomanuru. The results of *Perdes* were checked by TTL during his visit in February 2007 and also checked by senior staff of BDFO. There were some inconsistencies in the content, while some verses were contradictory with Forestry Law No 41/1999. From June to August 2007, those mistakes were corrected and in November 2007 the CFMF socialised the revised *Perdes* with the local community in each of the four villages.

Box 2.1. Procedure on *Perdes* facilitation as implemented by CFMF

1. Initiation Phase

- (1) CFMF members, living in the targeted village, conduct door-to-door meetings with key leaders/elders of the village (primarily indigenous people and local communities).
- (2) When the key leaders/elders feel convinced of the need for *Perdes* as a platform to conserve the forests surrounding their village, CFMF members will organize small group meeting involving village head, head of village representative body (BPD) and key elders from the community. In this meeting, CFMF members supported by the Sub-District Forum Coordinator, speak to the meeting participants of the importance of village commitment in sustainable village resource management.
- (3) When the key leaders/elders of the village agreed to develop *Perdes* the Sub-District Coordinator will contact the CFMF Secretary to discuss a facilitation schedule.

2. Special Groups Facilitation Phase

- (1) Village Meeting-1: Socialization of the Perdes concept (involving all households).
- (2) Focus Group Discussion-1: Understanding the diverse forest conservation perceptions between genders and different socio-economic groups (female, male, poor, elite, young generation, old generation) in the village.
- (3) Focus Group Discussion-2: Listing types of required conservation measures to conserve the forest and other natural resources.

3. Drafting Phase

Based on ideas collected during initial facilitation, as well as an understanding of the critical forest ecosystem within and surrounding the village, CFMF develops draft-1 of the *Perdes*.

4. Village Meeting Facilitation Phase

- (1) Village meeting-2: Facilitators explain the draft-1 version thoroughly and note villager's feedbacks.
- (2) CFMF works together with village leaders/elders to develop draft-2.
- (3) Village meeting-3: Facilitators together with village leaders/elders explain draft-2 and note villagers' feedback.
- (4) CFMF works together with village leaders/elders to develop draft-3 (if necessary)
- (5) Village meeting-4: Facilitator together with village leaders/elders finalize the draft.

A.1.2.3. Forum developed faith based conservation campaign

From April through to June 2007, CFMF, in collaboration with Buton District Religion Office, developed Muslim preaching materials regarding the conservation of the Lambusango Forest. An eighty one page book (*Kumpulan Khotbah Jumat Konservasi Hutan Lambusango*), containing material for twelve sermons, was produced with the intention that the materials could be used for Friday prayers in the mosque. The book was distributed to all village mosques surrounding the Lambusango Forest. After receiving the book, it is hoped that the preacher will give a sermon on the topic of the conservation of the Lambusango Forest at least once a month. During August 2007, the CFMF Coordinator (*Pak Abdul Syukur*), in collaboration with Buton District Religion Office, socialized the book in six kecamatans. The socializations were attended by Preachers and Moslem faith extension workers.

A.1.2.4. CFMF organized planting of *Ficus sp* (Beringin) in Kakenauwe Village

During May 2007, CFMF Coordinator of Kecamatan Lasalimu (*Pak La Aete*) organized Kakenauwe (Labundo-Bundo) villagers to plant *Ficus benyamina* (*beringin*) in the buffer-zone of Lambusango Nature Reserve. About 400 seedlings were planted.

A.1.2.5. CFMF organized training on organic fertilizer and pesticide

The CFMF, in cooperation with agriculture extension workers of Lasalimu Selatan Sub-District, *Pak Ngadiono* and *Pak Madju*, organized a one day field training course on the making of organic fertilizer and pesticide. The training was held on *Pak Amrin Sene's* home garden in Labuandiri Village (17 December 2006). Twenty six people attended the training course, the attendees comprising of key-farmers representatives of Kecamatan Lasalimu.

The rationale behind the organization of this training was that slash and burn agriculture is still widely practice in the Lambusango area due to poor soil fertility and poor agriculture inputs. Farmers tend to open new land to gain optimum yield. Unfortunately, this is often conducted at the expense of state controlled forest. Most farmers have many land patches which poor productivity due to lack of management. The problems have significantly contributed to the expanding forest

encroachment surrounding the Lambusango Forest. Improved land husbandry can be seen as alternatives to control the rate of land encroachment. In this training farmers are trained on how to make fertilizer and pesticide from agriculture waste (shrub, bushes, corn leaves etc.) using the M-4 enzyme.

A.1.2.6. CFMF assisted the coconut oil industry in Kancinaa

Learning from experience gained by their fellow CFMF members from Kecamatan Lasalimu in developing *LPEMD Bunganaponda*, CFMF members in Pasarwajo and Wolowa (coordinated by *Pak Arifuddin*) have tried to develop similar initiatives. Their target was the small scale, home industry of coconut oil production by the women of Kancinaa Village. At present, most of the coconuts in the Lambusango are dried and sold as copra. In Kancinaa Village, there is a group of women who processed the coconut into cooking oil; this is a remnant of an old practice where every housewife prepared her cooking oil from coconuts taken from their garden.

Coconut cooking oil is considered better tasting and is healthier than the much more widely used palm oil. However, coconut cooking oil has a short shelf life of around two weeks. The price of coconut cooking oil is Rp. 8,000 per litre (much cheaper than palm oil, especially after the sharp rise in the price of palm oil over the last year). On average the milk of five coconuts are needed to produce one litre of cooking oil. It takes at least 8 hours cooking to process coconut milk into coconut oil. Given the average price of one coconut is Rp. 1,500, why are women in Kancinaa still eager to process coconuts into cooking oil? The answer is a side product, coconut oil *residue* created during cooking oil processing. About 35 grams of residue is produced from 1 litre of cooking oil processing; the price of residue is Rp. 20,000 per kg. More importantly, as outlined above, the business is becoming increasing more economical after the sharp rise in the price of oil palm, now is about Rp. 15,000 per litre, nearly double the price of coconut oil.

The following steps have been facilitated by the CFMF: (1) Conduct Focus group discussions to facilitate the need to develop LED (village cooperative) to support economic development of coconut oil producers and other relevant small-scale business in Kancinaa; the committed credit is Rp 250.000 – Rp 500.000. The interest rate is 1 percent and the maximum loan period is 10 months; (2) Established LED *Tunas Jaya* (3 November 2007) and appoint LED board members¹⁰; eight people were appointed to the board; (3) Formulated LED's constitution (8 November 2007); (4) Organized training on cooperative management (12 November 2007); (5) Organized training on financial administration (15 November 2007); (6) Provided capital (USD 440) to LED *Tunas Jaya* which distributed as loan to 8 LED members (USD 55 per member). By the end of February 2008, the members of LED Kancinaa had reached 10.

A.1.2.7. CFMF facilitated discussions with Wabou community to control forest encroachment

Wabou is a new hamlet (400 ha, about 100 households, see *Box 2.2*) within the Lawele Village (Kecamatan Lasalimu), developed in state production forest land and close to Lambusango Wildlife Reserve. So far, there has been no clear vision or decisions from the Buton District government as whether of not to allow the development of the new settlement. By law, conversion of state forest land to other purposes cannot be conducted without the consent of the Ministry of Forestry.

Box-2.2: History of Wabou Hamlet

Wabou hamlet is located in the upstream area of Sinapuli catchment which meets the sea

¹⁰ Board members of LED *Tunas Jaya*: Chairperson: *Wa Ode Marsiah*; Secretary: *Wa Ode Marsiati*; Treasurer: *Wa Ode Sanafia*.

at Lawele. The hamlet is situated about 6 km from the main road to Lawele village, near Lapuli hamlet, on the way to the Lambusango forests. During the dry season, the area can be reached by car. Apart from its fertile soil and gentle terrain, the area has water sources in abundance, about 31 springs originate in the area; these are the main source of drinking and irrigation water of the Lawele village.

Entering the hamlet, one can see a tidy settlement area that stretches out (north to south) along 2 km of rough road. The settlement is surrounded by densely forested, undulating hills. At present, the hamlet comprises of 62 semi-permanent houses. Three houses have television, parabolic antenna and generator, while there are three shops selling food and basic household goods. The hamlet has a mosque, large meeting hall, health centre and a state-own elementary school. Most of the inhabitants earn a living through rain-fed agriculture; the main crops are rice, maize, sweet potato, coconut, cashew, water-melon and banana. The planted crops have high yield compared to ordinary agriculture in Lambusango. Those crops are mainly for subsistence use, while the surplus are sold or used as barter for fish from the *Bajo* tribe in Lawele market. There are three chainsaws in the hamlet. Logging activities seem to be very important as source of cash. So far, the settlement area and all the cultivated land are located in the production forest.

Settlement History: Until 1986, Lawele was the capital of Lasalimu sub-district. Through the 1960s and 1970s, Buton was a renowned heartland for the Indonesian Communist Party (*PKI*). On 30 September 1965, the PKI staged an attempted coup (now referred to as *G30S/PKI*) which was unsuccessful. In the aftermath of the coup the central 'new-order' government decided that communism should be eradicated from Buton. The central government identified most Butonese government officials as members of the communist party, which had been made illegal after the coup, and brought in outsiders to take over their jobs. These outsiders were comprised mostly of ethnic 'Bugis', the dominant tribe in South Sulawesi. One such Bugis official was *Pak Djufri* who became the Camat of Lasalimu in the 1970s. He is still remembered as a cruel and vindictive leader.

The Kalende tribe (KT) is one of the Butonese forest-dwelling communities which traditionally used shifting cultivation practices. They lived in the area of forest which has now become the Wabou hamlet. During the 1970s and 1980s the Indonesian central government adopted strong policies discouraging this traditional way of life. Forest communities were denied access to the forest and official policy actively discriminated against their way-of-life and forest management practices. Forest communities were considered 'backward' and in need of integration into mainstream society, and their shifting cultivation method was deemed economically unproductive and ecologically destructive. This negative perception of forest-dwelling communities resulted in a set of policies that attempted to keep them away from the forest (i.e. resettlement) or aimed at transforming their customary forest practices into lifestyles more in keeping with policymakers' preference (e.g. sedentary farming, urban-based livelihoods). Because it was believed that shifting cultivation was driven by desperate economic need, resettlement and permanent agriculture programs were seen as potential means of raising farmers' living standards (i.e. the farmers would, theoretically, be relocated in areas more accessible to government services and employment opportunities).

Acting on this policy, during the 1970s *Camat Djufri* relocated the KT from the forest and into sedentary farming in Lawele village. Some of the KT who refused to live in Lawele village decided to migrate to Ambon though most of the KT relocated to Lawele village. The Government provided 20 ha land, and every newly settled family was given a small wooden house. The resettlement area is currently known as *Kawuna-wuna* hamlet. However, the KT experienced serious economic difficulties and remained very poor. Government efforts to change the KT from shifting agriculture into permanent agriculture were unsuccessful and some of the KT gradually returned to forests, returning to shifting cultivation. The Ambon riots in 1999 displaced many of the KT who had migrated there and most returned to Lawele village. As there was no available land in Lawele, most of them returned to Wabou. Others followed and Wabou grew...

Struggle to be a legal village: In 2005, Wabou inhabitants sent a proposal to the Camat Lasalimu asking him to legally acknowledge their settlement areas as a new village. They hoped to force Head of Lawele Village to support their proposal. They also sent letter to Head of Buton District Forestry Office's Technical Implementing Unit in Lasalimu to enlarge their village.

The restless of Lawele villagers to Wabou settlement: The Lawele Village Head refused to support the proposal of the Wabou inhabitants to be a legal village. Most of Lawele villagers are threatened by the continuous enlargement of the settlement and are especially worried about the risk to their sources of water. The Wabou area is the headwater catchment area for the Sinapuli River, the main source of sawah irrigation water. As a result of the settlement Wabou, environmental effects, specifically decreasing water discharge, have been felt by rice farmers (\pm 200 households) in the Lawele valley.

Why 'Wabou' has a strong position: The presence of some key spiritual leader in Wabou has allowed the settlement to gain political support from some influential political leaders in Buton.

Forestry Program: 25 ha of the land were defined as part of a land rehabilitation program (teak) by Buton District Forestry Service in 2005.

On 26 December 2007, FCUL conducted a patrol in Wabou and found a new area of encroachment of about 20 ha into what had previously been dense Lambusango rain forest. In order to counter this rapid encroachment, on 27 February 2008, LFCP asked the CFMF and local government to search for suitable solutions for to this serious problem.

The CFMF, supported by LFCP and the Buton District Government, organized a meeting on 27 February 2008 which involved all relevant stakeholders at grass-root level, such as Camat Lasalimu (*Pak Mursal Zubair*), Buton District Forestry Office (*Pak La Tahana Hamasy*), Police (*Pak H. Mustamir*), Army (*Pak Darmili*), Head of Lawele Village (*Pak Muhamad Badar*), CFMF Coordinator (*Pak Abdul Syukur*), CFMF Secretary (*Pak Sabarudin*) and the CFMF Coordinators for Kecamatan Lasalimu (*Pak La Aete*) and Kapontori (*Pak La Dara*). The objective of the meeting was to develop practical 'win-win solutions' to control forest destruction in this area. The meeting was conducted in the meeting hall of Wabou Hamlet (10:00 – 14:00) and was attended by all the heads of households in Wabou (95 persons).

With Forum facilitation, the meeting committed to a six point action plan:

- a) Formulation of Village Regulation on Forest Conservation in Lawele Village.
- b) Buton District Government will install boundary markings around Wabou Hamlet.
- c) Wabou inhabitants are committed to control illegal logging.
- d) Buton District Government will improve access road to Wabou Village to ease transportation of agriculture products.
- e) Wabou community, with the assistance of government and Operation Wallacea Trust, committed to develop alternative income streams.
- f) Wabou community committed not to open new forest land without government permission.

As a follow-up to the action plan, chicken farming was identified as being a potential alternative income source. The business was considered to be the most likely to yield a quick revenue so CFMF committed to grant 800 chickens. As this is a new business, efforts were needed to test viability and to prevent failure after a potentially massive investment. To do so, from May until July 2008, CFMF created a demonstration plot for chicken husbandry with one-hundred birds. The trial

was managed by *Pak Badar* (Head of Lawele Village) but unfortunately the experiment proved unsuccessful. It was found that the high technical standards required for such a project are unsuitable for the Wabou community. Seaweed farming in Lawele Gulf is considered as the most potential business development alternatives for Wabou Hamlet. Some households have been voluntarily involved on this business.

A.1.3. Strengthening community based forest protection

A.1.3.1. CFMF paved the way for solving the root problems causing illegal logging in the Wining Area.

As of December 2006, the CFMF has conducted a series of meetings with *PT Buton Asphalt Indonesia (BAI)*, *PT Sarana Karya* and *PT. Putindo* to stimulate the development of ‘corporate social responsibilities’ in the Wining and surrounding areas. This was in response to the rampant illegal logging in the area, mainly due to lack of income in the surrounding communities. CFMF representatives (led by *Pak Rustam*, CFMF Coordinator of Kecamatan Pasarwajo, and the Headman of Wining Village) put pressure on these companies to solve unemployment problems in the village. This effort was successful and both companies committed to work towards improving the problem. In April 2007, 200 out of the 436 productive employees employed by *PT BAI* and *PT Putindo*, and until January 2008, this has increased to 339 leaving only 96 persons under employment. On 12 December 2008, it was reported that all young people are employed by the company. They receive USD 2.8 wage per day. As a result, since May 2007, forest destruction in this area has been significantly reduced.

A.1.3.2. Facilitated serial law enforcement (repressive) patrols at sub-district level

On 29 April 2008, the CFMF member (*Pak Arifuddin*) found illegal logging in Matawia Village (Lantariri). The CFMF supported by forest ranger wrote a criminal evidence report (*Laporan Kejadian/LK*) which was sent to the Pasarwajo District Police. The police and forest ranger then confiscated evidence (one chainsaw and one log 2 m in length) which was kept by UPTD Kehutanan Pasarwajo. Similar activities were also conducted by CFMF member in Siotapina Sub District. On 22 May 2008, the team discovered encroachment in Matanauwe Village (2 ha). A criminal evidence report was produced and submitted to Lasalimu District Police and the police and forest ranger confiscated evidence in the form of two chainsaws and 10 m³ of logs.

A.1.3.3. CFMF developed Village Conservation Extension Unit

During February 2008 the CFMF, in cooperation with BKSDA (Resort Labundo-Bundo), established the *Village Conservation Extension Unit (VCEU)*. The unit is a community based extension which provides information services to villagers on: (a) the legal status of forest which shares boundaries with a particular village; (b) understanding the boundary of state forest; (c) how to trace forest boundary marking; (d) understanding the role of forest; (e) basic forestry regulation: a list of activities which villagers are allowed and not allowed to conduct within Lambusango Wildlife Reserve, Kakenauwe Nature Reserve, production and protection forest. This information is critically important and necessary for the rural community, as they often break forest law because simply they are not aware of the relevant regulation. So far, the unit has sixteen members, mostly composed of voluntary conservation workers in Kecamatan Lasalimu. The establishment of the unit was aimed as a model, and will be replicated in other kecamatan surrounding the Lambusango Forest.

A.1.3.4. CFMF facilitated the development of alternative income sources in Wagari Village

CFMF has facilitated the development of seaweed farming as an alternative income source in Wagari (Toruku) Village. The village, located adjacent to Kakenauwe (Labundo-Bundo) village, is notorious for illegal logging and has a long history of rivalry with Kakenauwe Village. The underlying reason seems to be that communities from Wagari have not been employed as either staff (porters, guides) or service providers (home-stay etc.) in *Operation Wallacea Ltd's* scientific-tourism programme.

Wagari is a poor village located at the tip of Lawele Gulf. The Gulf is sheltered and experiences only gentle waves, there is little freshwater discharge of the Toruku River, these factors combine to make the area ideal for seaweed farming for almost 12 months of the year. With this in mind, in July 2007, LFCP invited CFMF to facilitate the development of seaweed farming in this area. During the time, only one villager, named *La Peo (Pak La Peo)* was involved in cultivating seaweed in the Gulf. *Pak La Peo* had tried to encourage his fellow villagers into seaweed farming, but had failed as most of them had no capital or were making sufficient money from illegal logging. The hope is that by providing the means for villagers to start farming seaweed they will stop illegal logging and move into this more sustainable industry.

The following steps have been conducted by the CFMF: (a) FGD with various community groups to understand the underlined causes of economic problem in Wagari Village (5 - 10 August 2007); (b) Socialization on the proposed seaweed business development (23 August 2007); (c) Formulated detail actions plan (25 August 2007), the committed credit is Rp 1,600,000. The interest rate is 1 percent and pay-back period is 10 months; (d) Established LPEMD¹¹ *Bunganaponda* (1 September 2007); (e) Formulated LPEMD boards members¹²; (f) Formulated LPEMD's constitution (5 September 2007); (g) Organized training on cooperative management (8 September 2007); (h) Organized training on financial administration (10 September 2007); (i) Registered legal existence of LPEMD *Bunganaponda* to *Hamid Priyogi, SH* Law Firm in Bau-Bau (11-25 September 2007); (j) Developed village conservation contract (11-20 September 2007); (k) Provided in-kind capital (USD 3,000) and equally distributed to 15 LPEMD members (25 September 2007). Every farmer received 50 plastic ropes (each rope has a length of 75 m), plastic bottles (for floats) and seaweed seedlings; (l) Initiated seaweed planting in Lawele Bay (28 September 2007 to date); (m) At the end of January 2008, LFCP provided cash-capital (USD 500) to enable LPEMD to purchase and market its product directly to buyers in Bau-Bau, so as to cut out the marketing chain.

Achievements up until December 2008: (a) membership of LPEMD has increased from 15 to 47, this has been about 68 % of total households in Wagari Village; (b) Harvest cycle is conducted every 40 days, the product of first harvest was mostly used as seedling source. At present, most of the farmers have conducted 10 harvests. On average each farmer can harvest 300-500 kg dry seaweed (the current price is Rp. 6000 or USD 0.7 per kg or Rp 1,800,000- 3,000,000 every six weeks); (c) An unexpected advantage is that the mouth of Lawele Gulf is been full of the ropes of the seaweed farms, which has seriously hampered the passage boats carrying illegal timbers from the Lambusango Forest to the Wakatobi; (d) There has been a growing awareness with the local community that they cannot build a better life if they rely on illegal logging. Villagers are beginning to feel more in control of their own destiny and development of seaweed farming has resulted in a increase in the collective self-confidence of the village; (e) The success of the seaweed farming has attracted two Wabou villagers to joint seaweed farming; (f) In the future, LPEMD is expected to become a kind of village bank and marketing body which will not only cover seaweed farming, but all economic factors and products from the village.

Box 2.3. Seaweed Farming in Wagari Village

¹¹ LPEMD ((Lembaga Pemberdayaan Ekonomi Masyarakat Desa/village cooperative)

¹² Board members of LPEMD Bunganaponda: Chairman: *La Peo*; Secretary: *Musdin*; Treasurer: *La Sahuni*.

As of October 2007, Wagari Village, Kecamatan Lasalimu, has received capital investment to develop seaweed farming. The investment was provided by LFCP after CFMF members from Kecamatan Lasalimu, led by *Pak Aete*, completed a series of facilitation exercises aimed at the development of LPEMD and/or a village savings and loan cooperative. At the beginning, LPEMD *Bunganaponda* had 15 members; each member received an in-kind capital loan of Rp. 1,600,000 (USD 175), mostly in the form of 50 plastic ropes (each rope has 75 m length), 10 plastic bottles (for floats) and seaweed seedlings. The equipment should last on average around two years. LPEMD *Bunganaponda* defined an interest rate of 1 percent, and pay-back period of 10 months.

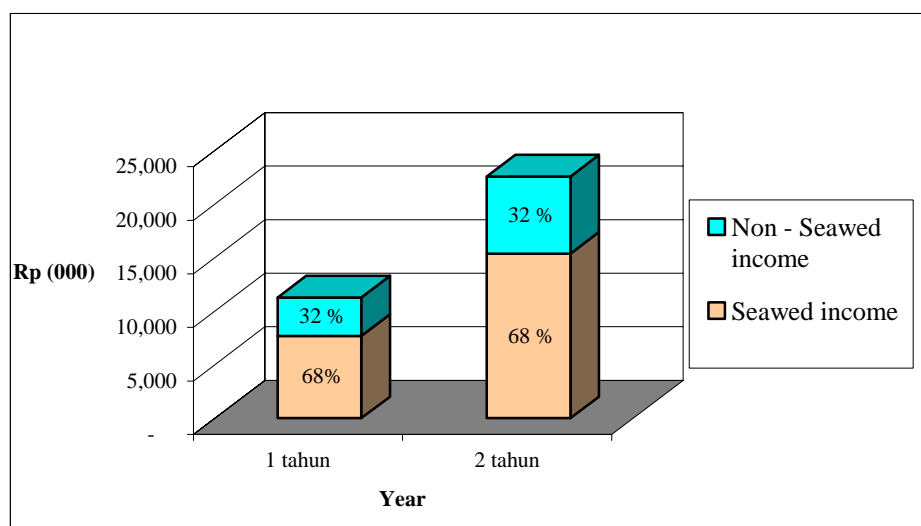


Figure 2.1. Proportion of income created by seaweed and non-seaweed sources

Seaweed (*Eucheuma sp*, *Gracilaria sp*) has short production cycle; from planting to harvesting is about 40 days. After harvesting, farmers have to dry the seaweed for about 5 days, the ratio between wet and dry seaweed is 8 to 1, 8 kg wet seaweed become 1 kg dry seaweed with 20 percent water content. The average total production is about 320 kg dry seaweed per farmer every harvest. The price of dried-seaweed at the farmer's gate is Rp. 6,000/kg; as such every harvest farmer will obtain Rp 1.920.000. On average farmers are able to harvest four times a year. Assuming the price is stable; farmers will receive Rp 7.680.000 (USD 835) per year or Rp 15.360.000 (USD 1,700) over two years. As such, the *Return of Investment (ROI)* is 4.8 (income/investment) . This figure is considerably high, meaning that farmers will capable of returning the initial investment in less than one year. Based on a base-line survey completed before the implementation of seaweed farming, the average income of Wagari villager is Rp 3,600,000 (USD 390), after the implementation of seaweed farming, we will see this figure rise by as much as 68 % per year. The income will be even higher when seaweed farmers are able to raise further capital for investment.

A.1.3.5. CFMF scale-up seaweed businesses from Wagari to surrounding villages.

The development of seaweed business in Wagari village has been most satisfying. Just one year from the start of the initiative, average farmer income has increased by around 200 %. Some of the farmers have even been able to buy new motorbikes, parabolic antennas and other luxury goods which were unaffordable before. The situation has been helped enormously by a consistent rise in the price of seaweed, currently USD 1.65 per kg. After the success of the development of the seaweed industry in Wagari Village, in April 2008, CFMF started efforts to replicate the business in surrounding areas of Kakenauwe and Waleona Villages.

CFMF has successfully expanded seaweed farming (without start-up funding!) from Wagari Village to surrounding villages in Lawele Gulf, i.e. Kakenauwe, Waleona, Lawele, and Suandala. In fact,

this is the most rapid alternative livelihood development in this area. More importantly, this activity has completely stopped the transportation of illegal timbers from natural state forest surrounding Lawele Gulf to areas outside of Buton (Wakatobi and Flores). Boats cannot reach the gulf as the area is full of seaweed farming, while most of those who used to rely on illegal logging have changed their livelihoods over to seaweed farming.

A.1.3.6. CFMF developed community based forest protection

In response to severe problems on forest encroachment and illegal logging all over the boundary area of the Lambusango Forest, from July 2006, Kecamatan CFMF coordinators, along with all forum members and partners at village level, have been active in community based forest protection. They have monitored the occurrence of forest crimes in their own areas. If CFMF members find any destructive activities or irregularities, they report them to the Kecamatan CFMF Coordinator, who subsequently submits a formal report to Buton District Forestry Office/BDFO (UPTD and KRPH), BKSDA and a copy of the report to the Sub-District Police (*Polsek*) and District Police (*Polres*). One outstanding case was the confiscation of transported illegal timbers in Waondo-Wolio (Kapontori Sub-district). This was thanks to *Pak Zahunu* (CFMF member) who reported his findings to Polsek Kapontori which immediately followed this up by confiscating of 80 m3 illegal timbers.

A.1.3.7. Actions to follow-up the Bupati's instructions

On 13 March 2008, the *Bupati* of Buton gave instructions to the *Camat* (Head of Sub-district) to monitor the state forest encroachment. To follow-up on this, from April 2008, the sub-district Forum Coordinators have been actively involved in the following activities: **(a)** Assisting the Camat and Head of Buton District Forestry Services (BDFO) to organise meetings and workshops with all villages heads from each kecamatan to follow-up the Bupati's instructions; **(b)** Worked together with all forest stakeholders within each kecamatan to formulate a '*Letter of Statement*' for settlers to leave state forest land; **(c)** Facilitated discussions in the kecamatan to define sanctions for members of the local community who continue to encroach state forest land for agricultural activities. The sanctions are committed to be fully in line with the *Forestry Law (UU No. 41/1999)*; **(d)** facilitated the development of '*joint operation team to prevent forest encroachments*'. The team was developed in every kecamatan and patrols scheduled at least once a month. The team members in each kecamatan are led by the Head of UPTD Kehutanan (Implementing unit of BDFO at sub-district level) supported by Heads of Police and Army at sub-district level plus the CFMF Coordinator. Once the team members were selected they were formally issued with a Camat Decree in order to make their positions legally correct. The main tasks of the team are to conduct both preventive and repressive patrols, especially: **(a)** to socialize the state forest boundary to the local community; **(b)** to check the boundaries of farm land at the beginning of the planting season; **(c)** to provide formal first and second warnings to settlers and loggers and ask them to sign a '*letter of statement*'. If after the second warning, they still engage in illegal, destructive activities then law enforcement and sanctions will be imposed. The teams report to the Camat and Bupati at least once every three months.

A.1.4. Discussion: Outlook

The vast majority of the local community have enthusiastically welcomed the formation of CFMF. Until the CFMF started working in the Lambusango, the community was extremely worried about the destruction of the forest, yet felt that the future for the forest was bleak and there was nothing they could do to rectify the problems. This attitude has started to change.

The scope of CFMF activities has gradually developed over time. The first acts were small, simple practical works such as making sign boards, planting trees and reporting the occurrence of forest

crimes in their village. Soon its role moved into the political sphere, such as attending monthly meetings in Kecamatan and organising meetings with parliament and government officials. Finally the CFMF has worked towards improving the lives of the people of the local community. Examples of this can be found in the formulation of Perdes, solving the roots of destructive logging in several areas (e.g. helping to develop seaweed farming in Wagari), reducing unemployment problems in Wining and seeking over win-win solution on the land acquisition problem in Wabou.

The roles taken, and achievements attained, by the CFMF have been especially satisfying as it has been driven by the local community and members involvement has only been a secondary role after their main employment. Considering the weaknesses of the government in the area, along with increasing pressures on the Lambusango Forest, especially from mining activities such as oil exploration and asphalt quarrying, the CFMF has become an important *watchdog* on government policy and development practices. In many ways this has given the local community a voice and real and significant input into the practices that have the potential to destroy *their* forest and thus impact heavily on *their* quality of life.

The CFMF is different from conventional NGOs and parliament bodies which tend to be dominated by intellectual elites in from larger towns and thereby create a 'distance' with the problem hot-spots. The CFMF and its partners are not distanced from the problems, these problems occur where they live and as such they often become the direct victims of unsustainable development. The roles taken by the CFMF are considered very important in local community capacity building; the community has been trained 'to help themselves', 'to raise and to solve their own problems'. As such the CFMF is expected to be the most important component of the LFCP, which much continue its progress and maintain its roles after the completion of the project.

The CFMF can continue to play its role as a conservation and development facilitator and motivators, working both for the local community and alongside the government. The CFMF can continue with its current role of assisting the local community to improve land management, save water resources and develop alternative, sustainable livelihoods in order to conserve the Lambusango Forest and seek over solutions to natural resource conflicts amongst communities¹³. The CFMF has also become an important government partner at grass root level, socializing government policy related to natural resource conservation (such as forest boundary markings, forestry law and local government regulations), whilst at the same time channelling community aspiration and evidence of forest crimes to the government and associated bodies.

Understanding the need for sustainable funding to support the operational costs of the CFMF, efforts have been made by OWT to search for new funding. On 14 July 2007, OWT submitted two proposals (*a.* Capacity building of the Lambusango Community Forestry Management Forum; *b.* Conflict Resolution on Land Ownership Disputes in Lambusango Forest) to LEAD/UNDP SE Sulawesi. Unfortunately, both of them failed to make the second round of the selection phase. On 26 October 2007, OWT submitted a letter of application as sub-contractor for DFID/Multi-stakeholders Forestry Program (British Embassy), and again the application was not successful. On November 2008, OWT send a funding proposal to *Whitley-Award 2009*, and in March to *Seed Awards 2009*, unfortunately, both proposals were not accepted. The only secure funding as of December 2008 is the World Bank/CIDA under Green-Kecamatan Development Program (G-KDP), unfortunately, of the six kecamatan surrounding the Lambusango Forest, only one, Pasarwajo, will receive funding from the G-KDP project. However, this does at least mean that

¹³ The most relevant forest conservation issues related to the local community is the role of the forest in maintaining water resources (dry-season base-flow), as the local community has experienced water shortage after deforestation. In fact, the most destructive deforestation is conversion into rainfed agriculture. The conflict over forest destruction in the upstream area and water resource depletion in the downstream has occurred in Lawele Village. See *Wabou* case.

OWT will continue to operate in the area until December 2010, and as such technical assistance from OWT to the CFMF can be maintained until then at least, See *Box 2.4*.

Box 2.4. OWT Activities After the Completion of LFCP

The *Operation Wallacea Trust* is a UK based charity whose aim is to obtain grants and other funding for conservation management programs throughout the world. The establishment of LSM¹⁴ OWT (Indonesian OWT) as Bau-Bau based, local, NGO originally was not by particularly intended; the LSM was initially set up only as a conduit to receive funding from GEF/World Bank for LFCP. It was established to comply with World Bank procedure, specifically to enable OWT to open a Special Account at the Indonesian Bank (BNI) on the project site in order to administer GEF/World Bank funding. The opening of Special Account is only possible if it is conducted by a legally registered, Indonesian organization; due to this reason OWT was established and registered by *Hamid Priogie SH* as a local NGO.

Later, it was realized that the establishment of the Indonesian OWT (provided unexpected advantages and it became a blessing-in-disguise for both LFCP and OWT. After managing LFCP activities to the highest standards for several years, OWT¹⁵ has progressively developed to become respected and reliable local conservation organization in SE Sulawesi. In November 2007, supported by a proven track record, OWT has received further World Bank/CIDA funding (USD 750,000) to deliver environmental training and awareness under the Pilot Green Kecamatan Development Program (G-KDP) in SE Sulawesi Province (Kolaka, Muna and Buton Districts) until December 2010. The G-KDP has improved the position of OWT to sustain the established conservation action in the Lambusango Forest, since the project will be able to maintain the existence of OWT in Buton for a longer period. OWT will also enable to strengthen LFCP's exit strategy after the completion of the project. It should be remembered that, LFCP has provided a 'golden bridge' for OWT to become a strong and respected conservation organization in Sulawesi.

A2. Development of sustainable livelihoods models for several villages surrounding the Lambusango Forest through village conservation contract facilitation schemes.

Village business development and *Village business development contracts*¹⁶ were not part of the original *Project Brief*. However, when it came to implementing the project the income generation aspect needed to be changed from the original proposal. Village business contracts, according to the Project Brief, would allow exploitation of the production areas of forest in exchange for preventing continuing illegal logging and hunting in conservation forests. This scheme is widely known as the *social forestry* (SF) concept. However, when this system was applied at a grass root level, it was clear that local wisdom within the Lambusango community has been much eroded,

¹⁴ *LSM (Lembaga Swadaya Masyarakat)* is Indonesian term word for *NGO* (Non Government Organization) or *CSO* (Civil Service Organization).

¹⁵ During early stage of development, people were unable to differentiate between OWT and Opwall Ltd, as the latter has been well-known in SE Sulawesi prior the existence of OWT, the logos of the two organisations are very similar and both institutions share a number of common links. However, after intensive explanation on many occasions during LFCP implementation, most people can now differentiate between the two organisations.

¹⁶ *Village business development contract* is designed as a village based commitment to stop illegal activities in the forest in exchange for technical and capital assistance given by LFCP to develop village business. The developed village business should be used as an alternative income, rather than just an additional form of income.

especially since the arrival of Ambonese refugees since the troubles there in 1999. Generally speaking, granting state forest concession rights to the local community is considered to be suited neither to the empowerment of the local community or the conservation of the remaining natural resources in the state forest. There are also plenty enough examples in Indonesia, that suggest such a system will only attract ‘free riders’ giving unsustainable open access to the forest whilst. This would only serve to increase the load on the forest ecosystem, damaging the community spirit as well as destroying a fragile ecosystem. Community empowerment (and thereby forest conservation) can only be sustainable if they are conducted to reduce community dependencies on forest products. It is believed that forest conservation cannot be simply achieved by changing the main forest user from business to the local community. Conservation programmes should be able to provide enabling conditions for local community to take responsibility and ownership of conservation measures; this could partly be done through development of sustainable livelihood models for the community living in areas around the forest.

Considering the above, in January 2005, after *Global Environmental Facility (GEF)* endorsement, but prior to the grant agreement sign-off by the World Bank, LFCP proposed a number of budget reallocations to the World Bank. These reallocations were within the existing budget lines, and so the total funds allocated to each component remained the same as in the original *Project Brief*. The reallocations were made following the decision not to fund the development of the Waondo-Wolio old house as a centre for public education and the community, as these functions could be handled by *Operation Wallacea Ltd*, and to instead invest more heavily in the village business development element of the program, which appeared to have been under budgeted to make the schemes attractive enough to the villagers. The funds reallocated to the village business development scheme were to be used for contract costs for technical advice, direct costs associated with running the scheme and for village business grants.

A.2.1 Village Business Development

A.2.1.1. Promote Ginger farming in the Lambusango

The potential of terrestrial agriculture based economic development in the Lambusango is relatively poor, due to thin soil, poor productivity, pig raids and the lack of a proper irrigation system. Early in 2005, the price of ginger was relatively high (Rp 5000 - 6000/kg, USD 0.55 - 0.67), yet many traders from Kendari looked over this product in Lambusango, planting ginger in only four villages; Summersari, Siotapina, Wajah Jaya and Labuandiri. Given the limited choice of economically viable crops, ginger was seen as a promising agriculture product which could raise the village economy in a relatively short time. The development of ginger planting in 5 villages (*Table 2.1*) was designed as a model for village business development; which in turn was expected to increase participation in the village conservation contract scheme, especially when the first harvest had successfully demonstrated significant income generation. With this intention the numbers of villages producing ginger increased from four to nine villages in 2006.

LFCP provided capital input (in-kind) to farmer groups to grow 3 – 4.3 ha of ginger. The capital input was composed of (a) Ginger planting material, 2.1 – 2.9 ton; (b) Agriculture inputs (organic fertilizer and pesticide). After successful harvesting, farmers were expected to return the capital, in-cash, to LFCP, which consisted of: (a) Cost of ginger planting materials; (b) Cost of organic fertilizer and pesticide. The returned capital was expected to be managed as a revolving fund to promote similar types of village business.

To develop better market access and to facilitate obtaining bank credit, during July 2006, LFCP supported the development of *Asosiasi Petani Jahe Lambusango* (Lambusango Ginger Farmers

Association). The association was formed in a meeting held on 27 July 2006 in Summersari Village¹⁷.

