Kalimantan Forests and Climate Partnership

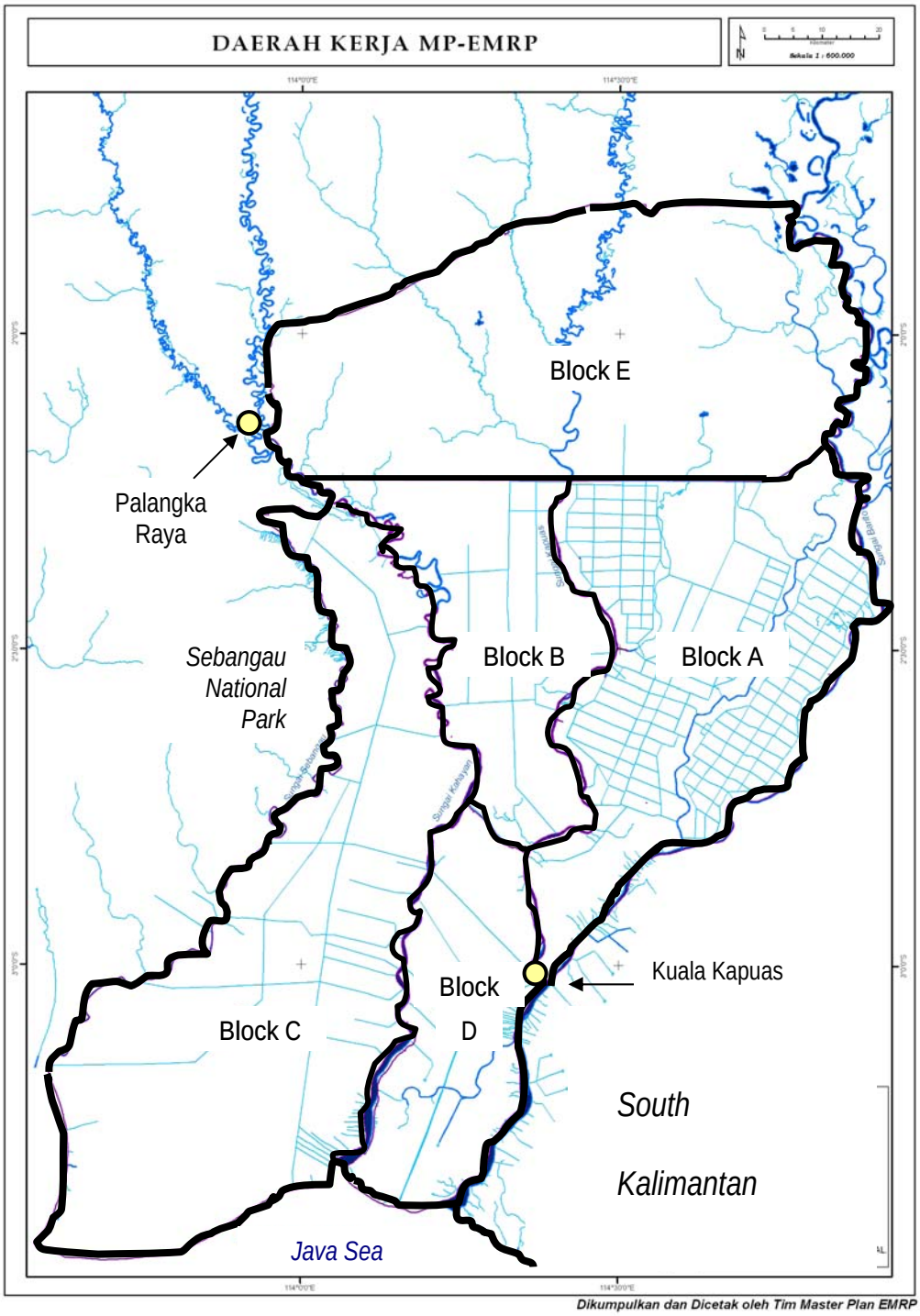
Framework Design Mission

Final Draft Report

15 September 2008

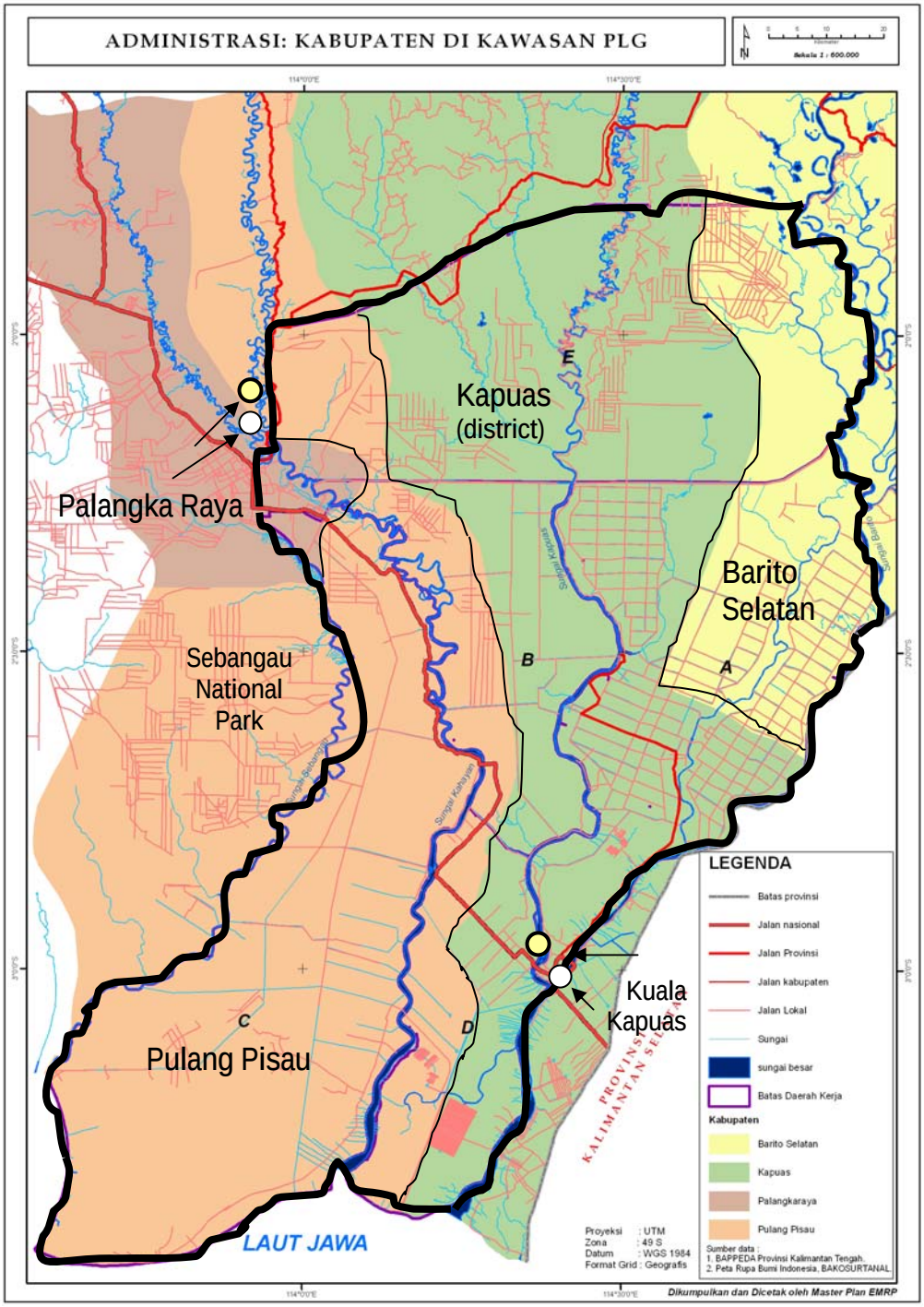
Table of Contents

Maps of the Ex-Mega Rice Project Area



Map 1: Ex-Mega Rice Project Area & Internal Boundaries

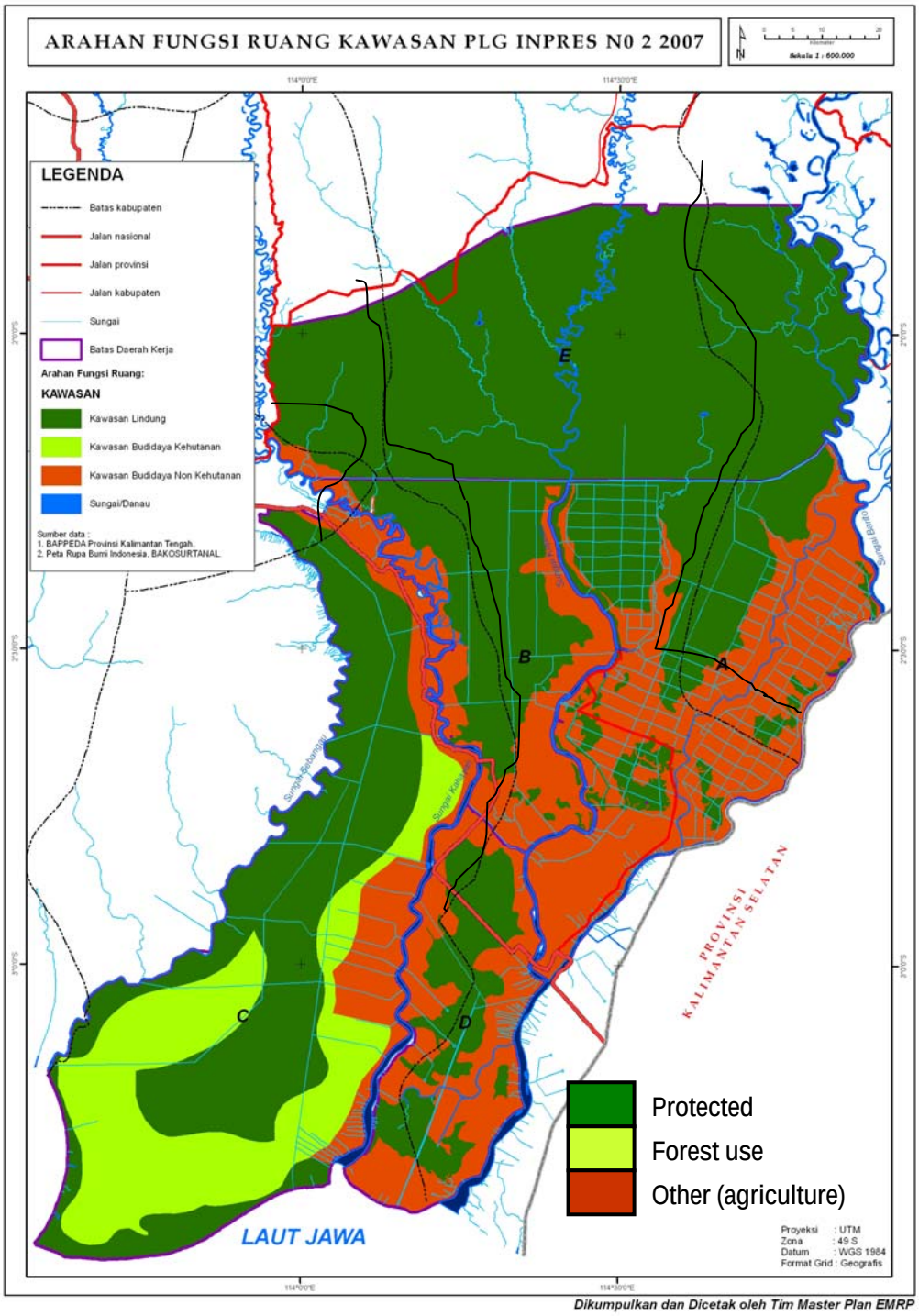
Source: Master Plan for the Conservation and Development of the Ex-Mega Rice Project Area



Map 2: Districts Covering the Ex-Mega Rice Project Area[1]

Source: Master Plan for the Conservation and Development of the Ex-Mega Rice Project Area

[1] There are discrepancies over district boundaries that have not yet been resolved. The above map does not intend to show the correct or recommended boundaries.



Map 3: Land Use Zones articulated in INPRES 2/2007

Source: Master Plan for the Conservation and Development of the Ex-Mega Rice Project Area

Executive Summary

In September 2007 Indonesia and Australia agreed to work together under the Kalimantan Forests and Climate Partnership (KFCP) to develop and implement a program to reduce greenhouse gas (GHG) emissions from peatland areas in Kalimantan. Australia has committed up to A$30 million over 4 years to the KFCP from Australia's $200 million International Forest Carbon Initiative (IFCI). This document outlines a design framework for the KFCP.

Method

The framework design mission was conducted between 24 March and 11 April 2008 and included a team consisting of Australian Government representatives from AusAID and the Department of Climate Change, Government of Indonesia representatives from Ministry of Forestry and BAPPENAS and various technical specialists. The purpose of the mission was to articulate a detailed design process (to be undertaken in the second half of 2008), and in doing so:

- Identify a suitable location to meet the objectives of the KFCP;
- Undertake an initial analysis of the demonstration area;
- Identify risks, issues and opportunities for the implementation of the KFCP;
- Propose broad components of work;
- Propose options for the management arrangements and institutional structure for the KFCP;
- Appropriately position the activities undertaken under the KFCP in the context of national and international REDD frameworks; and
- Further develop key relationships with the GoI and Central Kalimantan Provincial Government.

During the mission, the team consulted a wide range of Indonesian government agencies (at national, provincial and district levels), along with donors, NGOs and research organisations in Jakarta, Bogor, Palangka Raya, and within the Sebangau National Park and Ex-Mega Rice Project (EMRP) area. Consultations were also held with a limited number of communities within the EMRP area.

The design for the KFCP is being undertaken over an extended time frame (approximately six months from the initial framework design mission). This framework design will be followed by a detailed design phase that will involve the mobilisation of a small interim team in Kalimantan to finalise the detailed design and undertake preliminary activities.

Findings and Recommendations

<u>Goal</u>

The goal is:

> The KFCP demonstrates a credible, equitable, and effective approach to reducing greenhouse gas emissions from deforestation and forest degradation, including from the degradation of peatlands, that can inform a future international climate change framework and enable Indonesia's meaningful participation in future international carbon markets.

Location

The Governments of Indonesia and Australia agreed that the mission would consider two potential sites for the KFCP: the EMRP area and Sebangau National Park. As discussed further in the report, the design team found that:

- Locations in the EMRP were considered preferable to those in Sebangau National Park as the main site for a REDD demonstration activity; and
- The REDD demonstration activity should – if at all possible – take a 'whole-of-dome' approach due to the hydrological characteristics of peat areas.

An assessment of peat areas within the EMRP was undertaken, and resulted in the identification of two preferred locations (refer Map 4 in the main text), which are, in order:

1. The area of peat which is located in Blocks A and E; then
2. The area of peat in Blocks B and E.

While preference is currently given to the area of peat in Blocks A and E, confirmation of this site is required during the detailed design, particularly to ascertain GoI support for the location. The preferred initial site (which would be funded with the $30 million from GoA) has the following characteristics:

- It represents a single, complete dome (covering an area of approximately 100,000 hectares);
- Around 50,000 ha in the north-west of Block A is deforested and in need of rehabilitation, and a further 50,000 ha is located immediately to the north in Block E and is primarily forested;
- There is a high probability of future emissions, both as a result of fires in degraded areas of peatland, and as a result of threats to remaining areas of forest, including:
    - Continued drainage and subsidence of peatlands (and therefore increased fire risk), due to an extensive network of canals;
    - Land clearing for small-scale agricultural purposes;
    - Illegal logging activities;
    - The spread of fire from agricultural land to forested areas;
- There are opportunities to reduce emissions, including building on the work undertaken in the area under the Central Kalimantan Peatland Project (CKPP); and
- The area is marked for conservation in both INPRES 2/2007 and the previous provincial land-use plan.

Possible interventions

The KFCP will include a range of interventions in two main areas of activity:

1. Reducing emissions from deforestation and forest degradation in up to 50,000 ha:
    - Fire prevention through increased awareness, capacity building and other support to local communities;
    - Restoration and protection of existing peatland forests and relevant surrounding areas; and
    - Alternative livelihood development including sustainable forest use, agroforestry, and off-farm employment.

    Participatory community mapping and planning as well as socio-economic surveys and an ongoing program of research will be a prerequisite for the above interventions in order to assess local needs, problems, opportunities and priorities and to align community-based project activities and incentives with other interventions.
2. Activities to rehabilitate and restore in up to 50,000 ha of degraded peatland:

- Blocking canals through the construction of dams and some canal infilling (either mechanical or planting with sedges/trees); and
- Revegetating and reforesting up to 30,000 ha of degraded peatland using local tree species.

Research will be undertaken to support the above, in areas such as dam construction techniques and the suitability of different species and revegetation techniques, including the potential for income-generating tree species.

Emissions accounting and monitoring

Establishing a baseline and setting up a program to monitor GHG emissions will hold particular challenges. It is recommended that an independent reference group or scientific panel be established to progress these areas based on the best possible scientific expertise supported by on-site research. The initial tasks – either as background for the panel or undertaken by the panel itself – is to prepare a review of the state of knowledge on:

- Peatland characteristics;
- Peatland hydrology;
- Emissions from peatlands;
- The impact on peatlands of past management and current interventions; and
- Methods of collecting data and monitoring peatlands and emissions from peatlands.

The outcome of the above will be an agreed process (and implementation schedule) for the KFCP to establish a baseline and monitor GHG emissions.

Payment mechanisms

The KFCP will demonstrate payment mechanisms, and in doing so, will inform the development of a national REDD system. It is recommended that KFCP:

1. Tests accountable, transparent and equitable payment mechanisms that create positive incentives for achieving emissions reductions;
2. Calculates the cost involved in implementation, impact mitigation, monitoring and regulating (including nominal costs per tonne of CO_2), and compares whether KFCP implementation costs are lower than a) opportunity costs and b) the potential market value of the emission reductions it has realised (viability);
3. Develops arrangements for revenue allocation between all stakeholders that takes sufficient account of equity considerations as well as capacity to address key drivers of deforestation;
4. Agrees with stakeholders on the basis of payment for each contribution keeping a balance between cost recovery and an attractive investment climate for REDD activities; and
5. Designs effective incentives to ensure that communities are motivated to implement and operate the various REDD supporting behaviours: certification of land use and ownership, the enforcement of fire prevention, and the introduction of sustainable forest management.

Management Arrangements

Committees

The KFCP is a key activity within the Government of Indonesia and Government of Australia's cooperation under the IFCI and the Indonesia – Australia Forest Carbon Partnership. It will be overseen by the joint Steering Committee for the Indonesia-Australia Forest Carbon Partnership. A management committee for the KFCP is proposed, which would have direct responsibility for direction and management of the KFCP. The management committee will report to and take strategic direction from the Indonesia-Australia Forest Carbon Partnership Steering Committee and include national, provincial and local stakeholders.

Within Central Kalimantan, activities will be coordinated by a secretariat established specifically for KFCP by the Provincial Government. The secretariat consists of a wide range of agencies at provincial and district levels and representatives from the University of Palangka Raya, and includes GoA representation. At an operational level, KFCP will need to coordinate activities and consult with the EMRP master planning process and other forest/rehabilitation activities being undertaken in the proposed demonstration sites (both by government and non-government agencies). Specific coordination arrangements at district level will need to be developed during the detailed design period.

Detailed Design

The detailed design team will be lead by two Forests and Climate Specialists employed by AusAID Jakarta in partnership with the Central Kalimantan Provincial Secretariat for the project, working with appointed national government secondees. A list of tasks to be undertaken during the detailed design period is presented in the main report.

Options for donor coordination and additional donor funding need to be explored further during the detailed design period. Opportunities for potential collaboration have been identified with a number of other donors, in particular Germany, the Netherlands and the Clinton Foundation.

Managing Contractor

It is recommended that a managing contractor be engaged to implement the KFCP. Suitable organisations will be short-listed to provide operational and administrative services. These are expected to include management of technical project interventions, monitoring and reporting, capacity-building and coordination with local government and other partners, and logistical and administrative support for project activities. To enable the short-listed organisations to gain a better understanding of the KFCP, representatives from each short-listed organisation (or consortium) will be invited to visit at specific times during the detailed design phase.

The KFCP will establish its main office in Palangka Raya and base most staff in Central Kalimantan (both in Palangka Raya and within the EMRP area). The managing contractor will sub-contract many activities, using as appropriate, local research organisations, government agencies, NGOs, the private sector and Indonesian and foreign experts. While the detailed design document will outline the broad program of activities and the roles and responsibilities of various stakeholders, detailed work programs will be prepared annually, and these will guide the managing contractor (once approved) in terms of actual implementation.

Funding Arrangements

The GoA commitment to the KFCP is A$31.4 million over 4 years. It is estimated that additional financial contributions (in the order of A$70 million) will be required to achieve the emission reduction targets and demonstration aims for the KFCP. During the detailed design, it will therefore be necessary to further elaborate and refine the options laid out later in this report for (i) incorporating additional funds (potentially from the GoI, other donors, non-government organisations or the private sector) and (ii) scaling up activities over time as additional funding becomes available.

Next Steps

A draft of this report was appraised and subjected to peer review by GoA and GoI agencies in July 2008. The report was subsequently finalised and will be the starting point for the detailed design of the KFCP.

Acronyms and Glossary

ACIAR	Australian Centre for International Agricultural Research
ADB	Asian Development Bank
ANU	Australian National University
ASEAN	Association of South East Asian Nations
AusAID	Australian Agency for International Development
BAPLAN	Ministry of Forestry Planning Body
BAPPEDA	*Badan Perencanaan Pembangunan Daerah* (Regional Planning Development Agency)
BAPPENAS	*Badan Perencanaan Pembangunan Nasional* (National Planning Development Agency)
BLU	*Badan Layanan Umum* (General Service Agency)
BOS	Borneo Orangutan Survival
CDM	Clean Development Mechanism
CER	Certified Emission Reductions
CH_4	Methane
CIFOR	Centre for International Forestry Research
CIMTROP	Centre for International Cooperation in Management of Tropical Peatland, University of Palangka Raya
CKPP	Central Kalimantan Peatland Project
COP	UNFCCC Conference of Parties
CO_2	Carbon Dioxide
DCC	Department of Climate Change (Australian Government)
DFID	Department for International Development (United Kingdom)
DOE	Designated Operational Entity
EMRP	Ex-Mega Rice Project
EU	European Union
FCPF	Forest Carbon Partnership Facility (World Bank)
FLEGT	Forest Law Enforcement, Governance and Trade (EU)
FMU	Forest Management Unit
FOMAS	Forest Resource and Management System
FRIS	Forest Resource Information System
GEF	Global Environment Facility
Gerhan	*Gerakan Rehabilitasi Hutan* (National Movement for Land Rehabilitation)
GHG	Greenhouse Gas: means those gaseous constituents of the atmosphere, both natural and anthropogenic, that absorb and re-emit infrared radiation. The Kyoto Protocol lists six types of GHG whose emissions must be regulated/reduced: carbon dioxide (CO_2), nitrous oxide (N_2O), methane (CH_4), sulphur hexafluoride (SF_6), perfluorocarbon (PFC) and hydrofluorocarbon (HFC).
GoA	Government of Australia
GoI	Government of Indonesia
GTZ	*Deutsche Gesellschaft für technische Zusammenarbeit*
IAFCP	Indonesia-Australia Forest Carbon Partnership

ICRAF	World Agroforestry Centre
IFAD	International Fund for Agricultural Development
IFCA	Indonesia Forest Climate Alliance
IFCI	International Forest Carbon Initiative
INPRES	Presidential Instruction
JICA	Japan International Cooperation Agency
KFCP	Kalimantan Forests and Climate Partnership
KfW	*Kreditanstalt für Wiederaufbau* (German Development Bank)
MoE	Ministry of Environment (Indonesia Government)
MoF	Ministry of Forestry (Indonesia Government)
NCAS	National Carbon Accounting System (Australia)
NOAA	National Oceanic and Atmospheric Administration (USA)
NP	National Park
N_2O	Nitrous Oxides
PALSAR	Phased Array type L-band Synthetic Aperture Radar
Peat	Soil formed from the accumulation of organic matter over a long period of time. In its natural state, peat soils are generally waterlogged or flooded year round.
PES	Payment for Environmental Services
PLG	*Pengembangan Lahan Gambut* (Central Kalimantan Mega Rice Project)
REDD	Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (although in Indonesia REDD is more commonly referred to as Reducing Emissions from Deforestation and Forest Degradation)
TNC	The Nature Conservancy
TOR	Terms of Reference
UN	United Nations
UNDP	United Nations Development Programme
UNFCCC	United Nations Framework Convention on Climate Change
UNPAR	University of Palangka Raya
USAID	United States Agency for International Development
UU	*Undang Undang* (Law)
WWF	World Wide Fund for Nature

Currency

A$1.00 = Rupiah 8,200 = US$0.93

May 2008

1. INTRODUCTION

1.1. Kalimantan Forests and Climate Partnership

The Kalimantan Forests and Climate Partnership (KFCP) is a partnership between the Governments of Indonesia and Australia announced in September 2007. The KFCP aims to demonstrate how reducing emissions from deforestation and forest degradation, including the degradation of peatlands, may be part of an equitable and effective international response to climate change, and to strengthen Indonesia's capacity to address these sources of greenhouse gas emissions through participation in future international carbon markets. The KFCP was launched with BHP Billiton as a founding partner, reflecting the possible future involvement of private sector organisations in funding components of the KFCP.

Australia has committed up to A$30 million over 4 years to the KFCP from Australia's $200 million International Forest Carbon Initiative (IFCI). The KFCP aims to raise the remaining A$70 million through contributions from or coordinated actions with private or public organisations. Based on total funding of A$100 million, the Australian and Indonesian Governments agreed to the following targets for the KFCP:

- To prevent deforestation of up to 70,000 hectares of Kalimantan's peat swamp forests;
- To re-flood and rehabilitate 200,000 hectares of degraded peatland; and
- To establish up to 100 million new trees on rehabilitated peatland.

Preparatory scoping missions for the KFCP were undertaken in 2007, culminating in a decision that KFCP would initiate demonstration activities in the province of Central Kalimantan.

This report outlines the results of the Framework Design Mission undertaken between 24 March and 11 April 2008. The Framework Design Mission aimed to establish the framework for the KFCP and articulate a clear, staged process for development of a detailed design.

1.2. Reducing Emissions from Deforestation and Forest Degradation

Emissions from deforestation in Indonesia

The Stern Review on the Economics of Climate Change estimated that 18% of global greenhouse gas (GHG) emissions are caused as a result of land use change, and in particular, deforestation.[2] Reducing deforestation is of particular importance to Indonesia as:

- Indonesia contains around 88 million hectares of forest (46% of Indonesia's land area);[3]
- Indonesia has relatively high rates of deforestation (at least 1 million hectares annually);[4] and
- Emissions from deforestation and forest degradation are the leading cause of GHG emissions in Indonesia.[5]

[2] Stern, 2006.

[3] Canadell JG, Le Quéré C, Raupach MR, Field CB, Buitenhuis ET, Ciais P, Conway TJ, Gillett NP, Houghton RA, Marland G (2007) Contributions to accelerating atmospheric CO_2 growth from economic activity, carbon intensity, and efficiency of natural sinks. Proceedings of the National Academy of Sciences 104: 18866–18870.

[4] National Action Plan Addressing Climate Change, 2007 estimates the rate of deforestation at 1.08 m ha/year between 2000 and 2005, whereas the Strategic Plan for the Ministry of Forestry (2005-9) contains an estimate of 2.83 m ha/year between 1997 and 2003.

[5] A report by the World Bank, DFID and PEACE (2007) estimate that 85% of Indonesia's GHG emissions result from land use change and deforestation (of which roughly half is a result of forest fires).

International REDD developments

Reducing emissions from deforestation and forest degradation in developing countries (REDD) has the potential to realise significant, potentially low-cost GHG reductions. In the past however, REDD has generally been excluded from international climate change agreements, such as the Kyoto Protocol, due to technical concerns that claimed emission reductions would be genuine (refer Section 3.1).

There has been considerable recent progress on REDD during international climate change negotiations. The Bali Action Plan determined at UNFCCC COP 13 in December 2007 included agreement that a future international climate change framework should incorporate action to reduce emissions from deforestation and forest degradation in developing countries[6]. In Bali it was also agreed that countries should proceed to undertake efforts, including demonstration activities, to trial approaches to reduce emissions from deforestation, ahead of the establishment of a post 2012 arrangement [7] (refer Section 3.1).

REDD activities under the KFCP

REDD activities under the KFCP will form part of the international response to this call for action on REDD. The KFCP aims to trial approaches and provide lessons learnt from on-the-ground REDD activities in Kalimantan to inform international discussions on REDD ahead of a future climate change agreement. The KFCP will be the first demonstration activity of its scale to be implemented anywhere in the world, and is being designed at a time when the international and national frameworks for REDD are still at a formative stage of development.

1.3. Emissions from Peatland Degradation

Emissions from peatland degradation in Indonesia

Emissions from peatland degradation[8] contribute significant GHG emissions globally. About 30% of global peat occurs in the tropics, of which about two-thirds occurs in Indonesia. Indonesia contains approximately 22.5 million hectares of peatland (12% of Indonesia's land area). The largest areas of peatland in Indonesia occur in Papua, Sumatra and Kalimantan. By 2005, 39% of Indonesia's peat forests had been cleared.[9] Furthermore, while the rate of deforestation has reportedly decreased since the 1990s, much of the deforestation continues to be on peatland and also leads to further peatland degradation. The main cause of deforestation in Indonesia, as it is globally, is land clearing for agricultural purposes. In Indonesia, the single largest reason for land clearance is for the expansion of oil palm plantations.

It has been estimated that 85% of GHG emissions in Indonesia are from land use change,[10] of which a high (although contested) proportion is attributed to deforestation of peatlands and peat fires. Furthermore, nearly half of Indonesia's emissions result from forest fires, and another 20% from the decomposition of dry peat. Emissions from deforestation of peat forests, and subsequent burning of the peat, amount to 6 to 10 times the emissions from deforestation on mineral soils. Peat fires in Indonesia caused international concern in 1997 when smoke haze adversely affected many parts of Indonesia, along with Singapore and parts of Malaysia. In addition to negative health, environmental and economic consequences, the inclusion of emissions from peat forest degradation and peat fires

[6] Refer Decision 1/CP.13 – Bali Action Plan, UNFCCC, 2007

[7] Refer Decision 2/CP.13 - Reducing emissions from deforestation in developing countries: approaches to stimulate action, UNFCCC, 2007

[8] In this report, emissions from peatland degradation are taken to include emissions from both decomposition (when exposed peat dries out) and also fire.

[9] Hooijer, 2006.

[10] World Bank, DFID and PEACE, 2007.

reportedly increases Indonesia's ranking in total GHG emissions from 21st to 3rd (behind only the USA and China).[11]

Activities to address peatland emissions under the KFCP

As well as undertaking REDD demonstration activities, the KFCP also incorporates peatland forest restoration activities (including canal blocking, re-flooding, rehabilitation and revegetation) and associated actions to prevent future emissions in these areas from fire and drainage. Peatland emissions will be measured and monitored to estimate reductions as a result of these restoration activities.

There is currently no international agreement about whether, or how, to incorporate actions to reduce emissions from deforested and degraded peatland in a future climate change agreement, and whether it would be incorporated into future action on REDD. Peat restoration activities under the KFCP will therefore be aimed at building international knowledge, and providing lessons learned to contribute to UNFCCC discussions, in areas such as: the measurement and monitoring of tropical peatland emissions, and in informing approaches for peat restoration activities to reduce emissions from degraded tropical peatlands.

1.4. Co-Benefits from a REDD Demonstration Activity

In addition to undertaking REDD and peatland restoration activities, the KFCP is expected to produce a range of co-benefits, including:

- Help protect habitats and maintain biodiversity which will have a positive environmental and cultural impacts such as:
  - Maintain sources of income that local communities derive from the forest (including *jelutung* – a native tree species that is tapped for its rubber, and *gemor* – a native tree species from which bark is processed commercially as insect repellent);
  - Maintain a range of subsistence forest products that local communities use traditionally for building, food (both plants and animals), medicines and handicrafts; and
  - Improve the survival of protected and endangered forest species.
- Help maintain aquatic resources, particularly fish and fresh-water prawns (which provide both a source of income and supply of food);
- Improve air, soil and water quality;
- Reduce health related impacts from fire (particularly respiratory diseases and eye infections);
- Reduce the threat of floods (downstream), as peat forests act as a 'sponge', which helps regulate water supplies both in times of high and low rainfall; and
- Reduce economic losses from fire haze, including for example, cancellation of flights and general transportation delays, and reduced tourism.

1.5. Site History: Central Kalimantan

Preparatory scoping missions for the KFCP were undertaken in 2007, culminating in a decision that the KFCP demonstration activity would be undertaken in the province of Central Kalimantan. The largest areas of peatland in Central Kalimantan are in the Ex-Mega Rice Project area and adjacent Sebangau National Park.

[11] World Bank, DFID and PEACE, 2007.

Mega Rice Project in Central Kalimantan

In 1995 the Government of Indonesia (GoI) launched the Central Kalimantan Mega Rice Project.[12] The project aimed to develop an area of 1.4 million hectares – much of which was peat swamp forest – for irrigated rice production using water from the Kahayan, Kapuas and Barito rivers. '*The project was designed and promoted at a time prior to Indonesia's transition to democracy and, despite local protests and warnings from experts, was taken forwards and implemented without adequate planning and knowledge of the system'*.[13] While peat soils cover 70% of the area, little was known on the hydrology of peatland or characteristics of peat. Construction of canals to drain the peat swamps, and large scale clearing, commenced in 1996. In addition to extensive fires in 1997, much of the deeper peat areas were found to be unsuitable for agriculture due to factors such as high acidity and low fertility. The project was halted in 1998, although several thousand kilometres of canals had already been constructed. '*The project is widely viewed as a major social, economic and environmental disaster: local people living in the area including long-term residents and several thousand transmigrant families have faced hardships and poverty as a result of the damage to the ecosystem, challenges of farming the land and the limited livelihood opportunities in the area*.'[14]

While some 25% of the Ex-Mega Rice Project (EMRP) area remains forested (mainly in relatively remote areas to the north), the EMRP area contains the largest areas of degraded peatland in Indonesia. The EMRP represents 10% of the area of Central Kalimantan, and contains 23% of the provincial population (based on census data from 2006). The EMRP area contains a high proportion of Dayak people, particularly in the more remote areas.

The rehabilitation of the EMRP area is now a national priority, as described in Presidential Instruction No. 2/2007 (INPRES 2/2007), which calls for relevant government departments to undertake a five-year program with a strong focus on the rehabilitation, conservation and sustainable development of the area. The Governor of Central Kalimantan has been appointed as the person responsible for the implementation of the Presidential Instruction.

The EMRP area is located in the south-east part of the province of Central Kalimantan, and as shown in Map 1, consists of five blocks (Blocks A, B, C, D and E). These blocks do not conform to district or other boundaries, but were created for planning purposes during the development of the Mega Rice Project. The EMRP area has the following characteristics:

Total area:	1,457,100 ha
Area of peat:	1,065,000 ha (73%)
Forested peat:	371,000 ha (35% of peat)
Degraded peat:	694,000 ha (65% of peat)
Villages:	232
Population:	453,000
Poverty incidence:	>40% [15]
Admin units:	4: the municipality of Palangka Raya and districts of Pulang Pisau, Kapuas & Barito Selatan (refer Map 2)

The Government of the Netherlands is providing assistance for the development of a Master Plan for the Ex-Mega Rice Project area, with the aim of providing an integrated framework for action to rehabilitate and revitalise the area. The EMRP Master Planning project is described further in Section

[12] Refer Presidential Decree No. 82/1995.
[13] Euroconsult Mott MacDonald, 2007.
[14] ibid
[15] ibid

3.4, and is viewed by many as playing an integral part of the rehabilitation, conservation and sustainable development of the area, as required by INPRES 2/2007.

Sebangau National Park

The Sebangau National Park is located in peat swamp forest between the Sebangau and Katingan Rivers in Central Kalimantan. It includes area in Katingan and Pulang Pisau districts and Palangka Raya Municipality. The National Park covers an area of 568,700 ha and was gazetted in October 2004. More than half of the original park area is still forested, but this will decrease as the boundaries are adjusted to accommodate development pressures. Although the area is protected as a national park, and under the management of the Ministry of Forestry, it is still under threat from conversion to agriculture along the western boundary and from transmigration and palm oil along the southern boundary.

The area was logged for commercial timber prior to gazettal as a national park. The infrastructure required for the logging company to extract the logs has allowed the park to be subsequently degraded as it has provided access for illegal activities. Illegal logging operators have continued to use some canals (used to extract logs), resulting in deforestation due primarily to the drying and burning of the forest. Since the park was established, WWF-Indonesia have collaborated with the Director General of Forest Protection in the Ministry of Forestry to restore the degraded parts of the park by blocking the canals and raising water levels to re-flood the peat and allow revegetation. The revegetation of some endemic species produces fruit eaten by orangutans.

2. METHOD

As the KFCP will be the first REDD demonstration activity of its scale to be implemented anywhere in the world, and is being designed at a time when the international and national frameworks for REDD are still at a formative stage of development, the design of the KFCP is being undertaken in a phased approach over an extended period. This will facilitate progress in a new and rapidly developing policy environment, and allow intensive input from Governments in Jakarta and Canberra. Following preparatory scoping missions in 2007 it was agreed that the design process would include an initial "Framework Design Mission" to establish the framework for the KFCP and articulate a clear, staged process for development of a detailed design. As discussed below, this will enable a framework design to be debated and agreed by all parties before moving to the detailed design process.

2.1. Preparatory Missions

During August 2007 a small team from the Australian Government undertook a mission to Indonesia to undertake a pre-feasibility study on fire and peat management. The mission included field visits and discussions with Indonesian authorities and donor representatives on priorities for reducing GHG emissions through improved peatland management and reduction of fire. One of the recommendations in the report was that Australia should provide modest support for peatland rehabilitation and reforestation and 'protect' forest under threat from deforestation. The report recommended a particular focus on the EMRP and to integrate the activities into a REDD demonstration activity. With the announcement of the KFCP on 9 September 2007, the findings of the report were then used to inform the Australian Government senior level scoping mission in November 2007. [16]

The senior level scoping mission for the KFCP was undertaken by government representatives from Indonesia and Australia who visited Central Kalimantan from 7-12 November 2007. The mission held

[16] Refer AusAID, November 2007.

discussions with national and provincial agencies (along with the Central Kalimantan Provincial Governor and Vice-Governor, academic institutions, donors and non-government organisations currently working in the EMRP area and the Sebangau and Tanjung Puting National Parks), and recommended that the KFCP REDD demonstration activity focus on Central Kalimantan for the following reasons:

- Central Kalimantan contains 14% of Indonesia's peatland;[17]
- The EMRP area contains the largest area of degraded peatland in Indonesia;
- INPRES 2/2007 and the EMRP master planning process provide a supportive institutional framework for trialling a REDD demonstration activity; and
- The Governor of Central Kalimantan has expressed support for trialling a REDD demonstration (as discussed further in Section 3.2).

The Scoping Mission also recommended that the design of the KFCP should commence with a Framework Design Mission prior to the preparation of a detailed design. This approach was regarded as preferable to enable greater input by key stakeholders during the design process.

2.2. Framework Design Mission

The Framework Design Mission was conducted between 24 March and 11 April 2008 and included a team consisting of representatives from AusAID, Australia's Department of Climate Change (DCC), Indonesia's Ministry of Forestry, BAPPENAS and various technical specialists (including a climate change specialist from Central Kalimantan, and an observer from German aid organisation GTZ). The purpose of the mission, as articulated in the mission's TOR (Attachment 1), was to:

- Identify a suitable location to meet the objectives of the KFCP;
- Undertake an initial analysis of the demonstration area;
- Identify key risks, issues and opportunities for the future implementation of the KFCP;
- Propose broad components of work;
- Propose options for the management arrangements and institutional structure for the KFCP;
- Appropriately position the activities undertaken under the KFCP in the context of national and international REDD frameworks; and
- Further develop key relationships with the Government of Indonesia (GoI) and Central Kalimantan Provincial Government.

During the mission the team consulted a wide range of government agencies (at national, provincial and district levels), along with donors, NGOs and research organisations in Jakarta, Bogor and Palangka Raya, and within the Sebangau National Park and EMRP area. Consultations were also held with a limited number of communities within the EMRP area. The team's itinerary and list of organisations consulted is presented as Attachment 2.

As part of the overall mission, the team:

- Attended a pre-mission briefing in Canberra with AusAID and DCC;
- Reviewed a wide range of documents relating to REDD, peatland and forest management (key documents are listed in Attachment 3); and
- Presented an Aide Memoire to the Governments of Indonesia and Australia at the conclusion of the mission.

[17] National Working Group on Peatland Management, 2006.

2.3. Detailed Design

A detailed design phase will follow the finalisation of this report. A small team will be tasked with developing the detailed design, building on the framework outlined in this report (once finalised and agreed). The detailed design will be undertaken over a period of approximately six months from the initial framework design mission, and will be undertaken by a team based primarily in Central Kalimantan in close consultation and coordination with key government and non-governmental partners, including local communities and other stakeholders. The timeframe and a description of the activities to be undertaken during the detailed design phase are presented in Sections 4 and 5, respectively.

3. POLICY AND PROGRAM CONTEXT

3.1. International Context

History of REDD under the UNFCCC

Deforestation is responsible for approximately 20% of global GHG emissions. Action to reduce emissions from deforestation is almost wholly excluded from the Kyoto Protocol and the UNFCCC. This was mainly due to remaining technical concerns at the time these instruments were negotiated that meant that many countries had significant concerns with the lack of certainty that any claimed emission reductions from REDD would be genuine. These technical concerns were largely due to:

- Uncertainty over the accuracy of emission measurements for deforestation and forest degradation;
- Difficulty in standardising the definition of forests, deforestation and forest degradation; and
- Issues relating to:
  - Additionality – ensuring that emission reductions from REDD activities are additional to those that would have otherwise occurred;
  - Leakage – ensuring that emission reductions in one area are not offset by increases in another area; and
  - Permanence – ensuring that emission reductions are long term or permanent.

As a result, there are currently no incentives provided under the UNFCCC or the Kyoto Protocol to assist developing countries reduce their rates of deforestation or forest degradation.

There have been growing international calls to incorporate REDD in a future post-2012 climate change agreement. Reducing deforestation has the potential to realise significant GHG reductions, and may be one of the most cost effective ways to reduce global emissions in the short term. Funding available from governments alone however, is unlikely to be sufficient to respond to the global problem of deforestation. In his 2006 report on the economics of climate change, Sir Nicholas Stern estimated that an annual investment in the order of US$10 billion would be needed to reduce global deforestation by 50%. Market based mechanisms provide the most effective way to mobilise sufficient funds to create incentives in developing countries to achieve reductions in deforestation.

There has been considerable recent progress on REDD discussions during international climate change negotiations, mainly due to increased confidence in how carbon accounting and monitoring systems can address technical issues such as leakage and permanence. This progress culminated at the 13th meeting of the Conference of the Parties to the UNFCCC held in Bali in December 2007,

where the process for the development of a framework for long-term cooperative action under the Convention, known as the 'Bali Action Plan' was agreed[18].

The Bali Action Plan included agreement that a future international climate change framework should consider action to reduce emissions from deforestation in developing countries. In Bali it was also decided that countries should proceed to undertake efforts, including demonstration activities, to trial approaches to REDD, ahead of the establishment of a post-2012 arrangement [19].

These demonstration activities will show how investment in REDD can provide communities with sustainable livelihoods and deliver wider benefits for national resource management. Additionally, they will show how to develop the necessary underpinnings for sustainable forest management, governance, enforcement and regulatory frameworks. Lessons learned will help demonstrate how reducing emissions from deforestation and forest degradation can be part of the post-2012 framework, including the key institutional and policy decisions to be considered by national governments.

REDD activities – the basic concept

The basic elements of an REDD activity may include:

1. An assessment of the forest carbon contained in a defined area.
2. An agreed estimate of the rate of emissions from deforestation and forest degradation for the defined area that would have occurred in the absence of REDD interventions (shown as an indicative baseline in Figure 1);
3. Identify characteristics of chosen site (e.g. governance and land use arrangements, community interests etc.) and build enabling conditions for REDD activity (e.g. payment mechanisms etc);
4. Identify interventions to reduce emissions from deforestation and forest degradation (e.g. address drivers of deforestation, manage risks posed by natural hazards etc.) and develop contractual arrangements for their implementation;
5. Implement the interventions;
6. Undertake ongoing monitoring and measurement of changes in emissions against the baseline, using agreed methodologies and data sets; and
7. Make payments to relevant actors based either directly (as shown by the potential income in Figure 1, which could be generated by carbon credits or aid funding), or indirectly, on their relative contribution to emissions reductions.

[18] Refer Decision 1/CP.13 – Bali Action Plan, UNFCCC, 2007

[19] Refer Decision 2/CP.13 - Reducing emissions from deforestation in developing countries: approaches to stimulate action, UNFCCC, 2007

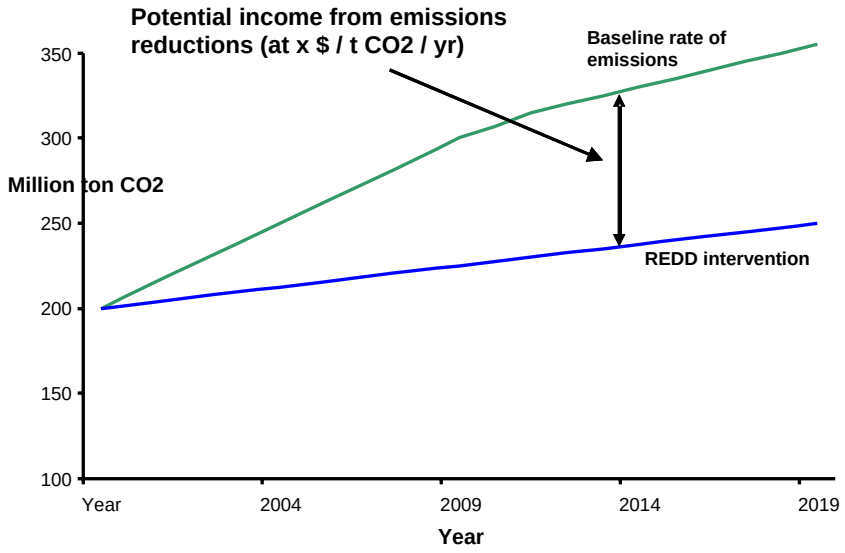


Figure 1: Diagram illustrating REDD baseline and emissions reductions

Source: IFCA

REDD demonstration activities under the UNFCCC

The KFCP intends to contribute 'lessons learned' from REDD activities in Kalimantan to help inform international negotiations under the UNFCCC on including REDD in a future international climate change agreement. The following table provides an indicative summary of how KFCP REDD activities may contribute to international discussions:

Table 1: KFCP's Intended Contribution to REDD Issues

Issue/Activity	Directly contribute	Indirectly contribute
Develop systems and demonstrate effective forest carbon accounting and monitoring for REDD, including:		
• Trialing methodologies for setting a baseline (or reference level), including:	■	
o How to design baselines to avoid perverse incentives	■	
o How to ensure international consistency in baselines while also taking national circumstances into account		■
o Implications of national and subnational approaches, including how these approaches can be used to address leakage	■	
• Measuring and reporting of emission reductions in demonstration activities	■	
• Trialing approaches to demonstrate that with effective monitoring, permanence can be assessed		■
• Trialing approaches to demonstrate that with effective monitoring, leakage can be assessed		■
• Trialing approaches to demonstrate that with effective monitoring, additionality can be assessed		■
• Showing how national carbon accounting and monitoring systems can be internationally consistent		■
• Showing how carbon accounting and monitoring can support policy solutions		■

Issue/Activity	Directly contribute	Indirectly contribute
(e.g. to leakage and permanence)		
• Showing how carbon accounting and monitoring can assist the assessment of the effectiveness of actions		
• Facilitating the transfer of technology for carbon accounting and monitoring to developing countries		
Contributing to the development of approaches to underpin and provide long term support for REDD activities, including:		
• Trialing approaches to identify and address the drivers of deforestation and forest degradation		
• Trialing approaches to demonstrate how investment in avoided deforestation can provide communities with equitable, predictable and sustainable benefits		
• Trialing approaches to establish appropriate and effective mechanisms for making incentive payments that promote poverty reduction and support sustainable livelihoods for forest-dependent communities		
• Determining the appropriate governance, enforcement, regulatory and sustainable forest management frameworks necessary to support developing countries' participation in a future national REDD system		

In addition to the above issues/activities, REDD demonstration activities may also contribute to the enabling environment within the country concerned:

- Identifying policy options;
- Clarifying institutional responsibilities and capacity building requirements; and
- Outlining options for the socialization of REDD and related issues.

Emissions from peatlands under the UNFCCC

As well as undertaking REDD activities, the KFCP also incorporates activities to re-flood and rehabilitate degraded and deforested peatland. Peatland emissions will be measured and monitored to estimate reductions as a result of these restoration activities.

Emissions from peat soils with forest cover

At the Bali Climate Change Conference, countries agreed to undertake demonstration activities with a view to reducing emissions from deforestation and forest degradation and "thus enhancing forest carbon stocks due to sustainable management of forests". This decision on REDD does not define 'forest carbon stocks' and the extent to which it includes soil carbon, nor does it distinguish between the type of soil on which forests are located (ie. whether on mineral soils or other soils such as peat).

Under the KFCP, emissions from peat soils will also be taken into account as part of the accounting and monitoring of forest carbon stocks for REDD activities. Peat soil emissions will be measured in a way that allows for it to be aggregated or disaggregated with total emissions from forest trees and vegetation. This approach can help contribute to further international knowledge for REDD accounting and monitoring and the sustainable management of peat forest carbon stocks. Refer Attachment 5.

Emissions from deforested and degraded peat soils

In undertaking peatland restoration activities as part of the KFCP, it is important to note that there is currently no international agreement about whether, or how, to incorporate actions to reduce emissions from deforested and degraded peatland in a future climate change agreement, and whether it would be incorporated into future action on REDD.

Peat restoration activities under the KFCP will therefore be aimed at building international knowledge, and providing lessons learned to contribute to UNFCCC discussions, in areas such as: the measurement and monitoring of peatland emissions, and in informing approaches for peat restoration activities to reduce emissions from deforested and degraded peatland.

Discussion of peatlands under other international conventions

In addition to considerations under the UNFCCC, both the Convention on Biological Diversity and Ramsar Convention contain specific mention of peatlands. The Convention on Biological Diversity acknowledged the important role that peatlands play in terms of biodiversity, and called for the restoration of peatlands due to their importance as carbon stores. The Ramsar Convention, which included peatlands in its definition of wetlands, called for the wise use and restoration of peatlands due to their high environmental values and carbon storing capacity.[20]

Reforestation under the Clean Development Mechanism

The Clean Development Mechanism (CDM) was introduced under Article 12 of the Kyoto Protocol and allows developed countries to support project activities that reduce emissions in developing countries in return for certified emission reductions (CERs). Reforestation activities are only eligible for inclusion under the CDM if the land was deforested before 1990.

As the EMRP was deforested after 1990, reforestation activities in the EMRP under the KFCP will not be eligible for inclusion under the CDM. Rather, reforestation activities are incorporated in the KFCP as part of activities to rehabilitate deforested peatland.

3.2. Government Policies and Programs

Government of Australia (GoA)

A. International Forest Carbon Initiative (IFCI) and the Indonesia – Australia Forest Carbon Partnership (IAFCP)

Australia's $30 million contribution to the KFCP is being funded under Australia's $200 million International Forest Carbon Initiative (IFCI). IFCI aims to demonstrate that reducing emissions from deforestation and forest degradation can be part of an equitable and effective international agreement on climate change through:

- Increasing international forest carbon monitoring and accounting capacity;
- Undertaking practical demonstration activities to show how reducing emissions from deforestation can be included in a future international climate change framework; and
- Supporting international efforts to develop market-based approaches to address deforestation

Planning and delivery of the IFCI involves a whole of government effort, led jointly by the Australian Agency for International Development (AusAID) and the Australian Government Department of Climate Change (DCC). Work under the IFCI will be informed by, and complement:

- Australia's international climate change policies and negotiations; and
- Australia's aid policies, including the Australia Indonesia Partnership (Country Strategy 2008-2013).

The Prime Minister of Australia and the President of Indonesia announced the Indonesia - Australia Forest Carbon Partnership on 13 June 2008. The Partnership incorporates and builds on IFCI's

[20] While carbon is often used interchangeably with (or as a proxy for) GHG emissions, other green house gases, particularly methane and nitrous oxides, need to be included in GHG emission targets and estimates.

activities in Indonesia and formalises existing long-term practical cooperation between Indonesia and Australia on reducing greenhouse gas emissions from deforestation and forest degradation.

The Partnership will operate in three key areas:

- Policy development and capacity building to support participation in international negotiations and future carbon markets;
- Technical support for Indonesia to develop its national forest carbon accounting and monitoring system; and
- Identifying and implementing incentive-based demonstration activities to trial approaches to reducing emissions from deforestation and forest degradation.

As part of the announcement, Indonesia and Australia also agreed to develop a Roadmap for Access to the International Carbon Markets, to assist Indonesia to participate in international carbon markets.

The IAFCP includes a number of activities in Indonesia relevant to the KFCP:

Bilateral package of support to Indonesia on forests and climate

Australia is providing $10 million to support Indonesia's REDD policy development and readiness for REDD implementation. This will be used to: help develop a national forest resource information system (FRIS), including a national carbon accounting system (see further below); and support the development of a national policy framework and strategies for reducing emissions from deforestation and forest degradation, including through support to the multi-donor Indonesia Forest Climate Alliance (IFCA; see Section 3.3 below).

Carbon accounting and monitoring systems

Indonesia's Ministry of Forestry (MoF) has commenced work on a FRIS that builds on the Forest Resource and Management System (FOMAS) that was supported by the World Bank and other donors including Australia. In February 2008, DCC hosted a two-week workshop in Canberra to support the development of the FRIS. The workshop was attended by technical and policy officials from MoF and was an initial step in an evolving program of support and knowledge sharing based on lessons learned by Australia in developing the NCAS. A conceptual work program was identified that will be further developed during an in-posting visit of MoF technical staff to DCC in July – August 2008. The workshop identified the requirements of a national system that can match the information needs and the standards for monitoring emissions that will be demanded by a market mechanism.

Fire monitoring and prevention

Australia is supporting efforts to build fire monitoring infrastructure and strengthen the capacity of the Indonesian government to monitor fires through the FireWatch Indonesia (FWI) project. The FWI project will help build a fire monitoring system for Indonesia (nationally and in particular Riau and Central Kalimantan) which will provide information required to more effectively manage, prevent and suppress fires (and therefore reduce greenhouse gas emissions caused by fire). The information generated has a number of potential applications to the KFCP, including helping to calculate emissions from peatland fires, and identifying priority areas for peatland rehabilitation.

The IFCI also includes a number of global or regional activities that may be relevant for the KFCP:

Partnership with the Clinton Climate Initiative

On 18 February 2008, Australia announced a new strategic partnership with the Clinton Climate Initiative. Under the partnership, Australia's National Carbon Accounting System (NCAS) will be adopted as a platform for the rolling out of a global forest carbon monitoring system. This will provide high-quality, low-cost forest carbon data to developing countries for incorporation into their national

forest monitoring systems, providing a sound basis for verification of reductions in deforestation and forest degradation.

Research partnership with the Center for International Forestry Research (CIFOR)

Australia is engaging in a research, monitoring and evaluation partnership with (CIFOR), under the IFCI, which aims to generate knowledge and analysis on REDD to help meet the need for further research on policy and technical issues associated with REDD. The partnership will include high-level monitoring and evaluation of REDD demonstration activities, including those funded under IFCI, including the KFCP.

NGO REDD Concept Funding

Australia is providing up to $1.5 million under the IFCI to support international non-government organisations to develop concept models for demonstration activities to reduce emissions from deforestation. International non-government organisations have practical on the ground experience – particularly in providing alternative livelihoods to local communities – that can help build global expertise in implementing demonstration activities. The development of concept models could help inform approaches under the KFCP demonstration activity.

C. Other Australian assistance

In addition to IFCI-funded research, the Australian Government is presently supporting a range of other REDD-related research. A project has been commissioned by the Australian Centre for International Agricultural Research (ACIAR) on improving governance, policy and institutional arrangements to reduce emissions from deforestation and forest degradation. While the geographic focus of this project will be on Riau and Papua, may generate lessons that could also be relevant for Kalimantan.

AusAID is also supporting two other research activities relating to REDD and forest governance under the Australian Development Research Awards, including a small multi-country study assessing the livelihood impacts of incentive payments for avoided deforestation (likely to include one case study in Indonesia); and a larger proposed project investigating governance and economic incentives for reducing the contribution of tropical deforestation to climate change. The latter is expected to include a specific focus on Kalimantan.

Government of Indonesia (GoI)

Indonesia has a range of policies and programs that are of direct relevance to the KFCP. First, it is important to acknowledge that Indonesia has ratified: the Ramsar Convention; the UN Convention on Biological Diversity; the UNFCCC; and the Kyoto Protocol.

More specifically, Indonesia has prepared:

- A National Action Plan Addressing Climate Change (February 2007), which outlines the potential impact of climate change for Indonesia, and outlines specific strategies for a wide range of institutions to conduct a coordinated and integrated effort to combat climate change. For the forestry sector, this includes rehabilitation of areas of degraded forest, combating illegal logging, forest fire prevention, promotion of low-impact logging, and effective land use planning.
- A National Strategy and Action Plan for Sustainable Management of Peatlands (August 2006), aiming to incorporate ecological and social issues as well as economic issues in decisions affecting the use of peatlands in Indonesia. The National Strategy and Action Plan referenced the Ramsar Convention, the Convention on Biological Diversity, the National Wetlands Management Strategy, and the ASEAN Agreement on Transboundary Haze

Pollution (which is included in the ASEAN Peatland Management Strategy, prepared in 2003).