Table 2.1. Ginger initiative planting in Lambusango: planting material assistant in 2005 and harvested gingers in 2006

Village	Kecamatan	planting materials (ton)	Number of Households	Area (ha)	Harvested ginger (ton)	Percentage of harvested to planting material+
Kakenauwe	Lasalimu	2.1	17	3	2.7	1.3
Lawele	Lasalimu	2.1	20	4	4.5	2.1
Wajah Jaya	Lasalimu Selatan	2.2	15	2.3	30	14*
Harapan Jaya	Lasalimu Selatan	2.9	98 ¹⁸	4.3	28	9.7
Winning	Lasalimu Selatan	2.1	12	3	5	2.3
		11.4	162	16.6	69	

+ Normal ratio between planting material and harvested ginger is 1:10

* Most successful (1:14), farmers had been experience in planting gingers

Unfortunately, a significant drop in the nationwide price of ginger during 2006¹⁹ meant that the scheme failed to raise farmers income and thereby efforts to enforce conservation actions also failed (*Figure 2.2.*). The newly promoted Vice Bupati (*Pak Ali La Opa*) who promised to market ginger to Middle East countries was not successful either. Serious efforts were made to explain the situation to farmers. During October 2006, the project conducted village to village gatherings and meetings with all farmers involved in the ginger planting scheme to restore trust. Considering the unexpected situation, the revolving scheme was not strictly applied. Winning and Wajah Jaya villages return ginger seedlings at the same amount they had received to the project. To avoid chaotic situation, LFCP purchased harvested ginger from Harapan Jaya and Lawele (USD 2,300). The purchased ginger was distributed to several villages for planting materials [Ambuau (4.5 ton), Matanauwe (4 ton), Wolowa Baru (4 ton), Matawia (4.6 ton), and Waleona (2 ton)]. With this initiation, the total number of villages producing ginger had risen to fourteen by 2007 (see *Figure 2.2.*).

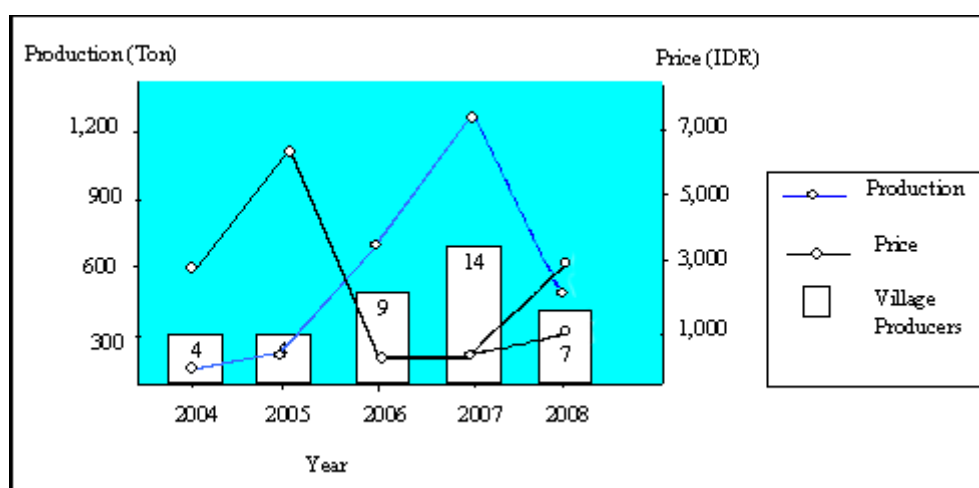


Figure 2.2. The dynamic of ginger production and price (2004-2008)

During October through to mid-November 2006, efforts were made to introduce small scale ginger processing in the three villages (*Harapan Jaya, Wajah Jaya and Summersari*) which have the

¹⁷ **Chairman:** Laramuna (Harapan Jaya); **Vice-chairman:** Ahmad (Summersari Village Head); **Secretary:** Untung Suyitno (Summersari). **Head of Sections,** Production: Ngadiono; Post-harvest: Maju; Marketing: Lainu. **Sub-district coordinator,** Kapontori: La Udu; Lasalimu: Abdul Rahim; Siontapina: Sarjono; Wolowa: Halifa; Pasarwajo: Siriton Baidin.

¹⁸ All households (98) in Harapan Jaya Village received planting materials; as they were willing to receive smaller amount of planting material.

¹⁹ Ginger price was very low (USD 0, 17 per kg). The underlined problem is the peak of harvesting season in East Indonesia occurs at the same time with West Indonesia regions, supported with big festival (*Idul Fitri*) when farmers need extra cash money.

highest ginger production in Lambusango. Five types of ginger based beverage production were introduced; (1) *ginger*, (2) *ginger coffee*, (3) *saraba*, (4) *skoteng*, and (5) *ginger tea*. Unfortunately, the scheme did not receive sufficient attention from the farmers. LFCP also searched for alternative markets by sending samples and prices to various buyers in Java. In mid December 2006, LFCP was contacted by buyers from Bandung, West Java. They agreed to make trial buying of 25 tons. In response to this, LFCP facilitated *Lambusango Ginger Farmers Association (LGFA)* to buy gingers from Summersari Village (26 tons) and organize transportation from Summersari Village to Bandung. The shipment was sent on 5 January 2007, and reached Bandung on 12 January 2007. The whole process had been successfully facilitated and *LGFA* had gained useful experience in marketing ginger outside Buton.

A.2.1.2. Intensified seasonal crops

In November 2006, in the wake of the failure of the ginger production scheme, a scheme to intensify the production of crops with a much shorter turn around time was initiated. In contrast with ginger, the crops could be harvested within short-period (2-3 months) and mainly used to supply local market. Facilitation of seasonal crop development was given by providing certified seeds to farmers, such as rice, union, groundnut and vegetable. The targeted area was Lambusango Barat (Kecamatan Kapontori), Waondo-Wolio (Kecamatan Lasalimu), Siotapina, Sangia Arano, and Harapan Jaya (Kecamatan Lasalimu Selatan). This initiative was mainly aimed to restore trust in the project and was not designed to develop village conservation contract.

A.2.1.3. Control wild pig (*Sus scrofa*) population

The most serious problem facing agricultural development in Lambusango is pig raids. All plants except ginger and orange are susceptible to devastating raids by wild pig (*Sus scrofa*, non protected animal). To protect rain-fed agriculture land, farmers mostly fence their land using timber shelves (or stones); those measures have made further depletion of forest resources, which in turn can actually serve to increase wild pig raids as the beasts can no longer find sufficient food in the depleted forest. To reduce this vicious circle, in December 2006, efforts were made to support pig hunting to control wild pig population in Kecamatan Lasalimu. The vast majority of the population in Lasalimu Selatan is Muslim and so wild pig hunting is not there. With this in mind, the project facilitated the development of three hunting teams composed of ethnic Balinese Hindus from Siotapina Village. The three teams hunt pigs on rain-fed land surrounding the production forest. The project provided pig net, flash lights and field shoes for three pig hunter teams. This initiative was mainly aimed to restore trust in the project and was not designed to develop village conservation contract.

A.2.1.4. Training on Cashew Processing for APJLMB

Until now, Lambusango farmers have preferred to sell shell-on cashews (*gelondongan*), rather than kernels. In Lambusango only farmers from Barangka village traditionally process cashews²⁰. By selling unprocessed cashew, a great opportunity is lost to the farmers. This can be quantified and given a value which is at least Rp 2600 (USD 0.2) per kg²¹ or Rp 2,600,000 per ton. The main reasons for farmer's reluctance to process cashew are: (a) lack of skill in cashew processing; (b)

²⁰ Barangka is the only cashew producing village in Buton Island which is independent of Lombe (Muna Island). The area is the centre of cashew processing for both Buton and Muna Islands. During the harvesting season (November - December) thousands tonnes of shell-on cashews flow to Lombe. The dried shell-on cashew is stored in warehouses. This is the reason why Lombe can produce cashew kernels year round. In 1998, twenty farmers from Barangka attended cashew processing in Lombe. Since then processing activities have gradually developed in the Barangka Village. At present, Barangka has become a 'Little Lombe', however, cashew-processing activities only occur during, and several months after, the harvesting season.

²¹ **Opportunity loss** calculation: 4 kg shelled-cashew becomes 1 kg processed cashew. The price of shelled-cashew (*gelondongan*) is Rp. 5,000 per kg, while processed cashew is 32,000 (at farmer gate). The cost to process per kg cashew is Rp. 1,500.

Poor information on the cashew kernels market; (c) Lack of capital and the need for immediate cash after harvesting.

A *Training of Trainer* programme (ToT) was organized to socialize cashew processing techniques to key members of *Buton Lambusango Cashew Farmers Association* (APJMLB) who subsequently become counterparts for cashew processing training in each kecamatan. The training was held on 19 November 2005 at the hall of Barangka Village and attended by twelve participants (every kecamatan sent two participants). Training material consisted of twelve cashew nut cutters, 24 kg of shell-on cashews and fifteen copies of cashew processing standard operating procedures. An instructor gave a one-hour theory lecture, followed by practical exercises for 7 hours. The LFCP in coordination with the (APJMLB) then followed up the ToT with cashews farmers training in each kecamatan during harvesting season 2005 and in August 2006²². Those trainings were attended by 20-30 participants; each participant received one cashew nut cutter. 123 cashews farmers were trained on cashews processing.

A.2.1.5. Facilitated Fair-trade Certification of Barangka and Matanauwe Villages

Cashew is the most significant agricultural product from Buton and surrounding islands. Annual shell-on cashew (unprocessed cashews, *gelondongan*) production from 53 villages surrounding Lambusango Forest is 1,300 tons. Cashews in the Lambusango area are 'grown naturally' with minimum farmer intervention. About 40 % of cashew trees in the Lambusango area are quite old, thirty years old or more (the optimum production of cashew ranges between 10 – 20 years old). Harvesting season is from November to February. The quality of harvest depends on rain intensity (the lighter the better) and frequency (the higher rain frequency of modest intensity is the better) and wind speed (the lighter wind speed is the better) during flowering seasons. Except Barangka Village, most farmers in Lambusango do not sell shelled cashew kernels.

The post harvest processing (from shell to dry cashews kernels with a water content of less than 8 %) runs as follows; (a) Sun-dry the shell-on cashews for about two days to open the shell; (b) Open cashews shell using a modified knife; Normally, one person is able to open 30 kg of shell-on cashews per day; (c) Sun-dry cashews for one day to enable the thin cashew skin to open; (d) Sort the cashews by quality (cashew kernels: whole, half/split, pieces/broken); (e) Packing; for the local market a 1 kg/pack, for shipping to larger trade centres (Batam, Surabaya, Makassar), normally an 80 kg/box. During harvesting season farmers sell at Rp. 4,000-7,000 (USD 0.5 – 0.8) per kg for shell-on cashews/kg, while the price of dry cashew kernels (dependent on quality) ranges from Rp. 38,000 – Rp. 45,000 (USD 4 – 5). There is a 4:1 ratio of wet, shell-on cashews to dry cashew kernels with 4 kg of unshelled cashews becoming 1 kg of dry cashew kernels.

Most farmers sell shell-cashews to middlemen, which subsequently sell to big Indonesian cashew traders and also, to a certain extent, Anglo-Indian²³ cashew traders which seasonally (October – February) open a branch office in Bau-Bau. The Indian traders usually buy dry shell-on cashews. Some middlemen also sell to Bau-Bau and Lombe (Muna Island), where some big cashew trading companies from Surabaya, Kendari, Makassar and Jakarta open their branch offices. Several local traders in Lombe buy large quantity of cashews during the peak harvest season, the shell-on cashews are sun-dried then kept in the storage; this will enable them to process shell-on cashews for the whole year.

Efforts to link Fair-trade and Lambusango Forest Conservation

²² It was conducted during the visit of Mr. Rajashingham (FLO Inspector for South East Asia countries) during the end of August 2006.

²³ India is known as one of the biggest cashew exporters in the world, 40 % of the production is imported from Indonesia.

OWT, as conservation organization, expects that any development and empowerment initiatives will result in improved conservation efforts. It is clear that there is a big potential to link fair-trade certification with better conservation efforts, as FLO certification requires good environmental and conservation management. In fact, the fair-trade standard has a strong environmental protection requirement built in. Referring to *Generic Fair-trade standard*, the association has to appoint one member as *Coordinator for Implementation of the Environmental Standards*. He or she should be given a written job description and provided a budget.

‘The producers’ organization ensures that its members protect the natural environment and makes environmental protection a part of farm management. The organization is expected to facilitate the development, implementation and monitoring of producers’ operational plans with the aim of establishing a balance between environmental protection and business results through the use of a combination of measures including crop rotation, cultivation techniques, crop selection, careful use of inputs such as fertilizers and pesticides and, as relevant, shade production. The organization ensures that its members minimize the use of synthetic and other off-farm fertilizers and pesticides, partially and gradually replacing them with non-synthetic and on-farm fertilizers and biological methods of disease control. FLO encourages small producers to work towards organic practices where socially and economically practical. Producers are encouraged to minimize the use of energy, especially energy from non-renewable sources. The organization is expected to maintain a management system consistent with its size in order to ensure organizational control of those areas for which it is responsible and to monitor production by its members through the use of recognized inspection and verification methodologies’.

So far, OWT has made the following efforts: **(a)** develop the farmers association as pro-development and pro-environmental protection organization; **(b)** assist the associations to develop environmental standard operating procedures which clearly cover actions to conserve Lambusango Forest (including logging, hunting, encroachment etc.).

When the associations were certified and have shown a good performance over a sufficient period of time, providing significant economic, social and environmental development, it is hoped that the surrounding villages will join the existing associations. Thereby the economic, social and environmental development of the surrounding villages will be maintained on long-term basis, in turn serving to conserve the Lambusango Forests.

Chronology of the Fair-trade Facilitation Process:

June 2005: OWT provided a sub-contract (USD 10,000) to *Just Cashews/Earth Hero*²⁴ to assist OWT to facilitate the fair-trade certification process and cashew export from the Lambusango area.

August 2005: JC staff (*Kate Idzorek*, JC’s Operations Manager) visited Lambusango, she assisted OWT (on behalf of Lambusango community) to apply for fair-trade certification to FLO.

September 2005: OWT facilitated several meetings of farmer’s representatives of 53 villages to develop *Lambusango Buton Cashews Farmers Association/Asosiasi Petani Jambu Mete Lambusango, Buton/APJLMB*). The association was developed to empower cashew farmers/producers surrounding the Lambusango forest in order to improve their bargaining position with cashew traders. The association was expected to act as a vehicle for cashew farmers to negotiate with partners and related parties, and become a forum to share information and capacity. The establishment of legally registered association is also a basic requirement to comply with fair-trade certification standard.

²⁴ Cashews exporter company, address: Cashews 3215 Central Ave NE, Albuquerque, NM 87106, USA, contact person: **Jim Neustel**, e-mail: jim@earthhero.org

October 2005: OWT on behalf of APJLMB applied for fair-trade certification to FLO. The first data set was submitted to FLO along with the associated FLO's questioner for the registration of nut producers.

August 2006: *Mr. Rajashingham* (FLO Inspector) visited Lambusango. After visiting the fields and meeting with the local communities and APJLMB board members, he raised three major suggestions: *(a)* APJLMB should be institutionally strengthened; especially in the areas of democracy, participation and transparency; *(b)* APJLMB should develop a central processing unit to ensure consistencies in production, quality and supply, and *(c)* APJLMB has to demonstrate their capability to export high quality processed cashews. In fact, until the visit of *Mr. Rajashingham*, OWT (as facilitator) had not been well informed regarding the basic requirements needed to comply with FLO certification standards. As such, it was no surprise that the basic requirements for fair-trade certification were not being met by APJLMB.

December 2006: OWT received FLO-Cert Inspection Report sent via e-mail (undersigned by *Frank Brink Schneider*, Director Producer Certification) by *Mrs Silke Kohschmitt* and *Mr. Dilip K. Chandy*. The letter stated that Asosiasi Petani Jambu Mete Lambusango (APJLMB) is not yet Fair-trade certified and not allowed to trade its products under Fair-trade conditions. In order to be certified, APJLMB must fulfil the preconditions described in Part D of the inspection report. Fulfilment of the given preconditions will be verified by document review. The preconditions are valid for one year from the day of the certification decision. At any time within this period, Asosiasi APJLMB may send the documents to FLO-CERT to verify the fulfilment of the preconditions.

With a new understanding the way the cashew farmers association should be managed following the three principles set out by FLO (participation, transparency and democracy), and realizing that coverage area of the APJLMB was probably too large to apply these principle effectively, OWT started rethinking its facilitation area. Realizing that resources for providing extensive facilitation were limited, in December 2006, the decision was made to reduce facilitation locations, from fifty-three villages in six sub-districts, to just one village within one sub-district; Barangka Village, Kapontori Sub-District. The hope was that once fair-trade certification was obtained for one site the scheme could be further extended to encompass other villages, the priority was to get at least one village certified to prove that the system could work.

January/March 2007: With this new vision and a greater understanding of how to comply with FLO generic standards, in March 2007, the whole facilitation process was repeated in Barangka Village. The process proceeded as follows: *(a)* Developed SOP on financial administration (1 March 2007); *(b)* Registered the legal existence of the BBCFA to *La Ode Muhamad Taufik*, SH Law Firm in Bau-Bau (26 March 2007); *(c)* Developed SOP for environmental protection and management (22 April 2007); *(d)* Appointed a Coordinator for Implementation of the environmental standards (29 April 2007); *(e)* Organized a meeting to socialize and discuss the use of fair-trade premium²⁵ (5 May 2007); *(f)* Opening BBCFA's Bank Account (21 September 2007).

May 2007: OWT started to communicate with *Miss Astrid Felicia* (FLO contact person in Indonesia) and later on with *Mr. Xavier HUCHET* (FLO Regional Coordinator Southeast Asia). From the communication, a new idea emerged to add another village facilitation site located in the eastern part of project area. The selected village is Matanauwe, Siontapina Sub-District.

²⁵ The proposed use of fair-trade premium: (1) rehabilitate kindergarten school and cashews storage/ware house; (2) Improve drinking water pipes and sanitation; (3) rehabilitate village hall building.

July 2007: As of 2 July 2007, OWT has provided facilitation in Matanauwe Village drawing heavily on the experiences and lessons learned from the previous process in Barangka Village. The following fair-trade facilitations have been conducted for Matanauwe Village: *(a)* FGD on three sub-villages (hamlets) to socialize fair-trade (as opposed to free-trade) and the urgent need to establish farmer association/cooperative; *(b)* Formulation of board members of the *Matanauwe Cashews Farmer Association* (MCFA) in a democratic manner (15 July 2007); *(c)* Formulation of MCFA Constitution (22 July 2007); *(d)* Developed Standard Operating Procedure (SOP) on financial administration (4 August 2007); *(e)* Organized meeting to socialize and the use of fair-trade premium (12 August 2007); *(f)* Developed SOP for environmental protection and management (25 August 2007); *(g)* Appointed a coordinator for implementation of the environmental principles (28 August 2007); *(h)* Registered legal existence of MCFA to *Hamid Priyogi, SH* Law Firm in Bau-Bau (29 September 2007); *(i)* Opening MCFA's Bank Account (9 October 2007).

October 2007: OWT produced a progress report on the fulfilment of the FLO preconditions and sent it at the beginning of November 2007. Based on consultation with FLO, it was decided that APJMM (MCFA) would replace APJMLB, while APJMB/BBCFA was considered as new application. As such, the coming visit of FLO would not be considered as the second inspection for MCFA, but the first inspection of BBCFA.

January 2008: Confirmation was received that MCFA (APJMM) had been fully certified, and can trade under Fair-trade conditions. This was on the provision that they have an FLO certified exporter until the date specified on the certificate. The reason the certificate was valid only until 31 March 2008 is the fact that the annual renewal audit for APJMM was pending. Should FLO-CERT not be able to audit APJMM before this date, APJMM will receive a valid certificate from FLO. APJMM therefore became the first cashew producer in Indonesia to be fully certified by FLO (PC Certified)²⁶. The existence of APJMM in Matanauwe has resulted in price stabilization at village level.

February 2009: The second inspection of the certification was conducted from 26-28 February 2009. The inspector was *Alfredo Pinto Escoval* (a.pinto-escoval@fairtrade-consulting.com).

Until end of 2008, Matanauwe farmers have not enjoyed fair-trade cashews trading, as the certification was received after the end of harvesting season 2007 (January 2008), while cashew harvest during 2008 was totally failed.

²⁶ PC means in this case "Producer Certification". In fact FLO-Cert has two main departments: PC (Producer certification) for cooperatives and TC (Trade certification) for exporters, importers, processors. The contact person at PC is *Mrs Silke Kohlschmitt* (s.kohlschmitt@flo-cert.net) and *Dilip Chandy* (d.k.chandy@flo-cert.net). The contact person at TC is *Mrs. Katharina Klein* (k.klein@flo-cert.net).

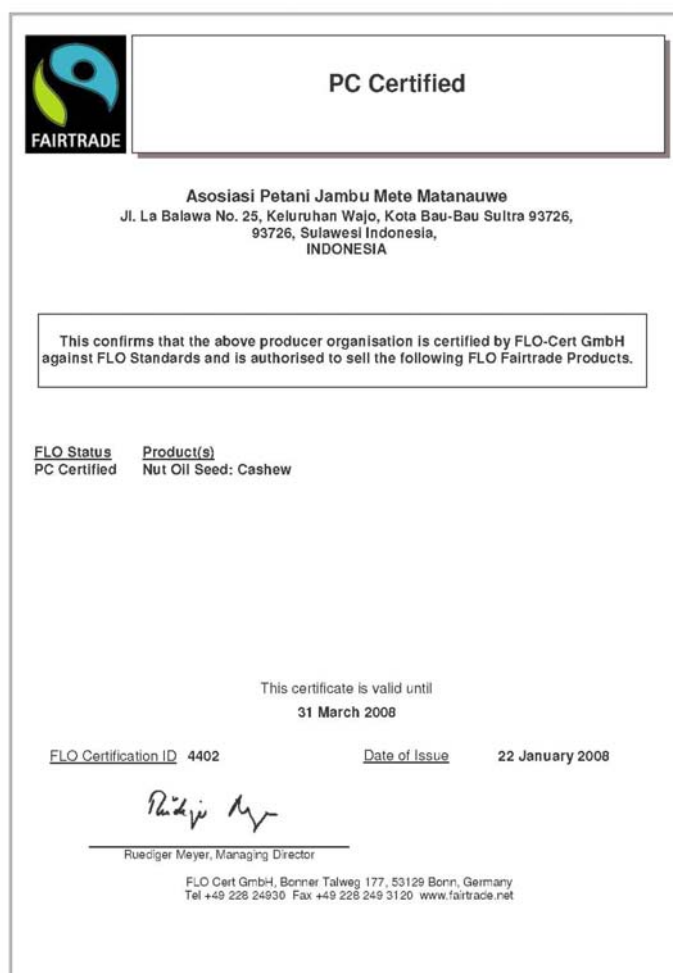


Figure 2.3. Producer Certification of APJMM

A.2.1.6. Facilitated Cashews Export to UK (WCP scheme)

The first export of cashew kernel from Barangka Village was first planned during the visit of *Kate Idzorek* (JC's Operations Manager) in mid February 2007. The nuts were prepared and, since the beginning of April 2007, 2 tons of first class ('whole') Barangka cashew kernel plus 500 kg of 'split' and 200 kg of 'broken' were ready to pack and export. However, JC did not follow through with their commitment to import the cashews and by July 2007 it had become clear that they never would.

While LFCP and Barangka Cashews Farmer Association were disappointed with '*Just Cashews*' failure to follow through on their commitments, a new hope emerged when *Dr. Tim Coles* (on 30 July 2007) decided invest in Lambusango cashews under the framework of *Wildlife Conservation Products/WCP* scheme (*Anoa Cashews*). LFCP arranged a meeting between *Dr. Tim Coles* and members of the Association at Barangka Village on 1 August 2007. Considering that the cashews had been in storage for about 5 months and the quality was about to decline unless packing was completed quickly, there was certain urgency to the meeting. *Operation Wallacea Ltd* agreed to make an upfront payment of USD 6,875²⁷, or about 50 % of total cost, paid to LFCP be used to facilitate packing, complete export procedures and pay for the transport costs back to the UK. A serious problem then became clear, neither *Operation Wallacea Ltd* nor *LFCP* were aware of the UK standard food safety requirements. It then became clear that exporting cashews is not simply a matter of preparing the best cashew products at farmer level, but it is much more important to

²⁷ The prepayment of *Operation Wallacea Ltd* arrived at project site on 22 August 2007

understand foreign trade regulations and exact buyer needs and requirements. Therefore the reluctant decision was made to let the association sell the cashews on the local market, and try again with the export process after harvesting in December 2008.

Box2.5. Developed cooperation with PT. Supa Surya Niaga

From November 2007, after the absence of *PT Hijau Bumi Indonesia* (HBI), LFCP searched for another trade company to facilitate cashew export to UK. After searching in Surabaya, LFCP finally decided upon *PT. Supa Surya Niaga* (*PT SSN*²⁸). The company was not only interested in the cashew trade, but also other agriculture products. After several discussions, PT SSN decided to build warehouse in Bau-Bau. During December 2007 and January 2008, LFCP supported the establishment of the warehouse. In return, PT SSN has arranged for cashews to be delivered to Surabaya; here the cashews will be processed to improve the quality then, vacuum packed and transported to the UK. The existence of PT SSN in Buton will support business development in Lambusango. So far, PT SSN has introduced the use of moisture testing equipment and cashew shell opening tools, thus making the procedure faster and more hygienic.

From January 2008, OWT facilitated the processing of 1.5 tons cashews. OWT has appointed PT SSN as an exporter and Sucofindo to check the product quality and issue a Food Health Certificate. *PT. Supa Surya Niaga* (*PT. SSN*²⁹) improved the quality of the kernels and facilitated the *Sucofindo* test in Surabaya and then vacuum pack the nuts and send them from Surabaya to the UK. All export documents were arranged by PT SSN in Surabaya on behalf of OWT and the documents sent to Opwall Ltd.

On 21 April 2008, 1.5 tons of Lambusango cashews finally left Tanjung Perak Port in Surabaya bound for Hull in the UK. The trade was valued at USD 12,424.10. Half the cashews came from Matanauwe (APJMM) and the other half originated from Barangka (APJMB), while all the cashews were processed by APJMB (Barangka Cashews Farmers Association). The kernels were packed in large boxes (80 kg) and sent by Pelni to Surabaya on 28 February 2008. The kernels were then received by on 2 March 2008. PT. SSN then set about improving the quality of the kernels to meet UK Food and Beverage Standards, the process ensured that the cashews were: (a) reduced in their water content ; (b) free from metal (magnetism) contamination; (c) free from fungi contamination; (d) disinfected (to gain phytosanitary certificate). The kernels were then packed into 6 kg vacuum plastic and then packed into 12 kg boxes. PT. SSN acted as exporter which arranged all documents (Phytosanitary certificate, Ocean Bill of Lading etc.) to the UK importer (Operation Wallacea Ltd). The kernels finally reached in UK on 10 May 2008.

In the UK, the kernels were tested by *Readifoods Ltd*, the summary of testing report was as follows: (a) **Boxes are stapled**: stapling of boxes increases the risk of product contamination. Any future deliveries would need to be in boxes without staples; (b) **Beetles in product**; sampling of five boxes revealed a significant amount of live beetles in the product. These would need to be killed by control atmosphere treatment which can be done at *Readifoods* at extra cost; (c) **Overall Quality**: The overall quality was perceived to be below average with a high level of general defects. The kernels were also found to be soft. The product would not be suitable for raw use, however once fried and salted general defects should become less obvious giving a more acceptable product; (d) **chemical testing**: Sampling was conducted the material tested was satisfactory: moisture level was acceptable at 4.5 % (specification 6% max), free fatty acid was acceptable at 0.45 % (specification

²⁸ PT SSN together with *PT Comextra Majora* and *PT Sekar Alam (Finna)* is the major cashew kernel exporter in Indonesia (*Peter Jaeger, jaeger@accordassco.biz, press com*).

²⁹ Suppaiah Krishnan, www.herbspice.com, www.indonesiacashews.com, supasurya@indo.net.id

1 % max), peroxide value was acceptable at 0.32 meq/kg (specification 10 meq/kg max), aflatoxin levels were satisfactory.

The 1.5 ton cashews will be retailed by *Wicked Coffee* (50 gram, 30,000 packages) and expected to be sold out before Christmas 2008. **Dr. Tim Coles** (4 June 2008) proposed the arrangement and delivery route for future shipments are as follows: **(a)** The cashews will be sourced from villages around Lambusango by OWT and purchased by PT. SSN who organise freight on board (FOB) in Surabaya Port; **(b)** *Voicevale Ltd* will buy the container of cashews and import them to UK and deliver to *Readifoods* in Heckinton; **(c)** *Readifoods* will buy them from *Voicevale*, process and pack the cashews; **(d)** *Wicked Coffee* will buy the cashews from *Readifoods* and distribute them.

So, why did the process take a long time? Because: **(a)** We did not have any experience in this line of business; **(b)** It was difficult to find a partner (such as PT. SSN) who was willing to arrange a small-scale shipment (much less than a container); **(c)** PT SSN did not put priority on to us, as this business did not provide significant benefit for them.

Strategy for future cashews shipment to UK: *Dr. Tim Coles* wanted to take further shipments of cashews to the UK before Christmas 2008; however this was a difficult proposition and was unlikely to happen. The underlined reasons are: **(a)** Learning from the last shipment, without ready stock, it will take at least three months to export cashews from farmers to the UK (one month for shell cashews collection and processing, one month for improving quality and arranging export document in Surabaya; one month for shipping to UK). Considering harvesting season will start in October/November 2008, it will be difficult to meet shipment before Christmas; **(b)** during the harvesting season; the majority of labourers are concentrated on collecting cashews, with little time allocated for processing. To have a continuous supply of kernels throughout the year, and to shorten the time between shipments to the UK, we proposed *Operation Wallacea Ltd* (or partners) to provide advance payment to APJMM (Matanauwe Cashews Farmer Association) to stock enough shell-on cashews for the whole year (or at least six months). By having sufficient shell-on cashew stock, both associations (APJMM and APJMB) can process shell cashews throughout the year to ensure continuous kernels supply.

On 25 July 2008, *Dr. Tim Coles* (together with LFCP Team) had a meeting with APJMM to introduce/socialize the Wildlife Conservation Products (WCP) scheme to APJMM. The proposed scheme is as follow: **(a)** In August 2008, *Tesco* (a major UK food trader/retailer) would order Matanauwe cashews via PT SSN; **(b)** *Tesco* may then develop a medium or long-term contract with PT SSN (at least 6 months); **(c)** PT. SSN will buy shell-on cashews from APJMM at a premium price; **(d)** Cashew processing is conducted by PT SSN in Surabaya; **(e)** APJMM use the extra money obtained by selling at a premium price to improve village welfare to support the implementation of the village conservation contract.

On 31 July 2008, *Dr. Tim Coles* and Project Manager/PM had discussion with *Pak Kris* (PT. SSN Director) on the export procedure, in his warehouse in Gedangan, Surabaya. To avoid the risk, resulting from dynamic raw cashew price at the farmer's gate, PT. SSN was unwilling to enter into a long-term contract at a fixed price, and would prefer to have a short-term contract for small quantities (5-10 tons of cashew kernels). In response to our request, PT SSN will provide predicted costs for cashew transportation from Bau-Bau to Surabaya, cashews processing and export document arrangements in Surabaya.

All the above planning was not materialized, as the November 2008 cashews harvesting seasons was totally failed in Buton Island.

A.2.1.7. Development of orange plantation in Lasembangi Village

Lasembangi Village is located at the northern foot-hills of Siotapina Mountain. The area has a deep fertile mineral soil. The village does not experience water shortages unlike most villages surrounding Lambusango forest. Water sources, either from stream and well are abundant during all year, allowing two planting seasons a year. However, many farmers still engage in illegal logging activities. Experience from elsewhere in the Lambusango shows that a community is unable to rely on livelihoods supported mainly by illegal logging activities. The initial income is considerable, but initial returns are quickly spent, and so the community becomes more dependent on resource extraction. As the resources become depleted, followed by the depletion of welfare and standard living and finally the future of community are also depleted. This phenomenon has been realized by the villagers, but in many cases, they have not had enough capital to change this vicious circle of poverty and natural resource degradation. In this context, *Pak Sukarno* is a great role-model to those who want to get away from the vicious circle.

Pak Sukarno (see Box 2.5) is the person behind the development of an orange plantation in Lasembangi Village. In 2005, the total orange plantation in Lasembangi was about 7 ha, this was owned by *Pak Sukarno* and his fellow villagers (*Pak Bakri* and *Pak Royo*).

Orange fruits all year round and can be harvested everyday of the year. With 2 ha orange plantation, on average, one can harvest 30 kg per day; the price is Rp.1000 per kg or about Rp. 30.000 (USD 3.25) per day. During the peak fruiting season (June-August), the orange yield reaches 15 - 20 tons/ha (July and August), and can earn up to USD 2,000/ha. This is indeed considerable amount of income in Buton's rural areas.

In November 2005, in response to an offer by LFCP, *Pak Sukarno* agreed to develop orange plantations with other members of his village. The first step involved thirteen selected villagers and covered 5 ha land. LFCP provided loan of Rp. 10,000,000 (USD 1,100) to the thirteen villagers to procure planting material (2,000 seedlings, Rp.5000/seedling). Farmers payback the loan (about Rp. 765.000/USD 80 per farmer) over 24 months starting in June 2006.

LFCP made it clear to the farmers that this money was a loan and not a grant, in order to motivate the villagers into making a success of the project. With a grant, failure of the project has no consequences, with a loan the money must be paid back, irrespective of whether or not the project fails. LFCP made the loan in the form of equipment, seedlings etc rather than cash, as a cash loan may well have been used for other purposes.

However, using the term 'loan' does not mean that LFCP will benefit from the GEF grant; the money paid back by the villagers will be kept by OWT and returned to the villagers as additional capital or managed as revolving fund. In fact, the loan performance of the Lasembangi villagers is extremely good; 100 % of the capital investment has been returned, and reinvested by LFCP to expand orange plantation.

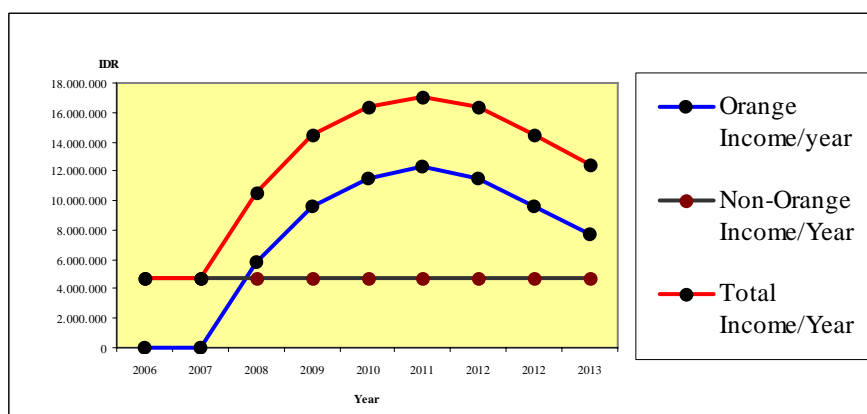


Figure 2.4. Expected additional income from orange plantation in Lasembangi Village

On 19 February 2007, during the visit of TTL to Lasembangi, *Pak Sukarno* put forward a proposal to further enlarge orange plantation in his village. According *Pak Sukarno*, by enlarging the plantation, any remaining jealousy among the villagers of Lasembangi could be eliminated.

Taking into account that optimal production age of an orange plantation is between 3 and 6 years (see *Figure 2. 4*), the 5 ha orange plantation established in 2006 will start to produce in August 2008 and the total productive orange plantation will become 12 ha. If a further 10 ha is added, by 2010 Lasembangi will be the prime producer of oranges for Buton Island. At the moment, Lasembangi oranges only supply the demand for the fruit in the surrounding villages. As the production capacity still limited, the Bau-Bau orange market is still dominated by 'Kambara' oranges from Muna Island.

LFCP agreed with *Pak Sukarno's* proposal and, in July 2007, he started growing 4,000 seedlings. These were planted in March 2008 over an area of 10 ha by another forty villagers. *Pak Sukarno* also received small grants from LFCP to provide technical assistances for the fellow farmers.

Box 2.6. Pak Sukarno, a Pioneer Farmer from Lasembangi

Pak Sukarno, a 50 year old ethnic Javanese, married with three children, started his career as a professional farmer in 1981, when he joined the government's transmigration program in Tinanggea, Konawe Selatan District (SE Sulawesi mainland). He visited Lasembangi in 1995 and quickly realised the potential for farming in the village as the place has better soil than Tinanggea. *'The village has good quality of soil and water, while land resources are still abundant. Unfortunately, some people have no patience and want to earn money easily by cutting down trees'* said Sukarno.

In 1995, *Sukarno* brought 20 seedlings from Tinanggea along with him when he made a visit to his brother (*Pak Agus*) who had lived in Lasembangi as rattan collectors since 1992. He asked his brother to conduct trial planting. In 1996, *Sukarno* revisited his brother and found that Lasembangi is a highly suitable site for an orange plantation. After this successful trial he bought two ha land in Lasembangi. He moved from Tinanggea to Lasembangi and started to plant 'Siamese' orange seedlings from Tinanggea. In 1998, he followed on-the-job-training on grafting provided by CARE and since then he enable to produce orange seedling materials on his own.

Apart from managing 4 ha orange plantation, he also breeds goats and chickens. On average, he can sell 20 goats per year (USD 1,000) and 100 kg chicken eggs (USD 40) per week. From his integrated farming, his farming enterprise is almost entirely self-sufficient. He makes use of the goat and chicken dung as organic fertilizer for his orange, cocoa and vanilla plantations (the latter are still at the development stage). In 2007, *Sukarno* was awarded the 'Best Performance of a Farmer in the Buton District' (*Petani berprestasi*), for which he received a government grant of USD 2,000 and a hand tractor worth USD 2,000. The farm has been selected by the Buton Government as a farmer training centre (*Pusat Pelatihan Pertanian Petani Swadaya/P4S*). In the near future *Pak Sukarno* plans to develop coffee, papaya, rambutan and pineapple on his farm.

'Lasembangi' orange planting materials are developed through grafting. The under stem is *Citroen* (*C. aurantifolia*), while the upper stem is *Kepron Siem* (*C. medika*). To develop planting materials, one should first develop a nursery of *Citroen*, which takes about four months (stem diameter 2 – 3 cm) before ready to be grafted with *Kepron Siem*. According to *Pak Sukarno*, *Citroen* is selected as under stem because of its strong stem, large rooting system, disease-resistance and longevity. The plant should be regenerated after 10 years.