In addition, Indonesia is currently preparing guidelines for a national policy framework for REDD and criteria for REDD demonstration activities. Since this report was peer reviewed in July 2008, the Ministry of Forestry has issued a draft Regulation on Reducing Emissions from Deforestation and Degradation. The detailed design of the KFCP will need to be carried out in the framework established by the new Regulation. A copy of the draft regulation is attached to this report.

Ministry of Environment

The Ministry of Environment (MoE) is the key agency in developing environmental policies in Indonesia, including policies related to climate change, and leads Indonesia's negotiations in the UNFCCC. In addition, MoE has responsibility for monitoring land use change, particularly in areas beyond the Forest Estate, and for policy coordination related to environmental management, including fire control and peatland rehabilitation.

These responsibilities and roles are in accordance with the current Indonesian legislation concerning forest and environmental management, peatland management and forest fire control. These include but not limited to:

- Law (UU) No. 23/1997 regarding environment management,
- Government Regulation (PP) No. 6/2007 regarding forest planning management and forest utilization;
- Government Regulation (PP) no. 34/2002 regarding land use, forest management planning and forest land use;
- Government Regulation (PP) No. 47/1997 regarding national spatial plan;
- Presidential Instruction (Inpres) No. 2/2007 regarding revitalization and rehabilitation of sustainable peatlands;
- Government Regulation (PP) No. 4/2001 regarding control of environmental damage related to forest fire and land fire.

MoE is currently preparing a draft Presidential Regulation on Peatland Area Management. The regulation is expected to cover a wide range of issues including peatland inventories, the utilization and preservation of peatlands, mitigation of peatland degradation, peat fire control and peatland management. The timeframe for completion of the regulation is unclear.

One of MoE's longstanding policy instruments is the Environmental Impact Assessment (AMDAL). Unfortunately, AMDAL has no provision for GHG emissions. Another important environmental management tool is spatial planning which, if the implementation is strong and consistent, should significantly help to reduce the LULUCF contribution to global warming.

Ministry of Forestry

The Ministry of Forestry (MoF) is responsible for the management of Indonesia's Forest Estate, an area of 120 million hectares, which includes both forested and non-forested land with a range of conservation and production functions. An overview of forest regulations and the sector as a whole is presented in Indonesia's long term forestry plan, and MoF's strategic plan for the period 2005-9. The strategic plan outlines six key priorities:

1. Curbing of illegal logging and trade in illegal logs;
2. Application of sustainable forest management principles through, among others, development of at least one sustainable forest management unit in each province; [21]
3. Development of five million of hectares of plantation forests and rehabilitation of five million hectares of forests and lands;
4. Establishment of twenty self-supporting National Parks;
5. Increase of income of people living within and around forests by 30%; and
6. Gazettal of at least 30% of existing forest areas.

MoF has established a working group on REDD comprised of relevant sections within the Ministry, which aims to develop guidelines for the implementation of REDD demonstrations and establishment of a national carbon accounting system. The working group consists of a range of members from within the Ministry, and played a key role in the preparation of Indonesia's submission to the UNFCCC in Bali. The submission was prepared with assistance of the international community, through the Indonesia Forest & Climate Alliance (IFCA), that consisted of technical inputs funded by the World Bank, Australia, Germany and the United Kingdom. The future of the working group is currently unclear, but it will be important for the KFCP to have a close working relationship and interact with other entities that undertake REDD demonstration activities (refer note above regarding Indonesia's recent draft Regulation on Reducing Emissions from Deforestation and Degradation).

MoF (under the auspices of the Director General of Land Rehabilitation and Social Forestry) is implementing a 5 year watershed rehabilitation project in the EMRP from 2008 to 2012. The project utilizes reforestation funds, along with funding from the Global Environment Facility, and is designed to increase forest cover in 'critical watersheds' both inside and outside the national forest estate. The project aims to cover an area in excess of 600,000 hectares in the three districts of Kapuas, Palangka Raya and Pulang Pisau. A community forestry approach is likely to be applied to areas within the national forest estate, while agro-forestry models are expected to be adopted on other land. Although the project is managed by the Centre for Watershed Management (in Jakarta), the forest offices (dinas kehutanan) in the three districts are implementing the day to day activities.

BAPPENAS

The National Development Planning Agency prepared a National Development Planning Response to Climate Change report in December 2007. The most relevant aspect of the report for forestry and REDD was the support for the development of Forest Management Units (FMU) as mitigation efforts towards climate change.

Presidential Instructions

A. Presidential Decree on Climate Change Commission

The President of Indonesia issued a decree on the establishment of a Climate Change Commission in July 2008 (Presidential Regulation No. 46, 2008). The Commission will comprise the Ministries of Finance, Coordinating Economy, Foreign Affairs, Environment, Forestry and State Ministry for National Development Planning. The role of the Commission is not yet determined although a number of Ministries have established their own Working Groups to provide input. For example, the Ministry of Finance has established five working groups with one devoted to the carbon market and trading mechanisms. A translation of the Presidential Regulation is attached.

[21] GTZ is providing technical support to the Ministry to define the role of, and establish, Forest Management Units in each province.

B. Presidential Decree on the Rehabilitation of the Ex Mega Rice Project Area

As discussed in Section 1.5, INPRES 2/2007 concerns the rehabilitation, conservation and sustainable development of the Ex Mega Rice Project area. Other laws or regulations that will affect or guide implementation of the KFCP include:

- Indonesia's Law on Forestry (UU No. 41/1999);
- Presidential Decree No. 32/1990, which concerns the management of protected areas, including a stipulation that peat with a depth exceeding 3 metres is categorised as a protected area; and
- Decree of the Minister of the Environment No. 5/2001, which states that an Environmental Impact Assessment must be completed prior to any development in peatland areas.

In addition, the Law on Decentralization (No. 32/2004) and subsequent amendments are important in that the roles and responsibilities of provincial, district and municipal governments are discussed. However, there is not always a clear delineation of responsibility between different government agencies. While local governments have responsibility for local planning and control development, several national government agencies have vested interests in local plans and can provide additional funds for particular activities. For example, the Ministry of Forestry may have interests in (and funds for) forest production and/or forest conservation, the Ministry of Agriculture may have interests in the expansion of bio-fuel and/or rice production, and the Ministry of Transmigration may have interests in relocating families from other areas.

INPRES 2/2007 provides some clarity as to the EMRP area, including broad land use zones (refer Map 3). However, these differ from the earlier provincial land use plan, and the EMRP master planning process therefore faces a number of challenges in terms of developing a land use plan which satisfies different agencies with different objectives and targets.

Central Kalimantan

Central Kalimantan Provincial Government

The Central Kalimantan Provincial Government has a strong commitment to the implementation of sustainable development. The Regional Medium Term Development Plan (2006-10) states clearly that development of Central Kalimantan Province should be based on sustainable principles.[22]

The Governor of Central Kalimantan has provided strong support for REDD to be included in a future international framework to address GHG emissions, and is similarly a strong supporter for the rehabilitation and sustainable use of peatlands within the EMRP area. The Governor is also responsible for the implementation of INPRES 2/2007.

The Provincial Government is currently developing a framework on sustainable peatland management which aims to promote sustainable and wise management of peatland. This framework will be based on the existing National Strategy and Action Plan for Sustainable Management of Peatlands and the 'Green Government Policy' that is currently being developed by a special task force. Central Kalimantan's framework on sustainable peatland management will incorporate economic, social/cultural and environmental values.

The Provincial Government is also preparing a special task force for REDD at provincial level. The task force will

(i) establish institutional arrangements for REDD activities in Central Kalimantan;

(ii) develop a strategic plan for REDD activities in the province;

[22] Refer Central Kalimantan Local Regulation No. 12/2005 concerning the Medium Term Development Plan for 2006-2010.

(iii) coordinate with the National Working Group on REDD;

(iv) identify and propose possible sites for REDD demonstration activities;

(v) develop capacity building and awareness programs on REDD; and

(vi) facilitate development of REDD methodology and monitoring in cooperation with other institutions.

The Provincial Government is also discussing a range of other related activities, including:

- A voluntary emission reduction mechanism; and
- A network on sustainable and wise use of peatlands (across Indonesia), including a link to national and global REDD bodies.

On 8 April 2008, the Provincial Government issued an instruction that a secretariat would be established to help coordinate KFCP activities with relevant provincial agencies, district government and the University of Palangka Raya. Representatives from the provincial REDD task force are expected to be included in the provincial-level secretariat.

3.3. International involvement relevant to the KFCP

In mid-2007, GoI established the Indonesia Forest Climate Alliance (IFCA), a grouping of international donors and stakeholders providing financial and technical support for Indonesia's efforts to start exploring how a REDD scheme could be implemented and be ready by 2012. IFCA's work has included a review of methodological issues, as well as studies of REDD issues relating to a range of land uses (including peatlands). IFCA has received financial support from Australia, the United Kingdom and Germany. Initial research was published in a 'summary for policymakers' launched at COP13, and a final consolidation report is expected to be released in mid-2008.

In addition to IFCA:

- DFID is providing support for sustainable forest management in Indonesia;
- Germany is in the process of designing an REDD demonstration activity in East Kalimantan;
- Japan is providing assistance in forest resource assessment and monitoring;
- The Netherlands is funding the EMRP master planning process and Central Kalimantan Peatland Project (refer Section 3.4); and
- The World Bank has provided assistance to Indonesia for preparation for COP13 (under IFCA) and may provide capacity building support or fund pilot activities under its Forest Carbon Partnership Facility.

All of these initiatives have potential for linkages to KFCP, which will be determined during the detailed design phase. A summary of the international support in areas relevant to REDD in Indonesia, and the KFCP more specifically, is presented as Attachment 4. This includes support provided under the Centre for International Cooperation in Management of Tropical Peatland (CIMTROP), based at the University of Palangka Raya.

3.4. Ongoing Activities in Central Kalimantan relevant to KFCP

EMRP Master Plan

The Government of the Netherlands is providing assistance to the Government of Indonesia to prepare a Master Plan for the conservation, rehabilitation and sustainable development of the 1.4 million hectare area known as the Ex-Mega Rice Project area (known in Indonesia as the *Proyek Lahan Gambut*).

The goal of the Master Plan is to lay out a comprehensive implementation plan which addresses technical, environmental, socio-economic, cultural and institutional issues related to, and impacting on the long term sustainable rehabilitation of the EMRP area. The Master Plan will provide new understanding of the hydrology of the EMRP and will create integrated spatial planning products and options for water management, land use and socio-economic development.

Preparation of the Master Plan commenced in October 2007 and is expected to be completed in July 2008. Additional details are presented in Attachment 4.

Central Kalimantan Peatlands Project

The Government of the Netherlands has provided five million euros for the Central Kalimantan Peatland Project (CKPP) to address peatland rehabilitation within the EMRP area and in Sebangau National Park (and in their buffer zones). CKPP is implemented by Wetlands International, CARE International, WWF-Indonesia, BOS Foundation, University of Palangka Raya and the Provincial Planning Development Agency in Kalimantan (BAPPEDA) and focuses on five key activities:

- Fire prevention;
- Restoration of the peatland hydrology;
- Reduction of poverty through small scale developments;
- Re-greening; and
- Biodiversity conservation.

Achievements under each of the five areas are summarised in Attachment 4. Preliminary results of the Project have also been reported internationally and provide lessons from experiences to date.[23] While CKPP will end in June 2008, further funding and a continuation of activities are expected.

Gerhan

The National Land and Forest Rehabilitation 'Movement' known by the Indonesian acronym as *Gerhan* is a five year program (2003 to 2008) aiming to rehabilitate 3.1 million ha of forest and critical land in 68 priority watersheds. Over 66% of the critical lands in Indonesia are outside the forest estate. The funding for the scheme comes from the Reforestation Fund. Since the program commenced, about US$ 400 million have been spent, which has reported to have planted trees at a cost of US$ 700/ha. More than half of the rehabilitation has focused on the state forest areas with most going into Production Forests. A MoF [24] report on Gerhan indicated that participation by local farmer groups and local NGOs was less than optimal because of the limited time (3-5 months) taken for socialisation and community organisation. This finding will need to be taken into account for any community based reforestation activities involving villagers planned for the KFCP. There are also reported issues with timing of suitable seedlings and where activities were ineffective due to seedlings not being planted in the correct season due to a delay in the delivery of funds.

4. PRELIMINARY DESIGN FRAMEWORK

As a demonstration activity that aims to inform international negotiations, it is important to ensure that the objectives of the KFCP are as clear, simple and focused as possible, and that the demonstration activity is similarly well defined, well resourced and located in an area that reduces the risk of any external factors adversely affecting the outcomes or the reliability of the results.

[23] For example, Ansori, M. & Dohong, A., 2005.

[24] Sustaining Economic Growth, Rural Livelihoods and Environmental Benefits: Strategic Options for Assistance in Indonesia 2006 Jakarta

A number of options were considered during the design mission relating to:

- The choice of location for the REDD demonstration activity;
- The type of interventions that will help reduce GHG emissions in the demonstration area;
- Requirements for establishing an emission baseline (or reference level) and measuring changes in emissions;
- Payment methods (or incentives) that are required to achieve a reduction in GHG emissions; and
- Management and coordination arrangements for the KFCP.

This section of the report outlines the options considered and presents the recommendations arising from the mission. The recommendations are presented as a 'preliminary design framework', which will be progressed (and modified as necessary) during the detailed design period.

4.1. Goal

The goal is:

> The KFCP demonstrates a credible, equitable, and effective approach to reducing greenhouse gas emissions from deforestation and forest degradation, including from the degradation of peatlands, that can inform a future international climate change framework and enable Indonesia's meaningful participation in future international carbon markets.

The KFCP is expected to support Australian and Indonesian contributions to the UNFCCC on REDD and to contribute to international discussions. As part of this, the KFCP is expected to:

- Achieve a cost effective reduction in GHG emissions;
- Develop processes for establishing baselines and measuring emission reductions (including additional knowledge and processes specific to peatland);
- Develop payment mechanisms which provide incentives to achieve and sustain emission reductions;
- Provide a positive social impact (and contribute to poverty reduction); and
- Develop local capacity in various aspects of REDD.

In addition to reducing emissions and increasing capacities, the KFCP is likely to produce a range of co-benefits, including maintaining biodiversity, providing sustainable livelihood benefits for communities that depend on forest resources, reducing health related impacts from fire, and reducing other economic losses from fire and smoke haze.

REDD has potential to provide higher income streams to millions of people in developing countries that rely on the forest as a main source of income. However, payment mechanisms need to be established which provide sufficient incentive for forest users and/or local communities to reduce emissions and to maintain emission reductions in the longer term. Alternatively, if emission reductions are seen to be taking place at the expense of poor communities who are excluded from forests, REDD will lose its international legitimacy, which will in turn deflate the market confidence needed to attract investment. Clearly, the link between REDD and poverty reduction needs to be established, and the social impact of any REDD demonstration activity needs to be quantified.

Key Principles

Following on from these secondary objectives, and building on the policy and program context (described in Section 3), the KFCP will therefore be guided by the following key principles:

- REDD activities will maintain the flexibility – to the extent possible – to fit within changing GoI and GoA policies, and developments in the UNFCCC;
- REDD activities will be consistent with – and contribute to – Indonesia's emerging national REDD system and FRIS;
- REDD activities will be undertaken in locations with support from all levels of the government in Indonesia, local communities, and other key stakeholders;
- The KFCP will complement the efforts of other donors and be flexible enough to be expanded (scaled up) should additional funding become available through the GoI, other donors or the private sector;
- The KFCP will build on the work of other organizations and, where appropriate, will work in partnership with those engaged in ongoing activities in Central Kalimantan.
- REDD and peat restoration activities will be consistent with agreed sustainable forest management practices, have a positive environmental impact, and are supported by appropriate governance, policy, enforcement and regulatory frameworks;
- Emission estimates will be results based, transparent, verifiable and able to be estimated consistently over time;
- REDD activities will contribute to poverty alleviation when and where possible, and will include social and economic impact assessment, including appropriate gender analysis; and
- The KFCP will promote the international climate change policies of Indonesia and Australia and be consistent with the objectives of the Indonesia- Australia Forest Carbon Partnership and the IFCI.
- The KFCP will incorporate and promote GoA policies on the environment, gender equality and anti-corruption.

4.2. Location

As discussed in Section 2.1, the Scoping Mission in November 2007 suggested that the KFCP be located in Central Kalimantan for the following reasons:

- Central Kalimantan contains 14% of Indonesia's peatland;
- The EMRP area contains the largest area of degraded peatland in Indonesia; and
- INPRES 2/2007, the EMRP master planning process and strong support from the Governor provide a supportive institutional framework for trialling REDD activities.

The Governments of Indonesia and Australia agreed that the framework design mission would consider two potential sites for the KFCP: the EMRP area (in particular Block E and the adjacent northern parts of Blocks A and B) and Sebangau National Park. The team visited both areas during the mission.

Approach to REDD and peatland management

In undertaking an analysis of suitable sites for the KFCP, the design team considered the need for the site to provide suitable opportunities to undertake the range of activities specified under the KFCP such as REDD and peatland restoration activities.

Given the nature of the KFCP as an activity based on peatland, rather than mineral soils, it was essential to consider peatland characteristics and management as the foundation for determining the appropriate site and design for the KFCP. In Indonesia, the majority of peatland, in its natural state, can be characterised as lowland swamp forest, which is permanently waterlogged or inundated. As shown on Map 1, rivers often demarcate the boundaries of large continuous areas of peat.

Furthermore, each continuous area of peat has its own hydrological unit, and will generally form a dome (see Figure 2).

A report by Delft Hydraulics "Peat-CO2: An assessment of CO2 emissions from drained peatlands in SE Asia"[25] provides a strong argument for a taking a "whole-of-dome" approach to peatland management. The authors argue that activities that affect the water level in one area of the dome will impact – over time – on the rest of the dome. Draining shallow peat on the edge of the dome, for example for agricultural purposes, may lower the water table of the dome, and overall may result in drying areas of forest (making them susceptible to fire) and possibly dieback of vegetation due to a lack of water. Although further research is required to quantify these relationships, there is evidence that the construction of canals to drain areas within the EMRP has adversely impacted – and continues to impact – a much larger area than that in which the canals are located.

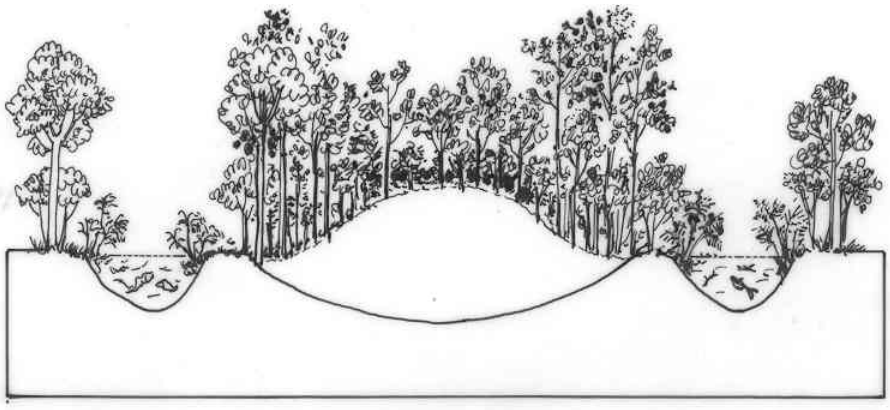


Figure 2: Cross Section of a Peat Dome
Source: National Working Group on Peatland Management, 2006

While additional research is required on these phenomena, the risk of not taking a whole-of-dome approach is too high, and could jeopardise the success and longevity of KFCP REDD activities. It is therefore recommended that the KFCP REDD activities take, as much as possible, a whole of dome approach, and furthermore, pay special attention to the hydrology of the areas in which activities are undertaken. This approach is supported by the National Strategy and Action Plan for Sustainable Management of Peatlands, which states that peat less than 3 metres deep can not be exploited without considering the unity of the peatland as a single, unified ecosystem.

Site Analysis: **Sebangau National Park**

A peat dome in the eastern part of Sebangau National Park was considered as an option for the location of the KFCP REDD demonstration activity. Although there is minimal information on this area, the peat dome is thought to occupy an area of approximately 50,000 hectares.

The design team found there are several factors which reduced the suitability of Sebangau for a REDD demonstration:

- Although the national park has suffered from various levels of deforestation and degradation in the past, the park's conservation is supported in legislation, and the current threat is thought to be relatively low due to a successful campaign to combat illegal forest activities. The issue of additionality may therefore be questioned,

[25] Hooijer, et al, 2006.

- As the national park is managed by staff who report directly to the Ministry of Forestry, it has less scope for exploring how a REDD activity would involve different levels of government (in addition to local communities), as neither the province nor districts have managerial responsibility for Sebangau.
- As local governments are not directly involved in the management of the national park, they are likely to be less supportive for a REDD demonstration activity in Sebangau.
- The national park lies outside the area covered by INPRES 2/2007 and the EMRP area master planning process, so less information is available to facilitate the planning of an REDD demonstration activity.

While not ruling out the scope for undertaking some research-related activities in Sebangau National Park, or trialling REDD activities in the area at some time in the future, it is recommended that initial REDD activities focus within the EMRP area. In fact, undertaking some research activities in the national park will be quite useful as it will build on existing data and engage a valuable group of collaborators.

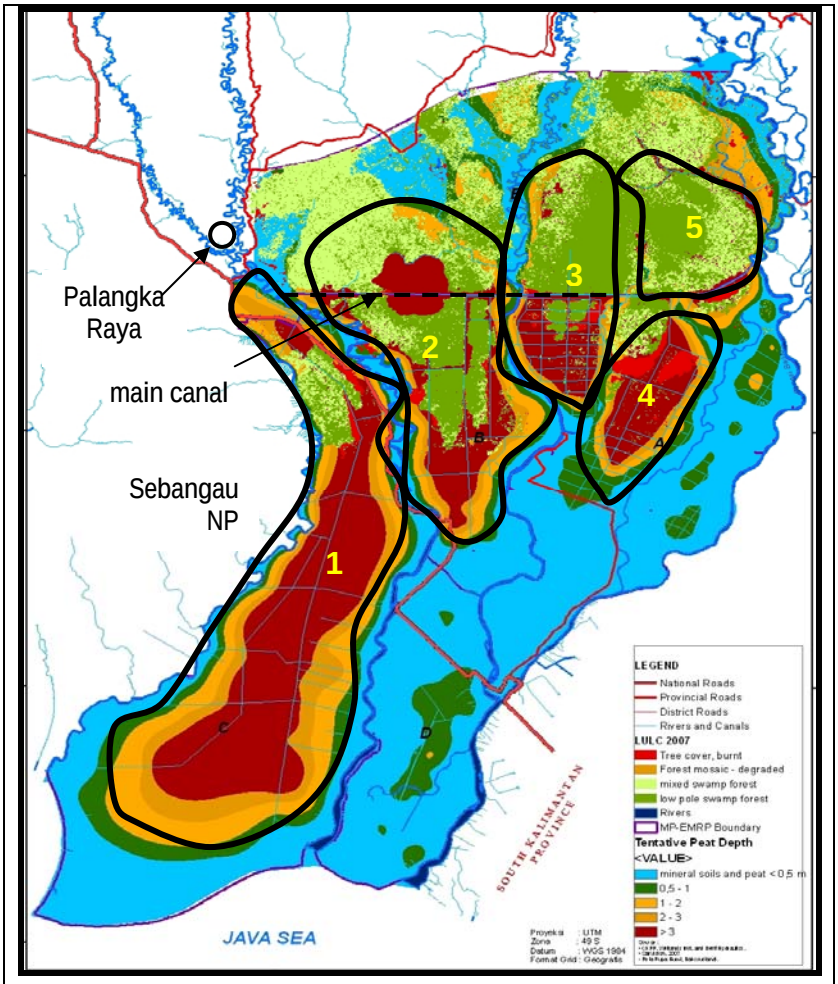
Another option considered by the framework design team was to undertake REDD activities in both Sebangau National Park and neighbouring areas within the EMRP area. For the same reasons as those articulated above, this was not considered as a preferred option for the location of the primary REDD demonstration activity site. Furthermore, it would not be possible to apply a 'whole-of-dome' approach in the neighbouring area in the EMRP area, as the peat dome is far too large.

Site Analysis: EMRP area

The areas of peat and areas of forest within the EMRP area are illustrated in Map 4. Blue indicates mineral soils, while red/brown indicates deep peat (greater than 3 metres). Areas of yellow and dark green (generally surrounding the deep peat) are areas of progressively shallower peat. Forest areas are shown in light green.

Blocks A, B, C and D (as seen in Map 1) are located south of the main canal. The majority of peat in these blocks has been drained and deforested. Block E, to the north of the main canal, remains relatively intact, both in terms of drainage and forest cover (although the forests have been selectively logged in the past).

While forest cover is based on recent satellite imagery, and is therefore relatively reliable, the area of peat in Block E is based on previous work by Wetlands International, and has not been studied with the same rigor as the area and depth of peat in other blocks. While further work is being undertaken as part of the EMRP master planning process, the existing information must therefore be treated as a preliminary estimate. However, the general location of peat domes within the EMRP area is known with reasonable accuracy, and the five main domes are marked on Map 4.



Map 4: EMRPA showing Location of Peatland and Forest
Source: EMRP Master Planning Team

Selection criteria for location

Given the size of the peat areas and relatively poor access in much of the EMRP, it was considered preferable to focus initially on one location as the primary site for both the REDD and peatland restoration activities under the KFCP. The location therefore required areas of both existing forest and areas of degraded peatland.

Each of the five peat domes were considered as a potential sites for the demonstration activity and were assessed against the following criteria:

1. High probability of future emissions from deforestation and/or forest degradation (threats), including in particular, fire, encroachment and conversion;
2. Potential to address threats;

3. Level of support by government at all levels for the location selection,
4. Level of support by local communities;
5. Capacity of governments to implement activities;
6. Capacity of local communities to implement activities;
7. Social equity (including a pro-poor focus);
8. Bio-physical characteristics (including extent of peat and suitable areas for both REDD and peatland restoration activities);
9. Land use and land tenure status (eg. the level of clarity over rights in land and forest resources); and
10. Site access.

The results of the analysis are summarised in Table 2.

Table 2: Suitability of Alternative REDD Demonstration Activity Sites within the EMRP Area

Criteria [1]	Peat dome 1	Peat dome 2	Peat dome 3	Peat dome 4	Peat dome 5
1. Potential threats from deforestation and/or forest degradation	Low – due to limited forest cover (unless including areas of Sebangau NP)	High – threats from illegal logging and agriculture	High – threats primarily from illegal logging	Nil – no forest cover	High – threats from illegal logging and agriculture
2. Potential to address threats	Unclear of threats to remaining forest area	Difficult to ascertain without site visits and/or further discussion	High – can build on work by CKPP	Nil	High – can build on work by CKPP
3. Level of support by government	High	High	High, providing sufficient communities are involved	High	High, providing sufficient communities are involved
4. Level of support by communities	High	High	High	High	Medium – least impacted by land & forest degradation
5. Government implementation capacity	Low	Low	Low	Low	Low
6. Community implementation capacity	Medium – some experience under CKPP	Medium – some experience under CKPP	Medium – some experience under CKPP	Medium – some experience under CKPP	Medium – some experience under CKPP
7. Social equity	Poor communities, including many resettlement areas	Relatively remote, very poor communities	Relatively remote, very poor communities	Relatively remote, very poor communities	Relatively remote, very poor communities
8. Bio-physical characteristics	Lacks forest cover and too large for a whole-of-dome approach	Peat dome possibly too large	OK	Lacks forest cover	Lacks areas requiring restoration
9. Land use & land tenure	Includes resettlement areas and large scale agriculture	Uncertain – reported threats from large scale agriculture	OK – large areas proposed for conservation	Uncertain	Uncertain – reported threats from large scale

Criteria [1]	Peat dome 1	Peat dome 2	Peat dome 3	Peat dome 4	Peat dome 5
					agriculture
10. Site access	Relatively good	Poor	Poor	Poor	Very difficult

Footnote: 1. Refer to the text of the main report for a more detailed description of the selection criteria.