A.2.1.8. Expanding orange plantation in Sukamaju and Wolowa Baru Village

Following the success of Lasembangi village in developing and expanding their orange plantation, efforts were made to involve other farmers outside the village to follow the successful model of Lasembangi. To do so, between 5 and 10 September 2007, LFCP organized key farmer's training/internship (*magang*, 8 farmers) on orange farming in the plantation area of Pak *Sukarno* (Key farmer). The invited farmers were from Sukamaju (SP 10, five farmers) and Wolowa Baru (three farmers) villages.

Sukamaju (Kecamatan Wolowa) is a newly established village located near state forest which is inhabited by migrant farmers from Ambon. The village has a deep and fertile soil, but so far there is no reliable agriculture product from the village, while most of inhabitants still resort to illegal logging activities. Understanding the severe problems, efforts have been made to facilitate the development of an orange plantation in this village.

The internship happened from 5 to 10 September 2007. A set of equipment specially procured from East Java (stem scissor, graft knife), planting materials and agriculture inputs (growth hormone, fertilizers etc.) was made available for every farmer to enable them to apply their skills upon their immediate arrival back on their own land.

To ensure that the farmers will put their skills into practice, in October 2007, *Pak Sukarno* was then sent to Sukamaju to assist farmers to develop an under-stem orange nursery (800 seedlings). By developing their own orange nursery, it is expected that Sukamaju farmers will be self-sufficient for orange planting materials, which is important as the village is 95 km from Lasembangi.

By mid November 2008 the under stem nursery was been ready to graft so, on 23 November 2008, LFCP sent *Pak Sukarno* to Sukamaju to train farmers on grafting and to ensure that farmers can produce good quality orange cuttings. At present, about 600 orange plants are ready to grow on permanent planting areas. *Pak Sukarno* has proved an extremely generous man, eager to give technical assistance to Sukamaju Village, while OWT is also able to provide the funding. The choice is now with Sukamaju farmers themselves; hopefully they have the spirit to follow-up this initiative. It is the time for Sukamaju village to run with the ball.

A.2.1.9. Strengthened oyster farming in Watumotobe Village

Community based oyster farming already occurs in the Kapontori Gulf, as the gulf has ideal conditions for oysters; clean waters, modest waves, and a flow of nutrients from the estuarine ecosystem. The main source of nutrients is the Lambusango forest, as the area is the headwater catchment of Kapontori River, which discharges its water into the Kapontori gulf. There are three villages located along the coastal line of Kapontori Gulf; Lambusango, Lambusango Timur and Watumotobe.

Pak Zahunu is the key person in oyster farming business development in Kapontori Gulf (See Box 2.6.). Since the 1970s, *PT Selat Buton*³⁰ has been the only buyer of juvenile oysters and as such the market was monopolistic with the farmers always getting the worst of the deal. Farmers grow juvenile oysters (half pearl snail nursery) for 4-8 months before selling to *PT. Selat Buton*³¹ (Rp. 500 - 700/oyster). The company needs another 6 months to process the juvenile oysters to half pearl

³⁰ *PT Selat Buton* was established in 1930 by a Japanese businessperson. During 1960s, the business was handed over to an Indonesian businessperson (*Pak Syamsyul Arief*), who modified the main products from full to half-pearl. Since then, the factory has absorbed many local workers; the workers' settlement surrounding the factory in the early 1970s became a *Palabusa* village (now under jurisdiction of Bau-Bau Town). The company is now led by *Ir. Nasir Arief*. The site managers are *Pak Bance* and *Pak H. Udin*. The factory is located at the Palabusa Gulf; it is about 20 km from Bau-Bau toward Kapontori.

until finally the pearls are ready to be sold to make jewellery. The end products are mostly exported to other Asian countries.

Box-2.7: Pak Zahunu, Oyster business pioneer from Watumotobe

Since year 2000, *Pak Zahunu* started to develop alternative market. He used to market oysters juvenile to North Sulawesi and West Nusa Tenggara. Since then the price of oyster from Kapontori Gulf has been improving, (from Rp. 100 in the year 2000 became Rp. 700/oyster in the year 2005) and the farming has started to attract many villagers. This can be seen from the number of rafts in the gulf, from 60 in the year 2000 become 183 rafts in the year 2005, with total asset of two billions rupiah. *“In January 2005, I sent one hundred fifty thousands oyster via fisherman boat to West Nusa Tenggara, the death percentage of oyster juvenile was 12 %. In March 2005, I sent again and the death percentage was 8%. The price per oyster was Rp. 2,500”* In the coming harvesting season (June-August 2006), he has received order of one hundred thousands oyster from PT. Newmont in West Nusa Tenggara, and the price is Rp. 4,000 per oyster (7 cm length).

Pak Zahunu, who elected as the village head of Watumotobe, also known as pioneered development of handicraft from Oyster shell and half pearl. Unfortunately, he lacks capital, as well as a lack of skillful human resource. *“We will get much added value, if we can make nucleus injection by ourselves, oyster with one nucleus can be sold Rp. 5,000, while we can inject until three nucleuses in one oyster”*. Pak Zahunu said. Oyster farming apart from a source of alternative income, it has inspired community to conserve Lambusango Forests. *“With the better oyster prize, they will leave their dependency on forest resources. More importantly, good forest ecosystem is the most important precondition for this farming. If Lambusango forest degraded, this will increase onsite erosion, and thereby sedimentation in the Kapontori Gulf. In that case, Kapontori Gulf will be not suitable for oyster farming, and the business will be collapse”*, Pak Zahunu said.

Farmers had no power to bargain with main oyster buyers, *PT. Selat Buton* and *PT Biota Lestari*³². An Oyster Farmers Association was needed, for the following reasons: *(a)* To organize farmers in order to strengthen bargaining position on juvenile oyster trade; *(b)* To stimulate the development of oyster-based home industry; *(c)* To develop a new market for both juvenile oysters and oyster-based home industry products; *(d)* To improve the access of bank credit to oyster farmers.

With LFCP facilitation, the Oyster Farmers Association (OFA) was established on 29 July 2006, the Chairman: *Zahunu* (Watumotobe Village); Vice-chairman: *La Ode Poto* (Watambo Hamlet); Secretary: *Azhar SPd* (Watambo Hamlet). Treasurer: *La Abo* (Watumotobe Village).

Activities conducted by OFA were:

(a) Training on oyster farming and processing in Watumotobe Village: The objective of the training was to provide skilled labourers to support the development of the oyster business in Lambusango and Watumotobe villages. It was conducted before the OFA was officially created, but was supported by the key members of association. The training was over for two days (28 and 29 January 2006) and attended by forty participants, ten of them are teenagers. On the first day of the training, *Pak Zahunu* discussed the ecology of the oyster including its biological behaviour, natural enemies, and the need to conserve the Lambusango Forest to prevent sedimentation in the Kapontori Gulf. The theory was followed with an in-door practical exercise. On the second day, all participants were sent out to the rafts and practical exercise was conducted. Three rafts were provided for this exercise and every participant had a chance to inject 10 oysters. The injected oysters were returned to the raft to develop, the results can be inspected after six months. Notes were taken so that each participant can assess his own performance when the six months are up.

³² *PT Biota Lestari* was established oyster industry (2005) and it is located at Lambusango Village.

(b). Developed a Bamboo nursery in Watumotobe and Lambusango Timur Villages: There are 220 rafts currently installed for oyster farming in Kapontori Gulf, 80 % are made from casuarinas (pines) trees. Each raft requires 100 trees, and they need to rebuild every four years. As such, the annual trees demand for rafts in those villages are 4,500 trees. If this practice is to continue, the future of the Lambusango Forest will be threatened, which will in turn affect on the sustainability of oyster farming. In response to the problem, at the start of the rainy season in December 2006, OFA facilitated the development of bamboo nursery in Watumotobe (100 seedlings) and Lambusango Timur Villages (500 seedlings). All seedlings were given over to the oyster farmers to be planted on their land on 16 March 2007. Unfortunately an extremely dry April and May in 2007 meant that many of the planted seedlings did not develop, however, the idea to replace casuarinas trees with bamboo for the oyster rafts is still viable.

(c) OFA defined common price for PT Selat Buton: In August 2006, OFA determined a uniform price of Rp. 800 per oyster for its oyster farmers. The price was agreed by PT. Selat Buton and was adhered to until November 2007. In response to the rising prices, as of December 2006, PT. Selat Buton together with the Palabusa community (Bau-Bau Town, near PT. Selat Buton) developed oyster farming in Palabusa Gulf. The new oyster supply from Palabusa destabilised prices causing, some OFA members to sell their oysters below the agreed price. Since then OFT has had trouble defining a common price.

(d) OFA developed working cooperation with District Marine Office and PT Bio-Bahari: In September 2006, OFA signed working cooperation with Buton District Marine Office to develop 50 oyster farming rafts. The government granted the rafts as working capital to poor fishermen. Joint cooperation had developed between OFA and PT Bio-Bahari (Surabaya based company). OFA is willing to supply oyster seeds to the company as well as providing technical assistance, while the company will help OFA to market their product.

A.2.1.10. Selling 'Anoa' and 'Jungle' coffee to UK market (WCP)

In the Lambusango area, small holder coffee plantations are common in Lasalimu Selatan, Siontapina, Wolowa and Pasarwajo Sub-Districts. Among those areas, Wakaokili village is well-known as the centre for the production of coffee in the Lambusango. During the economic crisis in 1999, the Wakaokili villagers experienced a real windfall as prices shot up for all their cash crops and especially coffee. The village borders the southern part of the Lambusango forest and is located near Kaongkaongkea River, on the main road between Bau-Bau and Pasarwajo. Based on recent inventory, the area of the coffee plantation in Wakaokili village is 84 ha with about 90 households involved on coffee production. Peak harvesting season is normally between July and September. Coffee cherries produced in Wakaokili are being grown in an 'organic' way (i.e. without chemical pesticides, herbicides or fertilizers). The average yield of *robusta* is between 300 – 350 kg cherries per ha, quite low for this type of coffee. The poor yields are mostly attributed to the fact that coffee trees are not maintained; trees are old, and pruning and cleaning of the area is not regularly undertaken. Since many coffee estates are located near the settlement areas, farmers only pick ripe, red cherries. After harvesting, coffee cherries are fermented overnight, in sacks, buckets or other storing apparatus. Cherries are then washed to remove the mucilage, before the drying process. Drying is done in an open, flat space such as a yard or by the roadside. Raised platform are never used for drying. After a few days of drying, dry cherries are then sold to traders who come to the village or are kept for a time until traders arrive or the price is more favourable. If a farmer has sufficient quantity of beans, he may bring them directly to Bau-Bau to be sold.

Wakaokili Village is located about 3 to 4 km from the boundary of Lambusango Forest; however, the village is very valuable for conservation, the main reasons are: (a) this is the only village surrounding Lambusango Forest which still manages traditional sustainable managed areas of forest (named *Bonea-Bonea*, *Wabanca*, *Lasole* and *Kundee Panda*, total area is 80 ha). The forest is

managed through selective logging; villagers are not allowed to cut forest without the approval of the *Parabela* (traditional leader), those who break these traditional laws will be isolated from social life and fined a minimum of IDR 100.000; **(b)** the village is still governed by the old traditions (customary regulation) which manifests itself in the clean environment, tidy (traditional) houses and strong social capital. The village is not much influenced by consumerism life style as other Butonese villages; **(c)** the village has diversity of agriculture products including coffee, candle fruit, *kolang-kaling* (jelly food made of arenga fruits), banana, corn and arenga sugar.

Since early 2006, LFCP and Operation Wallacea Ltd. (*Dr. Tim Coles*) had been interested in helping Wakaokili Village to increase the value of the coffee products by linking it to the international market. The harshness of *robusta* beans was addressed by mixing them with Arabica beans from Honduras. The intention was that by helping farmers sell their coffee on the international market for a much greater price than they would receive locally, the farmers would be willing to stop practices harmful to the Lambusango forest.

A market network was developed by Opwall in the UK involving the National Union of Students to sell the coffee at their outlets in universities across the UK. The processing quality and the packaging were also improved. The coffee was first marketed through the 'Anoa' conservation campaign. The Anoa was chosen as the symbol and brand of the coffee as it was considered a saleable brand. In October 2006, LFCP sent 50 packages of processed *Anoa* coffee (200 gram per packet) to the UK, then on 2 January 2007, in response to a request from Opwall, LFCP sent 60 kg of Anoa coffee beans via post to UK, this has been arrived in the Opwall office on 8 March 2008.

The coffee was processed and mixed with Honduran Coffee (25 %) and Colombian Coffee (50 %) before being roasted and packed by *Wicked Coffee* and branded as 'Jungle' coffee, for sale in 227 gram packs. A message is written in the package: *'One of the most urgent problems in wildlife conservation is to stop the clear felling of tropical rain forest, in conjunction with Operation Wallacea Trust the Wicked Coffee company has formed contracts with villages in Indonesia and Honduras that commit the whole community to stop logging and hunting. In exchange for this, communities are paid higher prices for the coffee beans. Our Jungle coffee is created using these coffees, blended with Rain Forest Alliance Certified Coffee from Colombia'*. Wicked Coffee has started creating a market for 'Jungle' coffee.

On 25 July 2008, *Dr. Tim Coles* together with LFCP Team had a meeting with Wakaokili village to socialize the proposed implementation of wildlife conservation products. The meeting defined the following conclusions/actions plan: **(a)** Wakaokili Village should develop a conservation contract; **(b)** Nairobi coffee will order 1.5 tons of coffee beans from the village cooperative; **(c)** Wakaokili cooperative will use the extra money obtained from the premium prices for the benefit of the whole community and to support the village conservation contract implementation.

On 31 July 2008, a conservation contract was developed and agreed by all villagers, the main points are: **(a)** Villagers will not log customary forest without permission of village government and customary institutions; **(b)** Villagers will not pollute spring water and hunt protected wildlife; **(c)** Villagers will not cut customary forest and state forest land for agriculture activity. Those who break the commitments will face: **(a)** a fine for a minimum of IDR 100.000; **(b)** social sanctions that will be defined by village customary court. Such village conservation contract is not new for Wakaokili, and this is just a way to formalize the prevailing traditional law.

At the beginning of August 2008, we facilitated: **(a)** the establishment of LED '*Sumber Maju*' and LED board's members (1 August 2008); **(b)** the development of LED's constitution (3 August 2008); **(c)** training on cooperative management (4 August 2008); **(d)** training on financial administration (5 August 2008). On 6 August 2008, LFCP provided funds to LED '*Sumber Maju*' to purchase 1.6 tons of coffee beans. The local price of dried coffee beans was IDR 15,000 per

litre, and we bought from LED with premium price (IDR 25,000 per litre), while LED bought coffee beans at IDR 20,000 per litre, the IDR 5,000 price different became LED capital, the money to be managed in transparent manner for the benefit of the whole community. The 1.6 ton coffee beans left Bau-Bau Port for Makassar on 9 August 2008 by *Pelni* Boat (public commercial boat).

Since 30 July 2008, efforts have been made to find the most suitable exporter in Makassar. After initially selecting three potential candidates, *PT. Hijau Bumi Indonesia*, *PT. Batu Putih Raya* and *PT Sulawesi Beans*; the decision was made to choose *PT Sulawesi Beans*³³ (PT. SB) as partner. The company has twenty years experience as a coffee exporter. PT SB conducted quality improvement to bring Wakaokili coffee into compliance with international standards, such as: (a) sorting; (b) sun drying (to reduce water content to 15 %); (c) packaging; (d) fumigation. The company also prepared the export documents such as: (a) Bill of Lading; (b) Packing list; (c) Origin Certificate; (d) International Coffee Organization Certificate; (d) Fumigation Certificate and (e) Quality Certificate. It took about two weeks for coffee processing and arranging export document. On 28 August 2008, the coffee beans left Makassar for Surabaya. In Surabaya, OWT selected PT Cakrawala³⁴ as a forwarder company. They arranged the Phytosanitary Certificate and organize shipping from Surabaya to Nairobi Coffee (alnur@nairobi-coffee.co.uk) in the UK. The coffee beans finally reached UK on 23 October 2008.

It is hoped that this is not the beginning and the end of coffee export from Wakaokili. The village badly needs end-buyers who are truly concerned about conservation. This issue should become a main concern of the Trustees members in UK!

A.2.1.11. Developed Tree Nursery Model in Wajah Jaya

From April 2007, LFCP has been involved in facilitating the development of a village nursery business model in Wajah Jaya village (*Pak Ramli*) to produce teak (*Tectona grandis*) seedlings and indigenous species such as *Biti* (*Vitex sp*), *Bayur* (*Pterospermum sp*) etc. The production capacity is of 50,000 seedlings every four months. The teak seedlings produced by the nursery have been accredited/labelled by the Province Seedling Centre (*Balai Benih Sulawesi Tenggara*). The Watershed Management Agency (BP-DAS) bought teak seedlings from the nursery to implement a National Land Rehabilitation and Reforestation Movements Project (*Gerakan Rehabilitasi Hutan dan Lahan/Gerhan*) in the surrounding Lambusango Forest. Due to the development of the nursery, *Gerhan Project* did not need to buy seedlings from outside of Buton Island. The seedlings produced were also used to support planting campaign in the Lambusango, especially the '*planting compulsory program*' for brides and bridegrooms. The latter program has recently been launched by Sub-district Religion Affair Office (KUA) Lasalimu.

A.2.1.12. Expanded seaweed businesses from Wagari to the surrounding areas

A sharp decline in seaweed production in the Philippines has resulted in a dramatic increase of seaweed prices and seaweed production in Indonesia, especially in eastern Indonesia. The price of seaweed has soared from Rp. 6,000 per kg in March 2008, to Rp. 15,000 per kg in July 2008. Most of seaweed production from East Indonesia is exported to China and Japan. In March 2008, the number of seaweed lines in Wagari was 50, today this figure has increased to 150 lines. These conditions have provided windfall profits to Wagari villagers; the average income has increased from Rp. 500.000 – Rp. 1,500,000 per harvest (approx. every 45 days) to Rp. 3,000,000 – 5,000,000

³³ PT Sulawesi Beans, Office Address: Jl. Níkel Raya 20/17 Makassar, Workshop Address: Jl. Antang Indah No. 108 Makassar, Phone 0411-449587. Contact Person: *Untung Paongaman*

³⁴ PT Cakrawala, Office Address: Jl. Tunjungan No.41 Gedung Graha Berita, Surabaya, phone: 031- 5455654. Contact person: Ibu Fany

per harvest. This is considered a considerable amount of income for local people. At present, it is not only former loggers who are turning to seaweed; even government officials (such as village teachers) have entered the industry. LFCP together with CFMF has made use this seaweed ‘gold-rush’ to facilitate the development of the seaweed businesses to the areas surrounding Wagari, such as Kakenauwe, Lawele, Waleona (Lasalimu Sub-District), Kamelanta and Watumotobe (Kapotori Sub-District). We explained to the seaweed farmers, that the current extraordinary price is temporary; it will decline soon when a new balance of supply and demand has been reached. The normal price of seaweed is between Rp. 7000 - 8.000. We emphasized this to farmers to avoid disappointment when the price finally declines. As of July 2008, LFCP has tried to link the trade in seaweed with ‘*Agar Berkah Indah*’, a seaweed middlemen association for Muna and Buton. The association was developed by IFC-Pensa to maintain a stable price, continuous supply and high standards of seaweed quality.

A.2.1.13. Initiated Seaweed farming in Wolowa Baru and Matawia Villages

Before July 2007, seaweed farming in the areas surrounding the Lambusango Forest was only developed on the western coast (along Buton Strait). Since September 2007, the project (via CFMF) has expanded the farming to the northern coast (Wagari Village, Lawele Gulf).

After the successful impact of seaweed farming based livelihoods as an alternative income to illegal logging around the Lawele Gulf, efforts were made to expand similar enterprises to eastern coast of the Lambusango Forest area. This area is widely known as a gateway for illegal timber to be transported to the Wakatobi District. Surprisingly until the project intervention, seaweed farming ‘fever’ had not reached this area. We tried to find the underlined reasons by interviewing some key villagers. Some thought that the area of coast was not suitable for seaweed as the waves are too strong, others expressed that they have no capital to start and many others confessed that they do not have the skills. These facts have driven the project to develop seaweed farming pilot plots in the areas. After conducted survey on the livelihoods types of every village and the potential affects of such initiative on the reduction of forest threats and pressures, we finally selected Wolowa Baru and Matawia Villages in Kecamatan Wolowa as the sites of the pilot.

The process of facilitation for both villages was the same as had previously been completed by CFMF in Wagari Village; the CFMF: **(a)** Socialized proposed business development (3 August 2008); **(b)** Formulated an action plan (5 August 2008); **(c)** Established LED ‘*Nambo Bahari*’ (10 August 2008 in Wolowa Baru) and ‘*Nambo Sara*’ (12 August 2008 in Matawia); **(d)** Formulated LED board members and the LED’s constitutions (16 August 2008); **(e)** Trained LED on cooperative management (18 August 2008); **(f)** Trained LED on financial administration (20 August 2008); **(g)** Facilitated the development of village conservation contract (28 August 2008 for Wolowa Baru and 1 September 2008 for Matawia); **(h)** Provided in-kind capital (USD 1,000) and equally distributed the capital to ten LED members (15 September 2008). Each farmer received twenty plastic ropes (each rope has a length of 75 m), plastic bottles (for floats) and seaweed seedlings; **(i)** Oversaw seaweed planting (28 September 2008 to date).

It has already been proven that the area is highly suitable for seaweed farming; even the relatively strong waves have been a blessing in disguise as the waves naturally clean the algae out of seaweed plants; an action that must be completed manually in areas of seaweed farming with more gentle waves. Algae are a seaweed parasite and farmers spend much time to cleaning off the algae. So far, the production of seaweed per square meter is 50% greater than Wagari, while less time is spent tending. Scientific research is needed to test this observation; this may be of interest for an Operation Wallacea Ltd volunteers!

Achievements until end of December 2008: (a) the number of members has increased from ten to twelve in Wolowa Baru and to sixteen in Matawia; (b) Farmers have conducted a second harvest; they can, on average, harvest 400 kg of dried seaweed. With a current price of IDR 9.000 (USD 0.82) per kg, farmers can earn around IDR 3,500,000 every six weeks.

It is no doubt that within a few years to come the eastern coast of the Lambusango Forest will be full of seaweed farming. This will hopefully support the ultimate goal and outcome of this project!

A.2.1.14. Facilitated the development of ginger slicing business in Summersari Village

After a sharp decline in the price of ginger during the 2006 harvesting season, most of the local community around the Lambusango Forest lost interest in growing ginger. Summersari was the only village to retain its faith in the product and still has the spirit and desire to farm ginger. In 2006, LFCP introduced ginger slicing equipment to Summersari Village. The ratio of fresh and dry sliced ginger is 1 to 6, meaning that 6 kg of fresh ginger becomes 1 kg of dry sliced ginger. The cost for cleaning, drying and slicing is Rp. 1,500.000 (USD 165) per ton, while the price at farmer gate during early 2008 was Rp. 5,000,000 (USD 550) per ton. Summersari sold 60 tons of sliced ginger during the last harvesting season. Efforts have been made to connect the product to PT SSN; unfortunately the current products have still not up to the companies standards. In November 2007, LFCP brought the initiative to Buton District Agriculture Service (BDAS) and requested a fund to equip ginger farmers with stainless knives. BDAS was interested in the initiative and committed to allocate Rp. 100 million (USD 10,990) from the 2008 government budget to procure stainless knives and a drying machine. On 22 July 2008, LFCP heard from BDAS that the fund had been made available. LFCP (OWT) was asked to facilitate the procurement of equipment and ensure the efficient and transparent uses of the fund. Now, 23 farmers have their own knives and capacity to produce and maintain a high quality of sliced ginger.

A.2.1.15. Promoting Ecotourism to the Lambusango

A.2.1.15.1. Sub-contracted to Amartia Society/Angsa Indonesia Tour and Travel (Amartia)

Amartia was selected to receive an Eco-tourism Development Grant (USD 10,000) for six months (August 2005 – January 2006) and started to work together with LFCP in August 2005. The proposed aims of the LFCP Project Tourism Development included: (a) Increase the number of visitors to the Lambusango and Kakenauwe forests, especially domestic clients; (b) Increase the number of local families surrounding the forest who benefit from the tourism development (emphasizing economic benefits); (c) Promote self-reliance and sustainability of local tourism businesses; and (d) Demonstrate that tourism development initiatives will lead increased conservation efforts for the forest ecosystem. Below is list of outputs of Amartia.

a. Travel and tour product development. Forty tour products have been developed, which connect Buton Island with other areas in Sulawesi which are already recognised as tourist destinations. The Buton mainland is highlighted by the Lambusango Forest and nearby dive location such as to Wakatobi Marine Park. There are products which also connect Buton with nearby islands such as Muna Island, and the islands of the Wakatobi. The main objective of these tour products is to connect Buton and its surrounding area (including Muna Island and Kendari as the main entrance to Buton) with most famous tourist destinations in Sulawesi such as Makassar, Toraja, Bunaken, Tangkoko and Minahasa Highland, including volcanic experience tour programs. The hope is that in future Buton will become one of the main tourist destinations in Sulawesi.

b. Travel catalogue development. A catalogue of the various tour products, promoting Buton as one of Sulawesi's main tourist destinations has been produced. It is able to be modified by tour

organizers. The catalogue is composed of 12 pages, with dimension 19.75 x 29.50 cm, with a printing run of 500 copies using 120 gram matt papers.

c. Development of three Posters. A series of posters has been produced; (a) A 'Visit Buton' Map; (b) Buton Wildlife and Nature Reserve; and (c) Buton Marine Park and Coral Islands. The posters have dimensions of 60 x 50 cm and 500 copies of each were printed on high quality, 120-gram matt paper. Fifty posters have been distributed during sales activities to various tour and travel companies. The posters featured both English and Indonesian languages.

d. Distribute Lambusango Tour Product Information to the Berlin International Travel Bazaar (ITB). With the assistance of Yogyakarta Provincial Travel Association, LFCP were able to distribute 100 brochures and tour catalogues to be delivered and sold during ITB event through *Tunas Indonesia Tour and Travel*. There has been no feed-back on trade activities during ITB until the making of the final report.

e. Direct Mail Services. Amartia delivered Lambusango promotion materials to twenty-five organizations, mainly tour and travel agents in Indonesia plus five International organizations, who are concerned with tourism for nature conservation.

f. Direct promotion activities. Those activities have been conducted in Jakarta, Yogyakarta, Bali, Makassar and Kendari. The project has been assisted by several travel agents; they are (a) Bali Arjuna Travel; (b) Angsa Indonesia Yogyakarta; and (c) Cendana Travel Makassar. The project provides information about the Lambusango to the agents in forms of (a) detail tour products, (b) travel catalogue, (c) CDs, (d) brochures, (e) posters and (f) information of Lambusango website.

A.2.1.15.2. Sub-contracted to Bonny Syafei for Marketing the Lambusango Forest as an eco-tourism destination in Bali and Surrounding Areas

Operation Wallacea Ltd (Opwall) has been very successful at marketing the Lambusango Forest to the European market for many years. Every July-September, hundreds of students and scientists come to the Lambusango Forest to conduct research or to enjoy the beauty of the forests. Opwall's activities have provided significant additional income to Kakenauwe Village and the surrounding area. Unfortunately, the programme only runs between July-September, and only a few villages are influenced by the ecotourism activities. As such, there is a need to market Lambusango Forest outside *Opwall* tourists' season, both for foreign and domestic tourists in Bali and Jakarta.

LFCP with the support of *Dr. Tim Coles* sub-contracted *Bonny M. Syafei* (Operation Wallacea Site Manager) for three months (6 November 2006 - 5 February 2007, USD 3,750) to market Lambusango Forest *Adventure Tour* product to tour operators, expatriates, students, companies and other relevant parties in Bali, Jakarta and surrounding areas. *Bonny* acted as liaison person between tour operators, eco-tourists and *Lawana Ecotone*, a Bau-Bau based tour operator and tried to develop a long-term marketing network for eco-tourism to the Lambusango Forest. *Lawana Ecotone* has designed a 6 days/5 night's tourism package with start and finish points in Bali or Jakarta.

The following outlines the activities and outputs achieved by *Bonny M. Syafei* during the period of the contract: (a) Learning the nature of tours and travel company selling adventure tours in Bali in order to develop a list of reliable tour and travel companies to work with; (b) consultation of the *Lawana Ecotone* itinerary with foreign tourists and researchers in order to develop an itinerary which meet with foreign tourist's expectations; (c) designed a brochure and printed 2,000 copies; (d) put 300 brochures in international departure terminal of Ngurah Rai Airport; (e) put 200 brochures in domestic departure terminal of Ngurah Rai Airport; (f) put 100 brochures in Café Black Canyon, Tuban-Bali; (g) put 100 brochures in *Kudeta* café, Jl. Raya Seminyak, Kuta-Bali; (h) develop working cooperation with Panorama Tours DMC, Bali Holidays Tour and Travel, Tour East Indonesia, KORI Restaurant and Bar, Paradise Bali Holidays Tours & Travel and Kaboa

Management Training; (i) followed-up the working cooperation. There has been no feed-back on trade activities in Bali until the preparation of the final report.

A.2.1.15.3. Training on home-stay management for Kakenauwe villagers

On 15 August 2005, LFCP conducted a program of socialization in Buton District Tourism Agency. The agency showed great interest and willingness to organize joint activities and share funding on relevant activities. Two activities were agreed, (a) Promote Lambusango tourism in the Royal Tourism Indonesia Mart Expo (Royal TIME³⁵) in Yogyakarta, 23-25 September 2005 (this was conducted by *Amartia*); (b) Joint training on home-stay Management for Kakenauwe villagers. In December 2005, the agency established a wooden home-stay in Kakenauwe village which is aimed as an ideal home-stay model. The joint training was held from 7 – 10 December 2005 with 45 participants, 30 from Kakenauwe Village, while 15 from other villages located in the surrounding of Lambusango forests.

A.2.1.15.4. Facilitated tourist visit outside Opwall season

From 18 to 23 May 2008, LFCP facilitated the visit of an American tourist, *Dan Rosenberg*, who lives and works in Hong Kong. He wanted to come to the Lambusango due to his special interest in snakes. His visit to the Lambusango was documented by *Henry Ali Singer* in a short DVD film (5 minutes) entitled '*Playing with mangrove snakes*'. His desire to visit the Lambusango had arisen after he found some interesting photos of snakes from the Lambusango in a book titled '*Snakes of Sulawesi*'. In April 2008, he tried to contact some travel agencies in Sulawesi to visit Lambusango, but found little information on how to reach the Lambusango. After he contacted 'Maengket Tour'³⁶ (*Agus Mangatta, Msi, Managing Director Maengket Tour and Travel*), information on Lambusango became clearer. They (*Pak Agus* and *Mr Rosenberg*) reached Bau-Bau from Makassar using the regular *Merpati*³⁷ flight.

Maengket tours is a Makassar based travel agency with long history of arranging for tourists to visit *Tangkoko* Wildlife Reserve (Manado, North Sulawesi) and *Tana Toraja* (South Sulawesi), and they identify themselves as the experts of Sulawesi nature tourism. After visiting Lambusango Forest (*Labundo-Bundo* village), *Mr. Mangatta* felt that the forest has great potential to become one of the prominent tourist destinations in Sulawesi. In terms of the natural ecosystem and forest cover, it is much better than *Tangkoko*. He committed to send tourists to Lambusango. According to him, *Labundo-Bundo* village needs to develop a home-stay (or at least some rooms) which are suitable for *baby boom* and *silent generation* (high-class) tourists. *Mr Rosenberg* was very satisfied with his experience of the Lambusango and during the visit he was able to find and successfully document four snake species.

In addition, from 12-17 May 2007, LFCP facilitated the visits of three foreigners [*Tjale Boorsma*, *Mirriam Bremer* (from Utrecht University, The Netherlands) and *Bob Stallman* (from America)].

³⁵ TIME is the biggest International travel market in Indonesia; it is designed to facilitate the Indonesian tourism community with international tourism tour organizers. The event was organized by Indonesia tourism network organisations such as *Garuda Indonesia*, *Air France*, *ASITA*, *Indonesia Tourism Promotion Board* and the *Yogyakarta Province*. The event was attended by 23 countries, it include *buyers*, *sellers* and *press*. Indonesian *sellers* were from the tourism business community from 17 provinces throughout Indonesia.

³⁶ www.sulawesi-maengkettour.com

³⁷ As of April 2008, *Merpati* Airline has a regular flight to Bau-Bau; every Sunday, Tuesday and Friday.

A.2.1.15.5. Building relations with tour and travel agencies

LFCP have developed relations with *Losari Tours and Travel* (www.losari-tours.com) to support the promotion of Lambusango Forest. *Pak Acho* (Managing Director of Losari Tours) was very keen to support the promotion of the Lambusango, hopes to design a reasonably priced tour package to the forest. He claims that he has already been contacted by many tourists wanting to visit the Lambusango Forest, but he did not know who he should contact during outside Opwall season. To solve this problem, LFCP has helped to build a working relationship between *Losari Tours* and *Lawana-Ecotone*, a local NGO working with Opwall Ltd to operate scientific expedition in Lambusango Forest. So far, *Lawana Ecotone* is only active during Opwall Ltd season; by building relationships with various travel agencies, there is the possibility to significantly extend the operating season.

A.2.1.15.6. Building a partnership with the Buton District Tourism Agency/BDTA

The head of BDTA (*Pak Laode Rahman*) has invited OWT to facilitate the promotion of Buton Tourism involving GOW (Association of Butonese Business Women) and *PT. Inti Sahabat* (Jakarta based travel agency). On 22 July 2008, LFCP accompanied the Director of GOW (*Ibu Meta Andriyani Ali Laopa*/the wife of vice Bupati Buton) and Director of *PT. Inti Sahabat* (*Ibu Estiana Salim*) staff to visit Kapontori Gulf (floating houses, community based oyster farming) and the Lambusango Forest (bird watching, tarsiers, Buton macaques, Waleona's waterfall etc.) to assess its feasibility as a tourist destination. The business partnership now plans to promote Buton tourism in Jakarta, Malaysia, China and Taiwan. To raise awareness within the Buton government on the potential of the Lambusango Forest as a tourism destination, OWT/LFCP in cooperation with BDTA organised 'out-bond' (outdoor recreation/ training) involving the decision makers of Buton District.

A.2.1.15.7. Simplifying the arrangement of visitor entry permits (SIMAKSI) to the Lambusango Protected Areas.

A major problem with marketing the Lambusango Forest as a tourist destination is difficulty obtaining a visitors entry permit (SIMAKSI) to the protected areas. Visitors would certainly be reluctant to visit the area if they had to go to Jakarta or Kendari to arrange entry permits as the current procedures dictate. The problem seemed to be impossible to solve as the status of the forest is a protected area (*Cagar Alam*/Nature Reserve and *Suaka Margasatwa*/Wildlife Reserve) rather than national or recreation park/forests. These problems were discussed during the 'Nationalism Conservation'³⁸ workshop held in Balikpapan (organised by *Tropenbos International Indonesia*) on 21 June 2008. The PM raised the problem in front of the Secretary of the Directorate General of Forest Protection and Nature Conservation/PHKA, Ministry of Forestry (*Ir. Haryadi, MSc*). The PM presented the differences in SIMAKSI procedures between the Lambusango protected areas and Cagar Alam Tangkoko in North Sulawesi. Both are protected areas, but the SIMAKSI procedures are different, the former is difficult and the later is easy. Tourists can get entry permits for Tangkoko on arrival. In fact, the area has become an international tourist destination. Tangkoko popularity is supported by the good transport links with Bunaken Marine National Park, and the fact it is close to Manado. With the new regular flights between Makassar and Bau-Bau, the Lambusango can now be considered comparable to Tangkoko; it has similar natural attractions (Tarsiers) and has good links with the Wakatobi National Park and the nearest major town, Bau-Bau. After realizing the problems, PHKA promised to discuss this in Jakarta and will coordinate

³⁸ 'Nationalism Conservation' (*Nasionalisme Konservasi*) was originally derived from 'Green Environment' (*Nasionalisme Lingkungan*), one of the books published by the project. The term has currently been widely accepted by conservation activists in Indonesia. National workshop involving all governors of Kalimantan on Nationalism Conservation will be organized by Tropenbos International Indonesia on 21 August 2008.

with the Head of BKSDA SE Sulawesi (*Ir. Fred Kurung*). On 21 July 2008, the BKSDA in Kendari (*La Kaida*) informed us that that entry permit to Lambusango Protected Areas can now be arranged on arrival. Tourists can simply report to either in Bau-Bau or in Labundo-Bundo as tourists documents can now be submitted by fax to the Province office in Kendari.

A.2.1.15.8. Promoting Lambusango as a research destination for SE Sulawesi Universities

LFCP has promoted Lambusango Forest as a research destination for undergraduate students at university in SE Sulawesi. LFCP has opened new research-tourism market for the Lambusango Forest, as fieldwork and research destination for Indonesian undergraduate students in SE Sulawesi. From 12-17 May 2007, 120 undergraduate students (Faculty of Agriculture and Forestry) conducted fieldwork in the Lambusango Forest. During July 2008, 160 undergraduate students (Faculty of Forestry, Unhalu University) conducted fieldwork for five days in the Lambusango Forest. On 6 July 2008, LFCP invited the Bupati of Buton to provide the key-note speech for the official opening of the Unhalu fieldwork course. The venue of the official opening was in the Silvana Restaurant and attended by Fieldwork Coordinator (*Ibu Husna*) and all fieldwork participants. On this occasion, LFCP presented the biological diversity and ecological roles of the Lambusango Forest. LFCP also facilitated the fieldwork implementation together with Unhalu lecturers.

A.2.1.15.9. Designed and printed Buton District tourism booklet:

In response to Bupati request, bilingual (English and Indonesia) tourism booklet of 26 pages was written by the Project Manager. The booklet was aimed as materials to be presented on ‘*Tourism Attractions Potential of the Proposed Buton Raya Province*³⁹’ workshop hosted by Bappenas (National Planning Board) in Jakarta on November 6, 2008; however the meeting was cancelled until December 10, 2008, and then again cancelled until February 2009.

A.2.2. Discussion

A.2.2.1. Lessons learned

A.2.2.1.1. Relation between business development and village conservation contract

The development of village business in this project is not just a matter of developing alternative sustainable livelihoods, it is a tool to establish real commitment from the local communities to conserve and protect the Lambusango forest. In practice however, it is not always easy to transform a ‘village business development’ into a ‘village conservation contract’ and in many ways this has been the most difficult aspect of the programme.

There are a number of underlying factors which have made this aspect of the programme so difficult: **(a)** Business investment needs time to produce profits. Villagers cannot put their life on hold whilst the investments start to make a return. Life goes on and so to service their basic needs in the interim the villagers must continue with their previous, un-sustainable exploitation of the forest. This is the case for all villages where alternative businesses were developed; **(b)** the allocated budget for business development is around nine percent of the total budget. This is not a great deal of money when consider that the project encompasses fifty-three villages. In light of this, the decision was made that instead of distributing the fund to all villages, the project would concentrate

³⁹ **Buton Raya Province** is a proposed new province (separated from SE Sulawesi Province); this will consist of Buton, Buton Selatan, Buton Barat, Muna, Bau-Bau and Wakatobi Districts. Buton Barat and Buton Selatan Districts will be separated from current Buton District. As such, the area of the future Buton District will be about the same with Lambusango Management Area (Kapontori, Lasalimu, Lasalimu Selatan, Siotafina, Wolowa and Pasarwajo).

investment on selected villages⁴⁰. Among selected villages, it is also impossible to involve all of the villagers. Apart from the fact that all businesses need a trial period to assess the potential, the budget was not sufficient to cover all households within the selected villages (75 – 515 households). As such, the first investment is concentrate on a small number of selected villagers (20 – 50 households). This means that the ‘village conservation contract’ only involved those who receive a direct investment which only amounts to a small number of households in a small number of villages with the majority of the population unaffected by the scheme. Good examples of this are Lasembangi, Watumotobe and Wagari Villages (see *Table App. J*); (c). In a small number of cases, such as Kakenauwe, Matanauwe, Barangka, Summersari, Wakaokili, village business conservation contracts are legally binding to the entire villagers, as the expected benefits from the enterprise will reach most of villagers; (d) Care should be taken when using village business development as a tool to enforce ‘village conservation contracts’, considering the volatile nature of business. The experience of the ginger plantations in Harapan Jaya and Wajah Jaya Villages provide a good example of this. When the ginger market price was high, villagers were eager to receive ginger planting materials, they all expressed their strong commitment in ‘village conservation contract’. However, once the market price dropped, many of the villagers made LFCP the ‘scapegoat’ of the overall failure and abandoned the village conservation contract; (e). Some villages which are used to dealing with government projects have seen the World Bank assistance from a purely ‘financial’ point of view rather than seeing the real benefit. These villages just wanted to be given the money rather than creating any business. This was the case in Barangka and Watumotobe; (6) Poor villages with unfavourable socio-economic conditions, especially those dominated by poor Ambonese refugees such as Harapan Jaya, are inclined to pin all their hopes to the project taking little initiative themselves. When the business, because of external factors, fails to make the level of revenue that had been hoped, the villagers find it difficult to come to terms with⁴¹.

Box 2.8. Example of Village Conservation Commitment/Contract

**Village Forest Conservation Commitment Charter
Lambusango Forest Conservation Defender Community
Sumbersari, Kecamatan Siotapina**

This charter is an expression of the awareness of the Summersari Village community to build a better environment free from destruction and thus ensure the welfare of future generations. We are aware that the Lambusango Forest is an important natural resource and plays an important role in supporting life, water storage, source of genetic material, flood prevention, maintaining soil fertility etc. We are aware that the Lambusango Forest is home to a huge variety of wildlife, and is a precious world resource which deserves to be protected and maintained in a sustainable fashion.

The Lambusango Forest is a state forest which consists of natural forest located in six kecamatans, i.e. Kapontori, Lasalimu, Lasalimu Selatan, Siotapina, Wolowa and Pasarwajo. Summersari Village shares a border with the Lambusango Forest.

Understanding the roles and functions of the Lambusango Forest, today, Monday, 10th of December 2007, all community members, consisting of village government, key elders, religious leaders and all community components, conducted a general meeting to build a commitment to protect the forest called the ‘Village Commitment to Conserve Lambusango Forest’

⁴⁰ **Selection criteria of villages:** (a) Strategic position of the villages which determines the degree of access and control of the villagers to the forest surrounding them; (b) the availability of economic infrastructure (accessibility/road access, storages, communication); (c) the potential business development in the area; (d) illegal logging problems.

⁴¹ Following the chaotic situation in the Harapan Jaya village, the project finally decided to buy all harvested ginger (about 20 tons, USD 100 per ton).

We, the community of Summersari Village commit to the following: (1) we will not log timber for either subsistence or business purposes; (2) we will not cut immature rattan or any rattan located in the Lambusango Wildlife Reserve; (3) we will not hunt protected wildlife, such as anoa, macaque, tarsier, hornbill, cuscus and others; (4) we will not enlarge agricultural land by encroaching into state forest; (5) we will protect and safeguard the Lambusango Forest from destructive logging.

Sanctions for individual violators: (1) If one violates the above commitments, the extracted timbers and equipment (chainsaw etc) will be confiscated by the village government who will then take ownership of the confiscated items. Also the perpetrator will be required to write a letter stating that they will not repeat the wrongdoings; (2) If the person(s) who violated the commitment repeats their actions for a second time, they will be sentenced by all the village community members. The violators have to wear clothes of leaves full of red ants, then be walked around the village whilst shouting loudly 'I am a forest destroyer' ... 'I am a forest destroyer'

Sanctions for village government: If village government is unable to stop forest crimes done by its villagers or outsiders, the village will not receive any business funding assistant both from Operation Wallacea Trust of the Government.

A.2.2.2 Outlook

A.2.2.2.1. Cashews

The product that currently has the most potential from the Lambusango is cashew. Lambusango cashews are of a high quality, are grown in large quantities and at present are nowhere near being exploited to their full potential. The problem is that the Lambusango just produces shell-on cashews, and not the kernels. Unlike ginger, the cashew trade is relatively simple, considering that cashew is only produced in limited area in the world, and Indonesian cashews are available when other producers absent from the market. Key cashew producers in Indonesia are Buton, Muna and Flores. Muna and Buton shared 35% of Indonesian cashew production (95,000 ton/year). In Flores cashews are relatively young there is new planting to help maintain the trade, however, the age of cashew trees in the Lambusango averages about 30 years, while the optimum production for cashews is from 10 – 20 years.

Buton cashews were planted during *Pak Alala* (SE Sulawesi Governor during 1970s) era under *Gersamata Program*⁴² during the 1970s and early 1980s. The programme was aimed towards land rehabilitation and soil conservation, rather than for commercial production. Later on, cashews become the most important industrial crop in Buton and Muna Island. As that the original aim was for land rehabilitation, the cashew industry in Buton is rather haphazard with irregular planting space, lack of maintenance, no weeding (except 1-3 month before harvesting season) and no fertilizer.

So how the industry be improved: (a) Farmers should store at least half of the harvested cashews which will enable them to produce cashew kernels for the whole year. During the last three years, LFCA has conducted a cashew processing campaign, but this should be continued by local and national development agencies; (b) Conduct cashew tree planting to replace old cashews trees; (c) Processing of cashew 'waste', such cashews shell for castor oil, cashew 'fruit' for syrup and food;

⁴² In 1980s, Governor of SE Sulawesi, *Pak Alala*, has set out province wide program named '*Program Gerakan Desa Makmur Merata*' (*Province Program for welfare villages /Gersamata*). This program conducted regreening movement on critical land using horticulture and industrial crops, such as *rambutan* (*Nephelium sp*), cocoa, clove, cashews, coffee etc. Province Government distributed cocoa seeds generously to farmers and provided technical assistances by training Kecamatan agriculture extension workers to supervise planting and tending of cocoa plantation development.

(d) Better marketing. LFCP has initiated Fair-trade certification; invite PT. SSN, to trial export to the UK. This should be followed up by local and national development agencies.

A.2.2.2.2. Coffee

Coffee has the potential to become the most important terrestrial agriculture product for trade in Lambusango after cashews. Considering the high stable price at local level, the potential national and international market and the fact that the plants are highly suitable for most of the Lambusango coffee cultivation is certainly has the potential to be intensively developed in the Lambusango. It is necessary to note that the coffee commonly grown in the Lambusango is of poor quality in terms of both taste and size and production capacity is low. LFCP has not paid that much attention to production coffee over the three years of the project, as a lot of work is required to make the business become a significant source of sustainable income in the Lambusango. Follow-up for coffee; (a) raise its production capacity by replanting using high yield coffee from Java (*Malang*), Sumatra (*Lampung*), South Sulawesi (*Toraja*); (b) Facilitate coffee export under the scheme of WCP (Opwall).

A.2.2.2.3. Ginger

From process point of view, the development of elephant ginger (*Jahe Gajah*) in five villages during 2005 and ginger seedlings distribution in five villages in 2006 has been very successful (see *Table App. G*). The planting and maintenance process was successful in mobilising the community against destructive logging and the increase in the harvest was a huge success. The ginger case also provided a lesson to the farmers on the fluctuation of agriculture commodity, and the need to diversify their products. Understanding the instability of agricultural prices is important and the introduction of ginger seedlings has benefited the farmers by adding to their agriculture assets (capital), which will be useful once the price of ginger improves. Follow-up actions for ginger; (a) trial planting for red ginger (*Jahe Merah*); (b) diversify ginger products, such as dried and sliced ginger; (c) ginger tea processing.

A.2.2.2.4. Seaweed

CFMF together with LFCP has developed seaweed farming in Wagari. The success of the business has the potential to inspire and attract loggers from Wagari and Lawele Villages to develop seaweed in Lawele Gulf. Those who are involved in the seaweed business have no time for destructive logging. Moreover, seaweed farming has declined destructive fishing, as community devoted their time on seaweed farming, and thereby less time for fishing. The use of *Potassium cyanide* for fishing has reduced dramatically, as farmers believe the chemical has negative affects on seaweed growth. The project has successfully developed seaweed farming on the eastern coastal area of Lambusango areas (Matawia and Wolowa Baru Villages). This effort needs follow-up from the Buton District Government and relevant development agents, who should: (a) Facilitate the establishment of access road to Lawele Gulf for efficient transport of seaweed products; (b) Facilitate marketing; (c) Facilitate banking and financial processes; (d) Work with the farmers on the prevention the outbreak of seaweed disease.

A.2.2.2.5. Orange and other fruits

All fruit, except banana, is imported to Buton from other areas. Oranges for Bau-Bau are supplied by Muna Island, as Lasembangi orange production is only sufficient to meet demand of the villages surrounding Lasembangi. In addition of LFCP initiation, much work still needed to enlarge and replicate current 'Lasembangi' orange plantation within Lasembangi and surrounding villages. LFCP has also tried to develop water melon in Lasembangi; the trial was also very successful, some

other fruits such as pineapple, rambutan (*Nephelium sp*) are also worth to developing in the Lambusango.

A.2.2.2.6. *Oyster*

Half pearl oyster farming in Kapontori Gulf over the last four years has experienced over production leading to poor prices (now is between Rp 400 – 600 per oyster). The gulf contains 219 oyster farming rafts involving 163 farmers with total production of 5 million oysters per year. The major consumer, PT Selat Buton has only been able to take 1.2 million oysters per year. In 2006, the company has established oyster farming in Palabusa which means that now farmers have serious difficulties in marketing oysters. Apart from PT SB there are also buyers from Lombok and North Sulawesi, however this trade is uncertain as transporting oysters by boat for long distances has serious implications on the oyster survival rate. Considering the saturated market of half pearl oyster, it may be worth to change the current oyster cultivation to whole pearl (*Pinctada maxima*), a product in big demand. LFCP has been interested in assisting the trial of whole pearl oyster; however, as of the writing of the report, *Pak Zahunu* has not been able to obtain the juvenile oysters required.

A2.2.2.7. *Linking associations with Bank Credit*

The role of financial agencies (banks) as a fresh capital sources for village business development is very important. In Buton, the bank credit recipients have been so far dominated by wealthy, ethnic Chinese, businessmen, whilst the Butonese are not too familiar with bank credit systems. The poor bank access is a bottle-neck on small and medium business enterprise (*SMEs*) development. Local *SMEs* are reluctant to build a relationship with banks, as they normally suffer for a long, drawn-out process and unaffordable bank requirements. As a result, they resort to middlemen with high interest loans.

The project developed 9 associations/cooperatives and all have been legally registered: *(a)* Asosiasi Petani Jambu Mete Lambusango Buton/APJLMB; *(b)* Asosiasi Petani Jambu Mete Barangka Buton/APJMBB; *(c)* Asosiasi Jambu Mete Matanauwe/APJMM; *(d)* Asosiasi Petani Jahe Lambusango/APJL; *(e)* Asosiasi Petani Mabe Lambusango/APML (Watumotobe and Lambusango Timur Villages); *(f)* Koperasi Bunganaponda (Wagari Village); *(g)* Koperasi Sumber Maju (in Wakaokili); *(h)* Koperasi Nambo Bahari (Wolowa Baru); *(i)* Koperasi Nambo Sara (Matawia). One of the objectives for developing a farmer association is to link the association with bank credit.

The most relevant credit scheme for the associations is from the BRI Bank's *Kredit Kemitraan/Partnership credit*. The fund is derived from 5 % of state owned enterprise profits; the money is actually aimed as 'grant' rather than loan, however for the sake of entrepreneurship enhancement and education the loan beneficiary shall return the money with its associated interest. Maximum loan is 25 millions rupiah (USD 2,780) with 1 % interest per month (12 % per year). Collateral is not required. Loan candidates should submit business proposals. If the proposal is considered to be feasible by BRI Branch, then BRI will pass the proposal to the BRI Head Quarter (Jakarta), the latter body will make the final loan decision.

There was an idea by the PM to put some of the World Bank/GEF fund allocation up for capital (say USD 10,000) for the associations in BRI Bank, and then the money delivered to each association is as loan from BRI. By doing this, association will treat the grant as loan, as the fund is administered by BRI Bank, which will enhance entrepreneurship and responsibility and education, rather than LFCP provide a pure grant. However, the scheme was not allowed by the World Bank.

Follow-up: Efforts are needed by government and relevant development agencies to maintain the associations and link the associations to Bank credit.

A3. Provision for enabling better conditions for forest management and sustainable rattan extraction

A.3.1. Provision of enabling better conditions for forest management

A.3.1.1. Workshop on spatial planning, transmigration and mining

The workshop was held at Betoambari Restaurant, Bau-Bau, on 21 March 2006 between 09.30 and 17.00. It was attended by forty participants consisting of fifteen government staff, twenty CFMF members, and five people from the University. The workshop was opened by the Buton Bupati (See Box 2.7.). The idea of the workshop emerged during the World Bank Staff Supervision Mission at the beginning of November 2005 during a meeting between the World Bank Staff with representatives of the Buton District government (9 November 2005) in the Buton District Planning Office. Originally, the workshop was planned in December 2005, however as this is a very busy time for the government, the date was moved to March 2006. The workshop aimed at establishing 'conservation discourse' involving all development sectors within Buton District; especially with regard to spatial planning which can incorporate conservation objectives into regional development and to search over the trade-off between development and forest resource conservation. The conclusions from the workshop were; (a) The need to review Buton District spatial planning developed in 2002 (before partition of Buton District into Bau-Bau Town, Wakatobi and Bombana Districts); (b) LFCP was asked to facilitate the development of GIS laboratory and GIS training.

Box 2.9: Ir. Syafei Kahar, Vision on LFCP:

“We need alternative income sources for the community living around the Lambusango Forests”

On Tuesday, 21 March 2006, *Ir. H.L.M. Sjafei Kahar*, the first person in the Buton District Government (Head of the District) attended the opening ceremony of the Workshop organized by LFCP in cooperation with the CFMF. The workshop was entitled “*Synchronizing Development and Forest Conservation: a closer look on mining, transmigration, and spatial planning policies in the Buton District*”.

Below is a translation of some excerpts from his speech:

The idea and vision of conservation is nothing new for us. The problem is its implementation. Conservation has become the new mainstream in natural resource management from central to local government; as such, I am pleased to welcome the conservation program facilitated by OWT. I appreciate to the willingness of the World Bank and Global Environment Facility to support this project.

Developed countries have given great attention to the conservation problems in Indonesia. The role of tropical forests to control climate change and the sustainability of the world ecosystem has driven international funding to support conservation efforts on this high diversity landscape which still has the potential to be conserved. This seems to be well matched with Buton District as containing some of the best remaining tropical forest habitat in the entire Wallacea Zone. Buton District is acknowledged as one of the few remaining areas, either on the Sulawesi mainland and the surrounding islands, which still contains substantial expanses of relatively undisturbed lowland forests. That is why *Global Environment Facility* through the World Bank is willing to provide investment for the conservation of the forest.

In the opening ceremony of COREMAP program in Batauga about six months ago, I stated that coral reef destruction is not caused by human. I am sure, they never intent to destroy coral reef, but they just want to catch fish from the coral reef, which in turn led to severe coral reef destruction as they used bombs and poisons. During early 2000s, if we stood in

Wara, we would often hear bomb blast to catch fish. Now, this does not happen anymore, as community from Wara to Wamengkoli has developed seaweed along coast line. The community has conducted self-protection for their coastal resource. Local government has facilitated alternative sources of income, while the community has also become aware that bombs will destroy their seaweed and coral reef.

“Similarly, I am sure villagers who live around the forest never intend to destroy their Forest. They just search for sources of income generation by cutting trees, which contributes to forest destruction. As such, the only way to prevent forest destruction is providing alternatives income sources. Indeed, there is no other way to protect the forest except to provide alternative income sources outside forests”

In this context, I do appreciate to Operation Wallacea Ltd who annually facilitated the visit of hundreds foreign students volunteers to Labundo-Bundo. I am sure these activities are very useful to provide additional income source for Kakenauwe villagers, and thereby their commitment to conserve Lambusango Forest. However, I was surprised to hear that Operation Wallacea management pays quite a low price for accommodation provided by the local community. For the sake of improving local community welfare, I suggest Operation Wallacea to reconsider the current payment rate.

The local community will engage in logging activities in the absence productive work. Timber is a liquid economic source. If they have to plant maize, they have to wait for three months. However, if they log the forest, they will directly get advance payment from the financiers to buy maize. I headed up Buton District Agriculture Service for ten years, and I found it impossible to raise community income from smallholder agriculture. Food based agriculture is just for the sake of staple food sufficiency!

There is still some opportunity to raise income from cashew plantation. The problem is the farmer’s lack of technical skill. For instance, farmers do not thin their cashew plantation. They thought the more stands per ha the bigger the production while in reality this is not true. Cashew trees need optimal space to allow better growth and minimize competition. Nevertheless, it is difficult to convince farmers without real examples. This is just an idea, in which LFCP may be able to facilitate. I am sure the success of a project, such as LFCP, will be much dependent on the spirit of on-the-ground implementation process, and not merely dependent on the quantity of the available fund.

Since April 2005, I have not issued any single forest extraction permit, and we had long established several forest products investigation posts along the roads toward Bau-Bau town as we can see in Barangka, Wakoko and Kaongkakea. Ironically, as we realize that Lambusango forest’s timbers can be easily found everywhere here in Bau-Bau town. It may be understandable, as ones who open and close the portal (in every investigation post) are human and receive a very low salary. In this context, I am happy that the project has facilitated the establishment of Forest Crime Unit Lambusango.

I am totally intolerant to any forest destruction. Apart from not issuing a single forest extraction permit, I have not allowed anyone who intends to build access roads to the forest. Some key villagers surrounding Lambusango forests have tried to persuade me but I refused them, even when they assured me that their village would all vote for me on the coming Election Day⁴³. I do not care about that promise; I do not want to put environmental issues below my own short-term personal benefit. Forest conservation is necessary for us; if the forest becomes heavily damaged or destroyed there will be no way to restore the forest to its original state. We will lose it forever. I think there are still a lot of alternatives to find sources of income other than cutting down forests and encroaching into forest areas.

⁴³ During the speech (March 26, 2006), *Pak Sjafei Kahar* would apply for the second round (five years) Buton Bupati. Now, he has since taken the Bupati post for the second term.

A.3.1.2. Sponsored local government officials to attend spatial planning training

LFCP funded two government officials (one from Buton District Spatial Planning and one from Buton District Forestry Office) and as well as one LFCP staff member (Community Enforcement Coordinator) to attend training on '*Conservation and Spatial Planning*' organized by The Nature Conservancy (TNC)/Conservation Training and Resource Centre (CTRC) in cooperation with Faculty of Agriculture and Forestry, Hasanuddin University. The training was held in Kenari Hotel, from 17-21 April 2006. The commitment to sponsor training emerged during '*spatial planning, transmigration and mining*' workshop on 21 March 2006. The three are members of the spatial planning working group which would go on to facilitate the establishment of new spatial planning concept that incorporates conservation objectives into regional development.

A.3.1.3. GIS in service training

The establishment of a Geo-Information System and Remote Sensing (GIS/RS) laboratory is required to integrate enormous amount of spatial data which has been collected by the project staff, Operation Wallacea Ltd scientists, PhD students and undergraduate students. GIS/RS outputs are useful as a tool for raising awareness (to show level of forest degradation to Buton District Government, for example) as well as to facilitate the development of spatial planning for the Buton District. Therefore, LFCP has installed GIS/RS software in two personal computers, especially for GIS/RS analysis. A professional GIS/RS trainer from Jakarta (*Pak Zaenuddin Hamidy*) was invited to provide the in-house training for LFCP staff. This was held from 26 May - 9 June 2006. Apart from digitizing several thematic maps, several areas allegedly under intensive logging or encroachment have been identified. Efforts have been undertaken to develop collaboration with other GIS/RS laboratories elsewhere, especially with *TBI* (Balikpapan, East Kalimantan) and *ICRAF* (Bogor). The specific objectives of the proposed cooperation are to share information (satellite imageries) as well as advance processing and printing.

A.3.1.4. Monitoring forest destruction hotspots

The GIS/RS team have monitored the status of forest destruction on yearly basis. The distribution of forest destruction hotspots are examined, and subsequently followed by ground-truthing activities, to assess the magnitude of degradation, identify the actors, as well as the ways to secure and to restore them. The results of overall findings will be presented regularly in front of BDFO. This becomes a basis for forest protection strategy and law enforcement. So far, GIS/RS team has two serial Landsat TM imageries; 1991 and 2004, 2006 and 2007.

A.3.1.5. Organized Basic Geo-information System and Remote Sensing Training for Planner

The availability of high quality spatial data is fundamental for forest management, while the quality spatial data in Buton District is still poor. The underlined reasons are; **(a)** poor human resource capacity and **(b)** lack of coordination. So far, there is no single agency in Buton with the capacity to produce maps with reasonable accuracy. As a result, many decisions in natural resource management are taken on the basis of poor spatial data analysis leading to overlapping working areas among different agencies. It is no surprise if a mining concession license is allocated on the state forest lands, or rattan concession permits are granted in the conservation areas. Clearly, the availability of good quality spatial data is a precondition to the development of natural resource management planning. As such, improvements to the available spatial data are badly needed. All

agencies responsible in natural resource management should be hand-in-hand to develop basic spatial data and maps to avoid conflict on land use allocation and spatial planning.

Geographic information systems (GIS) are widely used as tools to analyze large amounts data in multiple datasets, while remote sensing (RS) techniques are used to collect and interpret data that are otherwise unavailable for geographically remote and inaccessible areas. LFCP initiated the introduction of those tools to Buton District and BKSDA. However, GIS/RS training is only aimed at an intermediate target; the most important being to find a reasonable entry point to facilitate dialogue among government authorities in improving spatial data and spatial planning process. The process is expected to stimulate transparency and spirit of sharing data and information, stimulate interest of local government on GIS/RS and thereby willingness to invest their own resources in the required equipment.

The training was officially opened by the *Bupati*, and was conducted from 29 January to 3 February 2007. Training participants can be seen in **Table App. C**. A GIS Specialist (*Indrawan Suryadi*) from Tropenbos International Indonesia (TBI Indonesia) was invited as principal trainer to support *Hendra Gunawan* (LFCP's GIS Specialist/Sustainable Rattan Extraction Facilitator). At the end of the training, LFCP granted two GIS computers to BKSDA.

A.3.1.6. Organized the Development of a GIS Forum

At the final session of GIS/RS training, facilitation was made to discuss post training activities, especially the development of a GIS Forum. The idea was enthusiastically received by all the training participants. This was a clear indication that the training had successfully improved participants' awareness of the important role of spatial data as a basis for development planning. The GIS Forum has two working groups; the first is composed of the heads of the various associated agencies as a steering committees/policy working team, while the second consists of GIS specialist of every agency acting as technical working team. The technical working team was formed on 5 March 2007. *Pak Ahmad Mulia* (Buton District Planning Agency) was elected as Coordinator of the technical team, while *Hendra Gunawan* (LFCP's GIS specialist) as assistant-coordinator.

A.3.1.7. Establishment of GIS Forum

To socialize the establishment of GIS Forum and to gain government support, a formal public launch of the GIS Forum was organized for a Friday evening, 17 February 2007 in Betoambari Restaurant, Bau-Bau. This event was attended by the Deputy Bupati (*Pak Ali Laopa*), the Assistant II of District Secretary (*Pak Nasir Andi Baso*), the Head of BKSDA SE Sulawesi (*Pak Halasan Tulus*), *Dr. Tony Whitten* (Task Team Leader), *Kate Idzorek* (Just Cashews), several heads of District agencies, alumni of GIS training participants and members of GIS Forum.

The GIS forum, in coordination with the Provincial Forest Inventory and Mapping Agency (BIPHUT) and Watershed Management Agency (BP-DAS), have developed the following posters and maps; **(a)** the GIS Forum was politically endorsed by Buton District Government; **(b)** delineated drainage/river system originating from the Lambusango Forest on watershed unit basis; **(c)** in coordination with BIPHUT and Buton District Forestry Service, defined forest estate boundaries falling under different sub-district forestry service (UPTD); **(d)** in coordination with District Buton, defined administrative boundaries of sub-district and state forest areas falling under

different kecamatan boundaries; (e) putting geographic coordinate on the boundary line⁴⁴ map of Lambusango Forest.

A.3.1.8. Organized Geo Positioning System (GPS) Training for forest rangers

GPS is a very powerful tool as unequivocal evidence in the courts, to show whether insinuated forest crimes (illegal logging, encroachment etc.) were located outside or inside state forest land. At the end of October 2007, LFCP, in collaboration with the GIS Forum, organized training on the use *Geo Positioning System* (GPS). The training was conducted in LFCP office and attended by twelve forest rangers (two forest rangers per UPTD) of Buton District Forestry Service and three forest rangers from BKSDA. During the closing ceremony, LFCP gifted three GPS to BDFO and two GPS to BKSDA.

A.3.1.9. Developed an inter-village boundaries model

The frequent partition of kecamatan (sub-district) and villages surrounding the Lambusango Forest has meant that village boundaries under almost constant dynamic change. Meanwhile government efforts to redefine new legal boundaries have been much slower than the speed of administrative area partition. So far, the physical boundary which separates one village from the next has only been signified by a signpost installed on the main road between the villages, while all other remaining areas have vague and often conflicting boundaries. This is often the case when dealing with forest resources and the use of spring water. In response to the problem, since February 2008, LFCP has facilitated a *GIS Forum* to draw a proposed model of administrative boundaries of each village within Kecamatan Pasarwajo. After conducted ground-truthing among villages from the end of February until the third week of March 2008, the initial village administrative draft was delineated by the GIS Forum and presented during *Musrenbang*⁴⁵ Kabupaten Buton held on 29 March 2008. After receiving input from many parties, the second draft was presented during a workshop on the Development of Buton Raya Province held in Bau-Bau on 3 April 2008. The new boundaries were well received and agreed upon by all the relevant parties. The model will be used as a basis to define administrative village and kecamatan boundaries for other kecamatan in Buton District.

A.3.1.10. Buton District Government allocated Operational Cost for GIS Forum

The establishment of GIS Forum was facilitated by LFCP and formalized by the issuance of Bupati Decree No. 865/2007 on 5 December 2007. The decree stated that all costs related to the Forum activities will be bared by Buton District Government. This year, the Buton District Government has allocated Rp. 21,000,000 (twenty one millions rupiah/USD 2,308) to support the Forum's operational costs from July to December 2008. The decision was made during a budget revision in April 2008. As the Forum is not a structural agency within Buton District, the fund has been put under '*Spatial data collection*' budget line of the Buton District Planning Agency (BAPPEDA). As such, BAPPEDA will be responsible for disbursing and accounting for the fund and will be responsible for ensuring that the money is used in a proper and correct manner. The fund will be used to monitor land encroachment around the Lambusango Forest and will be conducted in cooperation with Lambusango Community Forestry Forum which has also received government funding.

⁴⁴ The state forest boundary line in the forestry map in Indonesia is an indicative boundary (not an exact boundary). The exact boundary is shown by geographic coordinate data which can be obtained from the mapping book (*Buku Ukur*). Efforts have been made to add the geographic coordinates to the existing map.

⁴⁵ *Musyawarah Perencanaan Pembangunan*, bottom-up process/meetings to formulate development program/budget (kecamatan, kabupaten, province, and national)

A.3.1.11. GIS Forum conducted forest encroachment monitoring using operational funds provided by Buton District Government

As stated above, the Buton District Government allocated a fund of IDR 21 millions to support the GIS forum operational costs. In response to the strict time limit to spend and account for the fund, the GIS Forum decided to use the money to map forest encroachment areas and community forest surrounding Lambusango Forest.

A.3.1.12. Searched over suitable satellite imagery to understand land-cover changes before and after project effectively started

Considering the absence of free-cloud Landsat imagery during 2008, efforts have been made by the project to download *Alos Palsar* imagery (Japan). The good news is that now all satellite imageries are freely downloaded from internet, the trade-off is that the quality is poor and considerable effort (digital image processing) required preparing them for use. *Alos Palsar* is radar based satellite imagery; it is free from cloud (as transmitted radar wave can pass through the clouds). The problem, as expected, that it is not sensitive for vegetation reflection. As a result, the land-cover classification was rough and it is not comparable with Landsat imagery.

A.3.1.13. GIS Forum mapped customary forest surrounding Lambusango Forest

The existence of well-managed customary forest in Wakaokili Village has opened our eyes to the importance of the remaining natural forest surrounding the Lambusango Forest in terms of cultural, economic and ecosystem resources for the local community. Such forest management is rare in the Lambusango and as has so far been overlooked. A well-managed customary forest will reduce pressure on the adjacent state forest; on the contrary the poor management will threaten state forest. Unfortunately, much of the customary forest surrounding the Lambusango Forest has been deforested, as villagers has exploited and sold timbers using SKAU⁴⁶ (*Surat Keterangan Asal-Usul Kayu*, certificate of timbers origin) scheme. This is the case for several villages surrounding Wakaokili, such as *Gonda Baru* (Kecamatan Surawolio, Bau-Bau Town) and *Waangu-Angu* (Kecamatan Pasarwajo). Both villages once had customary forest, but large of the areas have already been logged for short term economic benefit.

Realizing these problems, since mid December 2008, the GIS Forum has started mapping the remaining natural customary forests (*Hutan Adat*). The GIS Forum strongly recommended BDFO stop issuing logging permit from customary forests.

The suggestion is in line with SKAU principle, the regulation is actually meant to provide room for community to log and sell their plantation forest/community forest (teak, acacia etc.) and not for natural forest originated from state forest and customary forest.

⁴⁶ The Ministry of Forestry issued regulations on procedures to transport timbers originating from private forest/community forest (P.33/Menhut-II/2007), such as *Acacia sp*, *Pterospermum Javanicum*, *Toona sureni*, *Gmelina arborea*, *Aleurites mollucana* and *Paracerianthes falcataria*). The official in charge of legalizing such timber is the Village Head (*Kepala Desa*) and the Sub-District Head (*Camat*). The document to transport community timber is called SKAU (*Surat Keterangan Asal-Usul Kayu*, certificate of timbers origin). Local communities who intend to log trees plantation should report to Village Head, in which Village Head will check that the proposed logged timber originates from their land. The gulf between timber demand and supply in Buton and surrounding areas have driven local community to cheat the system by registering timbers logged from state forest (*Hutan Negara*) or customary forest (*Hutan Adat*) as *Hutan Rakyat* (community forest)/HR timbers. Unfortunately, the local community has made use of the SKAU scheme as opening point to exploit natural customary forest. This is the case for several villages surrounding Wakaokili.

A.3.2. Provision of enabling conditions for sustainable rattan extraction

A.3.2.1. Rattan Inventory

Rattan inventory surveys for part of the Lambusango Forest were conducted during the beginning of the project (2005/2006) and the results have been added to data set of *Atiek Widayati*, a PhD student studying sustainable rattan extraction at Northumbria University, UK. The main objective of the survey is to understand the sustainability of the rattan extraction in the Lambusango Forests, the socio-economic situation of the rattan collectors and the management performance of rattan extraction. The project has completed an inventory of rattan standing stocks as well as understanding the underlined management problems linked with Buton District Forestry office. The summary of findings is discussed below.

A.3.2.1.1. Rattan standing stock in Lambusango Forest

Rattan regeneration occurs almost everywhere, but mature rattan (ready-to-harvest, 6 – 8 years old) mostly occurs deep in the interior forests (wildlife reserve) and has been seriously depleted. Rattan collectors have to 'hunt' rather than just to collect rattan. The scarceness has caused rattan extraction to become more destructive than previously thought; to ease the collection of rattan, some collectors cut down an entire tree to which the desired rattan has grown tightly entwined. To understand the current standing stock of rattan a survey was conducted on several sites in Lambusango Forests.

Table 2.2. Survey sites and numbers of transects/plots

No.	Kecamatan	Village	Geographic Position (UTM)	Number of transects	Number of Plots
1	Kapontori	Wowoncusu	(475920; 9418658)	4	16
2	Lasalimu	Lawe	(498641; 9415498)	4	16
		Lasembang	(500151; 9420233)	4	16
3	Lasalimu Selatan	Sumbersari	(502709; 9412548)	4	16
4	Wolowa	Wolowa	(493922; 9410830)	4	16

In every survey site, four transects with 2,000 m length were established, the distance between transect was 500 m. On every line transect, four sample plots (50 x 10 m²) were made, the distance between sample plots was 500 m. The data collected at each sample plot included species, diameter and cane length. Only rattans with cane length more than 10 m were recorded.

Fifteen⁴⁷ rattan species were found, while the prominent species in terms of size, abundance and distribution are **Lambang** (*Calamus ornatus*), **KB** (*Calamus sp.*), **Batang** (*Daemonorops sp.*) and **Torumpu** (*Calamus koordersianus*). Among the four species, Lambang was the most dominant. The average rattan standing stocks (regardless its species) ranged from 2.4 – 3.2 ton/ha.

A.3.2.1.2. Socio-economic situation of the rattan collectors

A socio-economic survey of rattan collectors was conducted in several villages around the Lambusango to understand the contribution of rattan extraction activities on the household economic situation of rattan collectors. Rattan collectors in Lambusango are mainly farmers who

⁴⁷ (1) Batang (*Calamus zollingeri*); (2) Batu (*Calamus sp.*); (3) Buta (*Calamus sp.*); (4) Bulu (*Calamus sp.*); (5) Jaramasi (*Calamus leiocaulis*); (6) Kabe (*Calamus sp.*); (7) Kai Sisau (*Calamus minahassae*); (8) Tohiti (*Calamus sp.*); (9) Torumpu (*Calamus koordersianus*); (10) Lambang (*Calamus ornatus*); (11) Kakiki (*Calamus sp.*); (12) Noko (*Daemonorops robusta*); (13) Mombi (*Calamus sp.*); (14) Pisi (*Calamus leptostachys*); (15) Umol (*Calamus symphysisipus*).

live around the forests. Most of the rattan collectors are married men with an average age of 36 years with three children, the level of education varies, i.e. elementary school (44 %), junior high school (33 %), senior high school (21 %). As the main job is rain-fed farming, collecting rattan is done on an irregular basis throughout the year. They normally get orders from rattan extraction holders. Two rattan species, *Lambang* and *Batang*, are preferred due to the ease of collection, abundance, weight and price. Rattan collections are widespread during dry season when alternative jobs are limited.

Collecting rattan is hard job and with high risks, yet despite this it commands a very poor price at the collectors gate (Rp 500 – 700/kg or USD 0.04 – 0.06). People must be extremely strong to cut and to pull down the rattan, then drag it along hilly terrain. They have to go before dawn and arrive after dusk; they also often have to overnight in the forest. However people still have high preference to collect rattan, as this is a job which can provide considerable cash in relatively short period. If they plant maize, they have to wait for at least three months, while collecting rattan can draw cash within a short period (3-5 days), some collectors frequently receive advance payments. The survey found that income from rattan is nearly double that of rain-fed farming (see *Figure 2.6*).

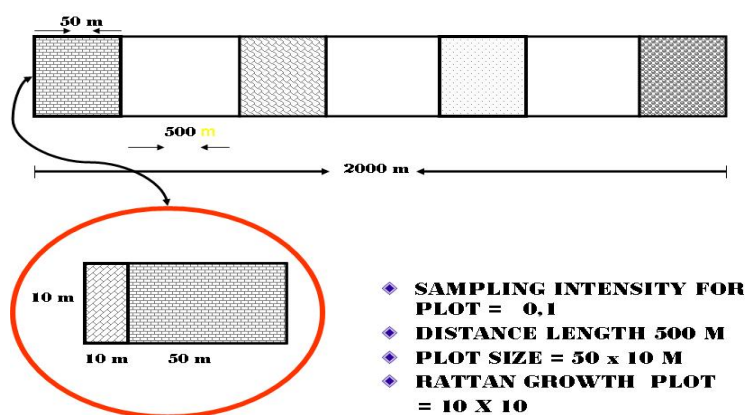


Figure2.5. Transects and sample plots design

Table2.3. Number and distribution of respondents

No	Kecamatan	Village	Number of Respondents
1	Kapontori	Waondo-Wolio	9
2	Lasalimu	Lasembangi	17
		Kamaru	8
		Suandala	5
3	Lasalimu Selatan	Wajah Jaya	5
		Siomanuru	5
4	Pasarwajo	Wining	13
5	Siotapina	Siotapina	5
		Labuandiri	3
	Total		70

Tabel.2.4. Summary of rattan name and dimension

No	Local Name	Scientific Name	Average Cane Length (m)	Average Diameter (mm)	Average Joint Length (cm)
1	Rotan Batang	<i>Calamus zollingeri</i>	30-60	20 – 60	20 – 60
2	Rotan Jermasin/Kaisisau/Siompup	<i>Calamus leocojolis</i>	50 – 60	6 – 10	15 – 40
3	Rotan Umbul	<i>Calamus simphysipus</i>	25-46	15 – 2	20 - 45
4	Rotan Tohiti	<i>Calamus inops</i>	40-70	20-30	15 - 20
5	Rotan Lambang	<i>Calamus ornatus</i>	30-80	30 - 40	40 - 70
6	Rotan Tarumpu	<i>Calamus koordesianus</i>	30-40	8 -30	30 - 60
7	Rotan KB	<i>Calamus sp</i>	30-50	5 – 10	20 - 50
8	Rotan Noko	<i>Daemonorops robusta</i>	40-80	25 - 60	25 – 60

Once in the forest collectors can gather 60 – 80 kg rattan in two-three days, during a month they can (on average) collect 600 – 1,000 kg rattan. From 70 rattan collectors who were interviewed, 45 said that rattan collection was their main job. From these, a further 6 respondents admitted that apart from rattan, they are also involved on logging activities (as porters), honey collection and poaching.