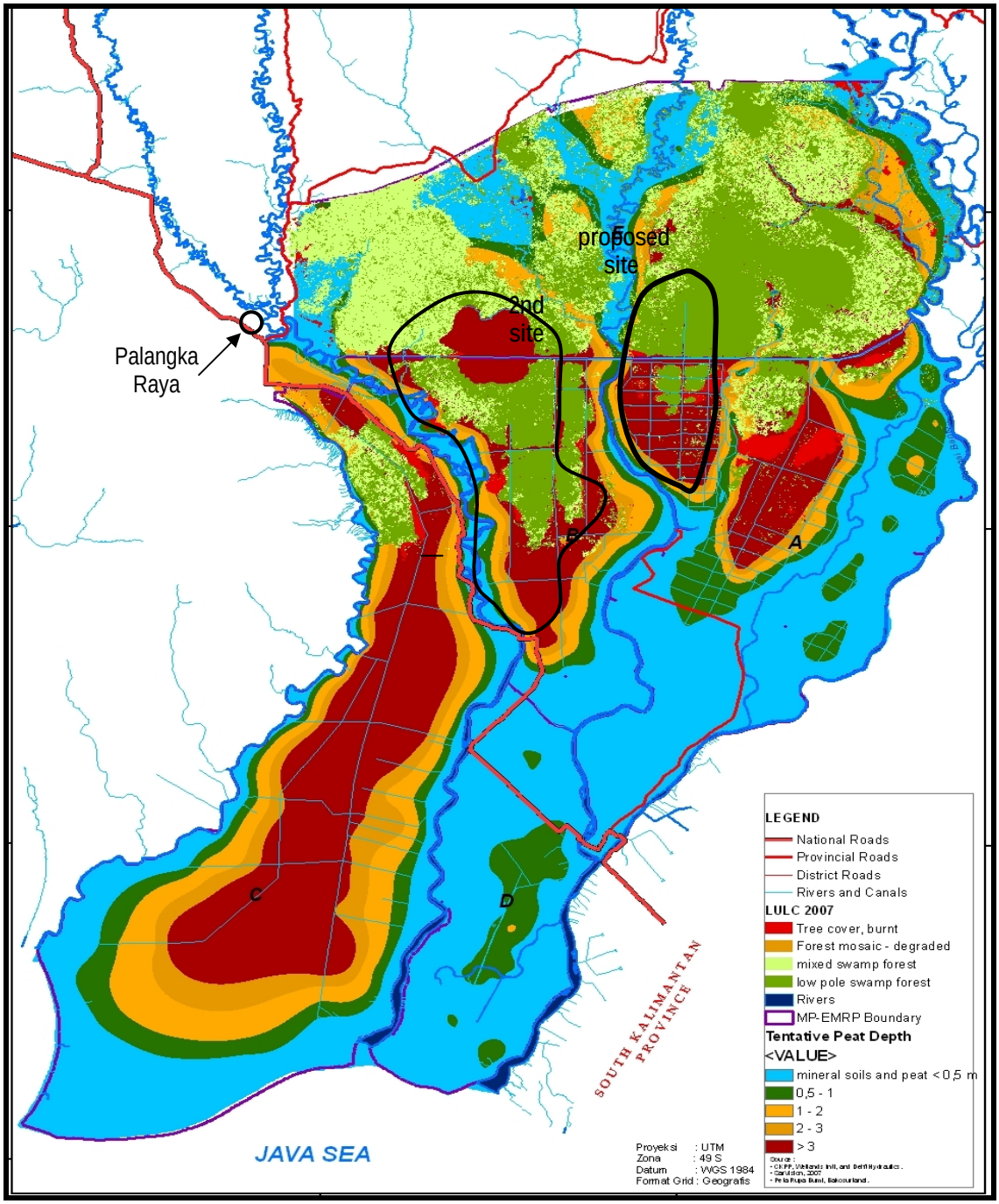
The analysis presented above indicates little difference between sites in terms of the level of community or government support and the implementation capacity of communities or local government. However, the following differences were noted when considering the remaining criteria:

- Peat dome 1 (in Block C) has very little forest and is considered too large to effectively take a whole-of-dome approach, and is complicated by uncertainty over land use and resettlement plans. It is therefore not considered a suitable location.
- Peat dome 2 (in Blocks B and E), has some uncertainty in terms of future land use, but is otherwise regarded as a reasonable choice (noting that it is not specifically targeted under CKPP).
- Peat dome 3 (in the west of Block A and part of Block E), is regarded as a suitable site and provides an opportunity to build on the work undertaken by CKPP (although there is some uncertainty as to the implications of a possible voluntary carbon trading scheme being considered by Shell Canada in the northern part of the dome);
- Peat dome 4 (Block A) has little forest, limiting the scope for undertaking REDD activities, and is therefore not considered a suitable location.
- Peat dome 5 (Block E) is very isolated and is primarily forested, limiting the scope for undertaking peatland restoration activities. It is therefore not considered a suitable location.

Recommendations

The preferred locations, based on the above assessment and shown in Map 5, are:

1. Peat dome 3 (the area of peat which is located in both Blocks A and E); then
2. Peat dome 2 (the area of peat in Blocks B and E).



Map 5: EMRPA showing preferred REDD demonstration sites

Site Confirmation

While preference is currently given to the area identified as peat dome 3 (the peat dome located in Blocks A and E), confirmation of this site is required during the detailed design as only limited areas were visited during the framework design mission, and the level of support for this location from key stakeholders was not ascertained.

The detailed design team will need to:

- Gather additional information in order to determine the location and area of peat domes in the area;

- Rank potential sites based on analysis of appropriate sites, taking into account the area required to demonstrate REDD interventions, costs versus benefits at different sites, and other considerations;
- Hold discussions with national, provincial and district authorities and confirm support for the proposed site;
- Consult local communities and confirm with leaders and constituent groups (including women and disadvantaged groups) in selected villages that there is support for the rehabilitation of the proposed area (the southern half of the proposed site) and that operational bases can be established in the area;
- Hold discussions with representatives from CKPP and confirm support for a cooperative program (that is, where KFCP and CKPP partners agree to a set of activities that contribute to a common goal e.g. canal blocking, fire prevention etc.); and
- Confirm – if possible – the intentions of Shell Canada in terms of proceeding with a voluntary carbon trading project in Block E.

Characteristics of the proposed REDD demonstration activity site

Location

The proposed REDD demonstration activity site represents a single, complete dome and covers an area of approximately 100,000 hectares in the northern part of the EMRP area in Central Kalimantan (approximately 2^{o} south and 115^{o} east). The site is bordered by the Kapuas River to the west and south-west, and the Mentangai River to the east and south east. Within the EMRP, roughly half of the site is located in Block A, and half to the north in Block E.

The demonstration site lies completely within Kapuas District. Kapuas District is administered from Kuala Kapuas, some 100 km by river to the south.

Demography

The area has a low population density relative to much of Indonesia. Villages are located primarily along the Kapuas River. Around a dozen villages are likely to have some connection (either currently or in the past) with the demonstration site, primarily for the use of natural resources from the forest or river systems, harvesting rattan or use of agricultural land.

Population data will need to be collected (and assessed for accuracy) once the impacted villages have been identified. The villages primarily contain Dayaks. There is not thought to be any families settled in the area as a result of transmigration schemes.

Land use

Other than community land – a strip of land along the river, adjacent to each village – the vast majority of the proposed location is government owned land, under control of the Ministry of Forestry.

The northern half of the demonstration site is heavily forested. While there are some areas of remaining forest in the southern half of the site, the majority of this area is being drained by an extensive network of canals, and has largely been deforested and burnt (refer to Threats below).

Agricultural activities are limited to the areas of community land along the Kapuas River, including food crops and commercial rubber holdings. Fishing is a major activity for both income and subsistence purposes, (including a range of native fish species and freshwater prawns). Forest areas are similarly important for a range of cash-earning products, including *jelutung* and *gemor*, and a range of subsistence products used traditionally for buildings, food (both plants and animals), medicines and handicrafts.

Illegal logging occurs across the site, although the extent and severity is difficult to determine (refer to Threats below). Illegal logging is likely to be undertaken by people from both the local communities

and others from further afield (most likely further downstream, where there is an abundance of small to medium scale sawmilling operations).

Temporary houses are common along the Mentangai River, near the eastern edge of Block E, and are used as a base while families fish and/or harvest forest products. Information needs to be collected on where these families are from and what rights/access they have to forest/other resources.

Information needs to be collected on land use, land use pressure, and land tenure particularly in the areas of community land bordering the villages. Local communities – while not legally having rights to the land – need to be recognised as land users and custodians of the land (the indigenous Dayak communities in particular have occupied the area for many generations). The role that local communities play in the KFCP REDD and peat restoration activities needs to be clearly articulated, and incentives trialled to ensure the longevity or permanence of emission reductions and involvement by the local community.

Social characteristics

Although the Kapuas River is used as the main transport route in the area, the impacted villages are relatively remote and have limited public infrastructure, including power supply. The level of access to and quality of both health and education services is relatively poor. The isolation also limits the range of economic opportunities available, and the deforestation of large areas of land since 1996 has greatly reduced these opportunities. Although specific information is not available on the incidence of poverty in the impacted villages, there is a high incidence of poverty in peat areas in general within Central Kalimantan:

Location	Incidence of Poverty
Indonesia	23%
Central Kalimantan	34%
Peat areas within Central Kalimantan	45%

NB: Based on a level of US$10/capita/month.
Source: CARE, 2007 (quoted in EMRP Master Plan Inception Report, 2007).

Threats

The main threats to remaining areas of forest in the northern half of the demonstration site are:

1. Continued drainage of peatlands: Peatlands continue to be drained, both due to the extensive canal network constructed during the Mega Rice Project, and due to smaller canals built primarily by local people to extract logs from the forest. Despite work under CKPP to block canals, the entire area of peat is being progressively drained, and this lowers the water table, killing some tree species and introducing the risk of fire (which is not a risk in peat swamp forests until drainage occurs).

   In one village visited during the framework design mission, many of the households had previously constructed canals deep into the forest during the dry season (clearing vegetation with chainsaws). The canals were estimated to be at least 5 km long, and enabled logs cut during the following wet season to be floated out of the forest. It appeared that each household had its own canal, and this provided the main source of income in the village until all commercially viable logs had been extracted.

2. Land clearing for small-scale agricultural purposes: Increasing population pressure and other factors (such as increased incidence and/or severity of flooding) may result in an expansion of agricultural land, both for subsistence agriculture and commercial tree crops (eg. rubber). In the proposed area this threat is primarily limited to relatively small-scale farmers

from local communities. This threat is expected to increase as other economic opportunities diminish (including logging and/or the sale of other forest products).

3. Illegal logging activities: Illegal logging continues in the proposed area (primarily in the northern half which is covered in forest) and is thought to be undertaken (i) by some local people, (ii) by the owners of sawmills located downstream along the Kapuas River, and (iii) local people working with or employed by the owners of sawmills. Although there appears to be a constant supply of logs to the numerous sawmills, illegal logging is difficult to police as the logs could be coming from areas far upstream (north of the EMRP area) in which there are legitimate forest areas. Local resistance to outsiders extracting logs appears to be low, possibly because they are providing a source of income and possibly because the logs are extracted from the national forest estate (not community land).
4. The spread of fire from agricultural land to forested areas: Despite UU No. 18/2004 which prevents the use of fire to clear or prepare land for food crops, fire is commonly used to (i) clear land to establish new agricultural areas and (ii) to clear crop residues either in preparation for planting the following year or simply to indicate the land is still being utilised (and can not therefore be claimed by anyone else). Fire is perceived by local communities as a major threat particularly to houses, other village infrastructure and agriculture (including blocks of rubber), however, it is seen as a cost effective way to clear forested land, an effective way to return nutrients to the soil, and in the absence of a local land titling mechanism, a way to retain user-rights to community lands.

   The threats relating to agriculture are greatest in areas adjacent to rivers, and not necessarily limited to areas in close proximity to villages, as local people are relatively mobile through use of motorised boats.

The nature and extent of threats and their causes will be examined further and verified in the detailed design phase.

Opportunities to address threats

The demonstration site is marked as a conservation area in INPRES 2/2007. [26] The EMRP master plan is expected to – once approved and endorsed by Government at various levels – provide a clear mandate for re-flooding and rehabilitation of the southern half of the demonstration site, and protection of standing forest in the northern half. Land is not expected to be allocated for large-scale agriculture or production timber, but this will be verified in the detailed design phase..

There will be scope to address the remaining threats: land clearing for small-scale agricultural purposes (by more effective land use planning at village levels); illegal logging (building on the interventions which were successful in Sebangau National Park) and reducing the spread of fire from agricultural to forest areas (by fire awareness and fire prevention activities). The design team will examine opportunities for, and constraints on, changes in the behaviour of groups and institutions directly or indirectly linked to the causes of GHG emissions in order to frame appropriate incentives.

While the traditional communities have a strong affinity with the forest and waterways, preliminary discussions with a limited number of people indicates that the level of understanding on environmental issues is low. Clearly, interventions aiming to reduce threats to remaining areas of forest will need to be accompanied by education and/or awareness activities that highlight the positive impacts and consequences of emission reductions, including the co-benefits described in Section 1.4.

Other stakeholders

[26] Other than a strip of land along the larger rivers which is generally acknowledged to be 'communal land', ie. land that is used by the local communities for agricultural and other subsistence purposes.

The main external stakeholders in the area are the partners involved in the CKPP. Wetlands International has commenced a program of canal blocking in the demonstration site and provides a substantial platform from which to continue this work. Care and BOS in particular, also have activities in the area and have established good relationships with many of the local villages. Demonstration activities will need to be planned in close consultation with CKPP partners.

4.3. Component / Activity Description

The following outlines a range of activities, which will be further developed and adjusted by the detailed design team. This section of the report is based on the initial level of funding available (A$30 million over a period of 4 years). However, as discussed under 'coordination and management', additional funding may be available in the future, so the KFCP needs the flexibility to expand its demonstration and related activities over time.

4.3.1. Readiness

Readiness refers to the preparation required to implement an REDD demonstration activity. For the KFCP, this could include the following aspects:

1. Legislative framework: Do the relevant levels of government have a legislative framework that supports the proposed REDD demonstration activity (including agreement to review legislation and provide advice to help ensure permanence of emission reductions)?
2. Institutional assessment: Which institutions will play a role in the REDD demonstration activity, what will these roles be, and what needs to be done in terms of enhancing their capacity to satisfactorily undertake these roles?
3. Land use: What are the land tenure arrangements throughout the site (and are there any conflicting arrangements at different levels of government)? Have spatial land use plans been agreed for the site by the national, provincial and district governments, affected local communities and other significant stakeholders such as private companies (and are there any discrepancies between boundaries / land uses across different plans)?
4. Financing: What financial instruments and accountability mechanisms need to be in place to enable payments to be made?
5. Monitoring & evaluation: What systems and methodologies need to be in place or agreed to enable establishment of baselines and ongoing monitoring of emissions? What links need to be made to the development of Indonesia's FRIS?
6. Stakeholder engagement: Have communities, different levels of government and civil society (including NGOs, the media, professional associations, the general public, and the private sector) been adequately engaged and informed and have they agreed for the REDD demonstration activity to be undertaken in the proposed area (including support for all of the above aspects)?

While many of the above aspects will be addressed in detail during the implementation of the KFCP (under the components described in subsequent sections of this report), there will be a need to assess and report regularly on the level of readiness during the detailed design period. A key task for the detailed design team will be to prioritise and sequence readiness activities, recognising that not all elements of readiness may be complete by the time implementation commences. In addition, technical assistance or other inputs may be required during the detailed design period, for example:

- Reviewing existing legislation and providing recommendations – where necessary – to implement proposed REDD activities;
- Conducting an assessment of institutional capacities, outlining capacity building requirements and providing capacity building support;

- As described under Component 4, commencing a program of activities that will lead to the calculation of baseline emission levels, the monitoring of emission levels, and the calculation of emission reductions for (i) the demonstration site and (ii) a larger reference area such as Kapuas District;
- As described under Component 5, articulating in detail the proposed payment mechanism(s);
- As discussed in Section 6.3, planning and conducting a Social Impact Assessment; and
- Developing information on REDD and the KFCP and disseminating to government and non-government agencies, local communities and other stakeholders, possibly through an existing institution or a stakeholder forum established for the purpose.

4.3.2. Reducing emissions from deforestation and forest degradation

Issues

A large area of peatland in the site is currently characterised by areas of logged-over forest which is in various states of degradation. The nature and extent of the degradation is dependent on the initial logging system, the silvicultural practices used by the licensed concession holder and what has occurred since logging ceased. Once forestry licences have expired the land returns to 'open access' land. This land is not actively managed and is subject to processes which lead to deforestation (eg. illegal logging, poor law enforcement, and fire). Hence, the nature and extent of the interventions required to avoid deforestation of this standing forest are dependent on the existing peatland conditions, the current land use activities and those likely to occur in the future. In addition, the buffer zone surrounding the forest is accessed by local communities for a range of livelihood activities. Agricultural options from forests in this area are limited due to severe annual floods (up to 6 months in some areas), poor forest cover, poor soil types, poor water sources for crop production, annual fire, poor communications and transport services. Illegal logging may be declining due to economic limits of the resource, increased patrols by the forest police and the general intent of the GoI to implement the forest laws.

The main threat of deforestation to the current standing forests comes from a lowered water table that leads to drying of the peat and subsequent invasion of fires. Reductions in water levels are caused by canals used for illegal logging and boat/canoe transport corridors by local communities.

Most of the existing forests were logged using the *kuda kuda* system (logs pulled manually along wooded skid rails) involving small mechanical railways or canal extraction. All legal logging licences have expired and there are no current licensed timber harvesting operations, so interventions for reducing forest degradation at the time of the first harvest are no longer available.

Recommendations

A range of REDD activities will be undertaken in approximately 50,000 ha of existing forest in the northern half of the demonstration site (Block E). This work will need to be planned and implemented with local communities and local government as part of this process. The interventions will involve awareness raising of the need to maintain the forests as 'protected forest' and sustainable forest management to avoid exploitation and degradation of forests at the national, provincial, district and local level. In addition, participatory mapping will need to be undertaken along with canal blocking in agreed locations and fire prevention and some fire suppression activities (see also carbon accounting and monitoring section below).

Livelihoods

Under the REDD demonstration activity, a range of positive incentive mechanisms can be provided to both villages (community groups) and local governments to enhance these activities and to test the

sustainability of the processes and incentive mechanisms should long term funding become available for REDD activities. Before any interventions are undertaken, participatory assessment including gender analysis and a community mapping and planning exercise should be undertaken with village and district inputs. This process will enable agreement to be reached on village boundaries and appropriate land uses and identify any overlapping land use issues.

Inputs will be required to identify, promote and assist with the implementation of alternative income sources for local communities which are not necessarily forest based. The work undertaken will need to be recorded and developed as part of the payment mechanisms required to be modelled as part of the REDD which is required to fulfil the other objectives of the KFCP. Many local communities currently depend on forested areas for their livelihood. Suggested interventions that will allow protection of the forest by introducing livelihood options include; introducing new fish farming (cages and ponds) techniques, latex production, sustainable '*gemor*' extraction (bark used for mosquito coil production), sustainable forest management, and community planting of commercially useful tree species on community or village land (roughly within 5 km of the rivers) and forest land[27]. An economic and livelihood analysis of the alternative options to improve income will be conducted.

Other interventions not related directly to livelihood options will be determined from a social and overall village and district planning perspective, and will include construction of small dams, planting of trees and shrubs in deforested margins to assist in the rehabilitation process. In addition the process will identify areas required for fire prevention and suppression and training needs.

Care will be taken in the design and during implementation to ensure, first, that interventions do not exacerbate existing gender inequalities and further disempower women and, second, that opportunities are taken to promote gender equality in accordance with good sustainable development practice.

Fire Prevention

Fire management analysis and planning including increased fire prevention training and capacity building along with institution support to local village fire groups for fire suppression, appropriate equipment, building on the experience of organisations and schemes currently being undertaken at various locations is also required

Rehabilitation of degraded peatland forests (canal blocking and revegetation)

Avoiding further deforestation may also require implementing some peatland forest rehabilitation interventions (albeit on a limited scale), as degraded areas that are not addressed within the REDD area may provide access points for further deforestation (e.g. canals). The rehabilitation of the degraded peatland should use appropriate supervised canal blocking techniques, revegetation with species which will also have a co-benefit of providing alternative livelihoods to reduce the dependence on the natural forest for destructive and unsustainable enterprises and to promote wildlife conservation through habitation creating and increased food supplies.

4.3.3. Restoration of degraded peatland and peatland forests

Issues

The rehabilitation and restoration of degraded and deforested peatland to a condition resembling that of an undisturbed peatland forest ecosystem will take considerable time and effort. Potentially, considerable reductions in GHG emissions from peatland in the order of 80 tonnes CO_2/ha/yr [28]can be

[27] Forest land refers to the National Forest Estate. In Central Kalimantan, there is still no agreed Provincial Land Use Plan as there are still large areas which are in conflict with the Ministry of Forestry Forest Classification Plan. The matter is planned for resolution in 2008 and therefore has important implications for the interventions proposed under the KFCP.

[28] PEAT -CO2 Report 2006

expected within a short time through raising the water table to keep the surface of the peat wet or inundated and reforesting where required.

Recommendations

Rehabilitation of degraded peatland (canal blocking and revegetation)

Peatland rehabilitation will involve the reflooding and the revegetation of degraded peatland areas in selected locations in the southern 50,000 ha of the site. This will involve the construction of appropriately designed and built dams of different width and depth at various intervals along canals. It is estimated that this will reduce peatland greenhouse gas emissions from 100 tonnes CO_2/ha/yr to less than 5 tonnes CO_2/ha/yr[29][30].

Selected revegetation activities will be used to support this peatland reflooding and rehabilitation process. For example, to enhance the longevity of the dams and wetting the peat surrounding the canals, some infilling of the canals along the banks using mechanical means and planting with sedges and trees adapted to seasonally wet conditions (*Melaleuca* spp.) designed to reduce and slow the flow of water in the canals is desirable.

Restoration of degraded peatland forests

The area of peatland being considered for revegetation and reforestation covers approx. 30,000 ha in the southern 50,000 ha of the site. Although there are 50,000 ha to be rehabilitated, almost 20,000 ha contain a forest cover of unknown quality and unlikely to require additional revegetation with forest tree species. The rehabilitation of degraded peatland will be undertaken using a combination of 'shade tolerant' and 'shade intolerant' native tree and shrub species[31] planted at close spacing so that they 'capture' the site ecologically and facilitate the conditions necessary for the forest ecosystem processes to recommence. This restoration technique has the advantage of creating a 'litter layer' on the peatland, reducing temperatures in the dry season, raising the watertable and reducing the risk of fire in the early stages of the plantings. The cost of this activity is in the order of $ 800/ha with inputs required for maintenance lasting about 3 years. Natural regeneration will be encouraged where possible.

Some of the areas planted will not only reduce GHG emissions but a) sequester additional carbon dioxide, b) provide sources of income, and c) a mixture of both income generation and conservation to enhance the sustainability of any carbon investment. The co-benefits of the planting program include the production of *Jelutung* for rubber, *Melaluca* spp. for oil, timber, and charcoal production, *Shorea* spp. for sustainable timber production, and conservation by planting tree species which produce fruit favoured by orangutan.

[29] PEAT-CO2 Report 2006

[30] This includes all greenhouse gases such as methane which may actually increase under the new conditions.

[31] Currently only a few tree species are mainly used for rehabilitation plantings on the EMRP and these species should be expanded in number for a range of end products and planting objectives. There is considerable scope for a major research activity to underpin the silviculture and use of the proposed replanting program on peatland.

Research

In addition, research will be undertaken on the effectiveness of various techniques used and species to be planted for peatland forest restoration, but also income generation on the appropriate and designated sites.

4.3.4. Emissions accounting and monitoring

The KFCP will identify what will be required to enter a market for trading in emissions and provide input and contribute to national and international discussions and negotiations on REDD definitions and processes. It will also identify linkages with Indonesia's FRIS as it is developed. This will include a program of review, analysis, research and demonstration that outlines the processes and forms of emissions; assesses the current knowledge and measurement systems (or models); and identifies and undertakes the improvements to methods and data sets required. This will be undertaken with appropriate partners (including universities and other research institutions) in Central Kalimantan, Indonesia at the national level, Australia and globally and involve independent verification of approaches.

Issues

Uncertainty over the changes in the level of emissions and establishing a baseline

There is significant uncertainty over the changes in the level of emissions resulting from deforestation, forest degradation and forest restoration, particularly for peatlands. Various estimates for emissions from land use and land use change have been prepared. Peatlands in Indonesia require special attention in any discussion of REDD as peat can hold very high concentrations of carbon and all gases have to be monitored. The non-CO_2 emissions from peat, methane (CH_4) and nitrous oxides (N_2O) in particular, are very important due to their high Global Warming Potentials.[32] The draining of peat swamps results in GHG emissions as the peat is aerated and oxidised with substantial additional emissions if fires burn the peat. Indonesia is considering a system, guidelines, protocols for measurement and processes for preparing a greenhouse gas account, and will concentrate first on forest carbon accounting and monitoring.

As identified in the indicative guidance prepared as part of the decision on REDD at COP 13, a demonstration of REDD should identify the underpinning science, data collection methodologies and approach for:

- Establishing a baseline for estimates of emissions for the demonstration area, including peatlands, assessed on the basis of national emissions from deforestation and forest degradation and historical emissions; and
- Monitoring against various baseline options to show the impact of different scenarios and to provide estimates of reductions or increases of emissions that are results based, demonstrable, transparent and verifiable and estimated consistently over time.

Monitoring Systems

For REDD a credible reduction in emissions from deforestation and degradation has to be measured against the baseline at specific intervals, for example annually. A baseline is a projection of emissions from deforestation and degradation and serves as a reference for measuring reductions in emissions. Investigating and preparing the options and approaches for this is one of the outputs of the KFCP measurement regime. Monitoring will confirm the effect of REDD activities, management change and policies variation in terms of reduced emissions against the baseline. This has to include monitoring of the displacement of deforestation and degradation from one area to another: "leakage". Emission

[32] That is, a certain quantity of these gases will have a higher impact on global warming than the equivalent quantity of CO_2, due to issues such as longer residence time in the atmosphere.

reductions identified compared to the baseline may become available as tradable carbon credits and so monitoring systems should be of a standard to support carbon markets.

For the KFCP the two key parameters to be monitored are:

1. Change in forest cover which includes change in forest area and reduction in forest cover; and
2. Change in carbon stocks and emissions of non-CO_2 gases.

A full discussion is provided in Attachment 5 to this report.

Recommendations

Establishing an emissions baseline

Establishing a baseline and setting up monitoring of emissions will hold particular challenges, among them the requirement for mapping the heterogeneity of the carbon pool or average stocks; the carbon stock as a surrogate for CO_2 or an understanding of all greenhouse gases under different processes that trigger or stimulate emissions (water tables, fires, land management actions, land use change) and conditions (forested, cleared, drained, re-flooded, reforested and so on).

A baseline for emissions is complex since there are a number of approaches. Establishing a REDD baseline could be based on past trends, hypothetical rates of deforestation or a combination of past rates and future projections. Current estimates vary widely and an evaluation of the results of each approach will create a useful frame for countries to consider the implications of baselines for emissions. The information and data to be collected has to enable the preparation of a baseline. Emissions can vary considerably from year to year depending especially on climate-related drought and fire events, so the effect of these must be factored into the baseline.

The baseline should also be prepared at the demonstration, provincial and national scale, applying the approach for a national baseline, to assess the issues and problems of scaling up and working between levels.

To meet these challenges there will have to be a program of review, analysis, research and demonstration that:

- Outlines the processes and forms of emission;
- Assesses the current knowledge and measurement systems (or models);
- Identifies what needs to be developed and then undertakes the development; and
- Prepares a sampling regime to collect the data needed and undertake the sampling.

The demonstration will also consider issues relating to:

- Additionality – ensuring that reductions are additional to those that would have occurred without new strategies to reduce emissions;
    - Variation from the baseline;
- Leakage – ensuring that emission reductions in one area are not offset by increases in another;
    - To be monitored within the demonstration area and a broader zone reflective of the nature of threats:
        - Smaller where threats are localised – District/Kabupaten;
        - Larger where large-scale or broadly based threats are possible – Ex-Mega Rice Area or Province; and
- Permanence – ensuring that emission reductions are long term or permanent;

- Is likely to be heavily linked to the governance for the demonstration area, certainty and consistency for stakeholders and the distribution of payments from emissions reductions.

Monitoring System Requirements

The intent of the demonstration is to test and trial the elements of a market based approach to reduce emissions from deforestation in developing countries. To be credible these will need to be underpinned by appropriate systems:

- Forest carbon monitoring and accounting systems that provide robust, timely and transparent information that give both parties and investors certainty;
- Systems that meet the minimum requirements of:
  - National level and spatially explicit;
  - Real time or near real time;
  - Wall to wall, complete land coverage;
  - IPCC Tier 3, the highest level of monitoring under the UNFCCC and consistent with IPCC guidelines;
  - Data acquisition, processing, emissions estimation and accounting should be certain, transparent and continuous;
  - Capacity to address additionality, where possible;
  - Include an assessment of forest degradation to the extent possible;
  - Capacity to deal with leakage and permanence; and
  - For peatlands consider all greenhouse gases - CO_2, CH_4 and N_2O.

Emissions monitoring requires estimates of changes in area of relevant land cover types (called activity data) as well as of the carbon stock. As identified by the IFCA the accuracy "will be determined by the coarser of the two estimates". A highly accurate measure of area change but a low accuracy estimate of carbon stock will produce an estimate of high uncertainty. It has been suggested frequently that the level of certainty will determine the certainty of the carbon credit being traded and therefore its price. The more improved the measures of area change and of emissions are the more desirable the 'credit' may be in the market place and the higher its price. Getting the baseline and the estimates of emissions is a critical undertaking and the extent to which Indonesia invests in ensuring the highest quality for its potential REDD Carbon Trade will strongly influence what the country, its institutions and its industries and people can gain.

Given that the KFCP will seek to reduce a range of above-ground and below-ground emissions, including some that may or may not be REDD-eligible under current UNFCCC negotiations, it will be important for the system to be able to disaggregate monitoring of REDD emissions reductions, and other emissions reductions produced by the KFCP. This may also require disaggregation of baselines.

Technical Reference Group

It is proposed that an independent Technical Reference Group be engaged to support design and implementation of this demonstration activity while ensuring complementarity with broader national, regional, and international efforts. While much of the group's work would focus initially on scientific issues relating to peat ecology and GHG emissions, where appropriate, the panel could function as a broader technical reference group with the capacity to address other scientific issues relating to forest management and monitoring, remote sensing, baselines, the economics of REDD, forest governance and institutions, causes of deforestation and poverty etc. At least some members of the technical reference group should be engaged early in the detailed design phase.

The pool of expertise and experience available to contribute data, compare and analyse methodologies, refine or develop methodologies and standards for data collection, models and relationships, particularly for peat carbon, is relatively small and will be spread thinly if various REDD initiatives are implemented.

The expertise is also housed and associated within a small range of institutions, both Indonesian and international. However, these institutions have history, arrangements and foci that may not be consistent with each other or compatible. To ensure solid attention to the need for quality, consensus and rigour the expertise and experience available should be harnessed in its entirety if possible. To facilitate this, the Technical Reference Group is proposed to provide the scientific base and rigour that proving the feasibility of REDD will require. This group would be convened and supported by a secretariat and chaired by a scientist with experience with the Australian NCAS and UNFCCC issues and processes. The work would be tasked through terms of reference for each aspect of the data collection processes, standards and methodologies. Performance should be considered as part of those terms of reference. In addition to coordinating and guiding the work of the group, the secretariat should also ensure that knowledge is properly documented and well managed across the project.

The group members would be selected on expertise, profile and ability to contribute, with individuals being the focus not institutions. Potential participants might be selected from: the small pool of expertise that exists in relation to peat and GHGs who currently reside in Indonesia and other Southeast Asian countries, Netherlands, Australia, Finland, and Germany. The private sector in Estonia, Finland and Ireland also has considerable experience in peatland operations and management.[33]

This concept has been discussed informally with potential partners and participants. There is broad agreement with it and recognition of the need to concentrate the available expertise to both take full advantage and enable the resolution and clarification of technical/scientific aspects within and among the group members rather than between projects and initiatives. There may potentially be a broader role for the reference group outside the KFCP supporting other REDD and climate change related initiatives (such as the Dutch-supported peatland rehabilitation programs).

The initial task for the panel's peat experts would be to review and synthesize the state of knowledge on:

- Peatland characteristics;
- Peatland hydrology;
- Emissions from peatlands;
- The impact on peatlands of past management and current interventions; and
- Methods of collecting data and monitoring peatlands and emissions from peatlands.

4.3.5. Payment mechanisms

Principles for KFCP payment mechanisms

The design of payment mechanisms will be informed by lessons learned from studies of payments for environmental services (PES), rural development schemes, trust funds, and other relevant sources of information. Whatever specific form they take, payment mechanisms under the KFCP will need to fulfill several core principles (which are in turn consistent with the KFCP's broader objectives):

- Directly linked to reductions in GHG emissions.

[33] At an international peat congress held in Ireland in June 2008, AusAID established contact with a number of experts who may be able to participate in the Group.

- Balance between effectiveness and equity – Payments should be targeted to achieve the highest emissions reductions possible, while at the same time promoting poverty reduction where possible. Effective and fair payments to all stakeholders is essential to the credibility and sustainability of REDD programs.
- Accountability – market confidence will depend crucially on demonstration that funds are managed transparently, directly linked with concrete improvements, and not diverted for other purposes.
- Ability to enable transition to market-based approach. The mechanisms should be flexible enough that they could equally accept private sector funding as well as ODA funding.

It is important that the design and implementation teams appreciate the complexity of developing a payment system in situations where the various actors involved in deforestation activities may not hold legal property rights over the land being deforested. A range of actors may be targeted for these payments: establishing who to compensate and how much will be one of greatest challenges faced by the KFCP.

Financial instruments for transfer of KFCP funds

Financial mechanisms can be divided into four types:

1. Mechanisms to hold funds beyond the program period to ensure sustainability

The current funding provided by GoA is allocated for implementation of the KFCP over the next four years. It needs to provide a sustainable payment stream to those who have engaged with the program. Since the payments are based on performance at least part of the payment will be made after achieving the agreed targets. The timeframe over which payments are to be made will need to be negotiated with beneficiaries in an open and transparent manner so as to avoid giving rise to false expectations.

Depending on availability of other sources of funding and the strategies identified as necessary to encourage a sufficient degree of permanence, the duration of performance payments under the KFCP could be longer than the four-year implementation period.[34] If this is the case, a financial mechanism to hold the incentive payments until they are due will have to be established. Existing trust fund mechanisms are rarely for more than five years so new options may need to be considered during the detailed design period. Whether this mechanism is a trust fund managed by the GoA, jointly with the GoI or by a multilateral institution will depend on whether other donors contribute to KFCP through the same mechanism. The option of a private contractor or NGO managing the trust fund could also be considered.

2. Mechanisms to transfer from GoA to the GoI

In accordance with Indonesian law, donor grants have to be part of the national budget. Only programs that are considered a priority[35] by the GoI can receive donor assistance. If sub-national governments want to receive donor assistance, they will have to submit a proposal to BAPPENAS. Donors can develop proposals to provide support to GoI priorities. Upon approval by the relevant GoI departments, proposals are included in the national budget.

The KFCP is part of the IFCI Subsidiary Arrangement that has been approved by the Ministry of Finance. Under this agreement preparatory work for KFCP can continue. During the detailed design phase discussions with BAPPENAS will clarify whether GoI will include an entry for REDD demonstration activities in their Blue Book list of priorities.

[34] See section on Payment Agreements, below.
[35] GoI priorities are recorded in the Blue book.

3. Mechanisms to transfer from GoA to private entities in Indonesia

Once the KFCP is included in the national budget, AusAID, as the executing agency within the GoA (in consultation with DCC), can transfer funds directly to private contractors and civil society organisations as agreed in the program proposal. Direct transfers to GoI departments are not possible. These transfers will have to go through the Ministry of Finance.

Transactions that reach beneficiaries more directly rather than through a number of intermediaries are preferable in terms of efficiency, reducing risks of corruption and rent seeking, reducing transaction costs and increasing investor confidence.[36] Making output payments directly to contractors would separate regulatory functions by the GoI from fund management and implementation. This will increase trust on the part of the sub-contractors who are expected to make a long term investment. It may also increase efficiency because the intergovernmental transfers require a wide range of checks and balances.

Levies by district and provincial governments on direct payments to contractors could allow payments to local governments that are linked to the performance of the sub-contractors and are spread over the same period as the sub-contractor is expecting a return on investment. This would ensure that local governments maintain their commitment over the entire REDD cycle.

4. Mechanisms to transfer between GoI entities

Payments to GoI entities are passed from the Ministry of Finance to national line agencies. Line agencies can transfer resources to project bank accounts for implementation (like KDP or MNNH)[37]. This system could be used for payments to units of national departments operating at the local level.

Transfers from the national government to provincial and district governments need an agreement to enable on-granting. Indonesian implementation agreements regulating on-granting transfers are still being tested and refined. Various World Bank and AusAID programs are currently testing the on-granting mechanisms.[38] KFCP could integrate the lessons learned from these programs.

Intergovernmental transfers are generally associated with increased governance risks. The reduction of governance risks requires improved performance across a wide range of indicators and can be difficult to achieve. Financial reporting, auditing procedures and transparency policies will need to be reviewed to ensure they can deliver payments to legitimate recipients.[39] Still, some payment transfers between levels of GoI might be necessary depending on the payment systems that will develop under the Indonesian REDD system. These in turn could take many forms depending on how transactions are made from international to national levels and definitions agreed between UNFCCC parties.

In designing payment distribution mechanisms to entities within Indonesia and associated payment agreements (including basis of payment and pricing) it will be important to draw on lessons from relevant existing programs, including *payment for environmental services* (PES) programs undertaken in Indonesia and internationally.

Payment agreements[40]

1. Types of activities eligible for payment

In seeking to target payments to those actors who contribute to the outcomes of a REDD activity, it is important to identify the different ways in which that impact can take place. There are four major types

[36] IFCA Consolidation Report, "Reducing Emissions from Deforestation and Degradation in Indonesia," in preparation.
[37] KDP: Kecamatan Development Project (World Bank) MNNH: Maternity and Neo Natal Health Program (AusAID)
[38] World Bank Incentives and Local Governance Reform (ILGR) and AusAID Delivery Improvement and Local Governance (DIALOG)
[39] IFCA Consolidation Report.
[40] See Attachment 6 for further discussion of payment mechanisms and governance.

of contributions to a standard REDD activity: implementation, social and environmental impact mitigation, monitoring and regulation.

1. Implementation would include all activities that directly reduce emissions from deforestation and forest degradation.
2. Social and environmental impact mitigation compensates those who change their behaviour to reduce emission rates in the long term as well as those who suffer legitimate losses from mandated REDD implementation.
3. Monitoring includes all activities related to establishment of emissions baselines and the measurement of emission rates.
4. Regulation refers to all activities that set and enforce rules governing REDD, preventing leakage and other carbon losses (for example through fire) and creating an attractive investment climate for REDD.

Land is one of the most important inputs in the implementation of emissions reductions. While opportunity costs related to land use need to be thoroughly reviewed for future REDD activities, KFCP will primarily use Government owned land that will be made available for the REDD demonstration free of charge. In considering any payments to different levels of government, it will be important to consider the level of revenue foregone by not allocating the land for other uses such as plantations.

2. Basis of payment

To ensure that all stakeholders who contribute to emissions reductions under the KFCP do so in the right amount and at the right time, a balanced package of incentives should be composed. While the most obvious incentives are payments that match stakeholders' opportunity costs, a wide range of other incentives could influence the process, such as greater community awareness of and support for environmental protection. It is envisaged that output-based payments would be made primarily for implementation and impact mitigation costs, but there may be some scope to make payments for monitoring and regulation outputs.

Implementation. Since many questions remain around the most effective implementation methods, local actors may only be prepared to engage in output-based agreements once more information about the costs of potential reductions is known. KFCP might have to start the process using implementation at cost but could shift as soon as possible to output-based compensation. As local awareness and capacity increases, one option for entering into output-based arrangements would be for KFCP to accept proposals from CSOs and private enterprises who will accept payment for their endeavours on the basis of the size of the reduction in emissions. Some form of competitive bidding between the parties could be introduced. Since some actors may not be prepared to engage in output-based arrangements in light of credit constraints, KFCP could make some partial upfront payments, or alternatively develop financial instruments that reduce the risk of investment (e.g. insurance, soft loans, guarantees) while maintaining output-based payments.

Social and environmental impact mitigation. In an operational REDD environment, social and environmental impact mitigation will be included in the cost of implementation of emissions reductions. Under KFCP it could be more productive to separate the two functions. Different approaches encouraging behavioural change of communities could be tested. Similarly, effective methods to compensate those who suffer legitimate losses from KFCP implementation could be explored. Several methods could be used in parallel to be able to review which method provides the right incentives to create long term behaviour change.

Monitoring. Setting of baselines and measuring of emissions could be done by KFCP until the necessary GoI institutions have been established to take over these tasks. It is recommended KFCP

will also cover the cost of the wall-to-wall measurements of the Province and the Districts in which it operates. Relevant government agencies could be involved but the cost will be borne by KFCP.

Regulation. KFCP will not focus on the development of a national regulatory framework for REDD. Rather, the KFCP will take a flexible approach, monitoring developments at the national level, and adapting approaches when new national regulations come into force. There are however a few exceptions where KFCP could support district governments with the implementation and enforcement of regulations in support of REDD activities (eg. fire prevention and suppression, sustainable forestry management, community land ownership establishment). The success of these measures will depend on a clever mixture of incentives and enforcement. KFCP could work closely with the District Governments to test which combination of incentives and enforcement will result in compliance with rules and policies.

3. Frequency and duration of payment

Once output based contracts are possible, KFCP could negotiate how to account for permanence of the reductions. In doing so, approaches will need to consider how payments may fit with the frequency of the chosen emissions measuring and monitoring regime. The main methods are tonne-years, temporary credits and lease credits. Alternatively insurance and building a reserve can be considered. Each of the methods has advantages and disadvantages related to the amount as well as the timing of the payments. On average proposals for tonne-years contracts expect the carbon stock to be maintained for 55 years before the value of a carbon credit is paid in full.[41] An alternative would be to choose a net present value period such as that used in the Stern Report (30 years).

As previously noted, the current GoA funding contribution will be for the first four years of the KFCP. Direct payments may cover the first few years of the program, with a view to private sector finance stepping in to cover the remainder in later years– likely after a REDD-inclusive post-Kyoto framework is established. The KFCP will need to consider whether some payment should go into a 'risk buffer' (even if there are no formal credits) that could cover costs of any unforeseen increases in emissions beyond the implementation period. The KFCP could draw lessons from how the Voluntary Carbon Standard deals with these issues, as most of the voluntary transactions in Indonesia are using its methodology to deal with how payments are made.

The KFCP will need to consider the issue of frequency of incentive payments for stakeholders or actors with credit constraints and for whom annual payments would be too infrequent.

4. Pricing and apportioning payments

Payment mechanisms are important for KFCP at two levels: to ensure that the KFCP demonstration activity is implemented successfully and achieves GHG emissions reductions using incentives, but also to demonstrate what the real costs of each contribution to a REDD activities are and how all relevant contributions can be incentivised.

Payments made under the KFCP may not be based on a specific 'carbon price' linked to prevailing voluntary or other markets, due to the fact that the GoA resources available to implement the KFCP will be a small fraction of the potential market value of the prevented carbon emissions. However, by testing implementation and incentive mechanisms, KFCP can calculate the cost of contributions and incentives. By adding up all costs KFCP could calculate what the price of the emission reduction has been. By comparing these costs to the likely price for REDD carbon credits, KFCP could establish whether REDD is financially attractive to potential investors.

Costs related to Indonesia's readiness for REDD do not have to be taken into account for this calculation. Readiness cost can be considered as an investment that does not need to be recovered

[41] Kooten, Gerrit Cornelis Van, "Climate Change Economics: Why International Accords Fail", Edward Elgar Publishing: 2004 p94.

by REDD credits. If regulating involves operational costs however (e.g. emissions measuring) these cost will have to be taken into account. KFCP could make suggestions which mechanism could be used to cover these costs (e.g. levies, reserve on all credits, etc).

Some regulatory costs create a common good (e.g. fire prevention and suppression) that serves all REDD activities in a certain area. The operational costs per unit of reduced emissions will go down with increasing number of REDD activities. Charging the whole cost of producing this common good to the first-moving REDD activities, could undermine the viability of these activities. KFCP could calculate the cost of these common goods and make suggestions for how these costs could be covered with income from reduced emissions under a future REDD system.

Financial accountability mechanisms

Mechanisms for ensuring financial accountability of REDD are still under discussion. KFCP will have to ensure that it introduces its own systems to ensure the money is distributed and governed according to agreements, and weaknesses in the system are duly reported and dealt with. Lessons from some of the programs mentioned above may likewise be relevant for design of KFCP accountability mechanisms.

Recommendations

It is recommended that KFCP:

1. Tests accountable, transparent and equitable payment mechanisms that create positive incentives for achieving emissions reductions;
2. Calculates the cost involved in implementation, impact mitigation, monitoring and regulating (including nominal costs per tonne of CO_2), and compares whether KFCP implementation costs are lower than a) opportunity costs and b) the potential market value of the emission reductions it has realised (viability);
3. Develops arrangements for revenue allocation between all stakeholders that takes sufficient account of equity considerations as well as capacity to address key drivers of deforestation;
4. Agrees with stakeholders on the basis of payment for each contribution keeping a balance between cost recovery and an attractive investment climate for REDD activities; and
5. Designs effective incentives to ensure that communities are motivated to implement and operate the various REDD supporting behaviours: certification of land use and ownership, the enforcement of fire prevention, and the introduction of sustainable forest management.

It is recommended that the detailed design team:

1. Reviews existing information on relevant payment mechanisms (e.g. IFCA reports, PES activities), conduct focus group discussions with key stakeholders on options, and develop a recommended payment mechanism for use in implementation.
2. Convenes a workshop in Indonesia on design of payment mechanisms (e.g. applying IFCA findings, and other emerging concepts for payment mechanisms, to KFCP).
3. Designs in close cooperation with BAPPENAS and the Ministry of Finance a payment mechanism that allows disbursement of payments over the whole implementation period of KFCP activities.
4. Discusses with BAPPENAS whether KFCP is a ‘development priority’ and is entered into the Blue Book.
5. Reviews all payments KFCP plans to make with the Ministry of Finance for possible inclusion of the program into the 2009 budget.

4.3.6. Management and coordination

The main options considered under coordination and management relate to:

- Coordination of activities between the two governments;
- Coordination of activities at provincial and district levels;
- Coordination with other donors;
- Aid modality;
- Contracting; and
- Provision of technical advice.

Coordination with GoI

Several options were explored as to how KFCP would be coordinated, and in particular, how overall direction in terms of the goal, core activities and implementation strategies are decided:

- Relying on the Indonesia-Australia Forest Carbon Partnership Steering Committee;
- Relying on GoI REDD working groups (within BAPPENAS or MoF); and
- Establishing a new steering committee specifically for KFCP.

The KFCP is one activity within the Indonesia-Australia Forest Carbon Partnership. The IAFCP has a steering committee comprising agencies from GoI (BAPPENAS, MoF & MoE) and GoA (AusAID and DCC). The Steering Committee is responsible for oversight of the Partnership's activities in Indonesia, and aims to ensure activities are:

- Consistent with GoI and GoA priorities;
- Effectively coordinated with national and regional governments, other donors and international organisations; and
- Effectively contribute to assisting Indonesia in reducing emissions from deforestation and forest degradation, and in demonstrating that reducing emissions from deforestation and forest degradation can be part of an equitable and effective international agreement on climate change.

The KFCP will need to report to and take strategic direction from the IAFCP Steering Committee. The KFCP will also need to liaise with those bodies progressing Indonesia's policies and strategies on REDD. At this stage, this includes a multi-agency working group led by BAPPENAS (under the National Action Plan Addressing Climate Change), the World Bank-coordinated Indonesia Forest Climate Alliance (IFCA) and the REDD working group within the MoF[42]. The KFCP will need to work closely with these groups but the national REDD framework may change if an INPRES on a national Climate Change Commission is decreed. A national REDD working group could conceivably coordinate a range of REDD demonstration activities involving several donors.

As the KFCP will be the first large REDD demonstration activity in Indonesia it is important that it is effectively coordinated and well resourced. It is therefore recommended that IAFCP establish a separate KFCP Management Committee to provide both management oversight and technical direction to KFCP. The Management Committee could include representatives from AusAID, BAPPENAS, DCC, the Central Kalimantan Provincial Government, the Kapuas District Administration, MoE and MoF, stakeholder representation (potentially including other key funding and implementation partners, research organisations, and communities) and 2 to 3 external technical experts. The Management Committee would report to the IAFCP Steering Committee. While a relatively large

[42] These groups overlap and interact to degrees.

committee, they could play an instrumental role in the design and implementation of the REDD demonstration activity and KFCP as a whole, including:

- Review draft and final design documents and provide recommendations to ensure the REDD demonstration activity is likely to meet international and national standards in respect to:
  - The establishment of an emissions baseline;
  - The measurement of emission reductions;
  - Reporting on social and environmental impacts;
  - Calculating the cost of emission reductions;
  - Addressing other methodological and policy issues and standards, including those relating to additionality, permanence and leakage;
- Review the draft and final design documents to ensure the KFCP:
  - Includes adequate capacity building and socialisation activities;
  - Includes appropriate technical inputs (quantity and quality);
  - Gives due consideration to AusAID policies on the environmental, gender and anti-corruption;
  - Gives due consideration to GoI's planning, financial management and environmental (and other) frameworks;
  - Provides sufficient support for the promotion of results and findings both within Indonesia and internationally;
- During implementation, review work plans and monitor progress of the REDD demonstration activity and KFCP as a whole in terms of meeting objectives;
- Encourage a culture of coordination, collaboration, innovation and high performance;
- Identify opportunities to promote KFCP and its achievements, including the presentation – when appropriate – of results and recommendations that may influence policies in Indonesia;
- Help resolve disputes that arise during the planning or implementation of activities;
- Provide recommendations on external technical inputs (for example, to review progress or critically assess the results/findings); and
- Provide input to the IAFCP steering committee on a periodic basis.

The government representatives should ensure the KFCP is designed and implemented in accordance with government priorities and policies, while the external technical experts should provide the necessary technical input to the management committee to ensure KFCP is technically sound. Representation on the management committee and the specific roles and responsibilities of individual members should be finalised during the detailed design period.

Coordination within Central Kalimantan

Within Central Kalimantan, activities will be coordinated with the secretariat established specifically for KFCP by the Provincial Government. The secretariat was established in April 2008 and consists of a wide range of agencies at provincial and district levels (including representatives from the municipality and three districts that have areas within the EMRP boundaries), and representatives from the University of Palangka Raya. While there would be some overlap in membership between the secretariat and the KFCP management committee, the secretariat would play an important role in ensuring the coordination of provincial and district level entities and planning processes and implementation.

At an operational level, the KFCP will need to coordinate activities and consult with the EMRP master planning process and other forest/rehabilitation activities being undertaken in Central Kalimantan

(both by government and non-government agencies). Specific coordination arrangements at district level will need to be developed during the detailed design period, during the preparation of implementation schedules.

MoF may establish one or more Forest Management Units (FMUs) in the proposed location within the KFCP's timeframe. It is expected that the FMU will be responsible for operational forest management (including conservation) issues, and the KFCP will need to work with any FMUs established.

Donor coordination

The Ministry of Forestry and BAPPENAS both have official responsibilities for donor coordination. Donors operating within the forestry sector in Indonesia generally liaise with each other on a regular basis. The World Bank and IFCA have facilitated donor coordination on REDD issues. There is also a relatively casual broader environment donors grouping. Given the desirability of trialling a number of different approaches to REDD demonstration activities over the next 3 to 4 years, there is arguably less need for a completely harmonised approach to REDD at this point in time. However, there are a range of areas in which donor coordination and cooperation are desirable, both to avoid overlap and reduce the possibility of different messages being delivered by different donors. There is also a desire, as discussed in Section 1, for KFCP to attract additional funds over and above the initial A$30 million provided by the GoA.

Options for donor coordination need to be explored further during the detailed design period. There is however, opportunity for collaboration with a number of other donors, in particular Germany, the Netherlands and the Clinton Foundation (Norway may also in future provide funding for REDD in Indonesia). In addition to effective liaison to ensure no geographic overlap in activities, collaboration may include:

- The use of a common coordination group for REDD demonstration activities;
- The use of the same technical experts to develop (and agree to) processes for establishing emission baselines, measuring emission reductions, assessing social impact, calculating the cost of emission reductions, etc (possibly through establishment of joint technical panels);
- Support to GoI for the development and implementation of FRIS, including support and capacity building for national carbon accounting and monitoring (which would benefit not only KFCP but other demonstration activities as well); and
- Taking responsibility for specific REDD capacity building functions more broadly than an individual program (for example, GTZ may develop materials that could be used throughout Indonesia to promote and increase the level of understanding of REDD, or support the development of a national registry for REDD credits).

Aid modality

In terms of the aid modality, four options were considered, including:

1) Sectoral support: providing funds to support activities that are implemented by GoI agencies;
2) AusAID and/or DCC implementation: resourcing AusAID and/or DCC to implement activities, in consultation and cooperation with Indonesian agencies;
3) A pooled donor facility: establishing a multi-donor facility to implement an agreed program of activities in consultation and cooperation with Indonesian agencies; and
4) A managing contractor: sub-contracting the implementation of the program to an individual organisation or consortium of private and/or public organisations.

At this point in time Indonesia does not have a financial system for carbon trading and any REDD credits being traded internationally are on a voluntary basis. The KFCP may therefore contribute to

providing advice on what a future carbon financial system may look like in Indonesia. It will be important to consider whether the KFCP should be funded using the GoI financial system, as this may limit the range of options that Indonesia considers for a future carbon financial system.

Given Australia's technical expertise and experience in carbon accounting and monitoring, it is important to involve DCC in providing technical and policy support for emissions accounting and monitoring activities under the KFCP. However neither DCC nor AusAID has surplus in-house resources to implement a program of this size. Both agencies will, however, need to play lead roles and provide technical, policy and managerial inputs to the KFCP.

Given the short timeframe for incorporating REDD into a post-Kyoto climate framework (currently 2009), establishing a pooled donor facility is not considered a viable option. However, there are many advantages of harmonised aid activities, and pooled funding, and as discussed above, it is considered important to coordinate activities with other donors (and consider how the KFCP might be able to scale-up activities if additional funding becomes available from alternative sources).

It is therefore recommended that a managing contractor be engaged to implement the KFCP. DCC, AusAID and GoI agencies will need to play a key role in providing technical, policy and strategic direction and management (as discussed above), and consideration should be given to a mechanism that will allow the GoI, other donors and the private sector to contribute funds and scale-up activities. The contractor's role will also need to be sufficiently flexible to accommodate some aspects of implementation that involve output-based payments to a range of entities.

Management arrangements

As discussed above, the KFCP will be overseen at the strategic level by the IAFCP Steering Committee; it will receive management and technical oversight from a KFCP Management Committee; and it is recommended that a managing contractor be engaged to implement the KFCP. Further, to ensure coordination between other IAFCP activities, reduce costs and maximise efficiency in management arrangements, GoA proposes that management of the KFCP, other demonstration activities and admin/logistical support to REDD Readiness activities under the IAFCP be contracted out by open international tender as one broad Facility for IAFCP activities. This is detailed in a separate 'IAFCP Facility' concept note[43]. In the interim AusAID has extended an existing service contract with HK Logistics company (Jakarta office) to provide administrative and logistical support to development of the KFCP and other IAFCP activities.

The KFCP will establish its main office in Palangka Raya and base most staff in Central Kalimantan (both in Palangka Raya and within the EMRP area). A range of activities (including planning, social impact assessment, capacity building and research) will be undertaken in Palangka Raya and the district/sub-district centres in which field activities are located. The need for an office in Jakarta will be assessed during the detailed design period.

The managing contractor will sub-contract many activities, using as appropriate, local research organisations, government agencies, NGOs, the private sector and Indonesian and foreign experts. While the project design document will outline the broad program of activities and the roles and responsibilities of various stakeholders, detailed work programs will be prepared annually, and these will guide the managing contractor (once approved) in terms of actual implementation.

The specific arrangements for engaging a managing contractor are presently being prepared and will be shared with GOI in a concept paper in July 2008. An overview of the likely range of tasks required of a managing contractor is included in Attachment 6. A draft management structure for the KFCP is outlined at Attachment 10.

[43] Currently being prepared by AusAID and DCC

Technical inputs

The provision of adequate technical advice is of critical importance. There is a need for:

- Technical and policy input from DCC, AusAID and GoI agencies;
- Forest and Climate Specialists engaged by AusAID to lead the detailed design and subsequently oversee implementation of KFCP;
- A Technical Reference Group or Scientific Panel, as discussed in section 4, to refine or develop methodologies and standards for data collection, models and relationships, particularly for peat carbon, focusing on the development of processes for the estimation of emission baselines, the calculation of emission reductions,
- Social and economic experts, who will be consulted to estimate social impact, calculate the cost of emission reductions, etc.; and
- Contracting of peat emissions assessment specialists/consortium to undertake on-the-ground peat emissions accounting and monitoring activities (overseen by DCC).
- Additional technical inputs provided or sub-contracted by the managing contractor.

The requirement for technical inputs, and specific roles and responsibilities, should be finalised during the detailed design period.

Scaling up

Australia has committed up to $30 million over 4 years for the KFCP, which aims to raise an additional $70 M through contributions from or coordinated actions with private or public organisations. Under the $10 million package of enabling assistance to Indonesia, Australia has also committed $1.4m for work on peat emissions measurement, whose design and implementation will be integrated into the KFCP. This brings GoA funding covered by this design framework to $31.4 million.

Initial estimates (see below) indicate that more than $31.4 million may be required to complete the initial activities across the entire 100,000 ha site. Some additional funding could therefore be directed towards complete coverage of the identified peat dome. Any additional funding could be used for readiness or emission reduction and sequestration activities, including performance-based incentives extending well beyond the end of the initial project implementation period. This is likely to involve physical scaling up of the geographic scope of the KFCP to incorporate one or more additional peat domes (see discussion of potential sites above). Some funding contributions could be managed separately but monitored and coordinated within a common framework.

Potential investors (which may include private sector or aid donors) may fall into one or more of the following potential categories:

1. "Pure corporate social responsibility" investors have no particular interest in carbon credits for themselves, but would like to support KFCP for other reasons such as biodiversity conservation.
2. "Capacity building" investors who would like to help develop a REDD market by supporting KFCP, but they do not necessarily want to buy any carbon credits the project may generate.
3. "Building with future options" investors who also want to invest in development of a REDD market, but in addition they see their early participation in KFCP as a foot in the door to buy credits in the future. Thus, they would like some assurance they will be given options or priority as buyers if and when the project generates credits.
4. "Pure business" investors who want to see a profitable return on their money in the form of credits generated early on, or at least some fairly good assurance that their early investment will eventually pay off in the form of tradeable REDD credits.

The fourth category is limited given that no formal compliance market yet exists for REDD.[44] In this context, there is an important distinction between responsible investors who are willing to sink funds in the hope of securing future options, and rampant speculators.