Some rattan collectors believe that rattan productivity in Lambusango could be maintained in sustainable manner. There are a number of unwritten rules in rattan collection: **(a)** Rattan collectors only cut mature rattans, without taking care of this aspect they believe that rattan collection will be unsustainable, moreover young rattan has a low price; **(b)** Rattan collector never cut all mature rattan in one cluster, but leaving 2–3 canes for regeneration. It seems to be rattan depletion is unavoidable as rattan collectors continuously increase, while forest cover gradually declines, at present, rattan collectors have to walk 20 – 25 km in the forest interior to extract rattan.

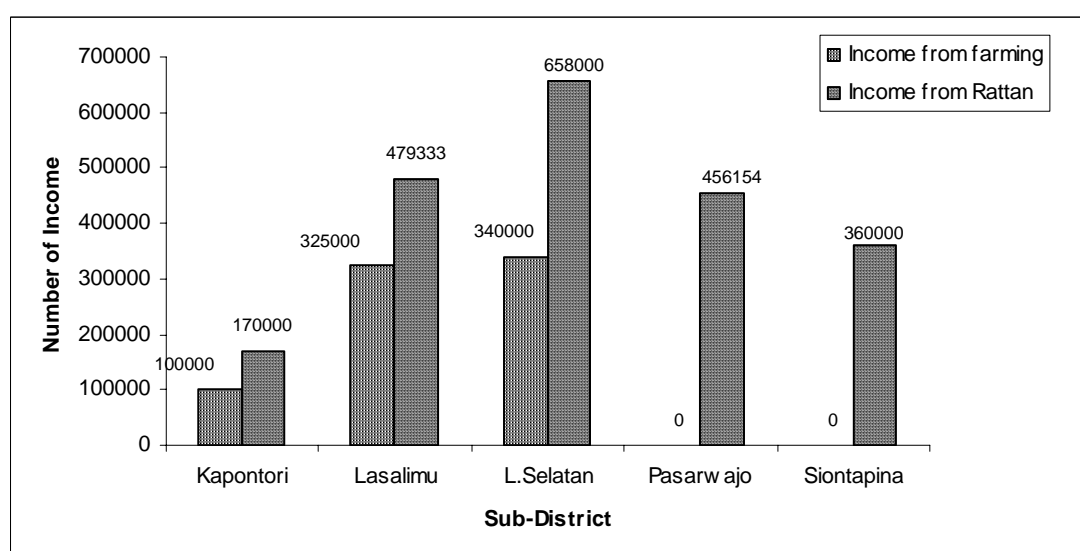


Figure2.6. Income sources comparison, between rattan collection and rain-fed farming

A.3.2.1.3. Procedure to obtain legal rattan extraction permits

Applicants submit formal request to the Bupati's office with copy to the Head of the Buton District Forestry office (BDFO). A set of documents are attached to the letter, i.e. identity card, map of rattan extraction sites, recommendation from the Head of Sub District Forestry office (Ka-UPTD⁴⁸) and company profile (see *Figure 2.7*).

The Bupati then instructs the Head of BDFO to establish a rattan inventory team to check whether the proposed sites are feasible, from both ecological and rattan standing stock point of views. The team consists of six people; four are representatives of BDFO, one from the environmental service and one from economic section of the District Secretary. A rattan inventory is conducted with 10 % sampling intensity. All the costs incurred by the survey are borne by the applicant.

The outputs of inventory team are: (a) rattan inventory report with technical recommendations of allowable extraction volume; (b) ecological feasibility with environmental management and monitoring. If the team recommends that the proposed extraction sites area is feasible, then the Bupati will issue a legal rattan extraction permit. Upon the issuance of the permit, the Bupati asks Head of BDFO to develop a surveillance team to monitor the rattan extraction.

A.3.3. Discussion

Despite the fact that rattan collection is one of the most important sources of income for local communities, the way rattan is extracted must be managed in a strict manner to maintain the sustainability of the rattan industry. Problems tend to be related to the Buton District Forestry Office as the technical agency which has the authority to issue rattan licences.

First, there is a 'misinterpretation' of government regulation No 34/2002 (revised with No.9/2007), and its associated Ministerial Decree No 6884/2002, which states that '*District government has authority to issue legal permit to collect rattan 20 tonnes for maximum 1 year period and permit could be re-awarded after completing the required procedure*'. In reality one permit holders can hold up to ten permits, allowing them to extract two-hundred tonnes per year. **Secondly**, rattan exploitation licenses and associated document to transport forest products are not fully decentralized at district level. According to government regulation No. 34/2002, the authority to collect forest products is fully decentralized at district level. Provincial government (SE Sulawesi Province Forestry Office) only serves the administration procedure demanded by district forestry office. In reality, provincial government still rules the authority of district government. For instance, when one experiences difficulties obtaining a rattan collection permit or documents to transport forest products (due to the procedures are not properly followed) the district government can be sidestepped by applying directly through the provincial government. **Third**, there are flaws in the procedure of the issuance of rattan permits. As the applicant pays for the survey he/she is able to dictate the results. There are strong indications that the process is 'just a formality' rather than a serious exercise following strict procedure. **Fourth**, there are no clear boundaries of rattan concession. As such permit holders can easily collect rattan from anywhere in the forest. Whilst the legal permit areas are given in the production forest, in reality most of rattan collectors collect rattan from Lambusango Wildlife Reserves. The problem is becoming severe in areas where surveillance from BDFO and BKSDA is limited. Considering the above problems, it is clear that unsustainable rattan extraction problems could not be improved without strong 'political will and commitments' from Buton District Forestry Office and BKSDA.

⁴⁸ Ka-UPTD, Kepala Unit Pelaksana Teknis Daerah

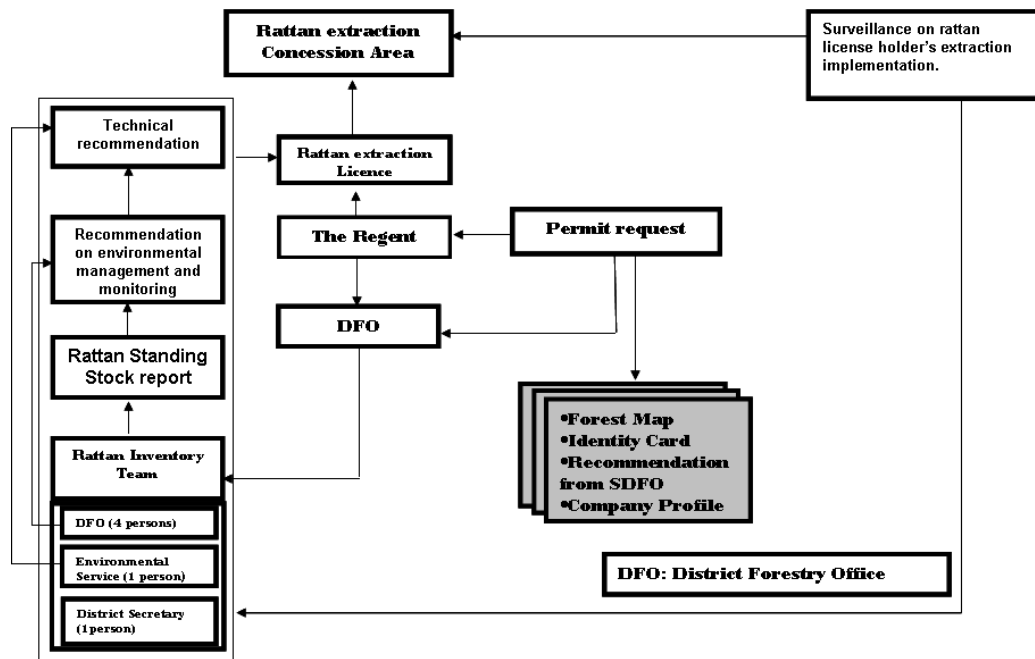


Figure 2.7. Procedure for rattan extraction licence scheme

After a field visit to Rattan European Project (*SHK Kaltim*) in *Jengan Danum* Village, Melak Sub-District, Kutai Barat District, East Kalimantan (7- 10 October 2006). LFCP will facilitate the involvement of BKSDA on the issuance procedure of rattan concession rights to facilitate BKSDA to conduct regular surveillance on the implementation of rattan extraction activities of the rattan concession holders. However, this plan can not be materialized as the BKSDA rangers are limited in numbers. This is also the reason why LFCP is closer to BDFO than BKSDA. Another lesson learned taken from *Jengan Danum*, is the need to change a ‘rattan collector’ into ‘rattan farmer’. With this in mind, LFCP facilitated the development of rattan nursery and supported a rattan farmer in Kakenauwe (*Pak La Tarahu*) as pilot scheme which, if successful, can be replicated elsewhere in the Lambusango.

LFCP worked together with BDFO to quantify the amount of rattan extraction from the Lambusango during 2007. Active rattan extraction occurred in the following villages: (a) Kamaru, Lawele (Kecamatan Lasalimu); (b) Lambusango, Wakalambe, Waondowolio and Tuangila (Kecamatan Kapontori); (c) Wangu-angu (Kecamatan Pasarwajo); (d) Matawia (Kecamatan Wolowa); (e) Walompo (Kecamatan Siotapina); (f) Wasuamba (Kecamatan Lasalimu Selatan). Average extraction per month was 41 tons, while total extraction during 2007 was 532 tons. Rattan extraction license holders were: (a) *Ahmad Hidayat*; (b) *Jauri*; (c) *Wa Ode Nurnia*; (d) *Hasni*; (e) *Ani Astuti*; (f) *La Ode Mujahidin*; (g) *Asrun*; (h) *Asni*.

B.1. Strengthen forest crime law enforcement

As with the CFMF, the formation of *Forest Crime Unit Lambusango* (FCUL) is part of the exit strategy of the LFCP in collaborative forest protection and law enforcement. Collaboration in forest protection is a must, considering the complexity of the problem; no single institution is able to protect the forest single-handedly.

FCUL is led by Buton District Forestry Office (BDFO) and supported with BKSDA to monitor, patrol and facilitate law enforcement against illegal logging and hunting of protected wildlife. FCUL is composed of three main components: (a) *Informants Team* who work undercover to investigate target groups, individuals and sites. This division is led by the CFMF and supported

partners; **(b) Response Unit Team** who composed of PPNS (civil government crime investigator) and Forest Rangers (*Polhut, Jagawana*); **(c) Journalists Team**: to provide media coverage for enhanced public awareness as well as ‘naming and shaming’ perpetrators. FCUL was established in November 2005; however, BKSDA did not become involved as a FCUL member until 5 October 2006.

The development of FCUL was preceded with a survey on the nature and intensity of forest crimes in villages surrounding the Lambusango Forest. Once the types of crimes and the perpetrators of said crimes were identified, and the intensity and magnitude of deterrent actions conducted by government were sufficiently known; LFCP facilitated BKSDA and BDFO on the formation of collaborative protection management.

Awareness phase: From November 2005 to June 2006, FCUL conducted joint patrols with the main objective to raise awareness. Confiscation of illegal timbers was mainly aimed as ‘shock therapy’ to make local community aware on the existing government rule and punishments administered were not too strict.

Law enforcement phase: From July 2006 to May 2008, joint patrols were conducted for law enforcement. During this period, the FCUL team worked closely with the GIS/RS team to monitor hotspots of active forest encroachment, illegal logging etc., ground-truthing the suspected areas. The status of forest crimes are regularly reported to BKSDA and BDFO, while the protection strategy on every hotspot area is be defined and implemented between both agencies. FCUL have supported BDFO in following due legal process on forest crimes and ensuring that any trials are conducted properly from start to the finish.

Since 5 October 2006, BKSDA forest rangers (*L.M. Said, SP, La Kapo, La Hya, La Fare*) and junior technical staff (*La Ode Kaida*) have been part of FCUL. These people have started to work together with FCUL members from Buton District Forestry Office (*Syafrin, SE, La Jaki, Azimin and Ramli*). The main problem working with BKSDA is lack of personnel; the total staffs for four areas (*Kakenauwe-Labundo, Winning, Tirta Rimba and Bau-Bau*) amounts to just five people.

Box 2.10. Forest Crimes Unit Lambusango (FCUL)

Main priorities of FCUL activities are; **(a) Preventive patrol**. This is aimed at preventing illegal handling of timber and non-timber forest products. This patrol can be combined with awareness rising, Arrests and confiscations can also be conducted when violation and their holdings are clearly identified. Support Personnel: 1 PPNS and 5 Rangers. Support Facility: 1 truck, 1 pick up, 3 guns. **(b) Repressive patrol**. Once target persons and their holdings are clearly identified by the forest guardians, the response unit are called in. Arrests and confiscation are then carried out in a complete and timely manner. Support Personnel: 1 PPNS and 9 Rangers. Supported Facility: 1 truck, 1 pick up, 3 guns; **(c) Control forest encroachment**. This activity is aimed at: **(1)** identifying the encroacher; **(2)** position and the size of encroached area; **(3)** seeking the best solution to safe the state forests.

Role and responsibility of BDFO: **(a)** To assign one PPNS and one Forest Ranger as member of FCUL; **(b)** To provide equipment and apparatus (truck, patrol cars, motor bike) for investigation and patrols; **(c)** To improve key procedures on the issuance of forest extraction permits, monitoring and evaluation of implementation; **(d)** Share responsibility for FCU operational costs. **Role and responsibility of LFCP:** **(a)** To share responsibility for FCUL operational cost; **(b)** To provide transportation and accommodation allowance for BDFO and BKSDA staff (PPNS, Forest Rangers) involved in FCU operation; **(c)** To provide additional fund (transportation and accommodation) to intensify patrol and investigation at UPTDs level (BDFO) and Kakenauwe Office (BKSDA).

B.1.1. Forest Guardians Recruitment

The main criteria for forest guardians⁴⁹ are intellectual capacity, trustworthiness and availability to work in the target areas. The main tasks are forest crimes monitoring, consisting of; **(a)** village investigation; **(b)** road monitoring; and **(c)** hotspot investigation. **Village investigation** is aimed to monitor logging, rattan extraction and wildlife hunting at village level. To do that, each forest guardian conducts monitoring in at least eight villages each month. The monitoring is carried out by interviewing at least ten key villagers from each village. When illegal activities are found, a ground-truthing is conducted. The forest Guardian reports the findings to the response unit team within 24 hours. Data collected during ground-check: **(a)** Description on the activities; **(b)** Aim of extraction: for subsistence or commercial use; **(c)** Investigate the field perpetrators and financiers; **(d)** Dates of when the activities happened; **(e)** Number of people involved; **(f)** the origin of field perpetrators (within or outside village under investigation); **(g)** the exact hotspot site; **(h)** Types and quantity of equipment (e.g. chainsaw); **(i)** the vehicles (if any). The data will be used as legal crime evidence during the legal process.

Road investigation is aimed at monitoring, **(a)** the magnitude of forest product transportation which will be used as a basis of logging or rattan (m³/tones) extraction rate prediction; **(b)** to record information on the perpetrators and vehicles involved in the illegal activities (driver, vehicle identity, financiers, destination). To do that, each forest guardian shall conduct monitoring at least ten days per month; each day is at least four hours

Hotspots investigation is aimed at ground-truthing areas allegedly under active destruction. Due to unsatisfying performance, the forest guardian was only employed for 11 months (26 May 2006 – 31 March 2007). The jobs were then fully tackled by CFMF.

B.1.2. Regular Patrols and Road Investigation

From November 2005 to December 2006, regular FCUL patrols were conducted. It was intended as a public awareness exercise to show that firm forest protection is seriously enforced. About four patrols a month were organized involving *PPNS* (civil government crime investigator), *Polhut* (forest ranger), and journalists. Average confiscated timbers were 35 m³/month.

The patrols have been effective in raising community awareness on the existence of law and regulations which govern both forest extraction and its associated transportation of the forest products and have also been effective in reducing illegal logging. The main problem, however, is that patrols are only really an effective deterrent to the poor loggers rather than their financiers, as the confiscated illegal timbers from the collection site near the road still belong to the loggers; they have lost out, not the financiers. The financiers will not usually pay-up until the illegal timbers are loaded onto the vehicle to be transported out of the forests areas. Efforts are needed to seize the financiers rather than the loggers. In fact, local community will not log forest, unless they receive orders (and sometimes advance payment) from the financiers. In order to deter the financiers, apart from regular onsite patrols, efforts are needed to strengthen the road investigation posts located in Barangka, Wakoko and Kaongkaongkea.

Since August 2006, LFCP has been involved in the investigation of forest product transport at the three investigation posts, i.e. *Barangka*, *Wakoko* and *Kaongkaongkea*. The main objective of this

⁴⁹ Four forest guardians and the associated working areas are as follows: (1) *Pak Abhar*, Kecamatan Kapontori (11 villages); (2) *Pak Adnan*, Kecamatan Lasalimu (10 villages); (3) *Pak Arifin*, Kecamatan Pasarwajo (8 villages); (4) *Pak Muliadin*, Kecamatan Wolowa and Siontapina (12 villages).

activity was to raise the courage of forest guards to take action. Three days a week LFCP has manned each of those posts and checked forest product document (SKSHH) according to the Ministerial Decree No. 126/Kpts-II/2003 and Government Regulation No. 34/2002. Many irregularities were found such as under-declaration of transported timbers/rattan and using SKSHH more than one time a day.

B.1.3. Inclusion of GIS/RS Analysis to support Ground-truthing

Since June 2006, FCUL has worked closely with LFCP's GIS/RS team to monitor hotspots of active forest encroachment, illegal logging etc, followed up by ground-truthing in the suspected areas. The status of forest crimes have been regularly reported to BDFO and BKSDA, while the protection strategy on every hotspot area has been defined and implemented by both agencies. Surveys monitoring and investigating forest destruction were conducted in Winning, Matanauwe, Lapuli, and Wabou. The findings have been reported in various forums and media for the attention of government. A soft approach has been used to allow government to solve the cases together.

Survey Destructive Logging in Winning: Between 12 and 16 August 2006, the sustainable rattan extraction team, together with FCUL, investigated destructive logging, mining and land tenure problems (overlapping land uses) in Winning Village, Pasarwajo Sub-District. The investigation was done through ground-truthing and interviews of key people. Efforts were made to map the mining concession area which fall into the state forest areas (production forest, limited production forest and Lambusango wildlife nature reserve areas) and village land. Restoring the tenure rights of the local communities over an adequate extent of land through clear policy pronouncements seems to be the only solution to stop rampant illegal logging in this area. This issue was expressed by the Head of Winning Village during a meeting between LFCP with Buton District Government on 22 August 2006. No clear response was obtained from the government. The written report was also submitted to relevant stakeholders (including BKSDA).

Survey Destructive logging in Lawele Village: From 20 to 25 August 2006, the sustainable rattan extraction team, together with FCUL, surveyed destructive logging (clear cutting of 50 ha of conservation forest) in Lapuli Hamlet, Lawele Village, Kecamatan Lasalimu. The existence of Wabou Hamlet in the same village has provided a significant precedent for the Lapuli case. They follow the principle, '*If Wabou can destructively log the area without consequence then so can Lapuli*'.

Survey Forest Encroachment in Matanauwe: From 20 to 23 September 2006, FCUL investigated forest encroachment in Matanauwe Village, Siotapina Sub-District. Efforts were made to map illegal agricultural land (about 250 ha), which has been developed at the expense of production forest. Interestingly, 54 out of 110 squatters are composed of people from the Pasarwajo Sub-District (such as, Wabula, Holimombo, Kondowa, Dongkala and Wagola villages) about 30 - 50 km away from Matanauwe. The encroachment has been stimulated by local land seeking society, who cut state forest, then sell to people new to the area. If this phenomenon continues without law enforcement, Lambusango Forest will face serious problems. Considering the complexity of the problem, no institution can solve the problem alone. As such, LFCP has been trying to expose those cases in various forums and media for the attention of government

Checking forest boundary surrounding Kakenauwe Nature Reserve: From 12 to 15 February 2007, LFCP, together with La Fare (forest ranger) and La Ode Kaida (technical field staff of BKSDA), checked boundary markings of Kakenauwe Nature Reserve (KNR) against legal forestry map issued by the Ministry of Forestry (attachment of Ministerial of Forestry decree No.454/Kpts-II/1999). This activity was conducted in response to a CFMF report of the Kecamatan Lasalimu. It was reported that two newly establish encroachment areas has recently established near the

boundary markings numbers 76 – 81 and 89 – 95. Based on GPS checked on both areas, it was found: **(a)** 0.7 ha of new agriculture land, based on legal forestry map was developed within KNR, but based on boundary marking in the field, it occurred outside KNR; **(b)** 1.5 ha of new agriculture land, based on legal forestry map was developed outside KNR, but based on boundary marking in the field, it occurred within KNR. Boundary marking reconstruction is urgently required to avoid uncertainty and a lack of clarity over state forest boundaries in the field.

B.1.4. Involved Local NGO

From 1 October 2006, *Lakapela*, a Bau-Bau based NGO working on forest crime issues, has become the member of FCUL team. *Lakapela* took role on illegal logging investigation. As local NGO, *Lakapela* are in a good position to put strong pressure on the legal apparatus over alleged crimes involving politicians or other high ranking public figures. LFCP works with *Lakapela* to publish irregularities discovered by FCUL. By handing-over these ‘sensitive’ aspects of law enforcement to *Lakapela*, LFCP is still able to maintain a good relation with the law apparatus and politicians as well as strengthening a local NGO (which is important as part of exit strategy).

B.1.5. Outputs

B.1.5.1. Seized inter-island illegal rattan extraction and trade: On 9 July 2006, FCUL stopped inter-island illegal rattan extraction and trade from Buton to Muna Island which occurred for at least two years. The illegal extraction sites were in the production forest near Todanga village (Kecamatan Kapontori) which shares a boundary with Kakenauwe Nature Reserve. The financiers in Muna had a deal with rattan collectors from Todanga, they weighed the collected rattan and transported the illegal rattan to Muna Island, and payment would be only conducted after the illegal rattan had arrived safely in Muna (Pola village, Kecamatan Pasir Putih, Muna District). FCUL confiscated the vehicle and several bunch of illegal rattan as evidence and took them to the Police office in Kecamatan Kapontori. Unfortunately, the Buton District Forestry Office (BDFO) decided not to take legal action in this case; instead they accepted retroactive fees for the extracted rattan from the previous two years. However, due to this decision the BDFO applied sanctions to the head of Kapontori Sub-District Forestry Office and his position was downgraded.

B.1.5.2. Seized truck transported illegal logs: On 17 September 2006. FCUL confiscated a truck at Kaongkaongkea investigation post carrying 8.8 m³ of mixed forest timber. The timber, which was transported without SKSHH, was allegedly owned by senior policeman in Pasarwajo. On 18 September 2006, LFCP staff sent the evidence (truck plus illegal timbers) to BDFO in Pasarwajo. On 19 September 2006, FCUL also published the story in a local newspaper (*Kendari Express*). Unfortunately, on 30 September 2006, as suspected, the BDFO decided not to take the case to the court. A week later the BDFO confirmed that the legal document of the confiscated timber had now been completed and the senior police official was now legally able to take ownership of the timber. By the law, completion of forest product documentation after a crime has been committed is impossible. This is, of course, an example of collusion within the law apparatus.

B.1.5.3. Confiscated and prosecuted illegal loggers in Wagari Village: Wagari Village is located near Kakenauwe/Labundo-Bundo Village (the field based of Operation Wallacea Ltd). In response to a CFMF report, on alleged illegal logging activities in the village, on 16 March 2007, LFCP together with *La Fare*, *La Ode Kaida* (BKSDA rangers) and *Elvis* (village police) conducted a patrol in the Lambusango Wildlife Reserve which shares boundaries with the village. The team successfully caught five illegal loggers on-site and confiscated one chainsaw. The team apprehended the perpetrators, the confiscated the evidence and reported the incident immediately to *Pak Laude Said* (BKSDA crime investigator/PPNS). The perpetrators were finally put in jail for six months. On 27 December 2007, FCUL found new encroachment involving seventeen people;

however during the patrol FCUL were only able to catch four of the seventeen and one chainsaw. The case is now under the investigations of Polres Buton.

B.1.5.4. Exposed illegal mining issues in press: During February and March 2007, LFCP supported by *Lakapela* have exposed illegal mining in the Lambusango Forest. As a result, the legal documentation of the company (*PT. Yuman Jaya*) was suspended and their field operation has been halted.

Box 2.11: Mining concession entered Lambusango Wildlife Sanctuary Area (Bau-Bau, Kendari Pos, February 22, 2007).

The Director of law advocacy (LBH) *Lakapela*, *La Ode Endang*, at the press conference at Rajawali Hotel, on February 21, 2007, expressed his objection on the issuance of asphalt mining concession to *PT Yuman Jaya Tama* (PT YJT) and asked the Bupati to revoke the permit. Endang also raised the issue that PT YJT has allegedly started its mining activities long before receiving legal concession from the Bupati, '*Mining activities started about mid 2005, while the legal permit was issued on December 12, 2005*'.

According to Endang, the concession issued by Bupati Buton violated Forestry Law No. 41/1999 as it is located on state forest (Lambusango Forest). The current mining concession under PT YJT falls under production forest (98 Ha) and conservation forest/Lambusango Wildlife Reserve (5 ha), it is located in the Wabalamba forest, Winning Village, Pasarwajo Sub-District, at the upstream area of *Tondo* watershed. '*It is clearly stipulated in article 38, verse 3, that the use of forest estate land for mining activities should be done under consent of the Ministry of Forestry. The leasing permit is issued by the Minister taking consideration on the area extent, concession time and environmental sustainability*' said Endang.

Lakapela, a Bau-Bau based NGO working on environmental watch, emphasized that the access road built by the concession holders has led to rampant illegal logging activities in the area.

Box 2.12: The Buton Regent Pro PT Yuman Jaya Tama (Pasarwajo, Kendari Pos, February 25, 2007)

Controversy on the issuance of asphalt mining activities raised by *La Ode Endang* (Director LBH Bau-Bau) and *Lakapela* which were recently published in several newspapers has stimulated the Bupati of Buton to conduct a counter press conference. It was held at the Information and Communication Office in Pasarwajo, and attended by the head of the Buton mining and forestry agencies.

Bupati Buton (*Ir. H.L.M. Sjafei Kahar*) stated that the issuance of asphalt mining license to PT YJT has been undertaken through the proper procedure, with no problems, and no need to revoke. It has complied with the *Minister of Mining, Energy and Mineral Resource No. 1453.K/29/MEM/2000 on the technical guidance on general mining management*. He emphasized that the Bupati has authority to issue asphalt mining license. Proper steps have been followed by PT YJT, if the proposed concession areas fall under forest estate areas, then it should be under consent of the Minister of Forestry, unless it falls to Bupati authority and it is not relevant with *Article 38, verses 3 of Forestry Law No. 41/1999*.

Related to issues that PT YJT conducted exploitation activities prior receiving concession license, this has been under investigation by the Buton District Police Office. Head of Mining Agency (*Ir. Guntur Dahlan*) added those activities could be an exploratory phase, while the access road was built to transport bitumen out of the areas.

Head of the Buton District Forestry Office (*Drs. Abidin Baso*) stated that based on field investigation, the roads and the mining areas do not fall under forest estate areas, while PT YJT

did not conduct illegal logging during the construction of the roads. The investor has even sent request to the Minister of Forestry to enlarge the concession to forest estate areas, but this was refused by the minister.

B.1.5.5. Installed information boards: In September 2007, LFCP installed information boards which cited the *Forestry Law No 41, 1999*, on prohibition, and its associated sanctions, for illegal logging and encroachment in forest estate land. The boards were installed in four villages: **(a)** Wambulu; **(b)** Kamaru; **(c)** Matanauwe; **(d)** Kancinaa. As these boards proved very effective in deterring the community from cutting down further forest, in February 2008, LFCP installed five more, similar boards in five villages: **(a)** Watumotobe; **(b)** Lawele; **(c)** Ambuau; **(d)** Summersari; **(e)** Sukamaju.

B.1.5.6. Patrol in Summersari: Summersari is a Javanese transmigration settlement developed during 1990s. Since 2002, illegal logging and forest encroachment have intensified though this has mostly been conducted by Labuandiri Villagers. In 2005, some of Summersari villagers jointed to cultivate agricultural land in the encroached area. Based on satellite imagery interpretation and supported by a ground check, it was found that the encroached area is around 380 ha. In 2006, BDFO rehabilitated 50 ha of degraded forest using *Gerhan* project, the results are not satisfying. On 12 and 13 December 2007, FCUL conducted patrols in the encroached areas; the encroached area has been abandoned by the settlers.

B.1.5.7. Patrol in Wakangka and detention of thirteen accused encroachers

Wakangka is located in Kecamatan Kapontori and shares a boundary with the Lambusango Forest. The village is in hilly terrain and is composed of a headwater catchment for several springs (*Lamatano*, *Laboka-boka* and *Lakumala*) which feed some creeks flowing downstream to become a source of irrigation water of sawah land developed by Balinese transmigration settlements in mid of 1980s.

During a forest crime patrol on 26 and 27 December 2007, the following problems were found: **(a)** Forest encroachment had occurred in the area surrounding Lamatano spring; the encroachment started in 2006 and was the result of a lack of awareness of the forest boundary; **(b)** Loss of three forest boundary markers, which were finally found in the garden of one of the settlers; **(c)** The encroachment involved fifteen farmers and two forestry officials. In response to a BDFO crime evidence report dated 28 December 2007, on 26 February 2008, Kapontori Police conducted detail investigation in Wakangka Village and found that eleven out of the fifteen farmers and the two forestry officials had broken the law and should be prosecuted. The accused violators were detained by police and put in detention in Bau-Bau.

On 5 May 2008, the Kapontori Police force handed over thirteen detainees to the Attorney's Office (AO) in Bau-Bau. Two of the detainees (BDFO and BKSDA officials) used lawyers to defend their case in the court. In June 2008, without clear reason, these two people were released from prison. On 16 June 2008, AO called *Laode Rahmad Salim* (BDFO staff) to provide expert testimony on the status of the Lamatano Forest (encroached state forest area). On 23 June Bau-Bau AO called *Pak Andi* (Head of Forest Protection Section, BDFO) and *Hendra Gunawan* (Law Enforcement Facilitator, Operation Wallacea Trust) as witnesses in the encroachment case. On 30 June 2008, *La Jaki* (Head Forest Ranger, BDFO) also called by AO to strengthen the testimonies of the previous witnesses.

The project has provided support and monitored the law enforcement process, of thirteen accused encroachers. This has included the arrests, evidence gathering, legal brief preparation and submission, expert testimonies, case proceedings and judgment. In September 2008, eleven out of thirteen

encroachers were sentenced to eight months in jail. They had already served six months while awaiting trial and so were released in November 2008. The remaining two offenders received an eighteen month custodial sentence. They have decided to appeal the verdict to the higher, province level court. The case is a significant victory and has made a significant impact on forest crime enforcement and had the direct affect of reducing forest crime during 2008 (see *Table 2.5*).

Box 2.13 Thirteen Lambusango encroachers put in jail (Pasarwajo, 28 February 2008, Kendari Pos)

Thirteen Lambusango encroachers from Kecamatan Kapontori, Buton who cut forest for rain-fed agricultural land end-up in jail. They violated section 50, verse 1 and 3 point a, b and d, and also section 78 verses 1 and 3 of Forestry Law No 49/1999. *'They are also charged with violating section 55 and 56 KUHP and could face up to five years in jail'* said the Head of Criminal Unit, Polres Buton AKP Yani Permana. The name of accused violators are: *Kemang Budi Ase (31), La Baharu (64), Asrudin Sihidi (35), La Ode Padangka (39), Farman Alias Ansori Muda (36), Salmón Udia (27), Herdin Hidi (35), Wayan Sana (60), La Kapo Naine (46), Afiluddin Sahid (36), Ansar Laane (33), Zulimu Domami (40), La Mpidi Aulia.*

The accused violators were detained by Polsek Kapontori, *'they are now in jail in Bau-Bau and the case has been transferred to prosecutor.'* He added.

B.1.5.8. Patrol in Wabou

On December 26, 2007, FCUL found new encroachment in Wabou (about 20 ha). The encroachment has started since July 2007. FCUL had developed crime evidence report and sent to Polres Buton on December 28, 2007.

B.1.5.9. Regular checking of three Forest Products Investigation Posts (Barangka, Kaongkaongkea and Wakoko)

As of June 2008, regular checks of the investigation posts have been stopped. However, LFCP still check the monthly records and integrate the data into the LFCP database.

B.1.5.10. Patrol and community awareness on conflicting boundaries in the transmigration area of Kamelanta Village

One of the main causes of pressure on the Lambusango Forest is the transmigration program. Even though arable land around the Lambusango is very limited, the Lambusango area, at least until 2005, was still a target area of the transmigration program. The existence of new settlement areas near state forest land have created serious pressure to the forest, while the case in Kamelanta Village, transmigration area was actually designed at the expense of state forest land.

Kamelanta Village was established in 2004, before the area was part of Barangka Village, located near the Buton Strait, sharing a boundary with the Bau-Bau city limits. In 2005, the village was selected as a transmigration site. Poor consultation and coordination with Buton District Forestry Office/Ministry of Forestry has resulted in the overlapping of boundaries between the settlement area and the forest [forest marking boundary (stone pole) located within transmigration marking boundary (BM/3)]. On 27 March 2008, FCUL conducted an investigation patrol and discovered that fifteen households have cultivated state forest land (25 ha). During April 2008, FCUL conducted a

series of awareness exercises covering the conflicting boundary, and asked the local community not to encroach further onto forest land. Efforts have been made by BDFO to resolve the problem with the transmigration office and BPN (national land/cadastral agency) in Kendari. If the conflict can be reconciled, BDFO's extra efforts will be required to prevent settlers encroaching into state forest land again, due mainly to the absence of a buffer area between state forest and the settlement area.

B.1.5.11. Patrols in Wonco Village (Trans-boundary area between Bau-Bau city limits and Buton District)

Wonco is the last village in the administrative control of Bau-Bau to the north-eastern side of the town and shares boundary with Buton District (Kapontori Sub-District, Kamelanta Village). From May 2008, CFMF has registered the transport of timbers from the village; these timbers have been found to have come from the Lambusango Forest from an area about 3 km from Wonco Village, within the Kamelanta village boundary. On 7 July 2008, FCUL, supported by Polres Buton (the district level Police office) apprehended ten suspected loggers from Wonco working in the Lambusango Forest (Kamelanta village). Since 26 July 2008, these suspects have been in the detention of Polres Buton. On 29 July 2008, FCUL together with Polres Buton organised a second patrol to the same area. Another three loggers [*La Sukri*, *La Armand* and *La Daeng Nai*] were apprehended during the patrol; these men were interviewed and now awaiting prosecution.

B.1.5.12. Found irregularities on community timber permit

Since April 2005, the Bupati has refused to issue permits on the collection and exploitation of timbers from state forest land in Buton District. As such, the only legal source of timber in the area is from private or community owned land (*Hutan Rakyat/HR*). The Ministry of Forestry has issued regulations outlining the procedure for transporting timbers which originate from private forest (P.33/Menhut-II/2007, such as *Acacia sp*, *Pterospermum Javanicum*, *Toona sureni*, *Gmelina arborea*, *Aleurites moluccana* and *Paracerianthes falcata*). The official in charge of enforcing this legal process is the Village Head (*Kepala Desa*). The document to transport community timbers is called SKAU (*Surat Keterangan Asal-Usul Kayu*, certificate of timbers origin). On 19 April 2008, FCUL was contacted by the CFMF Coordinator in Pasarwajo Sub-District (*Pak Rustam*) who is also Headman of Winning Village. He reported that *La Dodi* and *La Mindu* had logged state forest at Batu Hitam and approached him to issue SKAU. In response to the report, FCUL travelled to the site and confiscated the illegal timbers (3 m³) as evidence. At the same time, FCUL also contacted *Polsek* Pasarwajo (the sub-district level Police office). On 22 April 2008, police investigated and collected evidence then made a legal report (*Berita Acara Pemeriksaan/BAP*). On 28 June 2008, the accused were detained by *Polsek* Pasarwajo.

B.1.5.13. Organised forest ranger training to strengthen legal proceedings

Patrolling should be part of a complete process involving arrests and prosecutions. The fact that identifying crimes in the field and the subsequent detention and prosecution of suspected criminals is an extremely long and drawn-out process. These delays are mainly caused by a lack of expert testimony (the number of experts is limited, while they have to tackle many forest cases), incomplete evidence and the unavailability of exact geographical coordinates to prove that the crime case occurred in state forest. In BDFO, only one person (*La Ode Rahmad Salim*) has the capacity to act as an expert for testimony in court. To improve the process, on 9 and 10 July 2008, LFCP, in cooperation with Bau-Bau Attorney Office and Bau-Bau Justice Office, organised training for forest rangers on the legal proceedings related to forest crime. The training was attended by twelve forest rangers of BDFO, with training materials including forest law and regulations, evidence gathering, legal brief preparation and submission, expert testimonies and case proceedings.