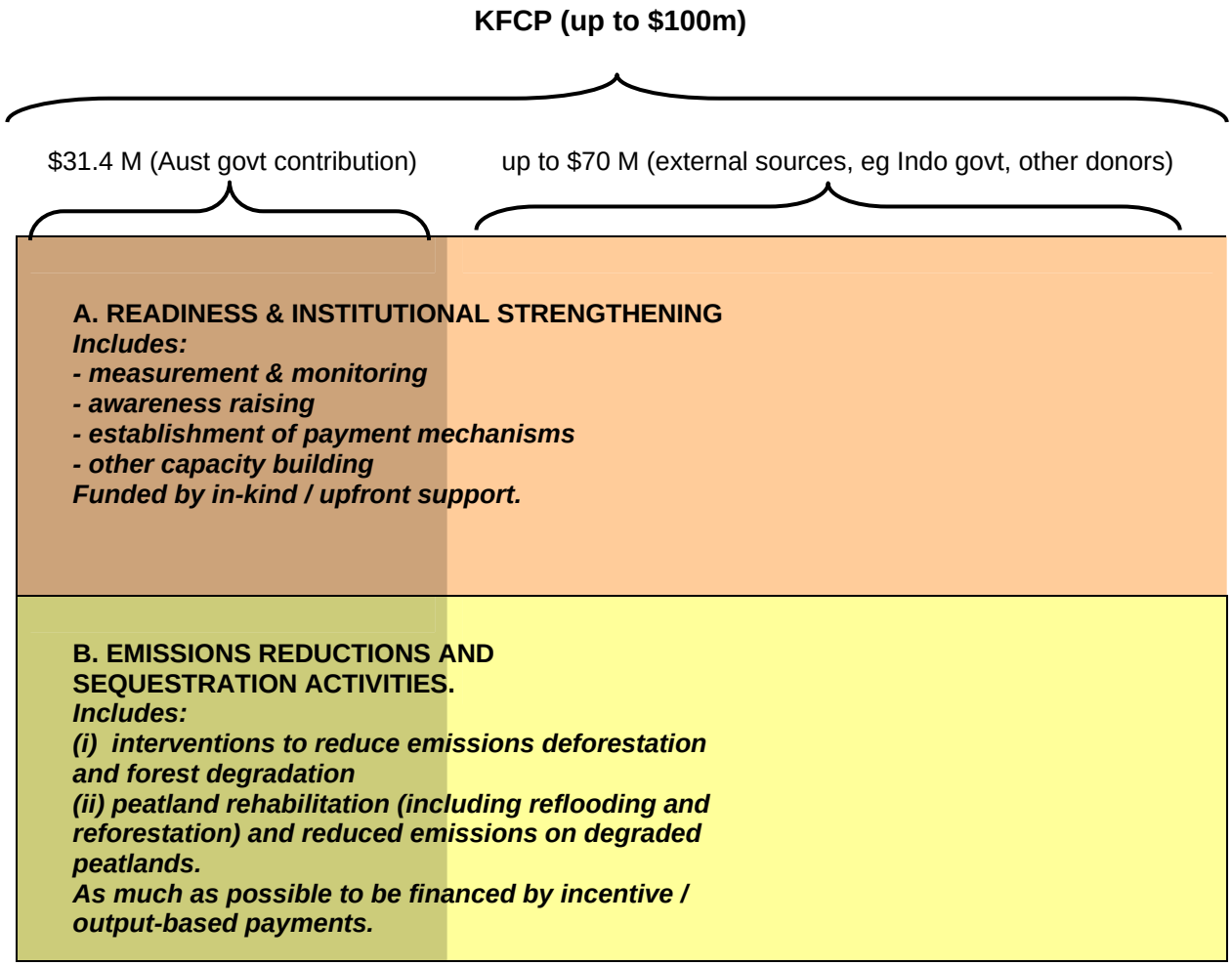
It is recommended that KFCP focus its efforts on attracting investors (including other ODA donors) in the second and third categories, that is, those who are willing to invest in readiness and build a market for the future. Private investors have already begun to show interest in REDD projects on the voluntary carbon market. Contributions from the private sector to KFCP would be encouraged, and BHP Billiton has already joined the KFCP as a founding partner with an interest in supporting forest protection in high conservation value forest areas. Any emissions reductions generated by private sector contributions would not be eligible to be certified as voluntary credits or traded on voluntary markets during the initial project implementation period. Their status after that point would need to be negotiated, with the marketing of carbon seen in the context of the sustainability strategy to be developed during the detailed design of the project.

The design team will draw on experience in the development of carbon projects to ensure the project is designed consistently with a market-oriented approach.[45] The design team will consider the appropriate role for government investment; which components of the demonstration project require government investment; and which ones could (or should) be funded by the private sector. A company with experience in the commercial development of carbon projects (eg CDM projects, voluntary carbon projects) could also be included in the team that will manage the implementation of the KFCP project and assist in identifying and overcoming barriers to Indonesian participation in international forest carbon markets.

A diagrammatic representation of the broader KFCP framework is presented below.

[44] Indeed, KFCP aims to inform the development of such a market

[45] The existence of voluntary carbon projects implies that some sectoral practice in relation to the establishment and operation of forest carbon projects is developing. This includes benchmarks for establishment and operational costs. The KFCP project should seek to take those benchmarks into account, and possibly undertaking a comparative analysis to ascertain whether there are significant variations in cost structures and whether they lead to different outcomes, eg in relation to leakage and permanence.



Note: the hatched area to the left of the diagram represents the primary scope for the existing design based on the A$31.4 million already committed by GoA.

The management and coordination processes for scaling up – should additional funding become available over and above the initial A$31.4 M – will need to be articulated during the detailed design period.

4.4. Preliminary Cost Estimate

Costs outlined in this section are preliminary estimates and depend on a range of factors which will be better identified during the Detailed Design Phase. The cost estimates are based on the rehabilitation activities for approximately 50,000 ha of degraded peatland and REDD activities within an additional area of 50,000 ha. The budget allocation of A$31.4 million includes A$1.4 million for peat carbon measurement. Other IFCI funding to support Indonesia's national forest monitoring systems is not incorporated here.

Detailed costs for the interventions will be developed during the detailed design phase on the basis of further analysis. This analysis should be guided by the following principles:

- Costings should take into account the cost-effectiveness of each intervention in generating emissions reductions, while also striking a suitable balance between the avoided deforestation and rehabilitation objectives of the KFCP; and

- As much as possible of the interventions will be paid on an incentive basis, taking into account a) direct input / implementation costs, and b) key opportunity costs such as foregone revenue, reflecting the need to provide alternative livelihoods.

Based on preliminary analysis of the relative costs of different interventions in securing emissions reductions or sequestration (measured in dollars per tonne of CO_2), it appears that the lowest-cost interventions are likely to be canal blocking, followed by avoided deforestation and (at a considerably higher cost) reforestation. Key cost sensitivities include duration of incentive payments beyond the implementation period, amount of incentive payments in excess of direct input costs required to change behaviour of all stakeholders; and (if payments are linked directly to quantity of emissions reduced) carbon content per hectare. Given the trade-offs involved between providing higher incentive payments and increasing the geographic scope (and hence emissions reductions potential) of the activity, some consideration should be given to whether some low-cost interventions should be funded on an inputs-only basis, rather than a full opportunity costs basis.

In order to determine whether input costs for rehabilitation could be met within the amount allocated for interventions, the following assumptions about input costs have been used. The rehabilitation process covering 50,000 ha may require approx. 40 dams at an average cost of $25,000/dam. Revegetation is a major component of the rehabilitation process to ensure sustainability of the ecosystem. Planting and maintenance costs of $800/ha including maintenance for up to 3 years is envisaged on only a relatively small proportion of the 50,000 ha (e.g. 12,000 ha) given relatively high costs compared to other interventions – further contributions beyond the $31.4 million would be needed to complete this work.

REDD activities in the 50,000 ha of relatively intact forest will also require a large number of small dams to be constructed as the area comprises many villages and illegal logging canals. Based on an initial sample, the numbers of dams required has been estimated to exceed 100. The dams will be quite small and estimated to cost $5,000 /dam including materials and transportation costs. Replanting of the canal buffers and areas is likely to be minimal and $200,000 has been allocated. A fire management budget of $20/ha has been allocated for the first four years.

Monitoring and accounting costs have been estimated at $2.250 million over four years. However, some of the costs of satellite imagery, vegetation mapping and carbon stock determination and burn scar analysis may be covered under other IAFCP activities funded outside the KFCP (e.g. fire monitoring and prevention and FRIS activities). Management costs have been modelled on costs for previous AusAID projects.

Timeframe & Phasing

The timeframe for the KFCP design phase is illustrated below.

Year	2008									2009				
Month	A	M	J	J	A	S	O	N	D	J	F	M	A	May onwards
Framework design mission														
Finalisation of framework design														
Detailed design														
Preparatory activities implemented														
Draft design document submitted														
Design document finalised														
Tender for facility contract let														
Facility contractor appointed														
Handover period														
Implementation continues														

The detailed design period, which will commence in August 2008 and extend for a period of up to six months, will be accompanied by a series of preparatory implementation activities, which will extend through to the end of April 2009, when a facility contractor will have been appointed and will assume responsibility for implementation. The tasks to be undertaken during the detailed design phase, including the preparatory activities, are described in Section 5.

Implementation will extend until June 2012. Detailed implementation schedules will be prepared as part of the design documentation prepared during the detailed design period.

5. DETAILED DESIGN PHASE

The content of this section of the report is regarded as preliminary and will be revised in the lead up to, and during the early stages of, the detailed design period. The detailed design will be undertaken over a six month period commencing July 2008. The head of BAPPEDA in Central Kalimantan has offered to provide an office for the interim team in the BAPPEDA premises in Palangka Raya. This will be adjacent to the EMRP master planning office (also in BAPPEDA) and is regarded as a good location to be based.

The main tasks to be undertaken during the detailed design phase include:

- Establishing an interim office in Palangka Raya;
- Confirming the location of the initial REDD demonstration in close consultation with provincial and district authorities and local communities;
- Identifying land owners and securing certainty over land tenure in coordination with relevant governments in Indonesia;
- Identifying key stakeholders and assist in establishing key decision making bodies;
- Conducting a preliminary review of the regulatory framework at national and sub-national levels for a REDD demonstration activity in Central Kalimantan, and provide recommendations to enhance REDD activities;
- Clarifying the potential area of rehabilitation, reforestation and avoided deforestation in the demonstration site, including the location of canals, their length, the number of canals to be blocked and the number and size of dams required;
- Updating the preliminary KFCP cost estimate (presented in Section 4.4) based on the above;
- Planning and conducting a Social Impact Assessment;
- Coordinating with DCC on carbon accounting and monitoring developments (including FRIS support) and on peat carbon measurement work.
- In consultation with DCC, commence a program of activities that will lead to the calculation of baseline emission levels, the monitoring of emission levels, and the calculation of emission reductions for (i) the demonstration site and (ii) a larger reference area such as Kapuas District;
- In consultation with DCC , design a program of reporting of preliminary results/lesson learned from the KFCP to inform international negotiations on REDD (with a particular focus on reporting prior to the Copenhagen COP in December 2009)
- Assessing the drivers of deforestation and forest degradation, and outlining the interventions that will be undertaken in the demonstration site, including a review of existing practices and research results, and developing a plan of activities in consultation with other government and non-government agencies working in the area;
- Identifying the roles and responsibilities of different parties and outlining in detail one or more payment mechanisms that will be trialled;

- Undertaking an assessment of local institutions that will (or will potentially be) involved in implementation of the REDD demonstration, outlining the required capacities and any capacity building support they require;
- Preparing a detailed design document; and
- Reporting regularly on the readiness to implement the REDD demonstration activity, including the level of awareness among key stakeholders of REDD and the KFCP, and their support for the proposed activities under the KFCP. To do this it will be necessary for the design team to initiate an awareness program on REDD, the REDD demonstration and the KFCP more broadly. This needs to be done in collaboration with the MoF and GTZ.

The design team will also be expected to manage inputs by representatives of those organisations (or consortiums) short-listed for implementation of the KFCP.

Additional description of the tasks to be undertaken during the detailed design period is included in the Scope of Services for the design team, which is presented as Attachment 7, along with a preliminary assessment of the technical requirements and level of inputs required during the design period.

6. RISKS, FEASIBILITY AND PERFORMANCE ASSESSMENT

6.1. Risks

A number of risks affecting the likely success of an REDD demonstration activity in Central Kalimantan have been identified. The risks, their impacts and preliminary mitigation strategies are described in Attachment 8. Although further work will be required both during the detailed design and throughout the period of implementation, the main risks identified at this stage include:

- Land use disputes or uncertainty (including allocation of land for other economic purposes such as oil palm and timber plantations);
- Parts of the recommended location are identified as a voluntary carbon trading project;
- Parts of Block E are designated as national park;
- Failure to agree and/or accept proposed payment distribution mechanisms or approaches to supporting alternative livelihoods;
- Inconsistent or conflicting policies between different levels of government;
- Lack of coordination by/with government at different levels;
- Lack of community support/engagement, including failure to address the social and economic needs of communities as part of a REDD system;
- A shortage of locally available labour for proposed interventions;
- Inability to meet $100 million funding target through raising up to additional $70 million in external funding;
- Interventions are not effective in achieving expected levels of emissions reductions; and

At this stage, the first two risks pose the greatest threat to the KFCP. It will therefore be important during the detailed design period to:

- Working in conjunction with GOI, confirm land use plans for the proposed demonstration area with both provincial and district authorities, and seek their support for the location of the REDD demonstration site; and

- In consultation with provincial and district authorities, seek clarification from Shell Canada (and Shell Indonesia) as to their intentions for conducting a voluntary carbon trading project, and respond accordingly (which may include identification of an alternative location).

6.2. Feasibility

Implementing a successful REDD demonstration in Central Kalimantan in a four year period is considered feasible, providing:

- The objectives of the KFCP remain focused on demonstrating how reducing emissions from deforestation and forest degradation, including the degradation of peatlands, may be part of an equitable and effective international response to climate change (and not on simply achieving reductions in emissions, or alleviating poverty at the expense of the actual demonstration);
- The scale of the REDD demonstration is kept to a manageable size;
- The KFCP receives adequate financial, technical and managerial support from the two governments; and
- The KFCP is supported within Central Kalimantan at provincial and district levels, and an effective working relationship is established with key stakeholders in the province.

The above aspects need to be adequately addressed during the detailed design period. Notwithstanding these requirements, there are still concerns over the feasibility of the REDD demonstration:

- From a technical perspective, the likelihood that emission reductions can be achieved is high, although:
  - Considerable research needs to be undertaken to quantify emissions from peat, and in particular, greenhouse gases other than CO_2; and
  - Agreement needs to be reached on the methodologies for establishing a baseline and monitoring emissions.
- From an institutional perspective, substantial capacity building will be required, both from a technical perspective (eg. implementation and measurements), and also in terms of the level of awareness and understanding of REDD. In addition, issues such as the capacity to provide services in relatively remote areas (including enforcement services) may need to be substantially improved if REDD interventions are to be effective and sustainable.
- From an economic perspective, it has been assumed that emission reductions can be achieved at a cost that is below the likely value of the reductions if traded on an international market. However, this has not been tested, nor has there been any detailed analysis on the likely costs and benefits specific to the proposed demonstration site or interventions proposed. This work should be initiated during the detailed design.
- From a social perspective, there are a number of challenges that need to be addressed. Foremost among these is clarifying the role that local communities play in achieving emission reductions and providing sufficient incentive to communities to achieve reductions both in the short and long term and to be engaged with / support of the KFCP. It should also be noted:
  - The proposed REDD demonstration will not require any resettlement;
  - However, it will be important that the social impact of REDD activities are fully assessed as part of the proposed REDD demonstration. Ongoing social impact assessment (including gender analysis) has been included in the activities to be initiated during the detailed design (and is discussed further in the following section).
- From an environmental perspective, the REDD demonstration is expected to have a positive impact, however, it will be important to ensure that both Australian and Indonesian

environmental guidelines are adhered to, including regulations in Indonesia that relate specifically to peat.

6.3. Performance Assessment

In addition to monitoring the progress and evaluating the outcomes of the KFCP, there is a need to:

- Measure emission reductions: The process for establishing an emissions baseline (or reference level) and measuring emission reductions has been described in Section 4.3. As discussed below, evaluation and analysis of the possible approaches and requirements for the measurement of emissions are an important outcome of the KFCP and have been identified as indicators in the performance management framework. Approaches to measuring indirect emissions reductions resulting from the KFCP should also be outlined.
- Assess social impact: As discussed in the previous section, it will be important that the social impact of REDD activities are fully assessed as part of the proposed REDD demonstration, and the social impacts are reported to the GoI and UNFCCC as part of the results and lessons learned from the REDD demonstration. The process for assessing and reporting the social impact is outlined in detail in Attachment 9.

Monitoring development outcomes

A preliminary performance management framework has been prepared (refer Attachment 9). It should be updated during the detailed design phase, and should be revised periodically during implementation.

Goal & secondary objectives

The goal of the KFCP is: the Government of Indonesia and Government of Australia will work in partnership in Kalimantan to demonstrate how reducing emissions from deforestation and forest degradation, including the degradation of peatlands, may be part of an equitable and effective international response to climate change; and to strengthen Indonesia's capacity to mitigate these sources of greenhouse gas emissions through participation in future international carbon markets.

Indicators in which the goal may be assessed include:

- The contribution that KFCP can make to international discussions on REDD under the UNFCCC;
- Contribution to international knowledge on emissions from peatland, including:
  - The measurement and monitoring of peatland emissions;
  - Successful approaches to peatland rehabilitation and reforestation; and
- The cost effectiveness of any GHG reductions made.

The timeframe for UNFCCC submissions is determined by the current timeframe for the Kyoto Protocol. The first commitment period of the Protocol is due to expire in 2012, and thus, results and lessons learned from undertaking the KFCP REDD demonstration activity need to be brought to the attention of the UNFCCC prior to 2012. While this is a short and ambitious timeframe, at present it nevertheless dictates the timeframe for the KFCP. In particular, it is also important to provide preliminary findings and results to the UNFCCC (and other national and international agencies) at intervals such as prior to the Copenhagen COP in December 2009. There is therefore a need to disseminate lessons and information about the progress of the KFCP on a regular, ongoing basis and in a consistent way.

As discussed in Section 4.1, the KFCP will have a number of secondary objectives. Indicators for which these may be assessed include:

- The development of processes for establishing emission baselines and measuring emission reductions;
- The development of payment mechanisms which provide incentives to achieve and sustain emission reductions;
- Social impact (and contribution to poverty reduction);
- Increased local capacity in various aspects of REDD, including the capacity of implementing agencies, research organisations, relevant government agencies and communities.

Component/activity objectives

Indicators for each component / activity have been specified in the preliminary Performance Management Framework, presented as Attachment 9.

Links to cross-cutting issues

The performance management framework encompasses a number of indicators which reflect the need to promote AusAID's policies on the environment, gender equality and anti-corruption:

Environment: As discussed in Section 6.2, the KFCP will have a direct and positive impact on natural resource management, environmental governance and response to climate change, three areas that are likely to feature prominently in Australia and Indonesia's future development cooperation arrangements. While various indicators have been identified in regard to natural resource management, additional indicators may need to be built into the performance management framework to highlight the potential contribution that KFCP makes in each of the above areas.

Gender: As discussed above, the social impact of REDD demonstration activities will be of critical importance, and the social impact assessment is expected to present gender disaggregated data and analyse the gender-specific impacts of an REDD demonstration. As part of the REDD demonstration activity, specific interventions (in particular those that promote alternative livelihoods) will be designed to enhance gender equality and promote the participation of women in activities which generate positive and equitable social impacts. There will clearly be a positive correlation between effectively promoting gender equality and poverty alleviation.

Anti-corruption: REDD will only be incorporated in a future climate change framework if the international market is confident that the reductions in GHG emissions are real and accurate and do not have adverse impacts on local communities. For this reason, considerable effort will be given to (i) developing processes for establishing baselines and accurately measuring emission reductions and (ii) developing fair payment mechanisms. Transparency and accountability will be promoted at all stages and in all aspects of the REDD demonstration activity.

Performance of the managing contractor

Indicators for assessing the performance of the managing contractor have been specified in the preliminary Performance Management Framework, presented as Attachment 9. An annual assessment could be used as the basis for performance-related payments to the managing contractor. A key issue to be resolve will be the extent to which the managing contractor's performance is linked to the performance of sub-contractors, and the extent to which performance is linked to overall emissions reductions. This needs to be considered during the detailed design phase.

Evaluation

Evaluation will take several forms:

- Emission reductions and the cost of reducing emissions will be calculated;

- The social and environmental impact of the proposed interventions (and payment mechanisms) will be assessed; and
- The program as a whole should be reviewed periodically.

The detailed design team should provide clear recommendations on the evaluation of the KFCP.

Attachment 1. Mission TOR (Condensed Version)

1 Introduction

1.1 The Kalimantan Forests and Climate Partnership (KFCP) is a practical and cooperative international climate change activity initiated by the Australian and Indonesian Governments. Indonesia and Australia have agreed to work together to develop and implement the KFCP to reduce greenhouse gas emissions from peatland areas in Kalimantan, Indonesia.

1.2 The KFCP aims to undertake practical demonstration[46] activities to illustrate how reducing emissions from deforestation can be incorporated in a future international climate change framework; and strengthen Indonesia's ability to participate in future international carbon markets.

1.3 The KFCP sets out clear targets for the:

- Prevention of deforestation in up to 70,000 hectares of Kalimantan's peat land forests;
- Re-flooding of 200,000 hectares of dried peat land; and
- Establishment of up to 100 million new trees on rehabilitated peat land.

1.4 The KFCP will be the first REDD demonstration activity of its scale to be implemented anywhere in the world, and is being designed at a time when the international and national frameworks for REDD are still at a formative stage of development. For this reason, the design will be developed over an extended time frame (approximately six months from the framework design mission to development of a first draft) led by a small team based primarily in Kalimantan, to facilitate progress in a new and rapidly developing environment, and allow intensive input from Governments in Jakarta and Canberra.

1.5 This initial "Framework Design Mission" aims to establish the framework for the KFCP and articulate a clear, staged process for development of a detailed design. This will enable a framework design to be debated and agreed by all parties before moving to the detailed design process. A second major component of work for the Framework design mission will be articulating the process for development of a detailed design, including; key areas of work; phasing; resourcing and team composition.

1.6 The Framework Design Team will, based on a thorough understanding of the sector and the institutions and individuals involved and/or impacted: scope and recommend a proposed demonstration activity location that is suitable for meeting the objectives of the KFCP; undertake an initial analysis of the demonstration activity area; identify key risks, issues and opportunities for the future implementation of the KFCP; propose broad components of work for the KFCP; scope and propose options for the management arrangements and institutional structure for the KFCP; appropriately position the activities undertaken under the KFCP in the context of national and international REDD frameworks; and further develop key relationships with the Government of Indonesia and Central Kalimantan Provincial Government.

1.7 Throughout this process, the Framework Design Team will need to take a flexible approach to the design and development of the KFCP to accommodate the need for ongoing input from both Governments in an evolving policy context.

[46] 'Pilot activities' are referred to as 'demonstration activities' in this document, in line with UNFCCC terminology

2 Background

Reducing Emissions from Deforestation and Degradation

2.1 The KFCP is of strategic importance to the Governments of Indonesia and Australia for its focus on '*reducing emissions from deforestation and degradation*' (REDD). REDD has potential to realise significant, low-cost greenhouse gas abatement and, pending resolution of a number of methodological and policy issues, is likely to be an important part of a post-2012 international climate change framework.

2.2 There has been considerable recent progress on REDD during international climate change negotiations. At UNFCCC COP 13 in Bali in December 2007, the process for the development of a framework for long-term cooperative action under the Convention was agreed, known as the 'Bali Action Plan'. The Bali Action Plan included agreement that a future international climate change framework should incorporate action to reduce emissions from deforestation and forest degradation in developing countries. In Bali it was also agreed that countries should proceed to undertake efforts, including demonstration activities, to trial approaches to reduce emissions from deforestation, ahead of the establishment of a post 2012 arrangement (refer UNFCCC documents listed in Annex C). Demonstration activities under the KFCP will therefore be designed to inform international discussions and contribute to showing how deforestation can be included in a future international climate change framework.

The Kalimantan Forest and Climate Partnership

2.3 The Kalimantan Forest and Climate Partnership (KFCP) was announced by the Governments of Indonesia and Australia at APEC in Sydney on 9 September 2007. The KFCP is an agreement between Indonesia and Australia to work together in reducing greenhouse gas emissions from peatland forest areas in Kalimantan, setting specific targets for preservation of 70,000 hectares of peatland forests, re-flooding of 200,000 hectares of drained peatland, and planting up to 100 million trees.

2.4 Australia has committed up to $30 million over 4 years for the KFCP, which aims to raise up to $100 million through contributions from or coordinated actions with private or public organisations. BHP Billiton has joined as a founding partner and will likely focus its contribution on the protection of forested peat lands of high conservation value.

Australia's forests and climate initiatives

2.5 Australia's $30 million contribution to the KFCP is being funded under Australia's $200 million commitment to international forest and climate initiatives. Planning and delivery of Australia's forests and climate initiatives involves a whole of government effort, led primarily by the Australian Agency for International Development (AusAID) and the newly established Department of Climate Change (DCC). Work proposed by the Framework Design Team should be informed by, and complement Australia's international forest and climate policy and aid policies.

Government of Indonesia

2.6 The Government of Indonesia has initiated a significant body of work analyzing policy and methodological issues around reducing emissions from deforestation and degradation (REDD), as part of a process to define and establish a national system and framework. Work proposed by the Framework Design Team should align with and reinforce the directions set by this work. In addition, with substantial international attention currently focused on REDD, new proposals for demonstration activities are being announced regularly (including Germany, Japan, Norway, the

United Kingdom, as well as NGOs and the private sector), and the Framework Design Team will need to consider synergies between these and the KFCP, and opportunities for collaboration.

3 The KFCP Design Process

Progress to Date

3.1 A team of government representatives from Indonesia and Australia led a scoping mission in Kalimantan from 7-12 November 2007. The mission held discussions with National Government agencies including the National Planning Development Agency, Ministry of Forestry, Ministry of Environment, and the Ministry of Foreign Affairs; the Central Kalimantan Provincial Governor and Vice-Governor; and academic institutions, donors and non-government organisations currently working in Sebangau and Tanjung Puting National Parks in Central Kalimantan Province.

3.2 The preliminary findings of the mission suggest that the KFCP REDD demonstration activity focus on Central Kalimantan Province, given the complementarities with the current national focus on implementation of INPRES 2/2007 for rehabilitation of the 1.4 million hectare ex-Mega Rice Project area, the opportunity to link into the ex-Mega Rice Master Planning process, and the receptiveness of the Central Kalimantan Provincial Governor.

3.3 Within the Province, a continuous region of 270,000 hectares should be selected for undertaking KFCP demonstration activities such as re-flooding, replanting and protection activities, and detailed carbon stock monitoring and assessment. Likely areas for consideration include Blocks E and A of the ex-Mega Rice Area, and areas within and bordering Sebangau National Park. The Framework Design Team will need to provide a final recommendation on the location for demonstration activities based on analysis of a range of factors including proposed future land use, level and nature of threats, opportunities to address threats, potential benefits to surrounding areas, and the impact of land-use in surrounding areas. Following agreement on the demonstration activity location, a larger area (possibly Province-wide) will be selected for monitoring to assess leakage.

3.4 Work in the ex-Mega Rice Project area will need to coordinate with the ex-Mega Rice Masterplan process currently underway, which will be a key source of information for the design team. (Note: The ex-Mega Rice Project area is located in Central Kalimantan, covering approximately 1.4 million hectares. Project work, consisting of land clearing and channel construction, took place from 1996 to 1998. Canals were built for irrigation but resulted in the draining of peat lands, which led to irreversible collapse of large natural peat dome structures, and subsequent drying of the peatlands. The combination of drainage and increased access led to forest die back and illegal logging of remaining tropical forest resources. In many parts of the Mega Rice Project, especially large areas of peatland with considerable depth, conditions for agricultural food crop production were found to be unsuitable. In 1998 the project was halted, but this remains the largest area of degraded peatland in Indonesia, and its rehabilitation is now a national priority).

3.5 A significant body of work on how incentive-based approaches to REDD might look has been carried out, however, significant uncertainty remains about the conditions for successful implementation. A range of key issues will need to be addressed in the development of the framework and detailed designs for the KFCP.

3.6 It is proposed that the KFCP design be developed over an extended time frame (approximately six months from the initial framework design mission to first draft of a detailed design), with work led primarily by a small team based in Kalimantan. This team may also trial or commence some

preliminary project activities. A diagrammatic representation of the proposed design process is presented as Annex B.

Framework design mission

3.7 The KFCP design process will be initiated through a three-week Framework Design Mission, comprising officials from Australian, Indonesian and possibly other donor agencies, along with technical and design specialists to produce a design framework for the KFCP (focusing primarily on the $30 million Australian government contribution, but building in flexibility to scale up if further funding becomes available from other sources). The mission will:

1. Develop a Design Framework for the KFCP which will form a basis to a) develop a detailed design and b) inform organisations/consortiums submitting capability statements for the scope of work proposed;
2. Define areas to be addressed within capability statements from submitting organisations/ consortiums;
3. Develop a 'Scope-of-Services' for an Interim Phase of work, setting out a process for development of a full design, a limited number of initial activities, resources required and team composition; and
4. Establish draft, high-level performance assessment and risk management frameworks.

Phase I: Detailed design phase, and early implementation

3.8 The next stage, Phase I (Interim, or Detailed Design Phase) involves mobilising a small Interim Team to develop a detailed activity design, building on the agreed design framework, and undertake some preliminary activities. The Interim Team will be based primarily in Kalimantan, and will comprise personnel with design and program management expertise, bringing in a range of additional short-term technical expertise as required.

3.9 The work of the Interim Team will be defined as part of the framework design mission, but will likely include (in addition to developing the design document):

- establishing an interim office;
- building relationships with key Government and non-Government contacts in Kalimantan and Jakarta;
- undertaking preparatory work with communities to better understand community dynamics and drivers of deforestation in the target area/s;
- initial community land-mapping;
- facilitation of initial work on baselines and monitoring (in coordination with DCC); and
- assessing the capacity of the market to undertake work required in Phase II.

As the detailed design is finalised and a Phase II long-term managing contractor is procured through a tender process, the Interim team will continue to implement or pilot activities to maintain momentum and generate lessons which contribute to the future phase of work.

Phase II: Full activity implementation

3.10 Phase II will involve full implementation of the final Program Design. If possible, it is proposed to use a two-step process to select the long-term managing contractor (Note: this relies on sufficient progress being made on the design framework), the objective of which is to use the first step to select a shortlist of organisations prior to finalisation of a detailed design, to allow those organisations to be more closely involved in the development on the design than is traditionally the case. This aims to build greater understanding and ownership of the program as designed.

Following agreement of the design framework, organisations and consortiums will be invited to submit capability statements setting out their ability to deliver this work, and from this a sub-set of applicants will be short-listed. The second stage of selection will proceed following agreement of the detailed design, on the basis of technical and financial proposals from those shortlisted bidders.

4 Framework Design Mission Scope

4.1 The mission should address the issues and questions set out in the table below:

AREA	ITEMS TO ADDRESS
1. Location	• Recommend a proposed location for demonstration activities that is suitable for meeting the objectives of the KFCP and aligns with GoI criteria; and outline the rationale for this decision, including a comparison with other possible locations. • Briefly outline physical, social and institutional characteristics of the selected area (land tenure, forestry practices, threats) not already defined above *(note: detailed work to confirm a well defined boundary, taking into consideration issues of leakage and permanence will form part of the detailed design process; however, initial identification of issues is desirable)*
2. Governance	• Clarify the GoI's plans for institutional arrangements for REDD at the national and sub-national levels; and outline how these will impact on the proposed activity • Clarify the structure, location, leadership and level of resources available through existing institutional arrangements. This should consider the roles of the Ministry of Forestry's Forest Management Units); • Flag key capacity building needs in key institutions
3. Program management	• Propose options for the management and institutional structure for the KFCP, taking into account the GoI's plans above, existing structures, and coordination with other donors. • Identify how the KFCP will integrate with Australia's forest and climate activities. • Propose a site for the KFCP Interim Program office
4. Carbon inventory and accounting	• Confirm that the recommended demonstration activity location will be suitable for future GHG inventory, accounting and monitoring requirements under the KFCP. • Identify key permanence, leakage and additionality issues for the proposed demonstration activity site and comment on how these issues could be addressed • Broadly determine key information needs for carbon monitoring and accounting at the Provincial and National level; and ways the KFCP can contribute to these via technology transfer, knowledge building etc. • Identify key principles for aligning monitoring at demonstration activity level with future local and national level monitoring (including the FRIS). • Flag key risks or issues affecting the feasibility of this component of work; and strategies to address these
5. Flooding and reforestation of peatlands	• Confirm that the recommended demonstration activity location will be suitable for peat re-flooding and reforestation activities under the KFCP • Identify key components of peatland reflooding and reforestation work, building on findings from Aug 2007 the fire and peatland mission

	• Prepare an overarching cost estimate for re-flooding and reforestation activities in the proposed activity areas • Briefly assess the capacity of local institutions to carry out the reforestation and re-flooding work; and propose options for addressing any limitations or shortfalls • Flag key risks or issues affecting the feasibility of this component of work; and strategies to address these
6. Avoided deforestation	• Define the key threats of deforestation for the recommended demonstration activity site; • Propose key strategies to address threats (preliminary only) • Define likely cost of abatement per hectare, based on existing analytical work (prelim estimate only) • Discuss options for incentives/ possible recipients of incentive payments and outline key issues for the design team • Comment on the issues/treatment of leakage and permanence • Flag key risks or issues affecting the feasibility of this component of work; and strategies to address these
7. REDD budget and financing mechanisms	• Assess current and proposed levels of support/funding from GoI for REDD • Discuss options for, and issues linked to disbursement of REDD funding (linked to risks below), including feasibility of using government systems and advantages of different mechanisms (e.g. trust funds)
8. Policy issues	• Identify key policy issues to be resolved in the development of demonstration activities. • Flag requirements for alignment with UNFCCC requirements and processes (including how REDD and non-forested peatland should be treated)
9. Partners	• Flag any new priorities for donor co-ordination (links to Item 3 above) • Flag options for engaging additional partners in the KFCP (other donors; private sector), and how additional resources could be used (e.g. expanding geographical scope, strengthening biodiversity objectives) • Consider capacity of organisations, including Australian Government institutions and private sector organisations based in Indonesia to provide assistance to support the proposed work
10. Feasibility	• Make a broad assessment of technical, institutional, economic and social feasibility, bringing together the work above; and from this, identify key risks.
11. Next steps	• Draft a Design Framework for the KFCP, setting out activity goal (and/or purpose), key principles, proposed broad activity components, and management arrangements, to form a basis for a detailed design process. • Establish draft, high-level performance assessment and risk management frameworks. • Develop a 'Scope-of-Services' for an Interim Phase of work, setting out a process for development of a full design, further information needs, team composition, and a limited number of initial activities as appropriate. Flag how local communities and stakeholders should be consulted/ involved in development of the detailed design. • Define areas to be addressed within capability statements from submitting organisations/consortiums;

Framework Design Team

5.1 The team will comprise:

- Team Leader: Design Specialist/ Economist (Mike Finlayson)
- Local and Community Governance/ Incentives Specialist (Guy Jannsen)
- Forests and Climate Specialist/ Assistant Forests and Climate Specialist (Grahame Applegate)
- Carbon monitoring and assessment specialist (Peter Moore)
- Local level social, institutional and forestry expert (Alue Dohong)
- GoA representatives (Greg Picker, Robin Davies, Jean-Bernard Carrasco, Dan Heldon, Jonathan Pickering, Gaia Puleston, Claire Watt, Didi Marjimi)
- Government of Indonesia Representatives (TBC, MoF, Bappenas)
- Representative from the German Government (Georg Buchholz, GTZ, observer status)

5.2 The following GoA representatives may also accompany the Framework Design Team during parts of the mission:

- Robin Taylor, Counsellor, Rural Development and Environment, Jakarta
- Farzana Ahmed, Institutional specialist, AusAID Jakarta

5 Reporting

5.1 Presentation of an Aide Memoire in Jakarta on 11 April 2008;

5.2 A draft mission report by 18 April 2008; and

5.3 Pending feedback by AusAID and DCC, a final mission report incorporating comments should be available by 22 May 2008.

Attachment 2. Itinerary and Organisations Consulted

Date	Location	Organisations/People Consulted
25 March	AusAID, Jakarta	Robin Taylor & Dan Heldon
	BAPPENAS, Jakarta	Roundtable meeting chaired by BAPPENAS and including representatives from MoF, MoE and DFAT
	Ministry of Forestry, Jakarta	Forestry Research and Development Agency staff (including Wahjudi Wardojo, Nur Masripatin)
	Ministry of Forestry, Jakarta	Michael Jaeger (FLEGT)
	Jakarta	Manfred Kiefer (KfW)
26 March	World Bank	Mario Boccucci
	Netherlands Embassy	Ben Zech
	UK Embassy	Adrian Wells & Shan Mitra
	Ministry of Forestry, Jakarta	Bureau of International Cooperation staff [Pak Yuyu, Pak Edi – GA to update names]
	Jakarta	Edward Dreyfus & Ruby Shang (Clinton Foundation Climate Initiative)
27 March	BAPPEDA, Palangka Raya	Syahrin Daway Thanpunah (Sector), Syahrin Dulauy (BAPPEDA) Moses Nico Demos (Environment)
	Governor's Office, Palangka Raya	Governor
	Forestry Office	
	Environment Office	
	WWF Office, Palangka Raya	Roundtable meeting with WWF, CARE, BOS, Wetlands International and University of Palangka Raya
28 March	BAPPEDA	Aljosja Hooijer & Marjolijn Haasnoot (EMRP Master Plan)
29 March	BAPPEDA, Pulang Pisau	Suwanto E. Sumen (Head, BAPPEDA)
	Bupati's Office, Kapuas	H.M. Mawardi (Bupati), Surarua Nahan (Deputy Bupati) & others
30 Mar-2 Apr		
Group 1	EMRP area – Blocks A, B & E	Tjatur Setiyo Basuki, Sabinus Matius Melano, Fransiscus Xaverius & Kisar Odom (BOS management & staff – Mawas program) Village fire brigade, Mentangai Wayne Sowards (Shell Canada) Households in Tuanan Pak Tue (Village Head) and other leaders in Batampang
Group 2	Sebangau National Park & EMRP area – Block C	Rosenda Chandra Kasih, project leader (WWF), Pak Edi (National Park Manager), Pak Wagiso (Head of Area 1 of the National Park)
	EMRP Block B	Albinus Awat (small-scale woodlot investor)
3 April	Palangka Raya	Paul Kimman, Jolanda van den Berg, Dersi Hermanto, Peter van der Meer, Jan Verhagen & Jos Houterman

Date	Location	Organisations/People Consulted
		(EMRP Master Plan)
	University of Palangka Raya	Dr Aswin Usap
	CARE, Palangka Raya	Pietra Widiadi & others (CARE) & Kandida de Groot (EMRP Master Plan)
4 April	BAPPEDA, Palangka Raya	Syahrin Dulauy
	Research Site	CIMTROP
5-7 April	Jakarta	Report writing & team meetings
8 April	Bogor	CIFOR ICRAF
9 April	Jakarta	Fazanah Ahmed (AusAID) TNC
10 April	AusAID, Jakarta	Roundtable with Georg Buchholz (GTZ), Suzanne Billharz (USAID), Renate Pors (Government of the Netherlands), Yasuo Iijima & Hideki Miyakawa (JICA), Joe Leitmann (World Bank), Ria Butarbutar (European Commission), Michael Coren (IFCA), Rajpal Singh (Singapore Embassy) & Bobur Alimov (Asian Development Bank)
	Ministry of Forestry, Jakarta	Follow-up discussions
11 April	BAPPENAS, Jakarta	Presentation of Aide Memoire to BAPPENAS, MoF, MoE, BAPPEDA (Central Kalimantan) & AusAID

Attachment 3. Key Documents Reviewed

Documents presented showing author, date, name of report or article (in bold), then the organisation or website in which to access the document.

1. Ansori, M. & Dohong, A., February 2005. **Experiences in Working Closely with Communities in Carrying Out Peatland Hydrological Restoration Activities at the One Million Hectares Ex-Peatland Project, Central Kalimantan, Indonesia**. Paper included in the proceedings of "Carbon forestry: Who will benefit? A workshop on carbon sequestration and sustainable livelihoods'. Bogor, 16-17 February 2005.
2. AusAID, November 2007. **Indonesia Forest and Peatland Fire Prevention and Management Pre-Feasibility Study Report** (final draft). AusAID, Jakarta.
3. AusAID & DCC, 2007. **Global Initiative on Forests and Climate: Strategic Implementation Plan**. AusAID, Canberra.
4. BAPPENAS, December 2007. **National Development Planning Response to Climate Change**. BAPPENAS, Jakarta.
5. BOS Foundation, undated. **Mawas Conservation Program**. www.orangutan.or.id
6. Euroconsult Mott MacDonald & Delft Hydraulics, November 2007. **Master Plan for the Conservation and Development of the Ex-Mega Rice Project Area in Central Kalimantan: Inception Report** (draft). Royal Netherlands Embassy, Jakarta.
7. Hooijer, A., Silvus,M., Wosten, H. & Page, S. December 2006. **PEAT-CO2: Assessment of CO_2 Emissions from Drained Peatlands in SE Asia**. Delft Hydraulics (aljosja.hooijer@wldelft.nl)
8. IFCA, undated (released December 2007). **Reducing Emissions from Deforestation and Forest Degradation: REDD Methodology and Strategies – Summary for Policy Makers**. Ministry of Forestry, Jakarta.
9. Kanninen, M., Murdiyarso, D., Seymour, F., Angelson, A., Wunder, S. & German, L., 2007. **Do Trees Grow on Money? The Implications of Deforestation Research for Policies to Promote REDD**. Centre for International Forestry Research, Bogor.
10. Ministry of Forestry, undated. **Indonesia's Forestry Long Term Development Plan: 2006-2025** (unofficial translation). Ministry of Forestry, Jakarta.
11. Ministry of Forestry, undated. **Ministry of Forestry Strategic Plan: 2005-2009** (unofficial translation). Ministry of Forestry, Jakarta.
12. Murdiyarso, D. U. Rosalina, K. Hairiah, L. Muslihat, INN. & Suryadiputra dan A. Jaya, 2004. **Petunjuk Lapangan Pendugaan cadangan Karbon pada Lahan Gambut**. Proyek CCFPI. WI-IP dan Wildlife Habitat Canada, Bogor.
13. National Working Group on Peatland Management, August 2006. **National Strategy and Action Plan for Sustainable Management of Peatlands**. Ministry of Environment, Jakarta.
14. Republic of Indonesia, November 2007. **National Action Plan for Addressing Climate Change**. State Ministry of Environment, Jakarta.
15. Stern, N., October 2006. **Stern Review on the Economics of Climate Change**. Office of Climate Change (www.occ.gov.uk/activities/stern.htm)
16. UNFCCC COP, December 2007. **Bali Action Plan**. http://unfccc.int/meetings/cop_13
17. World Bank, DFID & PEACE, 2007. **Indonesia and Climate Change: Current Status and Policies**.

Attachment 4. International Response

The international engagement on forest and climate issues in Indonesia is summarised below. Other international involvement in REDD activities more closely relevant to the KFCP is outlined in Section 3.3.

Asian Development Bank

The ADB has had limited engagement in Indonesia's forestry sector in recent years, although has provided some technical assistance, including training for MoF on the Clean Development Mechanism (CDM) and technical advice on forest fire management. An ADB team visited Jakarta in September 2007 to explore regional policy dialogue and coordination between governments on cross border issues including transboundary haze pollution and the Heart of Borneo initiative.

Clinton Climate Initiative

The Clinton Climate Initiative has announced its intention to develop a global carbon monitoring system, based on Australia's national carbon accounting system (refer Section 3.2). In addition, the Climate Initiative has indicated that it is considering the establishment of REDD demonstration activities, possibly in Indonesia.

CIMTROP

The Centre for International Cooperation in Management of Tropical Peatland (CIMTROP) was established at the University of Palangka Raya under the direction of Dr Suwido Limin. The centre was established in 1992 and became a semi-independent international research centre in 1998. CIMTROP is a centre of collaboration for institutions, including the University of Nottingham, University of Helsinki, Gajah Mada University, University of Sriwijaya, Can Tho University, University of Malaysia Sarawak, University of Leicester, Hokkaido University and Ludwig-Maximilians University Munchen, Alterra (an arm of Wageningen University) and Kalten Consultants (a company based in Germany). While retaining links to government agencies in Central Kalimantan, CIMTROP is also a portal for a range of international research programs that focus on peat and has a range of activities under the CIMTROP umbrella, including a natural Laboratory of Tropical Peat Swamp Forest of approximately 50,000 hectares and other field sites in two districts. A range of activities have been undertaken, including canal blocking and an analysis of dam types and effectiveness, and CIMTROP has been the primary organiser for, or heavily involved in, a number of conferences on peatlands that will provide valuable background, data, context and contacts for the detailed design and the REDD demonstration. A list of conferences and additional details on CIMTROP can be gained from their website (http://cimtrop.itgo.com/).

DFID

The main DFID program is the Multi-stakeholder Forestry Program II, which is designed to be open to broader cooperation with other international donors and national partners who intend to grant their contributions through the Partnership for broadening or scaling-up the reach of the program.

The purpose of the program is to fund and support multi-stakeholder partnerships that improve forest governance and deliver more equitable benefits to primary forest stakeholders and more sustainable management of forest resources. This will contribute to the goal of reducing deforestation, and promoting growth in the rural economy where 10 million of Indonesia's poorest people depend on forest resources.

To achieve this, the program will provide grants and support to a number of local and national partnerships with government, civil society and business. Local civil society partnerships will be

supported through province-based Community Foundations that have already been established to support citizens' participation, build local capacity and livelihoods, encourage networks and influence forest policy. The following critical policy areas have been identified as early priorities for the new partnerships under this program, but these may change and evolve as national and international policies develop:

(i) halting illegal logging and its associated timber trade, with a particular focus on negotiations and compliance with the EU-GoI Voluntary Partnership Agreement and other international arrangements;

(ii) addressing poverty through more equitable and sustainable management of natural resources, with a particular focus on the rights and opportunities through community forestry for disadvantaged and women's groups;

(iii) tackling corruption and weak law enforcement, including forest crimes and money laundering, weak forest revenue tracking, and bad practice and diligence over industrial forestry and biofuel investments; and

(iv) implementing new tenure arrangements for stabilising land-use, rehabilitation of degraded forest lands and reducing carbon emissions from deforestation as part of Indonesia's strategy for mitigation of global climate change.

Germany

Germany has a history of engagement with Indonesia in forestry, although since the mid 2000, they reduced their involvement in the forestry sector to the Support for Forest Management Project. Current activities include:

- Technical assistance to strengthen management capacities in the MoF, including support for the establishment of Forest Management Units (GTZ);
- A debt-for-nature swap for the protection of three national parks in Indonesia (KfW); and
- Contributions to IFCA.

Germany and Indonesia have agreed during intergovernmental negotiations in October 2007 to embark on a new priority area "Climate Change" and to formulate an overall cooperation programme for this priority area consisting of two sub-programmes: (1) Environment and Climate Change with the Ministry of Environment and (2) Forest and Climate Change with the Ministry of Forestry with contributions of financial and technical cooperation.

In 2007 and in April 2008 GTZ undertook an overall design of the Technical Cooperation (TC) – module under the Climate Change sub-program with the Ministry of Forestry. This work focused on the appraisal of the Heart of Borneo Initiative within the TC-Module in preparation for the joint KfW/GTZ feasibility study. This work which involved AusAID in the role of an observer for part of the field activities in West Kalimantan[47] to ensure there is no duplication/conflict with other donor activities and to look for areas of collaboration provided input for the overall design of a coherent approach for the Forest and Climate Change, ensuring a consistent concept of the overall bilateral cooperation in the Priority Area Climate Change. The work proposed in the Heart of Borneo Initiative is likely to contain four REDD demonstration activities, on sites in Kalimantan.

A Feasibility Study will be undertaken in June/July 2008 to focus on the Heart of Borneo region and to examine the viability of proposed options including REDD demonstration activities (pilot interventions) and assess the risk of pilot scheme implementation, given different quantities of carbon stocks and the level of threat whilst balancing the capability to implement such an activity by key actors and implementing agencies. The geographical focus of the Feasibility Study will be the four provinces in

[47] GTZ provided an observer to the KFCP Framework Design Mission in April 2008.

Kalimantan. However, other regions will be considered if insufficient demonstration sites/ suitable project participants can be identified. It is expected that the Joint Feasibility Study will yield sufficient information in order to elaborate an overall Forest and Climate Change Sub-Programme document, designing elements for both technical and financial assistance.

European Union

GTZ is the implementing organisation of the European Union's South Sumatra Forest Fire Management Project, which focuses on fire prevention and fire fighting by improving community based fire management and establishing effective prevention and fire fight command structures at provincial, district and village levels.

In addition, the European Union is funding a relatively small program aiming to develop sluices in parts of the EMRP area to assist in the re-flooding and rehabilitation of degraded peatland. The program has a budget of €750,000 over three years from January 2007.

Japan

The latest input by Japan relevant to the KFCP is the Project for the Support of Forest Resources management through Leveraging Satellite Image Information. The Project will be executed by BAPLAN within the Ministry of Forestry with the project to commence in June 2008.The main aim of the three year project is to improve the reliability of the forest resource and monitoring carried out by BAPLAN and to upgrade the BAPLAN capacity. The satellite technology which will be used is the PALSAR radar image data provided by Japanese satellites. This is the same technology that is being planned by Forest Resources Information System (FRIS) within BAPLAN. The FRIS development is currently being assisted by the Government of Australia, as the information will be required as a necessary component of any national carbon accounting system also proposed for Indonesia. Hence the links between the JICA project and the KFCP and Australia's assistance to FRIS are interlinked.

Malaysia

A taskforce meeting to develop the framework of collaboration between Malaysia and Indonesia in dealing with land and forest fires in Riau was held in May 2007. Following the meeting, a project design for the province has been developed. The Department of Environment will be the lead agency for the Government of Malaysia. The project will initially extend for a period of 12 months, and is expected to lead to a longer term program of action over the next five years.

Singapore

The Government of Singapore is negotiating with Indonesia on the provision of assistance to Muara Jambi District in Riau Province. Singapore supported the preparation of a Master Plan to deal with fire management in the district. The Master Plan was developed at a workshop in Singapore in March 2007 and identified short and long-term projects and possible collaboration with regional and international organisations. Activities identified in the Master Plan focus on improving community resource management and related fire use, and improving the capability of plantation companies to suppress fires. The Master Plan has five key elements:

- Fire prevention;
- Fire suppression;
- Legislation and enforcement;
- Early warning and monitoring; and
- International and regional assistance and collaboration.

Netherlands

The Government of the Netherlands is funding the EMRP master planning process and Central Kalimantan Peatland Project.

EMRP Master Plan

The Netherlands is funding Euroconsult Mott MacDonald & Delft Hydraulics (and other partners) to prepare a Master Plan for the EMRP area. Preparation of the Master Plan commenced in October 2007 and is expected to be completed in July 2008.

The goal of the Master Plan is to lay out a comprehensive implementation plan which addresses technical, environmental, socio-economic, cultural and institutional issues related to, and impacting on the long term sustainable rehabilitation of the EMRP area.

The expected outputs of the master plan include:

1. A comprehensive set of spatial planning products (maps and spatial databases) at scales of 1:100.000, which present updated administrative boundaries, current land cover and peat depth for the whole EMRP area;
2. Identified hydrological units within the overall EMRP area as a basis for the development a functioning landscape based hydrological simulation model and present on maps at scale 1:100.000;
3. A land suitability map identifying conservation and potential agricultural production areas, based on analysis of basic indicators of land capability resulting from 1 and 2 (above);
4. Applied hydrological simulation models and associated software, allowing for identification of channel blocking locations in conservation areas and proper irrigation design in agricultural areas, and taking into account the requirement to:
    - Introduce measures for optimal water management to reduce adverse impact on bordering peat land conservation areas, and the reduction of acidity problems stemming from inflow of water from peat domes;
    - Build capacity within end user institutions;
    - Water management instructions and capacity building allowing area managers to maintain optimum water levels in areas of conservation and agricultural production;
5. Completed design prototypes and production of alternative channel blocking technology (dam bodies) for selected locations for hydrological rehabilitation of varying sizes of channels as a means for ecosystem restoration;
6. A strategy for sustainable livelihood development in conservation areas, taking in consideration the need for a regulatory framework based on principles of collaborative management;
7. A strategy for re-greening and management of conservation areas, taking in consideration relevant factors such as landscape characteristics, proposed land use, cultural linkages and potential livelihood development and/or enhancement;
8. A strategy for livelihood development support in agricultural production areas, taking into consideration integration and possible improvement of existing programs, and including:
    - A proposal for strengthening of rural extension and input supply services preferably using performance based incentive systems;
    - A series of (updated) technical extension materials covering a menu of options for agricultural, horticultural and agro-forestry crops;
9. A strategy including design criteria for fire suppression infrastructure;

10. A communications and information sharing strategy applicable for employment under subsequent up-scaled broad based GoI and non government involvement;
11. A completed financial and economic analysis including wider environmental cost accounting, such as: avoided haze associated cost and greenhouse gas emissions, downstream impact on productive agriculture; and
12. An analysis of the potential for multi-donor financing and a proposed fund management structure linking such support to GoI initiatives.

Central Kalimantan Peatland Project

CKPP provides assistance under five key result areas. Some of the achievements to date, based on information provided by CKPP, includes:

Key Result Area #1: Fire Prevention

- Established 40 community fire brigades in 25 villages
- 75 traditional fish ponds constructed
- Fire teams mobilized on 65 occasions during the 2006-7 dry season
- 3 fire alert posts established

Lead Agency and Geographic focus:

- Palangka Raya University (Block C & Sebangau National Park), Care International (Block C & Sebangau National Park) & BOS Foundation (Block E and its bufferzone).

Key Result Area #2: Water Management & Hydrological Restoration

- 16 large dams constructed in EMRP & Sebangau National Park
- 180 small dams constructed in EMRP & Sebangau National Park
- More than 775 community members involved in dam construction

Lead Agency and Geographic focus:

- Wetlands International (Block A North & bufferzone of Block E), BOS Foundation (Block E and its bufferzone), WWF (Sebangau National Park) & University of Palangka Raya (Block E & Sebangau National Park).

Key Result Area #3: Poverty Reduction

- 15 community 'off-farm activity' groups established, involved 288 farmers
- 25 hectares 'zero burning peat agriculture' pilot tested, involving 23 farmers
- 29 agro-forestry groups established

Lead Agency and Geographic focus:

- CARE International (Block A, C, E & Sebangau National Park), BOS Foundation (Block E and its bufferzone), Wetlands International (Block A North) & WWF (Sebangau National Park).

Result Area #4: Re-greening

- 1,478 hectares planted
- 2,694,850 seedlings produced

Lead Agency and Geographic focus:

- BOS Foundation (Block E and its bufferzone), Wetlands International (Block A North), WWF (Sebangau National Park) & Palangka Raya University (Block C).

Result Area #5: Biodiversity Conservation

- 4 resort offices and 1 guard post established within Sebangau National Park

- 10 security patrols facilitated within Sebangau National Park
- 2 anti-illegal logging joint operations implemented within Sebangau National Park (1,078,360 logs equivalent to 34,795 m^3 found and confiscated)
- 8 guard posts constructed & regularly maintained
- 342 river patrols and 99 ground patrols implemented within MAWAS[48] area (168 illegal activities detected)
- 13 aerial monitoring patrols completed (21 illegal logging cases detected)
- 1 research shelter built, and 10 km and 9.5 km board walk transects built and maintained in the Tuanan & Bagantung forest areas, respectively

Lead Agency and Geographic focus:

- BOSF (Block E and its bufferzone) & WWF (Sebangau National Park).

United Nations Development Program

UNDP is currently assisting Indonesia with its second national communications report under the UNFCCC. UNDP has also assisted in a rapid assessment of Indonesia's greenhouse gas emissions prior to COP13. A World Bank-Netherlands proposal to GoI to strengthen the national strategy on adaptation was finalised and was presented at COP13.

UNDP is working with MoF to develop a proposal to improve management of buffer areas around protected peatlands, thereby reducing the pressure on peatlands. The proposal was submitted to the Global Environment Fund (GEF) pipeline in October 2007, with detailed design to take place in 2008.

United States

USAID is implementing the Orangutan Conservation Services Program, which is based in Pangkalanbun in Central Kalimantan. The program provides grants to NGOs (including DAI and TNC) to implement activities to maintain orangutan habitat in National Parks, improving community livelihoods (as alternatives to illegal logging), developing opportunities to work with industry to conserve orangutan habitat, and orangutan management.

World Bank

The World Bank provided assistance to Indonesia under IFCA for the preparation of UNFCCC COP13. In addition, the World Bank completed a mission to the Ex-Mega Rice Project, and while focusing on hydrology and engineering, supported the blocking of canals and re-flooding of degraded areas of peat. The World Bank is not, however, discussing further input to the EMRP. However, the World Bank has considerable interest in REDD and has potential to fund activities in Indonesia, particularly through the World Bank's Forest Carbon Partnership Facility (FCPF). The FCPF aims to assist developing countries in their efforts to reduce emissions from deforestation and land degradation by (i) building capacity for REDD in developing countries, and (ii) testing a program of performance-based incentive payments in some pilot countries, on a relatively small scale, in order to set the stage for a much larger system of positive incentives and financing flows in the future. Further details can be found at http://carbonfinance.org

Regional Initiatives

There are several regional initiatives that relate to peat fires or peatland management and/or rehabilitation:

[48] The MAWAS area refers to the eastern part of Block E and is a name developed for and reflecting the project area (as defined by BOS Foundation).