By understanding the procedure, it is expected that the capacity of forest rangers to collect evidence will improve and confidence to act as a witness or expert and provide testimony in court.

B.1.5.14. Joint patrol in Siotapina Sub-District together with Polres Buton

In response to illegal logging information provided by the CFMF Coordinator in Siotapina Sub-District (*Pak La Dangka*), on 24 July 2008, FCU together with Polres Buton (*Pak Arifuddin*) conducted an enforcement patrol in Wakumarujaya Hamlet, Manuru Village. During the patrol, FCU arrested a timber porter named *La Uba*, who was caught with timber from the state forest area. After an investigation, it became clear that *La Uba* was a timber porter for *La Darsa*, who had started logging in production forest in May 2008. *La Uba* received a payment of Rp. 10.000 to take logs from the forest to the nearest access road. During the last three months, *La Darsa* has logged around 4 m3. It was also found that *La Ikhrum* had bought the illegal timbers collected by *La Darsa* to build a boat. FCU had taken GPS points and mapped the crime site. The data will be used to bring the perpetrators to court.

B.1.5.15. Provided support on integrated community based forest protection at Wolowa Sub-District

As a follow-up to the statement made by the Bupati during his speech on 13 March 2008 to involve the *Camat* (Head of sub-district) on state forest boundary protection against illegal logging and shifting cultivation, on 20 March 2008, the Bupati of Buton sent radiogram No. 522.5/1535 to all *camats* to take immediate action on Lambusango Forest protection. In response to the Bupati's instructions, on 8 April 2008, the *Camat* of Wolowa (*Samsuddin, SPd*) organised a meeting attended by all village heads, key village personnel, the Head of BDFO and the Operation Wallacea Trust (OWT/LFCP). In the meeting, all parties agreed to formulate an integrated community based forest protection strategy, under the coordination of the *Camat* of Wolowa.

On 10 April 2008, *Camat* Wolowa issued decree No. 5233/2008 to formalise his team. It is composed of *Muspika* (*camat*, head of police (*Kapolsek*) and head of army (*Danramil*) at sub-district level) as the Leaders with Advisory Board, members being the CFMF Coordinator, village heads, *UPTD* (implementing unit of BDFO at sub-district level) staff and key village persons. The decree also stated the names of patrol groups. There are four groups and each group conducts once patrol a month, each patrol takes three days.

On 15 April 2008, *Camat* Wolowa issued forest crime statement form. The form should be filled out by all household head in Kecamatan Wolowa. The form states that anyone who signs the form will commit to the following: (a) they will not encroach and log timbers on state forest land for any purposes; (b) they will not enlarge their encroached areas and agree to leave the state forest within 1 year; (c) If they break the first and the second statements then agree to be prosecuted on the basis of prevailing forestry laws and regulations.

Achievements until end of December 2008: (a) the forest crime statement forms have been signed by all household heads (1,497 persons) in Wolowa; (b) all settlers have been inventoried, they occupy 117 ha state forest land which consists of 48 households from Kaumbu Village, 79 households from Wolowa Village, 50 households from Matawia Village and 19 households from Sukamaju Village. They all have signed the forest crime statement forms.

B.1.6. Discussion: Lessons learned and Outlook

Apart from logging to extract commercial timbers, there are other reasons why the local community log the forest and encroach the forest boundary; **(a)** land hunger (lack of arable land) due to high population pressure in areas, such as in Kecamatan Kapontori, Lasalimu Selatan and Wolowa; **(b)** the desire to continue to cut forest as a way of marking land ownership, such as in Kecamatan Pasarwajo; **(c)** slash and burn agriculture, **(d)** there is perception among villagers that the Lambusango Forest is their ancestor land⁵⁰.

Until September 2007 the existence of FCUL had raised community awareness on the existing forest law and regulations to an all-time high. FCUL has been successful by: **(a)** raising awareness in rural community on the existing forestry laws and regulations; **(b)** reducing illegal logging activities at grass root level; **(c)** controlling illegal forest product transportation when irregularities are purely conducted by businessmen. However, FCUL has no capacity to control legal irregularities (especially from forestry officials) and still has a 'distance' with police. FCUL was also unable to facilitate the proper legal processing of some confiscated evidence due to the strong and the 'untouchable' nature of some forest crime mafia with strong connections in the local legal system.

Post September 2007 the situation improved significantly and FCUL has become a powerful body that can operate without fear and can face the 'mafia' and politically aligned criminals. The underlined reasons are: **(a)** OWT has increasingly become a respected NGO, with the trust and respect of both the local community and, importantly, the legal system, government officials and police; **(b)** the attitudes of most of the BDFO officials have changed significantly toward forest protection and conservation. At the beginning, their support of FCUL (especially LFCP) was half-hearted at best, but the situation has gradually changed due to the consistency and continued efforts of the project; **(c)** the presence of honest and upstanding forestry officials at a higher level (especially *Pak Sunarto Lanae*) has succeeded in improving the attitudes of his staff.

The main problem of working with BKSDA on community enforcement is the lack of personnel; the total number of staff for four areas (*Kakenauwe-Labundo*, *Winning*, *Tirta Rimba* and *Bau-Bau*) is only five people. Its main human resources, forest rangers and civil police investigators, are posted in Kendari, and they will be ready to visit the Lambusango at short-notice when needed. Considering the large area covered by BKSDA in SE Sulawesi and the pressure of other areas with more severe problems than the Lambusango, the BKSDA hardly ever send their 'troop' to Lambusango. BKSDA has two Regional Conservation Sections, i.e. **(a)** Kolaka and Konawe and **(b)** Muna-Buton. The office of the first section is in Kendari, while the second was in Raha (the capital of Muna District) and only during the last 6 months has moved to Bau-Bau. Despite most of conservation the areas in SE Sulawesi [Lambusango Wildlife Reserve (28.000 ha), Kakenauwe Nature Reserve (800 ha), Buton Utara Nature Reserve (80.000 ha), and Tirta Rimba Tourism Area (1.000 ha)] are located in Buton; the Regional Conservation Section Office is in Raha, which only has one small conservation area (Napabalano Nature Reserve/9.2 ha). This has made forest protection and law enforcement very slow moving, as officers far from direct command and day-to-day supervision. To improve law enforcement, apart from moving the section office in Bau-Bau,

⁵⁰ Prior to the demarcation as state forest, some part of Lambusango Forest had been inhabited. This could be proven from old cemetery, remnant of old agriculture land and settlement. During the Buton Sultanate, there were four hamlets living in the forest interior, this called in the Butonese (*Wolio*) language as *Pata Limbona*, '*Pata*' means four while '*Limbona*' means hamlets, those are: (1) *Watoduku* (*Mandaule*); (2) *Wamoana*; (3) *Tumembona*; and (4) *Katapi*. Since 1952, government moved *Watoduku* and *Wamoana* hamlets downstream to the areas currently known as *Wowoncusu* village. Similarly, *Tumembona* was also moved to the areas currently known as *Watambo* village, while *Katapi* has been located at the current position which known as *Pobaa* village. Before, *Katapi* is part of *Watambo* hamlet, but since 1999 the area became *Pobaa* village.

BKSDA should put most of their personnel in the reserve areas, especially those which have the highest forest crime rates, such as Wining and other area near the mouths of rivers.

Working with BDFO has proved much easier as all personnel have been on-site. The only problem has been that many of their personnel have, for a long time, been involved in illegal activities. In the beginning, efforts were made to eradicate these practices by re-education, but this approach proved unsuccessful. It took considerable time to make FCUL effective as, in the beginning, the unit contained ‘enemies on the inside’. This meant that many patrols organised by FCUL failed to collect sufficient evidence of criminal activity. Only after the appointment of *Pak Sunarto Lanae* to the head of the enforcement section of BDFO (mid 2007 until early 2008), and the change of head of the mapping section to *La Ode Rahmad Salim* (2007 to date), the situation improved. Patrolling is not merely done to collect illegal timbers, as before, but it has become part of a complete process involving arrests and prosecutions of criminals. The head of the mapping section has played an important role on legal brief preparation and submission, expert testimonies and case proceedings, as he can provide legal testimonies that the crime sites are located in state forest land.

However, the situation could be improved further. BDFO should place their personnel in strategic sites. Forest ranger investigation posts are not sufficient in three sites; Wakoko, Barangka and Matanauwe. Posts should also be placed at the outlets of big rivers, such as Malaoge, Tondo and Winto and harbours such as Nambo and Tira-Tira. Active monitoring of encroachment sites such as Matanauwe, Lapuli and Wabou is also needed. Efforts will also need to be conducted to make marine patrols, as many illegal timbers are transported by sea.

Based on the experiences at Wabou, Summersari and Wakangka, *Gerhan* (reforestation) sites should not be designed in the active encroached area. Law enforcement should be completed and the root of the problems should be solved before any rehabilitation is made. Reforestation in the active encroached areas will waste precious resources and prove unfair. As it will reward bad practices and set a precedence that to receive government fund assistance, one should log the forest first; ‘the cure is worst than the disease’.

Table 2.5. Forest crimes cases in Lambusango during the last 4 years

No.	Sub-District	Forest Crimes Cases				
		2004	2005	2006	2007	2008
1.	Kapontori	0	2	9	13	2
2.	Lasalimu	0	1	0	4	3
3.	Lasalimu Selatan	2	0	1	1	0
4.	Siotafina	0	0	1	5	2
5.	Wolowa	0	1	2	0	1
6.	Pasarwajo	3	3	4	2	0
	Total	5	7	17	25	8

Inspecting *Table 2.5*, it can be observed that before FCUL was active (2004 and 2005), the convicted crimes were quite low (5 and 7 cases per year respectively). This was simply caused by limited number of patrols and investigations. Once FCUL began to operate in 2006 the crime cases increased remarkably to 17 and 25 cases for 2006 and 2007 respectively. This demonstrates the affects of intensive patrols and investigations done by FCUL. The actions of FCUL have shocked criminals in the forest, and thus crime has been significantly reduced during 2008.

Unfortunately, forest crimes seem to be on the increase again now that FCUL have reduced their patrols; and the situation is likely to get worse over the coming year. 2009 is an election year, local and regional politics is an extremely lucrative business in Indonesia and candidates are already

fighting vehemently to secure a seat in government. Such ambitions often bring the worst out in people and extreme measures are used to secure votes. All too often the incumbent government officials will safeguard forest crime perpetrators against the law or allow the local community to break regulations, such as allowing people to log natural forest, in exchange for ensuring their votes. This is the case for logging of 15 ha of customary forest in Wambulu Village (near Labundo-Bundo Village) during October 2008. The forest has a strategic position, as it is located along side the road to Labundo-Bundo. The forest also functions as the headwater catchment of Labundo-Bundo Village. The FCUL unable to prosecute the case as it not state forest.

The question is why were local community brave enough to log natural forest so soon after the prosecution of thirteen settlers from the neighbouring village has sent shock-waves through the area. The answer is because their activities were supported by strong political connections. The case illustrates that dirty politics during the election of District parliaments, Bupati and Governor often creates entry points to uncontrolled natural resource extraction. Dirty politics has the potential to cancel out all the good work in education, awareness and law enforcement painstakingly introduced and enforced by the project!

Box 2.14. Project impacts on involuntary resettlement process framework

As stated in *Appendix 8* (page 2) of the Project Brief, '*Successful implementation of the project will affect access to natural resources so World Bank policy OP4.12 will be triggered*', this was done by allowing exploitation of the production areas of forest in exchange for preventing continued illegal logging and hunting in conservation forests. This scheme is widely known as the social forestry (SF) concept. Looking at the grass root level, local wisdom of the Lambusango community has been much eroded, especially since the arrival of Ambonese refugees in 1999. Generally speaking, granting state forest concession rights to the local community is considered to be ill-suited to the Lambusango project both as a way to empower the community and as a means to conserve the remaining natural state forest. There have also been enough examples in this country that this will only attract 'free riders' which make the whole forest resource open causing socio-economic problems for the local community and devastating environmental problems for the forest environment. Community empowerment (and thereby forest conservation) should be conducted by reducing community dependency on forest products. It is believed that forest conservation cannot be simply achieved by changing main forest exploiter, from business entities to the local community. Conservation programmes should be able to provide enabling conditions for the local community to conduct conservation measures; this can be done in part through the development of sustainable livelihood models for the community living in the areas surrounding natural state forest.

Related to *World Bank policy OP4.12*, LFCP implementation did not pave the way for the local community to have access to state forest nor forcibly resettle communities outside the state forest. This is clearly illustrated with the Wabou case, where LFCP did not recommend local government resettle the hamlet outside of the state forest, but instead worked with on reconciling the problems to find win-win solutions. At the same time, LFCP is looking for suitable alternative income sources to reduce pressure on the state forest. It is true that LFCP has assisted the legal apparatus to prosecute illegal settlers and loggers. Even so, the prosecution of local community has not merely targeted for repressive actions, to punish the local community, but more importantly, it is a way to educate the local community and to instill respect for the existing rules and regulations on forest governance. At the same time, efforts have been made to empower people and find alternatives livelihoods and raise awareness to improve perception, knowledge, attitude and practices leading to better natural resource management.

C1. Promote the global significance of the Lambusango Forest through the development of local-specific teaching materials thus raising awareness of the Lambusango Forest constituents and stakeholders at a local and national level

C.1.1. Development and Distribution of Personal Organisers

A personal organiser was designed by LFCP and distributed to decision makers in various local villages, government offices in Buton, Bau-Bau city, Kendari, Jakarta and Bogor as well as leaders in the private sector and NGOs. The organiser was designed to contain pictures of the Lambusango, highlighting both the natural beauty and the damage that can occur, as well as information on the biodiversity, threats and pressures on the forest and the work done by the LFCP. The intention is that these decision makers will use the organiser and as such be reminded every day of the importance of the Lambusango forests and of the work conducted by LFCP. The PM has designed the book and wrote the text, while *Matoa Creative Design* has completed the graphical design and printing. A thousand copies were printed.

C.1.2. Development and distribution of three posters

The first poster entitled '*Lambusango Forests; Lung of the World at the Heart of Buton Island*'. The main purpose of the poster is to make people aware of what is meant by the Lambusango Forest as well as its geographic position. The poster comprises of a drawing of Buton Island with the Lambusango Forests at the heart of the island with several key villages surrounding it. The first printing run was for 1000 copies and a reprint of another 1000 copies soon followed. The second poster entitled '*Land resources surrounding the Lambusango forests: Neglected Potential Resources*'. The main purpose of the poster is to make people aware that forest resources are not the only source of livelihoods, rather there is still plenty of land surrounding the Lambusango Forests waiting for serious cultivation. The third poster entitled '*Lambusango, home to millions of life forms*' had a print run of 1,000 copies. So far, 600 posters have been put in wooden frames and installed in strategic public areas such as schools, mosques, restaurants, village halls, sub-districts offices, police offices, hospitals, hotels, banks etc. in Kendari, Bau-Bau and Pasarwajo plus villages surrounding the Lambusango Forest.

C.1.3. Development and Distribution of 'Lambusango Lestari' Newsletter

From September 2005 until February 2007 LFCP has published monthly '*Lambusango Lestari*' Indonesian language Newsletter highlighting the importance of the Lambusango Forest and the work completed by LFCP. A thousand copies of each of the thirteen editions were distributed to the Lambusango Forest stakeholders in Buton District, Bau-Bau, Kendari, Bogor, Jakarta, and Lampung. The aim of the publication is to develop a critical mass of the local Lambusango forest stakeholders and also to act as promotion for the LFCP activities within the Indonesia conservation community. Summary of the newsletter on several editions is presented on **Appendix G**.

C.1.4. Publication of two serialised books of short stories for children

Two series of children's short story books, '*The adventure of La Madi and Bingo*', were produced to communicate the ideas of conservation and the Lambusango forest to children. One-thousand copies of each series were printed. The story was written by *Ridwan Ade* with illustrations by *Pak Trudi Jafar* (Amartya Society). In his introduction for the book, the PM stated, "*We need a good environmental education in elementary school, as good environment attitudes and understanding must be nurtured from a very young age. The message can really be delivered through a book like this. 'The adventure of La Madi and Bingo' written by a young writer 'Ridwan Ade' is very interesting. The story is specifically set in Buton, which means students will be able to identify with*

the characters and situations when reading the book. Hopefully, a sense of love and belonging to their natural environment will grow within the children after they read this book. The book will be relevant reading material to support the local curriculum, especially in environmental education" The books are printed in A4 art paper 150 gram, full colour, while the cover is ivory 210 gram full colour, printed by *Debut Press*, Yogyakarta.

C.1.5. Developed and Installed Wall Magazine in Fifty-Three Secondary Schools

One important readership demographic of the Lambusango Lestari Newsletter is secondary school students. As the newsletter contains various conservation messages which are relevant to the science curriculum in secondary schools, and as school libraries tend to be unappealing to many students, it was a missed opportunity to find that most secondary students are not familiar with, or do not have access to, the newsletter. In response to this, in June 2006, efforts were made to expose the newsletter in the form of a 'wall magazine' composed of two wooden boards of 1.2 x 1.2 m² erected near the school library. About 60 % of the space of the wall magazine is allocated to Lambusango Lestari Newsletter materials, while the remaining space could be used for school magazines or information. A total of fifty-three secondary schools, in Bau-Bau and Buton District have installed the magazine. LFCP regularly updates the content of the wall magazine.

C.1.6. Publication of a Biodiversity and Conservation Handbook

Before the start of the project the rich biodiversity of the Lambusango forests was not well recognized by most of the community living round the forests. Not surprisingly, most of the people in Bau-Bau and the area surrounding the Lambusango forests were also unfamiliar with the terms 'Lambusango Forests', 'Kakenauwe Nature Reserve', 'Lambusango Wildlife Reserve'. It was clear that extensive awareness heightening programmes were needed and awareness materials were essential. The awareness materials needed to be targeted not only at village leaders and government officials, but more importantly also to the young generation, especially those in secondary school. This type of awareness material should be scientifically sound, but kept simple and ease to understand, attractive and written in 'down to earth' language.

From mid November 2005, *Henry A. Singer* together with the PM has started writing conservation biology handbook (in Indonesian) entitled '*The Mystery of Biological Richness of Lambusango Forests*'. The writing of the book is most necessary; considering the volume of research completed by Operation Wallacea Ltd in the Lambusango Forest, there has never been a biological or conservation publication in Indonesian produced for the Lambusango forests constituents and stakeholders. The book is designed as support material for biological and environmental related subjects for the secondary school. However, the handbook is also relevant as a reading material for undergraduate students, teachers, village leaders, government officials and non-government organizations. One-thousand copies of the book have been printed and distributed to relevant parties, including all secondary school libraries in Bau-Bau and the Buton District. To attract students to read the book, efforts were made to conduct 'door-to-door' socialization. The socialization was in the form of general lectures, for which about 50 – 120 students were gathered in the school auditorium.

C.1.7. Monthly Talk shows in Radio Lawero

The *Talk show* was designed as a forum to create a discourse concerning Lambusango forest conservation issues involving the top decision makers in the Buton district and Bau-Bau. The forum is an effective media to raise certain conservation issues to the Bau-Bau public where most of key decision makers of the Buton area live. The interactive dialog has covered the following topics: (a) Understanding Lambusango Forest; (b) The need of inclusive and integrated spatial planning between Buton District and Bau-Bau Town; (c) Utilization of Lambusango Forest Products; (d)

Collaborative management on Lambusango Forest conservation; *(e)* Ecotourism development on Buton Island; *(f)* Collaborative protection on Lambusango Forest conservation; *(g)* Developing village business models around the Lambusango Forest; *(h)* Mainstreaming environmental conservation in Bau-Bau and Buton.

C.1.8. Conservation Essay Competition for Senior High School

It is essential for the success of the LFCP and for the future of the Lambusango Forests that the local community who live around the forest are able to appreciate what they have on their doorstep. They can only learn to appreciate the forests if they understand what it is that makes the Lambusango so special, *'there is no love without knowledge'*. There are two ways to inform the public; LFCP can supply a flood of information (posters, newsletters, personal organizers, leaflet etc.) or LFCP can stimulate them to find out information for themselves. It was felt that the most effective way of doing this was to initiate an essay writing competition for senior high school students in Bau-Bau and Buton district. The competition was announced through leaflets and the *Lambusango Lestari* Newsletter distributed at the end of December 2005.

The following essay topics were offered to participants: *(a)* Plant and animal life in the Lambusango Forests; *(b)* Legends of the Lambusango Forests; *(c)* Experience of visiting the Lambusango Forests; *(d)* How to conserve the Lambusango Forests; *(e)* The community living around the Lambusango Forests. Twenty-one participants entered the writing competition. The selection process was conducted for two steps. The first step focused on the quality of the essay which composed of 60 percent of the total score, while the remaining 40 percent was decided by a public presentation.

C.1.9. Installed conservation campaign boards surrounding Lambusango area

Wooden boards displaying conservation messages have been erected in thirteen sites around the Lambusango. It is hoped that the messages will act as environmental education for the younger generation, whilst also acting as a 'psychological deterrent' for illegal loggers.

C.1.10. Developed and installed conservation and law enforcement campaign boards

To raise community awareness of the conservation values of flagship species to the rural community surrounding the Lambusango Forest, a set of conservation messages was written to conserve Macaque (*Macaca ochreata brunnescens*), *'Let's make friends with Macaques'*; Hornbill (*Aceros cassidix*), *'Hornbill are an agent of seed dispersal'*; Tarsius sp., *'Tarsier: the World's smallest monkey'*; Anoa sp, *'Anoa: an endangered charismatic animal'*. Those messages were written on the metal planks and have been installed in four sites (Watumotobe, Kakenauwe, Wakoko and Ambuau). Follow-up the success of the campaign method, the message of legal punishment for illegal loggers and forest areas settlers as cited from Forestry Law No. 41/1999 was made and installed in areas where forest crimes are frequently occurred. It was installed in Winning, Lawele, Siotapina, Wakangka and Kamaru Villages.

C.1.11. Developed education materials to support local content curriculum

Teaching Material Development Specialist (Henry A. Singer) has developed the local curriculum content and syllabus for pre-school (nursery school), elementary school, junior and senior secondary school. The document is expected to form a foundation of the implementation of local environmental education materials from pre-school right through to secondary school. Interested parties can use the curriculum and syllabus as a reference to understand the overall design of local environmental education. The document provides user-friendly guidelines on teaching materials, subjects and activities suitable for delivery at various levels of education.

Basically, the curriculum and syllabus is composed of six components. Each education level (except for nursery school) is designed to have six components with different levels of detail. The six components are derived from the major activities of the LFCP; by introducing those components to formal education, the spirit of the project will continue long after its completion. The six components are as follows: *(a)* Forest ecosystem and its impact on those living within and around the forests; *(b)* Threats and pressures on the Lambusango Forests; *(c)* Socio-economic conditions of the local community living around the forests; *(d)* Institutional framework of the Lambusango Forest; *(e)* Relevant conservation action and what students can do to contribute to the conservation of the Lambusango Forest; *(f)* Policy analysis relevant to forest conservation and how to influence government policy in forest conservation.

Two conservation education books to support local content curriculum for elementary school were published in December 2007. The first book (*'Adventure to Lambusango Forest'*) is designed for grades one till three, while the second (*'Conserving Lambusango Forest'*) is for grades four to six. The books have been distributed to Buton and Bau-Bau elementary schools and socialization on the use of the book has been conducted both in Buton and Bau-Bau.

C.1.12. Publication of Green Nationalism Book

To promote the work of *LFCP, Operation Wallacea Trust and Operation Wallacea Ltd* to the Indonesian conservation community, the PM wrote a 182 page book in Indonesian entitled 'Green Nationalism: conservation message from Lambusango' (*Nasionalisme Lingkungan: Pesan Konservasi dari Lambusango*). Dr. Antony Whitten (TTL) wrote the 'Foreword' of the book (see Box 2.14). The book was printed by *Debut Wahana Sinergi* (Yogyakarta) with a printing run of 1500 copies, published in January 2007. The book is composed of 4 chapters and 19 sections (see Box 2.15).

Box 2.15: 'Foreword' of the Green Nationalism Book (Dr. Antony Whitten)

The conservation of wild nature is really hard work. To be successful it demands developing the heart-felt engagement of government, of local people, of business, and of a wider constituency which has the role of providing or at least supporting funding. It also champions.

Edi Purwanto is such a champion. He is also one of the most thoughtful Indonesians in the field of conservation and one who knows just how hard the work is. Although he has been employed in a variety of capacities since he left university, it has been his tackling of the difficult task of being the Project Manager for the innovative and complex conservation project that has caused him to reflect long and hard on many of the thorny, persistent, intriguing issues which face him on daily basis. He contemplates the questions, looking between and among them to find appropriate, practical and sustainable ways forward for conserving the special Lambusango forests. The project is financed by the Global Environment Facility and executed by the Operation Wallacea Trust, and has the potential to influence the way conservation is done elsewhere in Indonesia. Edi thus has a great deal of responsibility weighing on his shoulders.

There are, of course, many books on conservation, most written from viewpoint of biology or social sciences, or written for children or students. This book is original that it looks at conservation through lens of nationalism and pictures the general public as its target audience. The book assumes nothing about knowledge or background of the reader, and is written in engaging, unscientific, manner which draws the reader into the material. It thus has the potential to reach a wide and new audience for the message within it.

Pak Edi is to be congratulated on conceptualizing this book and seeing it through to completion. It deserves to be read—especially in SE Sulawesi—and my hope is that people who had not thought about the demands and excitement of conservation will be brought into the community for whom this subject is their passion. Who knows what may happen as a result!

Box 2.16: Outlines of the Green Nationalism Book**- Preface****- Chapter 1: Green Nationalism**

1. Green Nationalism
2. It is the time to sell without destroying
3. Learning from Ficus
4. Avoiding manmade disasters
5. Rainfall harvesting movement to control flood hazard
6. Synergizing development and conservation
7. Converting natural forests to oil palm plantation

- Chapter 2: Conservation and Community Empowerment

1. Conservation, poverty and social transformation
2. Social forestry and community empowerment
3. Strengthening farmer institution

- Chapter 3: Saving Indonesian Wildlife

1. Saving Indonesian wildlife
2. Hunting, animal wildlife extinction and forest degradation
3. What is happened with Wallacea?
4. Appreciating hornbill behaviour
5. Loving bird in its habitat

Chapter 4. Developing Ecotourism

1. Why many western people visit Lambusango?
2. Operation Wallacea: from Buton to the world
3. Operation Wallacea: developing ecotourism to conserve wildlife
4. Developing ecotourism market in Buton

- References**- 13 Important notes on Lambusango Forest Conservation Program****C.1.13. Developed the forth Lambusango poster**

LFCP developed a new poster entitled, 'Lambusango Forest: a Giant Sponge at the Heart of Buton Island', (*Hutan Lambusango: Karet Busa Raksasa di Jantung Pulau Buton*). This is in addition to the previous three posters. In this poster, we introduced the sponge effects of good forest cover, i.e. slow run-off (absorb rainfall) thus reducing flooding during the wet season and releases water throughout the dry season. A printing of 1500 copies was made and 100 posters have already been put in wooden frames and erected in strategic sites around Bau-Bau and Pasarwajo.

C.1.14. Printed and distributed environmental teaching materials for secondary school

We developed new teaching materials for junior and senior high schools for one academic year. The 150 page book is composed of three sections: *(a)* an introductory section consisting of three chapters (*chapter1*: Introduction to the Lambusango Forest; *chapter2*: Basic concepts of conservation; *chapter3*: Conservation Programmes in the Lambusango Forest). The introductory chapters are applicable for both junior and senior high school. *(b)* Conservation in daily life, this section is aimed at junior high school level and consists of two chapters. (*Chapter 4*: Save limited energy; *chapter 5*: Be friendly with nature) *(c)* Conservation in daily life; this section is aimed at senior high school and consists of two chapters (*chapter 6*: Soil and water conservation; *chapter 7*: Developing ecotourism in Buton Island).

One-thousand copies of the book have been printed and 300 of them have been distributed to secondary schools surrounding the Lambusango Forest. A workshop to socialize the

implementation of the training materials was conducted on 30 November 2008; it was attended by 48 secondary teachers from Bau-Bau and Buton District.

C.1.15. Designed and printed a Buton District tourism booklet

In response to a request from the Bupati, a bilingual (English and Indonesia) tourism booklet of twenty-three pages was prepared by the Project Manager. The booklet was aimed as material to be presented at the *'Tourism Attraction Potential of the Proposed Buton Raya Province'* workshop hosted by Bappenas (National Planning Board) in Jakarta on 6 November 2008; however the meeting was postponed until 10 December 2008, and then further postponed until February 2009.

The preparation of the booklet was rather hurried; it took only two weeks for the whole process (writing, designing and printing); as the time between the Bupati's request and deadline for completion was so tight. As results, many grammatical and spelling errors were found, because there was no time to consult to English native speaker. The booklet entitled *'The Green Pearl of the East: Natural Forest, Marine, Cultural and Historical Tourism in Buton District'*. In fact, this is the first tourism booklet in Buton District; it is aimed at providing general overviews of tourism objects for both domestic and foreign tourists. Printing of 1,500 copies of the booklet has already been completed.

C.1.16. Discussion

Before the start of the project, most Butonese understood the name *'Lambusango'* to simply refer to the name of a village in Kapontori Sub-District. The Butonese had never given a specific name to the 65,000 ha⁵¹ of natural lowland rainforest located in the central Buton. It is true that the word *'Lambusango'* had become the name of Lambusango Wildlife Reserve (Suaka Margasatwa Lambusango), established by the Ministry of Forestry in 1986, however, *'Lambusango'* as a name of wildlife reserve was barely known by the Butonese community. Indeed, most didn't even know of the existence of the reserve! The only people likely to know of the Lambusango were villagers living near Kakenauwe (*Labundo Bundo*) village or government officials working in BKSDA and Dinas Kehutanan Kabupaten Buton. Those people who were familiar with the Lambusango as a wildlife reserve not aware the area of the reserve and most thought that the reserve only covered the area surrounding Kakenauwe village, while, in actual fact, it covers about 30,000 ha, stretching from Kapontori through to Pasarwajo.

At the beginning of the project, when we started introducing the term *'Lambusango Forest'*, the majority of the local community thought that it referred to the state forest land surrounding Lambusango village. Indeed, during the first two years of the project, considerable time and effort was spent introducing the concept of the *'Lambusango Forest'* as a name for all lowland rain forest located in the centre of Buton.

The local community only started to become aware of the name and extent of the Lambusango Forest after LFCP installed hundreds of wooden framed posters in public areas (harbours, super markets, restaurants, banks, hotels, schools, hospitals, government offices etc) around Bau-Bau and Buton District. The posters show a map of the Lambusango Forest within the Buton Island with the slogan *'Lambusango the lung of the world in the heart of Buton Island'* (*Hutan Lambusango Paru-Paru Dunia di Jantung Pulau Buton*). In fact, the posters have become very popular, and many people are proud to have the poster. After the first poster, aiming at introducing the Lambusango

⁵¹ The proposal of the project defined *'Lambusango Forest Conservation Area'* as lowland natural tropical rainforest in the central of Buton Island which include, not only Lambusango Wildlife Reserve, but also Kakenauwe Nature Reserve, protection forest, limited production and production forest (65,000 ha). The concept needs to be introduced to Lambusango constituents and stakeholders.

Forest, LFCP introduced a second poster '*Lambusango is home to millions of life forms*' (*Lambusango Rumah Sejuta Kehidupan*). This poster also has become very popular, and people started to understand the value of the Lambusango Forest.

This flood of awareness and education materials produced by LFCP over the last three years has been one of the project's great success stories. At present, almost all of the Butonese community recognise the word Lambusango and are proud that they have the Lambusango Forest, the lung of the world and home to millions of life-forms, on their island. Many government officials expressed the need to use 'Lambusango Forest' as an *icon* of the Kabupaten Buton. We considered this as an important achievement of the project as we have made people aware of the area they have to conserve and the value of the conservation area. Without recognizing the area and its value the conservation movement will never start.

D.1. Grant aid for undergraduates to gain field experience in biodiversity and socio-economic assessment of the performance of such management schemes.

In 2005, all twelve undergraduate grants were offered to dissertation students from outside Buton. In 2006, LFCP decided to allocate four (out of twelve) undergraduate grants to Bau-Bau based universities. Considering that local undergraduate students would not conduct scientific data collection, unlike the other students from outside Buton who were biology or forestry students, the decision was made that instead of 8 weeks they only needed two weeks to join Opwall expedition. They would have one week to follow jungle training and another week to join biodiversity monitoring. As such, four local undergraduate students could be involved on Opwall expedition every two weeks, that is to say that sixteen local undergraduate students can be involved without additional cost.

This meant that there were 24 undergraduate students receiving grants, with the following classification; *(a)* four dissertation students, who collected scientific data alongside PhD students for eight weeks; *(b)* four general volunteers from outside Buton. They were rotated between projects to experience a wide range of projects for eight weeks; *(c)* sixteen general volunteers from Buton. They each followed jungle training for one week and the biodiversity monitoring programme for one week. Four criteria were used to select dissertation students: *(a)* Academic performance; *(b)* English proficiency; *(c)* Field experience; *(d)* Research proposal. Unsuccessful dissertation student's applicants were involved for the selection process of general volunteer's students. To promote wider recognition of the project, preference was given to participants from Universities which had not been involved during 2005.

In 2007, the participants were comprised of local undergraduate and secondary school students. Thirty four students were selected, comprising of twenty-five senior high schools (seventeen students from Bau-Bau Town, six students from Buton District and two students from Kendari) plus nine undergraduate students (two students from the *High School of Islamic Study* (STAI) and six from faculty of Education *University of Dayanu Ihsanuddin* (Unidayan), Bau-Bau and one from Faculty of Biology, *University Haluoleo* (Unhalu), Kendari). See **Appendix F**.

D.2. Training of Indonesian PhD students in the main aspects of the biological monitoring program to enable them to develop and implement similar monitoring schemes in other districts

D.2.1. Training of Indonesian PhD students

The opportunity of the three PhD studentships for Indonesian Masters level students with a good level of English was advertised widely throughout the top of Indonesian universities, as well as for Indonesian Masters students from UK and US universities, from 1 January to 22 April 2005. The three studentships were: *(a)* The assessment of forest change using satellite imagery and observational data on selective logging and rattan collection; *(b)* The use of bird and butterfly communities as indicators of forest change; *(c)* Estimation of the Anoa and macaque populations using genetic markers. LFCP selected three applicants for each PhD and then submitted the applications to Northumbria University (forest structure change), Manchester University (Bird and Butterfly) and Hull University (Anoa and Macaque). The final successful PhD candidates were determined by the respective universities (see *Table 2.6*).

Table 2.6. PhD students, universities, promoters and associated cost

Name	University	Promoter	Cost (USD)
Atiek Widayati	Northumbria	Dr. Bruce Carlisle	58,100
Nurul Winarni	Manchester Metropolitan	Dr. Martin Jones	59,228 ⁵²
Asri Dwiyahreni	Hull	Dr. Philip Wheeler	62,630 ⁵³
Total			169,950

LFCP has successfully facilitated the fieldwork of three PhD students in the Lambusango Forest. All PhD students are expected to complete their study in December 2009.

D.2.2. Collect indicators and direct empirical evidence to demonstrate outputs and outcomes of LFCP in reducing forest pressures and threats

D.2.2.1. Developed Microsoft Access Data Base

We have developed a database in Microsoft Access which stores all data and information related to LFCP activities during June 2005 until May 2008. The database is continuously updated with the measures of the impacts and outcomes of the project. In December 2008, we will put the data onto a CD format and will distribute to the relevant parties.

D.2.2.2. Pooling of knowledge and perceptions on the Lambusango Forest

To quantify the improvements in the knowledge and perceptions of the communities of Bau-Bau town and Buton towards the Lambusango Forest, between 19 and 21 July 2008, LFCP conducted pooling by distributing questionnaires to visitors to our exhibition kiosk on Kamali Beach, Bau-Bau. There are twelve questions to be completed independently by each respondent in the kiosk. In return for the time spent for filling the questionnaire, we gave selected Lambusango publications to respondents. The Lambusango exhibition kiosk was erected for the three day festival of 'Makassar Island' organised by Bau-Bau town government. Data processing of the questioners has not yet been completed. Summary of the pooling is given in *Appendix H*.

⁵² Including additional cost of USD 5,000

⁵³ Including additional cost of USD 5,000

E.1. Presentation of the results of the Project to key officials of the Beneficiary in view of obtaining their support for introducing similar schemes elsewhere in Indonesia.

E.1.1. LFCP organized a trip for journalists to the Lambusango Forest

On 14 and 15 April 2007. Twenty journalists from SE Sulawesi visited the project site and the visit was followed up by a media gathering on 16 April 2007. The results of journalist trip were published in 'Wonua' (news supplement (*sisipan*) in *Kendari Pos*), *Kendari Express* and *Media Sultra*. As a follow-up of Journalist Trip, the PM was interviewed in *Suara Alam Radio* (26 April 2007), *Anoa Radio*, (27 April 2007), *Kendari TV* (30 April 2007) and 'M' Radio (1 May 2007). An awareness campaign of adverts and jingles featuring about Lambusango Forest Conservation were aired by *Kendari TV*, *Suara Alam*, *Anoa* and 'M' Radio during April and May 2007.

From May through till August 2007, LFCP in collaboration with *Lawero* and *Kraton Radio* in Bau-Bau, aired one minute Lambusango Forest Conservation campaign jingle. The jingle was aired daily at 00.15 am, 6.30 am, 8.05 am, 1.15 pm, 2.55 pm, 3.35 pm, 8.35 pm and 9.55 pm. Special jingle was made during August 2007 to celebrate Indonesia Independence Day.

As of May 2007, regular fortnightly interactive discussions about the conservation of the Lambusango Forests, featuring LFCP staff and government officials, have been conducted on *Radio Lawero*. The interactive dialog has covered the following issues: (a) Understanding Lambusango Forest, LFCP and the Operation Wallacea Trust; (b) The need of inclusive and integrated spatial planning between Buton District and Bau-Bau Town; (c) Utilization of Lambusango Forest Products; (d) Collaborative management of the Lambusango Forest; (e) Ecotourism in Buton Island; (f) Collaborative protection of the Lambusango Forest; (g) Developing village business models in the Lambusango Forest; (h) Mainstreaming environmental conservation.

E.1.2. Lambusango promotion in Kendari

The promotion was organised together with WWF Kendari, as part of the celebrations for Earth Day on 21 April 2008. The intended participants were undergraduate students and journalists and twenty participants attended. The presentation was held on 19 April 2008 at the official resident of the Governor of SE Sulawesi Province. A second presentation was organised in collaboration with BPDAS Sampara⁵⁴. The targeted participants were government officials and NGOs in Kendari; it was attended by thirty-six participants. The second presentation was held on 21 April 2008 at the auditorium of BPDAS Sampara, Kendari. Apart from the presentations, on 19 April 2008, LFCP also organised an environmental exhibition at the official resident of the Governor of SE Sulawesi Province. The event was held from 16:00 to 18:00 and consisted of two standing banners displays of LFCP publications and information showing LFCP business development and a Lambusango film which demonstrated approaches to tackle illegal logging. During the two hours, the LFCP kiosk was visited by forty-five visitors.

⁵⁴ BP DAS Sampara is the technical implementing unit of Ministry of Forestry (Directorate General for Land Rehabilitation and Social Forestry). Sampara is one of the watersheds in the mainland of SE Sulawesi.

E.1.3. Lambusango exhibition in Jakarta Convention Centre

On 11 May 2008, Operation Wallacea Trust (OWT) was requested by SE Sulawesi Province Government to participate in the environmental exhibition festival of Sulawesi Province in Jakarta (JCC Senayan, Jakarta) to celebrate Environmental Day 5 June 2008. The festival involved all representatives from all provinces as well as large companies, to demonstrate actions to resolve global warming. We warmly accepted the offer as this would certainly be good promotion for LFCP at a national level. OWT together with Bappedalda (environmental agencies at province level) organised the exhibition which was held from 4 to 8 June 2008. We developed five standing banners, displayed LFCP publications and business development, showed Lambusango film of the Lambusango and demonstrated approaches to tackle illegal logging. LFCP kiosk was visited by 650 visitors.

E.1.4. Lambusango promotion in Metro TV

In November 2007, we invited Metro TV to make a documentary to promote the biodiversity of Lambusango Forest. After a long wait, the invitation was finally accepted after the 'Expedition' crew was invited by Wakatobi Bupati to film the coral reefs around the islands. On the way back to Jakarta from the Wakatobi, the 'Expedition' crew (two cameramen and one presenter) visited Lambusango Forest for one week (23 to 29 April 2008). We directed the team to film the following sites: (a) Karts cave in Wakangka Village; (b) 'Padang Kuku' area (small cloud forest) near Kapontori Gulf; (c) *Tarsius sp* during dawn and dusk in Labundo-Bundo Village; (d) Cuscus in Waleona Village; (e) Andoke (*Macaca ochreata brunescens*) in Wakangka village; (f) Birds in Wagari Village; (g) Seaweed farming in Wagari Village. The film, which has duration of twenty minutes, was entitled '*Lambusango Forest, the last home of Buton Wildlife*'. The film was broadcasted by Metro TV on 11 July 2008 (22.30), 12 July 2008 (5.30) and 16 July 2008 (12.30).

E.1.5. Lambusango promotion in Bau-Bau

On 15 July 2008, we were invited by Bau-Bau Town Government to participate in a public exhibition to celebrate the Palau Makassar⁵⁵ Festival on Kamali beach (19 – 22 July 2008). The exhibition involved various businesses and NGOs from Bau-Bau and Buton District. We warmly accepted the offer as this was undoubtedly a great opportunity for the promotion of LFCP in Bau-Bau and Buton District. We developed five standing banners, displayed LFCP publications, showed LFCP business development, showed a film of the Lambusango and demonstrated approaches to tackle illegal logging. LFCP kiosk was visited by 450 visitors and the exhibition was a great success.

E.1.6. Lambusango promotion via internet

On 22 March 2008, PM sent an e-mail message with the subject of 'promotion and replication of Lambusango'. The message was written in English and Indonesian and discussed the conservation approaches, progress, and achievements of LFCP (see Annex 2). Attached to the message was '*LFCP Progress Report; Progress, Achievements, lessons learnt and outlooks*' (June 2005-February 2008). So far, the message has been sent to 605 e-mail addresses of relevant national and international people and agencies. Sixty-three people have acknowledged the email and expressed their appreciation of the project. The message was also posted at www.lambusango.com and www.epurwanto.wordpress.com

⁵⁵ Pulau Makassar (Makassar Island) is a small island located in front of Bau-Bau Town.

E.1.7. Lambusango promotion in 'Partnership' meeting in Makassar

LFCP was invited by *Partnership* (Jakarta based CSO) to attend a regional meeting in Makassar (15 May 2008) and to present the progress of the LFCP to representatives of eleven local NGOs in Sulawesi.

E.1.8. Lambusango promotion at Bappedalda meeting in Bau-Bau

LFCP was invited by Bappedalda (environmental impact assessment agencies) of SE Sulawesi Province to give a presentation of the LFCP's experiences in forest conservation. The presentation was included in a two-day provincial meeting to formulate environmental budget/DIPA for 2009 in the Rajawali Hotel, Bau-Bau. The promotion was attended by heads of Bappedalda from all districts in SE Sulawesi (nineteen participants).

E.1.9. Lambusango promotion in Faculty of Agriculture, University of Sam Ratulangi, Manado

The event was organised by *Dr. John Tasirin* and *Dr. Martina Laangi* to coincide with the PM's visit to Manado to assist the World Bank with the organisation of KAP Survey training for the Green Kecamatan Development Program (G-KDP). The presentation was held at the Department of Forestry, Faculty of Agriculture on 28 May 2008. Though the presentation was conducted during a 'quiet week' (the revision period before final examinations), forty-two people attended.

E.1.10. Lambusango promotion in Faculty of Biological Science, Padjadjaran University, Bandung

The event was organised by *Dr. Teguh Husodo*. It was held when the Education Facilitator (*Henry Ali Singer*) visited Bandung. The presentation occurred at Faculty of Biological Science on 3 June 2008 and was attended by thirty participants.

E.1.11. Lambusango promotion at a Tourism meeting in Kendari

LFCP was invited by the Provincial Tourism Agency to give a presentation on the natural attractions of the Lambusango Forest during a two day tourism department regional meeting held in Hotel Kubra, Kendari (19 and 20 July 2008). The presentation was held on 20 May 2008, in the same session as a presentation by Wakatobi Bupati (*Ir. Hugua*) '*Wakatobi: Heaven under the sea*'. The presentation has attracted the interest of ASITA (Association of Travel Agencies) in SE Sulawesi to start selling trips to the Lambusango.

E.1.12. Lambusango promotion in the 'Kemilau Sulawesi' (the glitter of Sulawesi) in Gorontalo

LFCP supported Buton District Tourism Agency (BDTA) to organise a tourism exhibition in Gorontalo from 22 to 26 July 2008. LFCP supported the exhibition with Lambusango posters, brochures and books.

E.1.13. Lambusango promotion in Tropenbos Workshop in Balikpapan (21 August 2008):

The workshop was organized by *Tropenbos International (TBI) Indonesia* to mainstream nature conservation in Kalimantan. The title of the workshop was '*Green Nationalism*'; which was adopted from the title of the book published by the project. The workshop held on 21 and 22 of August 2008 and attended by 123 persons including businessmen, mining industries, conservationists, NGOs, universities and government officials (decision makers). The workshop was attended by two Governors from South and Central Kalimantan. LFCP distributed '*Green*

Nationalism' books to all participants and gave a presentation. Dr. Petrus Gunarso proposed to replicate the project in *Malinau* and *Sungai Wein*.

E.1.14. Lambusango promotion during Donor Meeting in Kendari, 17 December 2008:

We participated in a donor meeting workshop in SE Sulawesi Province. The workshop was organized by *Bappeda* (Planning Agency) SE Sulawesi and aimed at synergizing government and foreign aid (including NGOs activities) to support the Governor's new program which is popularly called '*Bahteramas*' (economic empowerment at village level).

The workshop was attended by the representatives of all NGOs and foreign donors currently working in Sulawesi, such as *CIDA* (Environmental Governance and Sustainable Livelihoods/EGSL), *AUSAID* (smallholder agribusiness development initiative/SADI), and *JICA* (Sulawesi Capacity Development Project). On this occasion, we displayed all LFCP products (books, stickers and posters) and gave a presentation. The workshop was useful to promote LFCP and OWT work in SE Sulawesi Province.

E.1.15. Lambusango promotion at RARE conservation training, 29 October 2008

The PM was invited by RARE Conservation to share information about LFCP at the RARE training program, attended by sixteen NGOs representatives from Malaysia, Sumatra and Java.

E.1.16. Lambusango promotion in the Ministry of Forestry, Jakarta, 9 December 2008

LFCP organised a promotion event at national level; the host of the promotion was Secretary of Directorate General for Forest Protection and Nature Conservation (PHKA), Ministry of Forestry (MoF). The meeting was attended by twenty-eight people; those consisted of government officials in the Ministry of Forestry, Forum Chairman and NGO representatives. *Pak Fred Kurung* (Head of BKSDA SE Sulawesi), *Pak Didi Wurjanto* (Head of BKSDA Jambi), *Pak Effendy Sumardja* (former GEF focal point), *Pak Dicky Simorangkir* (Terrestrial Program Coordinator of TNC), *Pak Petrus Gunarso* (Director TBI Indonesia), *Tim Brown* (World Bank), *Dr. Phil Wheeler* (Hull University) also attended the meeting. The meeting was chaired by *Pak Haryadi Himawan* (Secretary of Directorate General). All meeting participants expressed their great appreciation of the project achievements!

E.2. Preparation and distribution to each Indonesian District of a report demonstrating the financial benefits to local communities and government of the Lambusango scheme, the conservation benefits and a step-by-step guide on how similar schemes could be introduced into other Districts without the need for start-up financing.

E.2.1. Publication of the financial and conservation benefits of the project

The approaches, procedures and achievements including financial and conservation benefits to local communities and government of the project have been written in semi-popular manner in Indonesia on the book entitled *Green Nationalism, conservation message from Lambusango (C.1.12.)*. The book was printed for 1,500 copies and widely distributed to key conservation actors all over Indonesia. During Green Nationalism workshop in Balikpapan, the book was distributed to 135 key conservation actors in Kalimantan.

BaKTI News, a bilingual languages (English and Indonesian) development journal dedicated for Eastern Indonesian. The publication of the journal is sponsored (funded) by multi-donor working in Eastern Indonesia. The journal to a certain extent is also distributed to western Indonesian as well. Since early 2008, the project has used BaKTI news as media to publish project achievements.

However, as the media should cover broad aspects, it takes time from paper submission to publication.

BaKTI News No. 33 (April edition, 2008) published the objectives, approaches and achievements of the project. The paper is entitled *Replicating Lambusango, preserving nature and building an independent community*. To scale up the news to national and international level, the project approached the editor of *Tempo Magazine* English Edition, (Indonesia's weekly magazine, www.tempointeractive.com). The news in BaKTI was published on the 'Outreach Section' (page 6-7, with a one page photo of the Lambusango landscape).

BaKTI News No. 34 (May edition) published the financial and conservation benefits of cashews fair-trade certification to local community. The paper is entitled *Fair-trade Certification for Farmers Prosperity and Environmental Conservation*. The paper with some elaboration was then published in *Tempo Magazine* August 25, 2008 (*Feature* page 5 and 6: *Fairtrade and the Humble Cashew, Nuts to India*).

BaKTI News No. 35 (September edition) published financial, government and local community benefits on conservation land use planning activities with a case study of Lambusango Forest. The paper was entitled *Synchronizing development and natural resources conservation*. The news, with some elaboration was then published in *Tempo Magazine*, December 5, 2008 (*Focus: Fast Cash and Environment, Blessed with Bitumen and Enchanting Buton*).

The story of exporting cashews to UK through Wildlife Conservation Products was published by KOMPAS (in Indonesian), '*Mete dari Lambusango Tembus Inggris*', (*Cashews from Lambusango reach UK market*), Sunday, November 28, 2008.

E.2.2. Socialization of a step-by-step guide on how similar schemes could be introduced into other Districts without the need for start-up financing

The approach of the project and the step-by-step procedure have been introduced and replicated to Muna, Kolaka and Buton Districts (SE Sulawesi Province) within the framework of the Green-Kecamatan Development Program without the need for start-up financing.

In the World Bank/CIDA Green-Kecamatan Development Program (2008-2011), *Operation Wallacea Trust* (OWT) has received contract from the Bank as a service provider to mainstream environmental development in Kolaka, Muna and Buton Districts. OWT role is to provide environmental awareness and training to local community (villagers), actors of Kecamatan Development Program and government officials.

The following step-by-step guide has so far been made and socialize: **(a)** Step-by-step guide for cashews producer's fairtrade certification has been introduced in Kecamatan Tongkuno (Muna District), during February 2009; **(b)** Step-by-step guide for developing LED (Village Economic Institution) has been replicated in Sumber Asri Village, Kecamatan Watubangga, Kolaka District in April 2009; **(c)** Step-by-step guide for Village Conservation Regulation (*Peraturan Desa*) for the mangrove protection has been replicated in Kecamatan Mawasangka and Sampolawa (Buton District), Kecamatan Tongkuno (Muna District) and Kecamatan Watubangga (Kolaka District) in March 2009.

Many other efforts will be conducted to socialize step-by-step guides which were tested by the project to Kolaka, Muna and Buton Districts. As OWT will work to other areas outside SE Sulawesi, some possibilities are open to replicate the guide beyond the province.

III. Concluding Remarks

A. Community Forestry Management Forum

Many forest conservation program have facilitated the development of forestry forum, some of them design Forum as a new multistakeholder management body as a partner of government authority. A forum may also be designed as a way to raise the access of local community on forest land/resources management.

Granting utilization rights and access to communities, living adjacent to forests, to manage forestland without disturbance impact on forest functions, is widely recognized as the Community Forestry or Social Forestry (SF) concept. Forest utilization rights means the right to obtain optimum benefit from the forest for welfare of the whole community through the utilization of the land, environmental services, wood and non-wood products, as well as the collection of wood and non-wood forest products.

Huge interest and enthusiasm to develop SF began in the last decade in Indonesia, especially as long experiences with conventional forestry have proved that the practice almost successfully wiped forests off the map without alleviating poverty. However, insufficient time for developing complementary understanding among most stakeholders brought about diverse perceptions regarding concepts and approaches of SF, which ultimately put SF only in the 'discourse-box' of exhausting discussion and debates. The long discourse and diverse perceptions have led to unclear procedures for developing SF, despite very few lessons learned on SF development. Given the conditions, facilitating SF in Lambusango will take a long time and absorb invaluable resources to follow unstable regulations and long government bureaucracy.

Considering the above, the facilitation development of CFMF was not intended to develop new management body or process toward SF. The Forum was developed as a strategic partner of the government to improve forest governance policy. It is not intended to substitute or provide opposition to the Government. Authority to manage forests remains in the hand of the government, but the CFMF, as a representative of the local community, should take a role in influencing forest governance policy. As such, the most suitable roles of CFMF are: **(a)** Improving forest governance policy; **(b)** Changing community attitudes towards sustainable forest resource management; **(c)** Strengthening community based forest protection.

The most important achievements of CFMF during the last three years: **(a)** CFMF has become an important *watchdog* on forest governance policy and development practices. In many ways this has given the local community a voice and real and significant input into the practices that have the potential to destroy *their* forest and thus impact heavily on *their* quality of life; **(b)** The CFMF has been assisting the local community to improve land management, save water resources and develop alternative, sustainable livelihoods in order to conserve the Lambusango Forest and seek over solutions to natural resource conflicts amongst communities; **(c)** The CFMF has also become an important government partner at grass root level, socializing government policy related to natural resource conservation (such as forest boundary markings, forestry law and local government regulations), whilst at the same time channelling community aspiration and evidence of forest crimes to the government and associated bodies.

The Forum model has been replicated to another *Operation Wallacea Trust* conservation project in Kaledupa Island, Wakatobi District, SE Sulawesi Province. The project entitled: '*Building capacity for sustainable fisheries management in the Wallacea region*' (Darwin Initiatives, 2008-2011). The project is implemented in Kecamatan Kaledupa and Kecamatan Kaledupa Selatan. The Forum in Kaledupa now is in the process of establishment, this consists of a representative of fishers from every village of two kecamatan, they meet regularly to discuss ways in which the fishery on the

local reefs can be managed in sustainable manner. A representative from each of the village Forums will then be elected to a *Kaledupa Fisheries Forum* to work alongside the sub-district heads (*Camats*), and police, army and Park ranger representatives. The first Forum meeting at Kaledupa Island level will be conducted on July 2009. The CFMF structure, with some modification, is also currently adopted by GEF MSP in Halmahera (Bird Life).

During LFCP promotion in Kalimantan (August 21, 2008), *Dr. Petrus Gunarso* (Program Director for Tropenbos) proposed to replicate the project in *Malinau* and *Sungai Wein*.

B. Project Implementation Phases

Sosialisation: 2004-2005

It is different with national park in which the area has been legally declared and acknowledged by protected area stakeholders. Much of the protected areas (which is now widely known as 'Lambusango Forest') had not yet been present during the start of the project.

The proposal of the project defined '*Lambusango Forest*' as lowland natural tropical rainforest in the central of Buton Island which include, not only Lambusango Wildlife Reserve, but also Kakenauwe Nature Reserve, protection forest, limited production and production forest (65,000 ha). Understanding that local community had not been aware either with the current protected areas and production and protection areas surrounding protected areas, many efforts, during the first two years of the project, was spent to introducing the concept of the 'Lambusango Forest' as a name for all lowland rain forest located in the centre of Buton.

The most effective socialization were done through installing hundreds of wooden framed posters in public areas (harbours, super markets, restaurants, banks, hotels, schools, hospitals, government offices etc) around Bau-Bau and Buton District. The posters show a map of the Lambusango Forest within the Buton Island with the slogan '*Lambusango the lung of the world in the heart of Buton Island*' (*Hutan Lambusango Paru-Paru Dunia di Jantung Pulau Buton*). At present, all Butonese community recognize the word Lambusango and are proud that they have the Lambusango Forest, the lung of the world and home to millions of life-forms, on their island (See **Appendix H**). Many government officials expressed the need to use 'Lambusango Forest' as an *icon* of the Kabupaten Buton, while both Buton and Bau-Bau Town government have become aware on the eco-tourism potential of the area.

Multistakeholders collaboration: 2006-2007

After key forest stakeholders have mostly been familiar with the Lambusango Forest Area and the underlined reasons on the need to conserve the forest were well understood, then collaborative facilitations involving forest stakeholders were initiated. It was started with the development of CFMF, then followed by FCUL and GIS Forum.

Realizing that conservation work require government commitments, many efforts devoted to attract government interest to conservation investment. This was done by showing consistent work, strong spirit on law enforcement, demonstrate the good works and showing that *Operation Wallacea Trust* is always keen to support and assist government program.

Agenda Transformation: 2007-2008

After working together on many conservation 'exercises' such as FCUL, CFMF, GIS Forum, developing conservation land-use planning etc., then the time was ripe to transfer conservation

agenda from LFCP to local government. Warm responses were received from Buton District government; this was indicated by the following:

- (a) Bupati instruction to give special task to Camat (Head of Sub-district) to safeguard forest by controlling seasonal forest encroachment in all villages which share boundary with state forest. Those Camat who are unable to do the job to safeguard the forest will be fired;
- (b) Buton Government provided operational cost to CFMF of IDR 30 millions in 2008, and similar amount for 2009;
- (c) Buton Government provided operational cost to GIS Forum of IDR 20 millions in 2008, and similar amount for 2009;
- (d) Increasing the amount of forest protection (law enforcement) budget, from 17 forest patrol per year (2004-2006) to become 45 patrols (2007-2008);
- (e) Since 2004 to date, Bupati has not issues forest product collections (utilization) permits for local community.

C. Strategy for Village Business Development

A great deal can be learnt from the experience of developing business initiatives in the Lambusango. Below are some notes on business initiation which may be useful for other projects.

Strengthen existing business: It is advisable to consider the existing businesses when defining business initiation, as the probability for success is high. This was the case for orange plantation development in Lasembangi and seaweed in Wagari, Matawia, Wolowa and Wolowa Baru, and coffee in Wakaokili Village. Those villages already had orange and seaweed business and coffee before project intervention; as such the major role of the project is to enlarge economic scale and number of villagers involved in the business, linking to market and link these developments to forest conservation.

Compatibility with local farming culture: We have to understand the farming culture that exists in a village before initiating any business development. If a community is still using slash and burn agriculture, it is difficult to move them into intensive land cultivation within a short project timescale. This was the case when LFCP introduced ginger planting in Kakenauwe, Lawele and Winning Villages. The planting was not successful, as these villages are not used to with intensive farming (see *Table App. J*).

Avoid providing free capital: Business development should be viewed as entrepreneurship empowerment rather than charity. Although the source of the project funding is grant; business development should be seen as a loan which much is paid back over time. This has two significant advantages; firstly it means that the money can be used as a revolving fund that can support other business development schemes in the future and secondly it instils the values of empowerment, entrepreneurship, independency and responsible attitudes. Failure to enforce the repayments of the loan is a failure to instil the principles of empowerment, entrepreneurship, independency and responsibility that are crucial for the future of the villages once the project has finished.

Avoid provide cash capital: The project should provide in-kind capital for business development to avoid villagers using cash-capital for irrelevant purposes.

Do not initiate blanket business initiation: The affect of failure will be severe, especially if there is no alternative industry. This was the case for ginger development in 2005. The business was

developed in five villages, when the price of ginger dropped in 2006, the business development suddenly collapsed and local community lost trust in the project.

Make use of existing entrepreneurs in the village: Business initiation will be more effectively developed when it is introduced through, or with the support of, a local ‘champion’ who has already been successful. This was the case when the project approached *Pak Sukarno* for orange plantation, *Pak La Peo* for seaweed farming and *Pak Sarjono* for Fair-trade facilitation, their vision and energy helped make the initiative a success.

Combine annual and seasonal crops: Learning from the ginger planting, it is good if the introduced agriculture business combines between annual and seasonal crops. For instance, instead of only planting ginger which can be harvested after nine months, villagers could also be introduced with vegetables farming which can be harvested in three months. This also serves as providing a ‘back-up’ should one crop fail.

D. Wildlife Conservation Products

Wildlife Conservation Products (WCP) is products with this brand label are produced in villages where all villagers are committed to protecting wildlife and/or forests surrounding them (by signing Village Conservation Contracts). In return, the villagers are linked to international markets and receive higher prices for their products. Around Lambusango forest, OWT conducts regular monitoring to ensure the compliance with village conservation contract by all villagers.

The project has successfully facilitated three villages, Barangka, Matanauwe and Wakaokili to export their products with premium prices and in return they have developed Village Conservation Contract. The scheme demonstrated significant improvements in both farmers’ welfare and forest protection, such as reduction of forest encroachment and hunting of protected wildlife. The product from Barangka and Matanauwe Villages is cashews (‘Anoa’ cashews), while from Wakaokili is coffee (‘Jungle Coffee’), both products have reached UK market. The prospect of WCP scheme is promising as *Harrods*, *Marks and Spencer* and *Fortnum and Mason* have expressed interested in selling some of the products developed in the current project. The role of *Operation Wallacea Ltd* to promote local products for UK market is very important to make the scheme worked.

Village Conservation Contract (VCC) is designed as a village based commitment to stop illegal activities in the forest in exchange for technical and capital assistance given by the project team to develop village business. The developed village business should be used as an alternative income, rather than only additional forms of income. CFMF and FCUL monitor the level of compliance of local communities to the committed VCC.

E. World first Cashew Producer’s Fairtrade Certification in Matanauwe Village

The project has facilitated the Matanauwe Cashew Farmers Association (APJMM) to receive world first cashew producer’s fair-trade certification. The key of success to gain certification is the existence of strong social capital of the village. During 2006, facilitation efforts have been made for Barangka Village (major processed cashew producers in Buton Island), however the certification was not granted due to the poor social capital in the village. In 2007, we moved the facilitation to Matanauwe Village and it worked well. Unfortunately, so far the village has not been enjoyed the benefit of certification as the harvesting season in 2008 was totally failed.

F. Collaborative Forest Protection

FCUL is a collaborative forest protection led by Buton District Forestry Office (BDFO) and supported with Ministry of Forestry (BKSDA) to monitor, patrol and facilitate law enforcement against illegal logging, state forest encroachment and hunting of protected wildlife. FCUL is composed of three main components: *(a) Informants Team* who work undercover to investigate target persons and sites. This division is led by CFMF; *(b) Response Unit Team* who composed of PPNS (civil government crime investigator) and Forest Rangers; *(c) Journalists Team*: media coverage for public awareness enhancement. The approach is adopted from *Wildlife Crime Unit* (WCP) as previously developed by Wildlife Conservation Society-Indonesia Program. See *Appendix D*.

Until September 2007, FCUL has still no capacity to control legal irregularities (especially from forestry officials) and still has a ‘distance’ with police. FCUL was also unable to facilitate the proper legal processing of some confiscated evidence due to the strong and the ‘untouchable’ nature of some forest crime mafia with strong connections in the local legal system. The situation was totally changed since October 2007, the situation improved significantly and FCUL has become a powerful body that can operate without fear and can face the ‘mafia’ and politically aligned criminals. The underlined reasons are: *(a)* OWT has increasingly become a respected NGO, with the trust and respect of both the local community and, importantly, the legal system, government officials and police; *(b)* the attitudes of most of the BDFO officials have changed significantly toward forest protection and conservation. At the beginning, their support of FCUL (especially LFCP) was half-hearted at best, but the situation has gradually changed due to the consistency and continued efforts of the project; *(c)* the presence of honest and upstanding forestry officials at a higher level has succeeded in improving the attitudes of his staff.

G. Education and Awareness

This flood of publication materials were produced by the project over the last three years. Based on project impacts assessment, the most influencing awareness materials for local community are: *(a)* Posters; *(b)* conservation and forestry law campaign boards (ballyhoo) and *(c)* faith based conservation campaign. Newsletters are not so influencing for local community, as the spirit of reading of local community are still poor, however it is useful for project exposure at regional and national level.

The most effective education materials for students: *(a)* Posters; *(b)* Reading materials for local content curriculum and *(c)* Wall magazine. Indeed, developing good posters using communicative catchword and clear illustration, then installed in strategic sites is the most effective measures for public awareness!

The most effective target for forest conservation awareness is children and young generation, while for adult people, awareness on law enforcement is more important (as far as the law has been effectively enforced), the latter should be supported with alternative livelihoods development.

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Appendix A: Revised Project Description

- A1. Formation of a Community Forest Management Forum (CFMF) as a mature organization able to conduct independent conservation movements.
- A2. Development of sustainable livelihoods models on several villages surrounding Lambusango Forest through village conservation contract facilitation schemes.
- A3. Provision of enabling conditions for better forest management and sustainable rattan extraction.
- A4. Preservation of the forest boundaries at the point at which the project proposals were announced.
- B1. Strengthen forest crime law enforcement.
- C1. Promote global significance of Lambusango Forest through development of local-specific teaching materials and awareness rising of Lambusango Forest constituents and stakeholders at local and national level
- D1. Grant aid for undergraduates to gain field experience in biodiversity and socio-economic assessment of the performance of such management schemes.
- D2. Training of Indonesian PhD students in the main aspects of the biological monitoring program to enable them to develop and implement similar monitoring schemes in other districts
- D3: Improve capacity building of forest rangers and PPNS through on the job trainings which are tailored to site-specific circumstances.
- E1. Development and implementation of a monitoring strategy with known levels of precision in detecting biodiversity changes in the indicator groups selected.
- E2. Development and implementation of a monitoring strategy with known levels of precision in detecting population changes of key or threatened species.
- E3. Development and implementation of a monitoring strategy with known levels of precision to assess socio-economic changes amongst the surrounding communities that is attributable to the project.
- E4. Development of an adaptive management strategy to ensure the results of the monitoring programs is presented in a form that will enable the management Forum to assess the performance of their management strategy.
- F1. Presentation of the results of the Project to key officials of the Beneficiary in view of obtaining their support for introducing similar schemes elsewhere in Indonesia.
- F2. Preparation and distribution to each Indonesian District of a report demonstrating the financial benefits to local communities and government of the Lambusango scheme, the conservation benefits and a step-by-step guide on how similar schemes could be introduced into other Districts without the need for start-up financing.

Appendix B: Revised Outputs

The original project concepts and its implementation conducted during the half of project life (June 1, 2005 – December 31, 2006) and revised concept (specific objectives) and activities during the second half of project period (January 1, 2007 – December 31, 2008).

	From	To
	Component A: Forest Management and Village Contract Implementation	
A.1.	Community Forestry Management Forum Specific Objective: To develop <i>Community Forestry Management Forum</i> (CFMF) as a mature organization and enable to conduct independent conservation movements	
	Forum envisaged as a multi-stakeholder forest management body would serve to unite management of all forests (both district and provincially managed) into one effective, district –level system.	Forum envisages as a multi-stakeholder forest management body would serve to: A.1.1. Improve forest governance policy. A.1.2. Change community attitude toward sustainable forest resource management. A.1.3. Strengthen community based forest protection.
A.2.	Village Business Development Specific Objective: To develop sustainable livelihoods models on several villages surrounding Lambusango Forest through village conservation contract facilitation schemes	
	One of the central concepts of the project as planned in the Project Brief was the introduction of management agreement for all the villages surrounding the forest management area to sustainably exploit the production forest areas in exchange for full compliance by all community members in a cessation of illegal logging and hunting in the non-production forest areas. This activity was not under implementation by the project, due to some technical difficulties (implementation of the recent law which gives provision for this activity is unclear) and uncertainty as to whether this approach is suitable for the Buton context. During the last 18 months, village business has been initiated in 17 villages. Unfortunately, not all of them are related to village conservation contract/outcomes.	The project will select business developments, which are truly related to conservation outcomes, investment or assistance should take place only after (sub) village-level contract is signed by the Forum, with plans in place for monitoring and sanctions identified in the event that the conditions of the contract are broken. The project will focus on smaller number of villages (only 6 villages) having high social capital as model for sustainable livelihoods development and conservation contract/outcomes. Focus will be given to the following activities. A.2.1. Promote international cashew marketing of Barangka village A.2.2. Fairtrade and organic certification of cashew in Barangka Village A.2.3. Promote ginger trade in Summersari Village A.2.4. Develop orange plantation and vanilla processing (export) in Lasembangi Village A.2.5. Develop sustainable market for oyster farming in Watumotobe and Lambusango Timur Villages
A.3.	Forest management and sustainable rattan extraction Specific Objective: To provide enabling conditions for better forest management and sustainable rattan extraction	

	<p>The project has produced some interpretations of forest loss from satellite imagery in 1999 and 2004 which have been disseminated among Buton District agencies.</p> <p>The project has made excellent process in surveying rattan standing stock, understanding the trade chain, examining the current procedures for issuing rattan extraction permits and promoting rattan plantations.</p> <p>The project (or the Forum) cannot develop a new licensing system, as there is a permit system currently established under the District Forestry Office.</p>	<p>LFCP will put emphasis on forest management. For sustainable rattan extraction, efforts will be made to support the involvement of BKSDA on the issuance procedure and surveillance of rattan extraction within Lambusango Forest Nature reserves. The analysis of rattan data to calculate sustainable extraction rates will be handled by PhD student (Atiek Widayati).</p> <p>GIS Forum will be strengthened and become a strategic partner of the project to develop inclusive Management Plan of Lambusango Forest, which incorporate conservation objectives into development program. LFCP will support BKSDA to plant Pinang (<i>Arenga pinata</i>) along the nature reserve boundaries.</p> <p>A.3.1. Facilitate the role of GIS Forum as coordinating body on inter-sector spatial data processing and analyzing</p> <p>A.3.2. Facilitate the development of Management Plan of Lambusango Forest Management Area (LFMA), including strategy and action plans for LFMA that has explicit agreement among major stakeholders as well as a broader constituency.</p> <p>A.3.3. Facilitate community based (including students) forest rehabilitation on critical headwater catchments</p> <p>A.3.4. Strengthen roles of BKSDA on the issuance procedure and surveillance of rattan extraction within Lambusango Forest Nature reserves.</p> <p>A.3.5. Facilitate the development of rattan plantation and maintenance of the existing rattan demonstration plot.</p>
B.	<p style="text-align: center;">Enforcement</p> <p style="text-align: center;">Specific Objective: To strengthen forest crimes law enforcement</p>	
	<p>From November 2005 - June 2006, FCUL has conducted joint patrol. About six patrols a month were organized involving <i>PPNS</i> (civil government crime investigator), <i>Polhut</i> (forest ranger), and journalists. The confiscated timbers on average were 35 m³ per month. Later on, this approach was considered ineffective, as it only deterred poor logger, while their financiers were remain untouched.</p> <p>Since August 2006, LFCP has involved on the investigation of forest products transport on three investigation posts, i.e. <i>Barangka</i>, <i>Wakoko</i> and <i>Kaongkaongkea</i>.</p> <p>Since October 5, 2006, all BKSDA's forest rangers have been part of Forest Crime Unit Lambusango (FCUL). From December 1, 2006, <i>Lakapela</i>, a local NGO, has become a member of FCUL and has taken a role in illegal logging investigation, particularly in the publicizing of the data obtained.</p>	<p>The project still attempts to push for prosecution of low-level criminals, to keep up the transaction costs of illegal logging and dissuade villagers from taking part.</p> <p>B.1. Data collection on forest crimes and used as a basis on directing enforcement strategy.</p> <p>B.2. Facilitate regular patrols and forest crime investigation</p> <p>B.3. Facilitate the prosecution of high profile cases</p>
C.	<p style="text-align: center;">Education and Awareness</p> <p style="text-align: center;">Specific Objective: To promote global significance of Lambusango Forest through local-specific teaching materials development and awareness rising of Lambusango Forest constituents and stakeholders at local and national level</p>	

	Activities which have been conducted include production of posters, bulletins or newsletters, story books for children, biodiversity books, essay competition on environment for senior high school, installation of conservation campaign boards surrounding Lambusango Forest.	<p>The past activities will be continued. However, emphasis will be given on the development of local-specific teaching materials to support the implementation on local content curriculum on environmental education.</p> <p>C.1. Facilitate the development of local-specific teaching materials for local content curriculum on environmental education in the primary and secondary schools.</p> <p>C.2. Develop awareness materials, including faith based environmental message</p> <p>C.3. Develop national awareness materials on the global significance of Lambusango Forest</p>
D.	<p style="text-align: center;">Capacity Development</p> <p style="text-align: center;">Specific Objectives: To provide grants and field assistants to Indonesian PhD and undergraduates students as well as BKSDA staff</p>	
	The project has provided grants for undergraduate and three PhD students to conduct biodiversity monitoring together with Operation Wallacea Ltd. During 2006, 24 students were selected to participate in the Opwall surveys and to date, 36 undergraduate students in total have participated. The three PhD students have also joined the 2005 and 2006 Opwall field seasons.	<p>Grants for undergraduate students will also be provided during 2007 Opwall field season. However, it is only limited to Bau-Bau undergraduate students.</p> <p>New attentions will be given on the BKSDA staff capacity building, in the form of refresher courses for forest rangers and forest crimes investigators (PPNS), sponsored BKSDA staff to joint Opwall field seasons.</p> <p>D.1. Provide grants for 3 PhD students</p> <p>D.2. Provide undergraduate grants for 16 Bau-Bau students and 4 BKSDA staffs to join 2007's Opwall measuring campaign</p> <p>D.3. Improve capacity building of forest rangers and PPNS through on the job trainings which are tailored to site-specific circumstances</p>
E.	<p style="text-align: center;">Monitoring</p> <p style="text-align: center;">Specific Objectives: To measure site specific indicators demonstrating threat reduction resulted from LFCP interventions</p>	
	Substantive biodiversity and socio-economic monitoring has been undertaken by Opwall Ltd and PhD students and most of the research reports have been shared with the project team in Bau-Bau	E.1. Measure site specific indicators demonstrating threat reduction resulted from LFCP interventions
F.	<p style="text-align: center;">Promotion</p> <p style="text-align: center;">Specific Objective: To demonstrate the effectiveness of project approach to persuade other districts to adopt similar management strategies for their locally and nationally controlled forests</p>	
		<p>F1. Presentation of the results of the Lambusango project to key government Ministers in Jakarta and obtaining their support for introducing similar schemes elsewhere in Indonesia</p> <p>F2. Preparation and distribution to each Indonesian District of a report demonstrating the financial benefits to local communities and government of the Lambusango scheme, the conservation benefits and a step-by-step guide on how similar schemes could be introduced into other Districts without the need for start-up financing.</p>

Remarks: The underline numbers (for example **D.2**) are newly initiated activities.

Appendix C: GIS/RS Training Participants

No.	Name	Agencies
1.	Ir. La Ode Mpute	Economic Development Section-Buton District Secretary
2.	M. Amaluddin M, S.S.,M.Si.	Ecotourism Development Section-Buton District Secretary
3.	Bugiono, S.Hut.	BKSDA SE Sulawesi
4.	Saidung, S.P.	BKSDA SE Sulawesi
5.	Adhi Andriyansyah	BKSDA SE Sulawesi
6.	La Ode Kaída	BKSDA SE Sulawesi
7.	Saihudin	BKSDA SE Sulawesi
8.	Eric Rustandi	BKSDA SE Sulawesi
9.	Savitri Supraba, S.Kom.	Buton District Life Environment Office
10.	Wahid Ode, STP.	Buton District Life Environment Office
11.	Drs. Arufin	Buton District Life Environment Office
12.	La Ode Rahmat Salim, S.Hut.	Forest Mapping Section - Buton District Forestry Agency
13.	Indra Warsyadi, S.P.	Forest Utilization Section – Buton District Forestry Agency
14.	Muhammad Arsyad Jalil, S.T.	Spatial Planning Section- Buton District Planning Agency
15.	Mardiansa	Spatial Planning Section- Buton District Planning Agency
16.	Ahmad Mulia, S.Pt.	Spatial Planning Section- Buton District Planning Agency
17.	Sumartoyo, ST,MT	Spatial Planning Section- Buton District Planning Agency
18.	Darfin Rawu, S.T.	Buton District Mining and Energy Office
19.	Salehuddin, S.E.	Buton District Mining and Energy Office
20.	La Ila, S.Pi.	Buton District Fishery and Marine Office
21.	Yusniar, S.Pi.	Buton District Fishery and Marine Office
22.	Fajar, S.St.	Buton District Land Cadastre Office
23.	Hadjal, S.Sos.	Buton District Land Cadastre Office

Appendix D: Collaborative Forest Patrols and Investigations (2006-2011)

Table App. D.1. Collaborative Forest Patrol during 2006

No	Date	Personnel's	Numbers of Patrol Team (persons)	Sub-district	Village
1	23-Feb-06	Polhut and OWT	10	Pasarwajo	Wasaga
2	28-Feb-06	Polhut and OWT	8	Kapontori	Bukit Asri
3	5-March-06	Polhut and OWT	9	Kapontori	Kakenauwe
4	25-March-06	Polhut and OWT	10	Siotapina	Kumbewaha
5	28-April-06	Polhut and OWT	10	Pasarwajo,	Wakoko
6	8-May-06	Polhut and OWT	10	Pasarwajo	Wakaokili
7	20-May-06	Polhut, OWT, BKSDA	12	Kapontori	Barangka
8	26-May-06	Polhut, OWT, BKSDA	14	Pasarwajo	Wining
9	6-June-06	Polhut and OWT	12	Kapontori	Lambusango
10	9-June-06	Polhut and OWT	12	Kapontori	Kaong-kongkea
11	12-June-06	Polhut and OWT	10	Wolowa	Wolowa Baru
12	16-June-06	Polhut and OWT	10	Wolowa	Wolowa Baru
13	2-July-06	Polhut and OWT	10	Kapontori	Barangka
14	29-July-06	Polhut and OWT	10	Kapontori	Lambusango
15	15-Aug-06	Polhut and OWT	10	Lasalimu Selatan	Omoncua
16	26-Aug-06	Polhut and OWT	10	Pasarwajo	Watonto
17	12-Sep-06	Polhut and OWT	12	Siotapina	Kumbewaha and Matanauwe
18	17-Sep-06	Polhut, OWT and BKSDA	12	Kapontori	Tuangila
19	11-Nov-06	Polhut and OWT	10	Pasarwajo	Lapodi
20	23-Dec-06	Polhut and OWT	10	Pasarwajo	Warinta
21	28-Dec-06	Polhut and OWT	10	Kapontori	Barangka

Remarks: *Polhut* (Forest Rangers) are from Buton District Forestry Office

Source: LFCP Data Base

Table App. D.2. Collaborative Forest Patrol during 2007

No	Date	Personnel's	Numbers of Patrol Team (persons)	Sub-district	Village
1	23-Jan-07	Polhut and OWT	10	Kapontori	Kamelanta
2	25-Jan-07	Polhut and OWT	10	Siontapina	Wamorondo
3	25-Jan-07	Polhut and OWT	10	Siontapina	Wamorondo
4	25-Jan-07	Polhut and OWT	10	Siontapina	Wamorondo
5	28-Feb-07	Polhut and OWT	11	Lasalimu Selatan	Suandala
6	05-Mar-07	Polhut and OWT	10	Lasalimu Selatan	Kamelanta
7	20-Mar-07	Polhut and OWT	9	Lasalimu	Kapontori
8	26-Mar-07	Polhut and OWT	10	Kapontori	Wakangka
9	26-Apr-07	Polhut and OWT	10	Kapontori	Kamelanta
10	09-Mei-07	Polhut, OWT and BKSDA	12	Pasarwajo	Wabalamba
11	10-Mei-07	Polhut and OWT	10	Kapontori	Bukit Asri
12	16-Mei-07	Polhut and OWT	10	Kapontori	Bukit Asri
13	12-Jul-07	Polhut and OWT	10	Pasarwajo	Kambula-mbulana
14	14-Jul-07	Polhut, OWT and BKSDA	11	Pasarwajo	Wining
15	15-Jul-07	Polhut, OWT and BKSDA	12	Pasarwajo	Wining
16	16-Jul-07	Polhut and OWT	10	Siontapina	Matanauwe
17	16-Jul-07	Polhut and OWT	10	Siontapina	Matanauwe
18	17-Jul-07	Polhut and OWT	10	Kapontori	Lambusango
19	17-Jul-07	Polhut and OWT	10	Kapontori	Lambusango
20	13-Dec-07	Polhut and OWT	7	Kapontori	Wakangka
21	28-Dec-07	Polhut and OWT	11	Lasalimu Selatan	Kombewaha

Source: LFCP Data Base

Table App. D.3. Collaborative Forest Patrol during 2008

No	Date	Personnel's	Number of Patrol Team (persons)	Sub-District	Village
1	31-Jan-08	Polhut, OWT	12	Lasalimu Selatan	Sumbersari
2	29-Mar-08	Polhut, OWT	11	Pasarwajo	Waangu-angu
3	30-Mar-08	Polhut, OWT	12	Kapontori	Kamelanta
4	11-Mar-08	Polhut, OWT	10	Pasarwajo	Lapodi
5	21-Apr-08	Polhut, OWT	10	Pasarwajo	Wining
6	29-Apr-08	Polhut, OWT	12	Wolowa	Matawia
7	30-Apr-08	Polhut, OWT	10	Wolowa	Wolowa
8	11-Mei-08	Polhut	7	Siontapina	Kanawa
9	12-May-08	Polhut, OWT	8	Kapontori	kamelanta
10	24-May-08	Polhut, OWT and BKSDA	12	Pasarwajo	Wining
11	05-Jul-08	Polhut, OWT	10	Siontapina	Kanawa
12	09-Jul-08	Polhut	9	Siontapina	Kanawa
13	23-Jul-08	Polhut	9	Siontapina	Wapomaru
14	15-Sep-08	Polhut, OWT	10	Wolowa	Kaumbu
15	24-Nov-08	Polhut, OWT	12	Pasarwajo	Wining
16	26-Nov-08	Polhut, OWT	12	Wolowa	Wolowa
17	2-Dec-08	Polhut, OWT and BKSDA	13	Pasarwajo	Pasarwajo
18	31-Dec-08	Polhut, OWT and BKSDA	12	Kapontori	Wambulu

Source: LFCP Data Base

Appendix E. Number of Illegal Loggers (2006-2008)

Village	2006	2007	2008
Mandauli (Lambusango Village)	3	3	3
Harapan Jaya	3	3	3
Kamelanta	5	3	3
Lasembangi	17	15	3
Sio Manuru	3	3	4
Siotapina (SP 2B)	3	3	3
Wajah Jaya	4	4	4
Wakangka	5	3	1
Waondowolio	24	20	21
Wowoncusu (Lambusango Village)	3	3	3
Wining	12	10	5
Waleona	3	3	4
Wagari	12	13	2
Lawele	10	9	5
Kaumbu	3	3	3
Wolowa Baru	3	3	3
Matawia	15	11	8
Wolowa	4	4	2
Matanauwe	6	5	3
Total	138	121	83

Source: Lambusango Community Forestry Management Forum

Remarks: The data is resulted from monitoring activity as conducted by Sub-District Community Forestry Management Forum (CFMF) Coordinator on monthly basis from June 2006-November 2008. The data was collected by interviewing at least ten key villagers from every village which shares boundary with Lambusango Forest. Based on interview, when illegal forest extraction activities are found, a ground-truthing is then conducted. Data collected during ground-check: *(a)* Description on the activities; *(b)* Aim of extraction: for subsistence or commercial use; *(c)* Investigate the field perpetrators and financiers; *(d)* Dates of when the activities happened; *(e)* Number of people involved; *(f)* the origin of field perpetrators (within or outside village under investigation); *(g)* the exact hotspot site; *(h)* Types and quantity of equipment (e.g. chainsaw); *(i)* the vehicles (if any).

Appendix F: Undergraduates and secondary schools receiving Grants

Table App. F.1. Undergraduate students receiving grants during 2005

No	University/City	Faculty/Major	No	Name	Activity Period
1	Bogor Agriculture University / Bogor	Forestry / Forest Resource Conservation	1	Ambang Wijaya	10 weeks (29 June - 7 September 05)
			2	Nanda Dwanasuci	
2	Hasanuddin University / Makassar	Agriculture & Forestry	3	Jumrin Said	
			4	Dwi Apriani Wahab	
			5	Hadizah Azis	
			6	Wanti Tampubolon	
3	Gadjah Mada University / Yogyakarta	Forestry / Forest Resource Conservation	7	Ira Ratnasari	
			8	Esti Amalia	
4	Haluoleo University / Kendari	Science / Biology	9	Bahari	
			10	Muhammad Wahyuddin	
			11	Adikarya	
			12	Arthur Arfian	

Notes:

- Number of student 12
- Number of university 4
- Amount of payment \$ 20,000

Table App. F.2. Undergraduate students receiving grants during 2006

No	University/City	Faculty/Majors	No	Name	Activity Period
1	Dayanu Ikhsanuddin University / Bau-Bau	Machine Engineering	1	Erwin Arif	2 weeks (29 June - 12 July 06)
			3	Darson	
		Civil Engineering	2	Yuli Purnomo Sidi	
			4	Firman Makmur	
		Law	5	Yustiawan Endre	
			6	Toni Hardianto	
			7	Izat Asnawi	
		Civil Engineering	8	Masry Budiyo	2 weeks (27 July - 9 Aug 06)
			9	La Ode Endang	
			10	La Ode Herman	
			11	Arsinah	
		Economy Management	13	Asman Ali	
			14	I.G. Umbarajaya S.	
		Law	12	Syurti Harani	
			15	LD Hendra Herdiyanto	
			16	LD Nuriadin	
2	Haluoleo Univ / Kendari	Science / Biology	17	Chitra Dewi	8 weeks (29 June – 21 August 06)
3	Hasanuddin Univ / Makassar	Agriculture & Forestry / Forest Management	18	Irmawaty Latif	
4	Nasional University / Jakarta	Biology / Biology	19	Fikty Aprilinayati	
			20	Dewi Suprobawati	
5	Gajahmada University / Yogyakarta	Forestry / Forest Resource Conservation	21	Wahyuni Mahmud	
6	Padjadjaran University / Bandung	Science / Biology	22	Emma Yustikasari	
			23	Felicia Permata S.L.	
7	University of Indonesia / Jakarta	Science / Biology	24	Dwi Susanto	

Notes:

- Number of students 24
- Number of university 7
- Amount of payment \$ 20,000

Table App. F.3. Undergraduate students receiving grants during 2007

No	University/City	Faculty/Majors	No	Name	Activity Period
1	STAI YPIQ / Bau-Bau	PAI	1	Herniyati	2 weeks (26 July – 8 August 07)
			2	LD Aprianto Lukfin	
2	Dayanu Ikhsanuddin University / Bau-Bau	English Department	3	LM Fuad Al Ichwani	
			4	Lusiani	
			5	Rasiah	
			6	Jubairu	
			7	Ayanti	
			8	Haryono La Kepe	
3	Unhalu University / Kendari	Science / Biology	9	Irman Kurniawan	4 weeks (12 July – 8 August 07)

Table App. F.4. Secondary students receiving grants during 2007

No	School/District	Grade	No	Name	Activity Period
1	SMAN 1 / Bau-Bau	X	1	LD Sahli Mahfudz	1 week
		X	2	Yulan Saputra	1 week
		X	3	WD Indah Febriana	1 week
		XI IA (Science)	4	WD Putri Handayani	1 week
		XI IA (Science)	5	Maesharah Rosyadi	1 week
		XI IA (Science)	6	Suriadin Sazli	1 week
		XI IA (Science)	7	Adi Rio Arianto	1 week
		XI IA (Science)	8	Ika Nurmila	1 week
		XI IA (Science)	9	WD Dwi Daningrat	1 week
		XI IA (Science)	10	WD Nasrah Salmiah R.	1 week
		XI IA (Science)	11	Nova Novelia	1 week
2	SMAN 2 / Bau-Bau	X	12	Anwar Lutfi	@ 1 week
3	SMAN 4 / Bau-Bau	XI IS (Social)	13	Arlin	(5 July – 8 August 07)
		XI IS (Social)	14	Astuti	
4	SMKN 1 / Bau-Bau	II PK (XI Social)	15	Saplin	1 week

5	SMA Mutiara / Bau-Bau	X	16	La Jeti	1 week
		XII IA (Science)	17	WD Lini Saputri S.	1 week
6	SMAN 6 / Surawolio	XI IA (Science)	18	Farid Fandi	1 week
		XI IA (Science)	19	Hartati	1 week
		XI IA (Science)	20	Nurmalia	1 week
7	SMAN 1 / Pasarwajo	XI IA (Science)	21	Indrawati	1 week
		XI IA (Science)	22	Mansur Sididi	1 week
8	SMAN 1 / Kapontori	XI IA (Science)	23	Erni Rombo	1 week
9	SMAN 1 / Kendari	XII IA (Science)	24	Ray March Syahadat	1 week
10	SMAN 4 / Kendari	X	25	Rahmad Manaf	1 week

Notes:

- Number of students 37
- Number of university 3
- Number of high school 10

Appendix G: Summary of some editions of Lambusango Lestari Newsletter

App. G.1. Summary of 'Lambusango Lestari' Newsletter/January 2006

The selected issue for the January 2006 edition is 'Business for Conservation'. Most of the reports/news in the edition was prepared by the Village Business Development Coordinator (Sigit Wijanarko) of the project.

Below is the English translation of the main article/report titles:

1.	Editorial (Edi Purwanto)
2.	Business for Conservation: empowering community to conserve forests/Article (Edi Purwanto)
3.	Changes of forest conservation paradigms in Indonesia: from security to prosperity approaches/Article (Edi Purwanto)
4.	Agribusiness profile of the villages surrounding Lambusango Forests/Study (Sigit Wijanarko)
5.	<i>Zahunu</i> (Oyster farmer from Kapontori): from illegal logging to oyster farming/Farmer Profile (Sigit Wijanarko)
6.	Ginger farming, an incentive for conservation farmer groups in Lambusango/Report (Sigit Wijanarko)
7.	Orange farming in Lasembangi, its potential for ecotourism and tropical agriculture research/Report (Sigit Wijanarko)
8.	Market profile of agriculture products in Lambusango/Study (Sigit Wijanarko)
9.	Farmer groups (who received village business incentive) implementing conservation actions/Report (Sigit Wijanarko)
10.	Agriculture extension workers agency supports LFCP/Report (Sigit Wijanarko)
11.	Training on oyster farming and processing/Report (Sigit Wijanarko)

App. G.2. Summary of 'Lambusango Lestari' Newsletter, February 2006

Recently, floods and landslides hitting some areas of the country resulted from mainly environmental damage, while high rainfall intensity only contributes to the disasters. Floods and landslides in Central Java killed at least 131 people and destroyed hundreds of houses, 78 people were killed in landslides in Jember, East Java, while at least 20 people were killed in Manado, North Sulawesi.

In response to the hot environment issues, we made use the February 2006 Edition of the Newsletter to convey a set of awareness articles to warn Lambusango forest stakeholders on the need to conserve their forests to maintain many useful ecosystem services, such as supplies of high quality water (including electricity power) to downstream areas, and more importantly to prevent flood and landslide hazards.

The headline of this edition is '*Preventing Manmade Environmental Disasters*'. Below is the English translation of the main article/report titles:

1.	Take lessons from flood and landslide disasters (Editorial/Edi Purwanto)
2.	Preventing manmade environmental disasters (Main report/Edi Purwanto)
3.	The need of rainwater harvesting movements to prevent flood (Main report/Edi Purwanto)
4.	Do not wait until the tragedy coming (Opinion/ R. Ade)
5.	Impact of upstream massive deforestation to frequent electricity blackouts (Report/R. Ade)
6.	A closer look on Wabou village (Investigation/Agus Mahdi)
7.	Lawele villagers planted trees to restore critical land surrounding headwater catchment (Report/Nasrun and Sigit Wijanarko)
8.	Buton District Forestry Office formulated the organization structure of Forest Crime Unit (Report/Marihot Manurung)
9.	Farmers' common practices to prevent pig raids (Report/Sigit Wijanarko)
10.	A bad hobby (Reflection/Marihot Manurung)

App. G.3. Summary of 'Lambusango Lestari' Newsletter, March 2006

Considering the growing pressure of the forests, we made use the seventh edition of the Newsletter (March 2006) to convey a set of awareness articles to warn Lambusango forest stakeholders on the negative effects of development on forest resource destruction, and calling for urgent alternative solutions, including the need of better spatial planning which can incorporate conservation objectives into regional development.

The headline of this edition is '*Synchronizing Development with Forest Resource Conservation*'. Below is the English translation of the main article/report titles:

1.	Think globally act locally (Editorial/Edi Purwanto)
2.	Synchronizing development with forest resource conservation (Main report/Edi Purwanto)
3.	60-70 % sawn timbers in Bau-Bau town illegal (Main report/Mahdi Agus)
4.	Counting threats and pressures of Lambusango forests (Main report/Mahdi Agus)
5.	Local government regulation No. 17/2001 remain ongoing problems (Opinion/Mahdi Agus)
6.	Effects of kerosene price rising on forest resource (Report/Marihot Manurung)
7.	Wildlife animal sightings in Lambusango Forests (Report/Ambang Wijaya)
8.	Lambusango Forests under threat (Reflection/Ambang Wijaya)
9.	Implementation of Land Rehabilitation and Reforestation Movements (Gerhan) in District Buton (Reflection/La Ode Rahmat Salim).
10.	Forest Crime Unit: an alternative to safeguard Lambusango Forests (Opinion/Mahdi Agus)
11.	Seeking the scapegoat behind forest resource degradation (Opinion/R. Ade).
12.	New LFCP Publication: ' <i>The Mystery of Biological Richness of Lambusango Forests</i> ' (Info/Henry A. Singer and Edi Purwanto)

App. G.4. Summary of 'Lambusango Lestari' Newsletter, April 2006

The 8th edition, April 2006

Headline: '*Nasionalisme Lingkungan. Menyoal Konversi Hutan Alam Menjadi Kebun Sawit*'

Since the beginning of 1990's the extent of oil palm plantation has increased continuously, from less than 1.5 millions hectares in 1992 to ca. 3.6 millions hectares in 2002. The rapid and ambitious oil palm plantation development, to some extent, has driven illegal and destructive logging in the country. Following are the major areas of concern: (1) Despite the widespread and abundance of logged over area (ca. 45 millions hectares), oil palm plantation are often developed at the expense of virgin natural forest. This has been; (2) Many oil palm developers have misused their permits; some only interest on timber extraction, rather than doing business on oil palm plantation. In fact, misused of oil palm plantation permits has been widespread in Konawe District, SE Sulawesi (Kendari Pos, 21 February 2006). In Buton District, PT. WCA intends to develop 15,000 hectares oil palm plantation in Lasalimu and Lasalimu Selatan Sub-Districts. Apart from list of villages (Sri Batara, Lasembangi and Wasuamba) which will be influenced by the project, there is no information (map) about the extent of proposed plantation area. However, considering the limited arable land in those villages, there is a big possibility that the proposed oil palm plantation areas (15,000 hectares) will be developed at the expense of Lambusango Forests. It is necessary to note that in 1990s, PT. WCA hold official permits to develop cacao plantation in Lasalimu Selatan, but they only logged thousands hectares of forests in Lasalimu Selatan, while the cocoa plantation has never been developed. The destructive logging has alleged association with the cause of 1999 flash food in Lasalimu Selatan Sub District. Based on our field investigation, there have been pros and cons concerning the issues among community living in those three villages. Some villagers have had over expectation on the benefit of the project, while some are pessimistic considering the past experience with the company. So far, Buton district has not yet granted oil palm plantation operational permit to PT WCA. In response to the situation, we made use the eighth edition of the "Lambusango Lestari" Indonesian Newsletter (April 2006) to convey a set of awareness articles to

warn Lambusango forest stakeholders on the environmental effects of ancient tropical forest conversion into oil palm plantation in small limestone island like Buton. Through our editorial, we also urge decision makers and all forest stakeholders to strengthen 'green' (environment) nationalism. Those materials will hopefully be used as a practical reference by decision makers and key community elders for taking natural resource management decision.

The main headline of this edition is '*Green Nationalism*', with the sub headline '*Scrutinizing natural forest conversion into oil palm plantation*'. Below is the English translation of the main article/report titles:

1.	All season disaster (From the Editor/Edi Purwanto)
2.	Green Nationalism (Editorial/Edi Purwanto)
3.	Environmental impacts of natural forest conversion to oil palm plantation' (Main Report/Edi Purwanto)
4.	Social and environmental costs of developing oil palm plantation at the expense of ancient forest (Main report/Sigit Wijanarko)
5.	Haze (Reflection/Sigit Wijanarko)
6.	Scrutinizing the oil palm plantation proposal (Main report/ Sigit Wijanarko)
7.	Profile of Bupati Buton/Syafei Kahar (Report/Sigit Wijanarko)
8.	Oil palm plantation, is that right? (Report/Nasrun and Musyafir)
9.	LFCP facilitates the review of Buton District spatial planning (Report/Sigit Wijanarko)
10.	Why butterfly has beautiful wings? (Info/Henry A. Singer)

App. G.5. Summary of '*Lambusango Lestari*' Newsletter, May 2006

Ninth edition: May 2006. Headline: '*Ada apa di Hutan Lambusango?*'

Sulawesi forms the largest landmass within the Wallacea biogeographical region and has the highest percentage of endemic species in the world. Lambusango forests (65,000 ha) is the best remaining lowland natural forest in the Buton island (South-east Sulawesi) which represents the biodiversity of Sulawesi island. The global significance of the Lambusango forests can be summarised as follows: (1) During the last five years, *Operation Wallacea* has discovered 21 new vertebrate species, i.e. 4 fish, 11 reptiles and amphibians, 2 small mammals, 3 bats and 1 primate; (2) The last strongholds of 'Critically Endangered' Anoa, the most charismatic Sulawesi mammal endemic species; (3) Home of threatened species including one frog which was thought to have been extinct plus numerous other reptile and amphibian species, 12 bird species on the IUCN Vulnerable, Threatened or Near Threatened lists, and 2 rare endemic bats only recorded on a few previous occasions in Sulawesi.

The biodiversity richness of the Lambusango Forests is discussed in some details in this edition, apart from the latest LFCP's news until mid May 2006. The headline of this volume is '*What is in the Lambusango Forests?*'. Below is the English translation of the main article/report titles:

1.	<i>Verba valent, scripta manent</i> (From the Chief Editor/Edi Purwanto)
2.	What is <i>Wallacea</i> ? (Editorial/Edi Purwanto).
3.	The unique phenomena in the Padang Kuku area (Main report/Edi Purwanto)
4.	Why Anoa is suitable for a flagship species? (Main report/Henry A. Singer)
5.	Fish species diversity in the Lambusango forests (Actuality/Henry A. Singer)
6.	Why do millions western people like to be birdwatchers? (Actuality/Henry A. Singer)
7.	Do we need to manage <i>Macaca brunnescent</i> (Andoke) population in the Lambusango Forests? (Opinion/Ambang Wijaya).
8.	Book discussion (' <i>The Mystery of Biodiversity Richness of the Lambusango Forests</i> ') in the secondary schools (Report).
9.	Socialization of ' <i>Community Forestry Management Forum</i> ' at sub-district levels (Report).
10.	Writing essay contest about Lambusango Forests for secondary school (Report).
11.	<i>Pak Lamarene</i> : a Lambusango jungle adventurer (Profile).

App. G.5. Summary of 'Lambusango Lestari' Newsletter, June 2006

Tenth edition: June 2006. Headline: '*Membangun Pasar Ekowisata Buton*'

To many, Sulawesi main tourism destinations are Toraja, Bunaken or Tangkoko. People are mostly unaware the rich nature and culture of Buton. The island which is situated on the south-eastern tip of Sulawesi, its capital (Bau-Bau Town) can be reached by airplane only for 45 minutes from Makassar, 4 hours by super-jet boat from Kendari or 12 hours by *Pelni* boat from Makassar.

The nature beauty of Buton is heaven on earth. Apart from its tropical rainforest and the culture heritage of Buton Sultanate, along the Buton Strait (sea between Buton and Muna Island), one can see an expanse of white sandy beach with greenish-blue water; no rolling waves (as is usual on beach), providing peace and tranquil atmosphere. The sea in the area is much alike giant saltwater swimming pools, while its coral reef quality, especially in Basilika (Batu Atas, Siompu, Liwutongkidi and Kadatua) islands, resembles with Wakatobi or Bunaken marine National Park.

The potential of Buton (and the surrounding islands) as a new Sulawesi ecotourism destination is discussed in some details in this edition, apart from the latest LFCP's news until end of June 2006. The headline of this volume is '*Developing Buton's ecotourism market?*'.

Below is the English translation of the main article/report titles:

1.	Buton ecotourism: no familiar no love (From the Chief Editor/ <i>Edi Purwanto</i>)
2.	Developing Buton's ecotourism market (Editorial/ <i>Edi Purwanto</i>).
3.	Tourism is a creativity business (Main report/ <i>Hagung Hendrawan</i>)
4.	Buton as a tourism gate for SE Sulawesi (Main report/ <i>Henry A. Singer</i>)
5.	Why only United Kingdom (Opinion/ <i>Henry A. Singer</i>)
6.	How to work with Operation Wallacea volunteer? (Tips/ <i>Ambang Wijaya</i>)
7.	24 hours in Lambusango Forest (Report/ <i>Henry A. Singer</i>).
8.	Forest conservation campaign in Buton District and Bau-Bau Town (Report).
9.	Meeting with Buton District Parliament (Report)
10.	Hunting photograph (knowledge).

Appendix H. Results of environmental awareness pooling in Bau-Bau Town

Table App. H.1. Gender of Respondent

Gender	Frequency	Percent
Male	107	78
Female	31	22
Total	138	100

Table App. H.2. Ages of Respondents

Age	Frequency	Percent
10 to 19	25	18
20 to 29	84	61
30 to 39	19	14
40 to 49	7	5
50 to 59	3	2
Total	138	100

Table App. H.3. Respondents knowledge on the location of LF

Position of Lambusango Forest	Frequency	Percent
Kapontori sub district close to Lambusango Village	35	25%
Located in six sub districts, Kapontori, Lasalimu selatan, Lasalimu, Siotapina, Wolowa, and Pasarwajo	99	72%
Bau Bau	1%	1%
Don't know	3%	2%
Total	138	100

Table App. H.4. Respondent knowledge of the wildlife

With Knowledge	Without Knowledge
85%	15%

Table App. H.5. When the respondents know LF

Year	Frequency	Percent
Before 2005	45	33
After 2005	93	67
Total	138	100

Table App. H.6. Sources of Information about LF

Sources of Information	Frequency	Percent
Friend and Family	35	25
Poster	31	22
Bulletin	9	7
School (Teacher, Students information board)	13	9
Website OWT	1	1
Opwall/LFCP Staff	19	14
Book	4	3
Radio and TV	8	6
Magazine	1	1
Newspaper	6	4
Exhibition	1	1
Visit to LFR	3	2

Forestry Department/Government	6	4
Total	137	99

Table App. H.7. The ecological functions of Lambusango Forest

Roles of LF	Frequency	Percent
Water supply	67	49
Tourism Object	18	13
District Asset	7	5
Prevent erosion and flooding	17	12
Source of Income	11	8
Oxygen supplier	2	1
Wild life reserve	12	9
Don't know	4	3
Total	138	100

Table App. H.8. Respondent perception on threats of LF

Threats of LF	Frequency	Percent
Illegal logging	82	66
Mining activities	20	15
Expansion of Farmland	7	5
Lack of knowledge about forest and LFR	4	3
Don't know	2	1
Lost of water resource and wildlife	8	6
Hunting activities	3	2
Economic pressure	2	1
Total	138	100

Table App. H.9. Number of respondents intended to protect LF

	Frequency	Percent
Yes	99	72
No	39	28
Total	138	100

Table App. 10. Respondents participation to protect LF

	Frequency	Percent
Tell information of Lambusango to friends	47	34
Tell people not to pursuit destruction activities in Lambusango Forest	26	19
Reporting illegal activities to Forest Rangers/Police	8	6
Others	33	24
No Participation	24	17
Total	138	100

Appendix I. Co-financing from BKSDA and BDFO on LFCP

Table App. I.1. Amount of co-financing (in USD) spent for the project (2005-2008) by BKSDA

No	Activity	Year				Total
		2005	2006	2007	2008	
1	Community development at village level	3,414.71	3,713.61	3,423.57	3,122.02	13,673.2
2	Social economic survey surrounding Lambusango Forest	1,365.88	1,980.59	1,825.91	1,135.28	6,307.66
3	Protected area Management	4,268.39	6,189.35	5,705.95	3,547.75	19,711.44
4	Forest Protection	6,829.42	9,902.96	9,129.53	5,67.,40	31,538.31
5	Inventory of wildlife flora and fauna		1,237.87	1,141.19	709.55	3,088.61
6	Monitoring land rehabilitation in 2006	1,195.15	1,733.02	1,597.67		4,525.83
	Total	17,073.55	24,757.41	22,823.82	14,191.00	78,845.78

Table App. I.2.. Amount of co-financing (in USD) spent for the project (2005-2008) by BDFO

No	Activity	Year				Total
		2005	2006	2007	2008	
1.	Reforestation and land rehabilitation	197,101.65	207,062.90	262,903.41	297,105.16	964,173.12
2.	Forest patrols (law enforcement)	13,001.20	12,2013	13,061.13	30,809.86	69,077.32
3.	Operational cost for Forum (CFMF) 2008				2,934.27	2,934.27
	Total	210,102.85	219,268.03	27,964.54	330,849.29	1,036,184.71

Table App. I.3. Summary of Co-financing in USD

Co-financing	Year				Total
	2005	2006	2007	2008	
Total from BKSDA and BDFO	227,176.40	244,025.44	298,788.36	345,040.29	1,115,030.49
Percentage					
BKSDA	8%	10%	8%	4%	7%
Dishut	92%	90%	92%	96%	93%

Remarks: Average exchange rate 2005: Rp 9.153/USD, 2006: Rp 9.750/USD, 2007: Rp 9.111/USD, 2008: Rp 10.222/USD

Appendix J: Village Business Development Facilitation and Predicted Impacts

No	Business Facilitations	Village	Sub-District	Grant in USD (Year)	No of households in the village	No of direct beneficiaries (households)	No of indirect beneficiaries (households)	Financial Value Added in USD (Year)	Impact/Conservation
1.	Introduction to Ginger farming	Kakenauwe	Lasalimu	1,400 (2005)	75	17	0	400 (2006)	Conservation of the business was insignificant but the village already had conservation the Village of Opwalla
		Lawele	Lasalimu	1,400 (2005)	360	20	40	675 (2006)	Conservation of this facilitation poor, but they have already conservation the area is sawah (irrigated field) which irrigation water Lambusang
		Ambuwau	Lasalimu Selatan	733 (2006)	232	44	60	750 (2007), 1050 (2008)	The conservation impacts of facilitation significant. is the capital Selatan Sub however they far from state land. As such not developed area.
		Winning	Pasarwajo	1400 (2005)	436	12	0	750 (2006)	Conservation of this activity significant, the villagers have strong commitment Forum solve unemployment in this village to asphalt road industries (Putindo and Karya)

		Wajah Jaya	Lasalimu Selatan	1,450(2005)	215	25	0	4,500 (2006), 3,750 (2007),3,000 (2008)	The impact facilitation conservation significant. has strong to forest co the village by sawah v source of i water is fro Lambusang
		Harapan Jaya	Lasalimu Selatan	2,700 (2005 and 2006)	138	98	0	6,000 (2006)	The impact business in conservation significant. 2005/2006, was sharply after 2006.
		Matanauwe	Siotapina	667 (2006)	513	40	2	1,500 (2007), 1,250 (2008)	The impact conservation insignificant. Cashew Ce Initiation.
		Wolowa Baru	Wolowa	700 (2006)	95	40	5	0	The planting were unsuc impact on f conservation Seaweed fa Initiation
		Matawia	Wolowa	667 (2006)	123	46	10	0	The planting were unsuc impact on f conservation Seaweed fa Initiation
2.	Expanding orange farming	Lasembangi	Lasalimu	7,200 (2005 and 2007)	142	53	0	63,600 (2010), 63,600 (2011), 63,500 (2012), 53,000 (2013), 53,000 (2014), 42,400 (2015), 31,800 (2016), 31,800 (2017)	The expans farming wa successful, provide val of Lasemba starting on onwards.
		Sukamaju	Wolowa	1,000 (2008)	85	20	0	0	The conser is signific
3.	Introduction to water melon farming	Lasembangi	Lasalimu	150 (2006)	142	7	15	2,000 (2006), 1,500 (2007), 1,000 (2008)	The conser is signific

4.	Training on oyster (injection) processing	Watumotobe	Kapontori	1500 (2006) and (2007)	253	75	0	0	The impact conservation significant community realize the to maintain and protect ecosystem sedimentat
5.	Cashew Marketing and Fairtrade Certification	Barangka	Kapontori	3,600 (2007)	600	195	255	2,500 (2008)	The conser is significa
6.	Cashew Marketing and Fairtrade Certification	Matanauwe	Matanauwe	9,000 (2007 and 2008)	513	132	20	1,700 (2008)	The conser is significa
7.	Introduction to Onion Planting	Waondo Wolio	Kapontori	100 (2006)	312	15	25	125 (2007)	The conser is not signi
		Lambusango	Kapontori	100 (2006)	258	15	8	125 (2007)	The conser is not signi
		Sangia Arano	Lasalimu Selatan	100 (2006)	158	15	0	100 (2007)	The conser is not signi
		Mulya Jaya	Lasalimu Selatan	100 (2006)	173	15	0	150 (2007)	The conser is not signi
		Siotapina	Lasalimu Selatan	100 (2006)	223	15	5	100 (2007)	The conser is significa
8.	Introduction to groundnut planting	Waondo Wolio	Kapontori	150 (2006)	312	15	5	150 (2007)	The conser is not signi
		Lambusango	Kapontori	150 (2006)	258	15	0	350 (2007)	The conser is not signi
		Sangia Arano	Lasalimu Selatan	150(2006)	158	15	0	150 (2007)	The conser is not signi

		Mulya Jaya	Lasalimu Selatan	150(2006)	173	15	0	200 (2007)	The conser is not signi
		Siotapina	Lasalimu Selatan	150(2006)	223	15	0	750 (2007)	The conser is signifi
9.	Introduction to HYV rice	Waondo Wolio	Kapontori	150(2006)	312	25	5	300 (2007)	The conser is not signi
		Lambusango	Kapontori	150(2006)	258	25	15	250 (2007)	The conser is not signi
		Sangia Arano	Lasalimu Selatan	150 (2006)	158	25	25	450 (2007)	The conser is not signi
		Mulya Jaya	Lasalimu Selatan	150 (2006)	173	25	15	550 (2007)	The conser is not signi
		Siotapina	Lasalimu Selatan	150 (2006)	223	25	20	650 (2007)	The conser is signifi
10.	Adding capital of sugarcane home industry	Siotapina	Lasalimu Selatan	200 (2006)	223	2	2	600 (2006), 700 (2008)	The conser is signifi
11.	Adding capital of snack industry	Labuandiri	Siontapina	150 (2006)	183	2	2	250 (2007), 350 (2008)	The conser is signifi
12.	Training on Ginger processing	Sumbersari	Siontapina	300 (2006)	230	23	35	450 (2007), 1,250 (2008)	The conser is signifi
		Harapan Jaya	Lasalimu Selatan	300(2006)	138	21	0	0	The conser is not signi
13.	Ginger Marketing	Sumbersari	Lasalimu Selatan	2,200 (2007)	230	175	0	4,500 (2007)	The conser is signifi
14.	Training on Cashew processing	Barangka	Kapontori	500(2006)	513	25	35	3,000 (2007). 2,500 (2008)	The conser is signifi
		Kakenauwe	Lasalimu	350 (2006)	75	17	0	0	The conser is signifi
		Tira Tira	Siotapina	350(2006)	92	10	0	0	The conser is not signi
		Matanauwe	Siotapina	350 (2006)	513	15	20	1,250 (2008)	The conser is signifi
15.	Introduction of seaweed farming	Wagari	Lasalimu	4,000 (2007 and 2008)	105	25	89	4,500 (2008)	The conser is very signi
		Kakenauwe	Lasalimu	1,000 (2008)	75	10	67	1,250 (2008)	The conser is very signi

		Wolowa Baru	Wolowa	1,000 (2008)	95	15	5	800 (2008), 850 (Jan 2009)	The conservation is significant
		Matawia	Wolowa	1,000(2008)	123	20	3	750 (Jan, 2009)	The conservation is significant
16.	Adding capital and management input on household-wife coconut oil home industry	Kancinaa	Pasarwajo	700 (2007)	189	10	17	700 (2008)	The conservation is significant
17.	Provide pig hunting equipments for two (2) hunter groups	Siotapina	Lasalimu Selatan	400(2006)	223	20	55	800 (2007), 900 (2008)	This was done by providing pig sets), knives, lights (6), and shoes (10). The conservation is significant
18.	Facilitation of coffee export	Wakaokili	Pasarwajo	2,000 (2008)	115	80	115	1,700 (2008)	The conservation is very significant
19.	Facilitation of chicken husbandry	Wabou Hamlet/Lawe Village	Lasalimu	500 (2008)	100	25	0	0	The conservation is significant
20.	Ecotourism Facilitation	Kakenauwe	Lasalimu	200	75	10	0	300 (2008)	The conservation is significant
21.	Facilitation of tree nursery development model	Wajah Jaya	Lasalimu Selatan	800	215	10	5	1,200 (2007), 2,400 (2008)	The conservation is very significant

a. Exchange Rate: 1 USD ranges from IDR 9,000 (2005) to IDR 11,000 (2008)

b. Financial Value Added: It is calculated from community additional income resulted from business intervention

c. Business Facilitations No 7 -11: Those were aimed at restoring community trust to OWT, after the sharp decline

d. HYV: High yielding variety

e. Direct beneficiaries Villagers (households) who receive direct funding assistant (grant or revolving fund) or technical assistance

f. Indirect beneficiaries Villagers (households) who do not receive direct funding/technical assistant from LFCP, but they adopted innovative business project or receive benefit from project intervention (revolving fund, better environment)