The ASEAN Australia Development Cooperation Program includes a project to improve peatland management and reduce land and forest fires and associated transboundary haze pollution in the ASEAN region. Peatland fires contribute to smoke-haze that can cover much of the ASEAN region for months and cause significant social, economic, health and environmental problems. The ASEAN Agreement on Transboundary Haze Pollution was signed in 2002, entered into force in 2003, and acts as a framework for regional cooperation to address problems of fires and associated transboundary haze pollution. The ASEAN Peatland Management Strategy was endorsed by the ASEAN Environment Ministers in November 2006 to act as a framework to guide the sustainable management of peatlands in the period 2006-2020. The Strategy contains 13 focus areas, including: assessment of peatlands; awareness and capacity building; policies and legislation; fire prevention, control and monitoring; and regional cooperation. ASEAN Member Countries are to operationalise the strategy through the development of National Action Plans and joint activities at regional level.

The International Fund for Agricultural Development (IFAD) and Global Environment Facility (GEF) are jointly funding a project titled 'Rehabilitation and Sustainable Use of Peatlands in South East Asia' (GEFSEC ID 2751). The project goal is to promote the sustainable management of peatlands in South East Asia to sustain local livelihoods, reduce risk of fire and associated haze and contribute to global environmental management. The project has an immediate objective to demonstrate integrated management of peatlands in South East Asia through strengthened capacity, multi-stakeholder partnerships, and testing of innovative approaches and rehabilitation in pilot sites. The project is expected to have five outcomes:

1. Capacity for sustainable peatland management in South East Asia strengthened;
2. Reduced rate of degradation of peatlands in South East Asia;
3. Integrated management and rehabilitation initiated at targeted peatlands;
4. Local communities and the private sector actively contributing to sustainable peatland management; and
5. Project effectively managed and technically guided.

The 'RESTORPEAT' project involves 14 European and South East Asian (research-based) organisations, including the University of Palangka Raya, and aims to:[49]

- Coordinate international activities that address global and regional issues of carbon balance, water management, biodiversity conservation and poverty alleviation related to restoration and management of tropical peatland;
- Provide access to existing knowledge and expertise and conduct targeted research on restoration of tropical peat swamp forest to promote sustainable livelihoods of local people; and
- Provide a scientific and technological framework for knowledge transfer and human capacity development related to restoration of tropical peatland to the benefit of the European Community and developing countries.

[49] Refer http://www.restorpeat.eu

Attachment 5. Supporting Analysis

This attachment includes information on:

- Governance arrangements; and
- Emission accounting and monitoring mechanisms.

A. Governance Arrangements Required for the Demonstration Activity

Role of the demonstration activity in informing REDD governance

National and international frameworks for governing REDD programs are still evolving. Demonstration activities have limited capacity to speculate on how those frameworks might eventually turn out. The KFCP demonstration does not want to pre-empt the political debate. Its focus will be on testing issues on which general agreement has been reached.

Since demonstration activities aim to demonstrate a range of aspects (not limited to REDD governance), it will not be fatal if the demonstration activity adopts a governance structure that is not subsequently taken up at a national level. Design of governance of the demonstration activity should where possible be informed by a) Indonesia's own plans for a national framework, and b) options identified in international research and policy discussions on how REDD governance could be implemented. Where no clear agreement exists, flexibility should be built into structures and processes (e.g. through the setting up of 'interim' bodies).

Many of these issues are being discussed within the context of IFCA, and the KFCP should seek to draw on this knowledge, and where possible engage with relevant national and international contacts involved in IFCA. In addition, the demonstration activity provides an opportunity to inform the development of a national framework. KFCP will seek to encourage national decision making on issues that are important for the successful implementation of the demonstration.

Governance arrangements required for the demonstration activity

Governance is a cross cutting issue that touches on each aspect of the implementation. This section will briefly touch on a number of governance aspects of each component of the design framework, with a particular focus on elements of governance that will need to be in place in order to enable the KFCP (and other demonstration activities where applicable) to operate effectively. It also identifies KFCP's potential role in supporting those elements of governance and possible further actions.

Governance issues related to implementation [see components 2 and 3]

- A National policy framework for regulation and establishment of REDD demonstration activities generally (e.g. site selection criteria, standard requirements for demonstration activities). KFCP will ensure it is in line with the criteria set in these regulations.
- Approved spatial plan and land ownership for areas where KFCP will be working. KFCP can only proceed when land use planning is finalised and fixed for the implementation period. KFCP could assist with clarification of ownership through community land mapping.
- GoI position on additionality and permanence. Until the GoI position on additionality is final, KFCP will measure emissions reduction against provincial and district level baselines. KFCP will not make payments for credits but will use output based payments for sub-contractors. KFCP will test all major methods currently under discussion until the GoI position on permanence is final.
- Sustainable forest management framework should encompass not only enforcement but also a positive incentives approach, including incentives for fire prevention and suppression.

KFCP will work within the existing framework to introduce mechanisms to incentivise interventions which result in reduced emissions. KFCP will assist the district governments with effective fire prevention measures.

Governance issues related to emissions monitoring and accounting [see component 4]

- Institutions and systems required to establish baselines and monitor emissions reductions. If the institutions and systems have not been established, KFCP will bring together all relevant stakeholders to perform the necessary functions on an informal, interim basis.
- Agreement on methodological issues related to setting baselines and measuring reductions. KFCP will proceed with international panels of experts to establish baseline and measuring methodologies. The KFCP standards can be fed into the national debate about methodologies.
- GoI position on leakage. KFCP will measure leakage at the district levels where it is operating. It will also measure leakage at the provincial level. KFCP will explore whether district and provincial governments would be open to taking responsibility to prevent leakage in their area. It also aims to inform national and international discussion about leakage.

Governance issues related to payment mechanisms [see component 5]

- International financial transfer mechanism that allows for long term financial disbursements for emission reductions that may continue beyond the formal end of the KFCP implementation period. An agreement on the financial transfers will be reached during the detailed design phase.
- Mechanisms that allow intergovernmental transfers on the basis of performance. KFCP might have to consider alternatives in close consultation with the relevant GoI Departments, if intergovernmental transfer mechanisms are still being refined when the KFCP starts.
- Agreements between GoA and relevant Indonesian stakeholders on payment arrangements, including basis for payment and method of apportioning payments. KFCP's major contribution to the REDD governance is to measure real costs of activities and testing how responsibilities can be incentivised.
- Mechanism for ensuring financial accountability of payments. In the absence of formal audit arrangements, KFCP will be audited in accordance with the rules that govern international development assistance between GoA and GoI.

Other governance issues

A range of other functions will be required for a full national REDD system. These include:

- Management of REDD credits (e.g. a national REDD registry, clarification of ownership rights to credits);
- Systems for coordinating sub-national and possibly national baselines; and
- Regulatory measures for assessing (and where possible minimising) leakage on a national scale.

Given uncertainty about how these functions could be established, they will not be modelled in the KFCP, but where possible elements of the KFCP will be designed to promote compatibility with these elements of the National framework should they be introduced in future. In doing so, it may be possible to refer to existing national institutional arrangements for other emissions reductions activities, such as Indonesia's framework for coordination of Clean Development Mechanism activities.

Recommendations

It is recommended that KFCP:

- Contributes to governance arrangements of REDD programs by focusing on measuring real costs involved in REDD activities and testing how all relevant contributions can be incentivised.
- Will not focus on the development of a national regulatory framework. That it remains flexible enough to adapt when new National regulations come in force. That it engages with relevant national and international contacts involved in IFCA and other fora with a specific focus on the regulatory framework.
- Tries to encourage national decision making on issues that are important for the successful implementation of the demonstration (ex. land ownership rules).
- Supports District Governments with the implementation and enforcement of regulations in support of REDD activities (ex. fire prevention and suppression).
- Defines and negotiates with all relevant stakeholders how the implementation will proceed if the relevant governance arrangements are not in place.

It is recommended that the Detailed Design Team:

- Reviews the critical governance arrangements with the relevant institutions and clarifies which institutions are responsible for each of the critical governance functions (including division of responsibility across national ministries, and between national and sub-national levels of government). Establishes a likely timeline for the development of the critical governance functions, and where necessary negotiates the fall-back position with the relevant institutions.
- Clarifies with GOI and donors (e.g. through IFCA) which functions are being developed with the support of international donors. Identifies which functions could be supported by IFCI.
- Analyses all the available options for international financial transfer mechanisms that allows for long term financial disbursements for emission reductions. Supports AusAID with the negotiation of the best option for both the GoI and the GoA.
- Analyses all the available options for mechanisms that allow intergovernmental transfers on the basis of performance. Supports AusAID with the negotiation of the best option for both the GoI and the GoA.

The following matrix lists governance functions (and a draft list of entities in the GoI responsible for these, pending detailed consultations with GoI) that will need to be involved for the implementation of the KFCP demonstration activity and to identify issues and questions that need to be resolved in order for those functions to work effectively.

Function	Responsible entity in GoI (DRAFT)	KFCP role / further action required
Implementation [see components 2 and 3]		
National policy framework for regulation and establishment of REDD demonstration activities generally (e.g. site selection criteria, standard requirements for demonstration activities)	Ministry of Forestry (Regulation is expected in July 2008)	KFCP is proceeding with site selection in close coordination with the Ministry of Forestry. Once regulation has been issued KFCP will ensure design is inline with the criteria.
Coordination arrangements between the province and districts in which KFCP is operating to allow joint governance of KFCP	Province of Central Kalimantan (Secretariat for Coordination has already been set up)	

Function	Responsible entity in GoI (DRAFT)	KFCP role / further action required
Approved spatial plan for the EMRP and any other area where KFCP will be working	National Secretariat under coordination of Bappenas (Process of negotiation is ongoing)	Land use planning will have to be finalised for the areas where KFCP is planning to work before the start of the program.
Ensure long term land use assignments for the areas where KFCP is working. (Official land use of land allocated for KFCP demonstration will not change during the implementation period)	Ministry of Forestry, Provincial Government, District Governments	KFCP will try to obtain assurances that land use would not change in the course of the implementation period. REDD programs in general would lose credibility if sustainability cannot be guaranteed.
Clear land ownership for the areas where KFCP will be working	Communities, District Governments, Provincial government, Ministry of Forestry, National Land Agency	While most areas where KFCP will work are part of the national forest estate, some smaller areas might be considered part of traditionally held community forest. KFCP could assist with community land mapping where this can clarify ownership.
Establish position on additionality:	GoI UNFCCC negotiating team, Ministry of Forestry, Ministry of Environment	Until GoI position is final, KFCP will consider a provincial baseline and a baseline for each district in which KFCP operates. Emissions reduction will be measured against that baseline. KFCP focuses on land use improvement rather than on rezoning of land use. Effectiveness of different project interventions will be measured.
Establish position on permanence.	GoI UNFCCC negotiating team, Ministry of Forestry, Ministry of Environment	KFCP will not make payments for credits initially but will use output based payments for sub-contractors. KFCP's approach to permanence will also need to be informed by emerging international good practice.
Sustainable forest management framework should encompass not only enforcement but also a positive incentives approach, including incentives for fire prevention and suppression.	Ministry of Forestry	KFCP will work within the existing framework and will introduce mechanisms incentivising interventions that result in reduced emissions.
Implement effective fire prevention measures	District Governments	KFCP will assist the district governments with the formulation and implementation of effective fire prevention measures.
District development plans compatible with KFCP objectives	District Governments	KFCP will implement in line with development plans of the districts. KFCP will raise awareness with

Function	Responsible entity in GoI (DRAFT)	KFCP role / further action required
		district and provincial governments about REDD in general and KFCP in particular to ensure development plans are compatible with KFCP objectives.
Social and environmental impact mitigation regulations	Bappenas, Provincial Government, District Governments, Ministry of Environment	In the absence of relevant regulations KFCP will use an international standard for social and environmental impact assessment.
Emissions monitoring and accounting [see component 4]		
Institutions and systems required to establish baselines and monitor emissions reductions	National Government	Until the institutions and systems have been established, KFCP will bring together all relevant stakeholders to perform the necessary functions on an unofficial basis.
Agreement on methodological issues related to setting baselines and measuring reductions	Institution responsible for establishing baselines and monitoring emissions	KFCP will proceed with international panels of experts to establish baseline and measuring methodologies. The KFCP standards can be fed into the National debate about methodologies.
Establish position on leakage.	GoI international negotiating team. Ministry of Forestry. National registry (once established), Ministry of Environment	KFCP will measure leakage at the district levels where it is operating. It may also measure leakage at a broader level.
Payment mechanisms [see component 5]		
International financial transfer mechanism that allows for long term financial disbursements for emission reductions that may continue beyond the formal end of the KFCP program	Ministry of Finance, Bappenas	Agreement on the financial transfers will be reach before the start of KFCP. There are however a wide range of options that could be negotiated between the GoI and the GoA.[50]
Mechanisms that allow intergovernmental transfers on the basis of performance.	Ministry of Finance, Bappenas, Ministry of Interior	Until intergovernmental transfers on the basis of performance are effective, KFCP will have to consider alternative transfer mechanisms in close consultation with the relevant GoI Departments.[51]
Agreements between GoA and	Communities, Sub-Contractors,	KFCP's major contribution to the

[50] The available options should be explored during the detailed design period.
[51] During the detailed design period experiences with the AusAID Incentives Program for Improved Governance will be reviewed and alternative options will be negotiated with the relevant departments.

Function	Responsible entity in GoI (DRAFT)	KFCP role / further action required
relevant Indonesian stakeholders on payment arrangements, including basis for payment and method of apportioning payments	District Governments, Provincial Government, Bappenas, Ministry of Forestry, Ministry of Finance	REDD governance is to measure real costs involved in REDD activities and testing how responsibilities can be incentivised. KFCP's success is dependent on reaching effective payment mechanisms for all stakeholders.
Mechanism for ensuring financial accountability of payments	Institution responsible for establishing baselines and monitoring emissions, National Audit Agency	Until formal audit arrangements are approved, KFCP will be audited in accordance with the rules that govern international assistance between GoA and GoI.

B. Emissions Accounting and Monitoring

In preparing for REDD there is a need to:

- Decide on definitions;
- Decide on baseline characteristics;
- Determine suitable accounting and monitoring data and ascertain access to necessary data;
- Decide on a system for national baseline setting; and
- Decide on a methodology for monitoring.

Indonesia will need to establish a system for time series data as well as improvements in long-term data and methods. Climate change more than any other challenge requires a reconsideration of the way in which the agencies of government relate to each other, share resources and share information.

Five steps are essential to ensure an effective and functional forest monitoring system:

- Clear understanding of responsibilities — who does what and when;
- Regular and timely reporting of accurate and precise data;
- Access to data between different groups inside the ministry, government and stakeholders;
- Using the data to have improved decision making; and
- Using the data to enforce laws.

Not all these requirements will be met through the work on the measurement regime. The new Forest Resource Information System (FRIS) is a logical beginning for a Government-wide integrated decision and policy support system.

Establishing a Baseline [52]

A baseline is a projection of emissions from deforestation and degradation against which reductions in emissions can be measured. The baseline is prepared based on projected area change of forests and a calculation of the change in carbon stocks that the change would represent. The change in area and the carbon stock represented by the change in vegetation must both be estimated with an acceptable level of certainty. Since it is likely international credits will be awarded against a National baseline only if it is particularly important in the context of a market for trading in emissions.

[52] This section has drawn on the IFCA Draft Consolidation Report of February 2008.

As a result of the work undertaken by the IFCA prior to the COP 13 in Bali, the likely approaches to setting a 'baseline' or reference period against which to benchmark reductions in deforestation and degradation were identified. They and the questions associated with them are:

1. A linear projection of the past - over which time interval and how far back?
2. An average of past conditions - again over which time interval and how far back?
3. A modelling projection based on unplanned (unsanctioned) activities and planned land use to meet development goals - which models and how far into the future?

Where deforestation and degradation in natural forests or protected areas is unplanned a historical spatial analysis may be appropriate. Modelling may be more suitable where conversion of forest estate to plantation for non-forest uses such as oil palm estates is planned.

Historic baseline

Logically the time period, termed the reference period, chosen for historic baseline projection has a critical influence on the result. Rates of deforestation change over time due to a range of factors, sometimes speeding up and at other times slowing. Indonesia has a history of periodic severe fire seasons, for example 1982/83, 1992/93, 1997/98, that will need to be considered. Inclusion or exclusion of a particular fire season in an historic baseline will also have a strong influence. Depending on which baseline is chosen there are substantial differences in the potential pool of carbon credits.

Modelled baseline

Applying a modelling approach allows the identification and assessment of affects in the future of the drivers of deforestation that include population growth and economic development. The IFCA process notes that economic models can be used to project deforestation based on planned development. This enables variation between provinces in a country to be identified and considered, such as a relatively undeveloped province where large areas of the forest remains as compared to a province with strong development where forest has been converted. An analysis that considers the full suite of drivers for deforestation requires a wide range of related primary, secondary and proxy data. Collecting, collating and verifying data to predict the deforestation pattern is a key task in modelling a baseline.

A baseline for the KFCP demonstration activity

There is not yet any internationally agreed guidance on developing REDD baselines. The process for this will be subject to negotiation among Parties. Whichever approach is negotiated, a credible baseline of emissions from REDD should be established for the KFCP using existing scientific and technical tools and models. Both approaches will need to be developed for the demonstration activity in order to inform international negotiations and enable Indonesia to consider options and approaches to national baseline preparation that most suitably reflect national circumstances.

Assessment and monitoring will be required at a range of scales as part of the KFCP. Crediting may be based on local or project level activities in the context of a broader national approach while accountability for leakage could lie with national governments or potentially with provincial authorities. Project level baselines and monitoring will support assessments of changes to local carbon stocks and emissions for the purpose of carbon crediting. The capacity to monitor forest cover and factors relating to emissions will support the assessment of permanence. National assessments, a national carbon accounting system, will identify leakage by wall-to-wall coverage that will monitor all relevant lands for change. The KFCP will need to be designed in a way to complement and integrate with this national system as it is developed.

Monitoring against a Baseline

REDD demonstration activities require a credible reduction in emissions from deforestation and degradation to be measured against the baseline at specific intervals, for example annually. The monitoring will confirm the effect of REDD activities, management change and policies variation in terms of reduced emissions against the baseline. In a fully developed REDD project, this should include monitoring of the displacement of deforestation and degradation from one area to another, the "leakage". Emission reductions identified compared to the baseline may then be made available as carbon credits.

For the KFCP, the two key parameters to be monitored are:

1. Change in forest cover which includes change in forest area and reduction in forest cover; and
2. Change in carbon stocks and emissions of non-CO_2 gases.

Remote sensing provides a strong approach to monitoring forest cover change that is constantly evolving, considering new data sets and refining approaches. Indonesia is currently considering a system, guidelines, and protocols for measurement and processes for preparing a national carbon accounting system. This demonstration of REDD under the KFCP will identify the underpinning science, data collection methodologies and approach for applying a national baseline at the demonstration, provincial and national scale to assess emissions over time and inform knowledge around the issues and problems of reporting the carbon account from local to national levels. While detailed data collection will focus primarily on the specific locations selected for the KFCP demonstration activity area, the methodologies developed would have broader benefits for Indonesia's FRIS and assessment of tropical peat carbon stocks and flows internationally.

Present Methodologies for Assessing Forest Information

Indonesia has commenced work in evolving its existing approach to forest information and the collections of historical and scientific data into FRIS, with the support of the World Bank, the Government of Australia and others. FRIS will enable baseline and emissions monitoring through the development of some the key elements required, some of which have been discussed and are being incorporated in the design of FRIS. These include among other elements:

- Review existing models relevant to peat systems, especially those which model emissions and stocks, rather than just stocks;
- Review and improvement of existing sampling protocols to ensure that the methodologies meet all the requirements of Indonesia including aspects such as root to shoot ratios and wood density;
- Review of existing allometric equations relevant to Indonesian tree species;
- Development of carbon stock estimates for all the Permanent Sample Plot and Temporary Sample Plot data;
- Review and analysis of all national scale spatial datasets;
- Estimation of carbon stocks through destructive sampling and assessment of changes in total soil C under differing land uses;
- Demonstration of how to apply same standards at all the different levels - national, project, scientific levels;
- Analysis of non-CO^2 emissions from peat lands using chambers ;
- Analysis of combustion efficiency of peat under differing conditions, including non-CO^2; and
- Methods of fire mapping in peat systems.

These activities are also required for the KFCP demonstration activity. The aim is that the KFCP will be designed to complement the work on Indonesia's national carbon accounting system. In doing so, it will take advantage of the concentration of resources and support already existing in the province, within GoI, and from other sources, and enable the development and testing of elements of the Indonesia's national carbon accounting system at useful scales.

Present Methodologies for Assessing Peatland [53]

For tropical forests on peat soils, the greenhouse gases from peat usually dominate the emissions from disturbances such as wildfire, deforestation and conversion to agriculture, or forest degradation. The non-CO_2 emissions, CH_4 and N_2O, from peat are very important due to their high Global Warming Potentials. Change in peat depth can be a very poor indicator of net GHG emissions from disturbed (e.g. burned, drained, cultivated) peat. There is marked variability in emissions from peatlands and capacity to estimate GHG emissions from peat is low. Information required includes:

- Spatial distribution of peat soils;
- Properties and depth of peat ;
- Spatial extent and nature of wildfires and management burns;
- Combustion of peat and associated emission factors for individual GHGs; and
- Trends over time in emissions of CO2 and non-CO2 gases after disturbance.

A systematic program of new research and collection of supporting data to address the above gaps should be conducted within the framework that is used to operationally estimate GHG emissions.

There have been some methods applied for assessing peatland carbon. Broadly these have involved:

- Existing Soil Maps developed by various sources and at various scales from 1:250,000 to 1:1000,000 at different times using methodologies to be identified and assessed;
- Information on peatland thickness, types and area from various sources collected at different times using methodologies that do not appear to be heavily documented; and
- Bulk density and carbon contents of peatlands where available, though this does not appear to have been widely collected using methodologies to be identified and assessed.

Refinements required to assess peatland for national carbon accounting include:

- Effective mapping of peatland distribution, peatlands and peat characteristics (such as depth, density and type) through:
    - Compilation and analysis of existing data for preparation of base maps, data compilation and processing;
    - Assessment of existing methodologies for assessing peatland and peat characteristics and the setting out of methodologies for peer review and confirmation to establish standardised methods;
    - Ground survey to confirm presence and characteristics of peatlands using standardised methods;
    - Development of correlations and relationships with remotely sensed data;
    - Review of existing methods, including the field guide developed by Murdiyarso et al (2004), and others to identify a standardised method or methods to evaluate in field trials;

[53] This section has been prepared with reference to material from the Forest and Peatland Fire Prevention and Management Pre-Feasibility Study Report FINAL DRAFT 9 November 2007 and a brief note on research needs for GHG fluxes in peat soils prepared by R.J. Raison (john.raison@csiro.au), Chief Research Scientist, CSIRO Forest Biosciences, Canberra Australia.

- Area burnt is a key input for estimating GHG emissions from peat soils;
    - Burnt area assessment using remote sensing techniques has been researched with some management applications;
    - Ground truthing and field verification is needed to confirm the reliability of estimates based on remote sensing;
- Combustion of peat:
    - The amount of peat actually burnt in wildfire or in management burns is a critical determinant of GHG emissions, and highly spatially variable with subjective judgements of this variable having been used;
    - Moisture content of the peat, which is determined by seasonal rainfall and by peat drainage activities, appears to be the most important variable;
    - Field studies under a wide range of conditions are needed to determine the relationship between moisture content and the depth and mass of peat burnt;
- Emission factors for CO_2, N_2O and CH_4 emissions during peat fires;
    - Very little data is available for peat fires and measurements of GHG emissions during combustion of different peat under a range of burning conditions are needed; and
- Temporal trends in CO_2 and non-CO_2 GHG emissions:
    - Systematic field measurements to quantify the effects of disturbance in peat systems should aim to develop a process-based understanding of the observed GHG fluxes that can then be used, through tested models, to make broader-scale estimates.

Additional Aspects of Peat

In the mission there was the opportunity to visit and consider field activities and operations that have been conducted by the stakeholders and actors working in the EMRP area and in Sebangau National Park. The team and those they met noted the issues of remote sensing to track changes in peat emissions. There were a number of aspects about peatlands that require clarification and further consideration:

- Peat Hydrology:
    - The efficacy of canal blocking and planning the restoration of peat lands requires a clear understanding of how water moves through peat:
        - Where does the water come from?
        - How fast does it move through the peat dome?
        - What influences the movement of water through the peat and peat domes? Gravity? Hydraulic forces? Capillary action?
    - Water table movements:
        - There are a number of records of the water table height. The method for obtaining that data requires validation and is not clear;
        - The ‘natural’ variation of water tables in undisturbed peatland and in peatland under various types of management does not appear to be identified;
        - The response of water tables to actions such as canal blocking and replanting has been recorded but the patterns are not clear, the influences on the water table may vary depending on:
            - Peat characteristics;
            - Canal size;
            - Type of dam for blocking;

        - Water flow in the canal;
        - Hydrology of peat;
        - Peat dome shape and height;
    - The influence of replanting trees on water tables;
- Canal blocking:
    - Observations in the field and the data on water tables do not paint a clear picture of the effectiveness of canal blocking in re-flooding and restoration of peatlands;
    - Discussion with some wetland and hydrology specialists and the University suggest that the effectiveness of dams blocking canals is not clear and needs to be confirmed; and
    - It may be that the apparent variation in performance of canal blocking is due to the varying characteristics of peat among and between the locations.

Reviewer Comments

The following comments on GHG accounting issues were made in response to an earlier draft of the KFCP Design Framework document by peer reviewers:

John Raison, Research Scientist, CSIRO Sustainable Ecosystems

1. An ability to account for net GHG change resulting from management interventions, to an internationally acceptable standard (sufficient to permit trading), is fundamental to the project. This will require significant investment to improve existing approaches that provide only very approximate estimates of GHG balance. Revised methods need to deal much better with heterogeneous forest, peat soils, and the effects of climate and management-induced variability in fire. The tropical peat forests are probably the most challenging ecosystem on the globe in which to reliably estimate change in net GHG balance.

2. Most rapid improvements in GHG methodology can be made from review and synthesis of existing information, followed by targeted research to reduce uncertainties of key variables such as fire emissions. Longer-term research is needed to understand the time course of change in GHG emissions following interventions such as removal of drains. A philosophy of incremental improvement will need to be applied, including to calculation of baselines (initial estimates are likely to be quite uncertain).

3. The GHG accounting (and associated research) work in Kalimantan needs to be well connected to development of the National GHG Accounting System. The work program would likely follow the following steps:
    - Define the National GHG accounting framework and methods (addressing key policy needs, issues of spatial and temporal scale, appropriate models, national data sets to 'drive' the models)
    - Review and synthesis of existing information in relation to the above needs, leading to definition of key gaps in knowledge or data
    - Design a research and monitoring program that addresses short-term as well as more strategic needs.

4. Formation of the scientific panel (initially focusing on GHG accounting) is needed at an early stage to advise on and conduct some of the work identified under point 3, above, as well as to advise on approaches to, and calculation of baselines. A large amount of work is proposed for the next 6 months (point 9, page 85 of the report). The panel would need to comprise key experts from a number of countries (Indonesia, Australia, Netherlands, UK, Japan, Norway..) and aim to use their connections to find mechanisms for accessing, critically reviewing, and using the significant amount of relevant work conducted in the region over the last decade. Importantly, the panel will need adequate resources to conduct some of the necessary work itself, or to commission assistance from others.

Efforts are needed to ensure, to the extent possible, that activities (including new research) conducted in the KFCP complement other related activities being conducted in the region. The scientific panel could provide advice on some of these issues with the aim of achieving maximum collective benefit.

Josep Canadell, Global Carbon Project, CSIRO Marine and Atmospheric Research

The Framework Design Mission of the KFCP is very comprehensive and with an authoritative understanding of the major elements affecting greenhouse gases (GHGs) emissions in peatland regions in Central Kalimantan and the potential for reducing emissions through rehabilitation and avoided deforestation. The following comments are largely to emphasize some critical elements for a successful implementation:

1. International Partnership. It cannot be stressed enough the importance of building an international alliance among the few groups already working on the region, both i) research groups working on aspects of the carbon balance of peatlands, and ii) groups working on rehabilitation programs. This is important to build upon the existing experience and scientific knowledge but also to ensure that a large project like this one will reinforce the success (not the opposite) of other smaller and valuable projects that are already taking place in the same area and surroundings. This alliance needs to be larger than the more focus technical committee supporting the implementation of the KFCP and closely linked to the Master Plan for the Conservation of the Ex-Mega Rice Project, as already described in the document.
    - Some of the groups working on research components are: United Kingdom (Susan Page-ecology; Allan Spessa-modeling of fire emissions), Finland (Jyrki Jauhiainen-gas exchange, CO_2 and CH_4), The Netherlands (Al Hooijer), Germany (Florian Siegert-fire from remote sensing; H.-D.V. Boehm-high-resolution airborne laser-scanner), Singapore (Al Hooijer with University), Japan (Hirone Takashi-carbon balances, Hindone Takahashi-hydrology).
    - Some of the groups working (or intending to work) on rehabilitation programs: CarboPeat (European based), Shell, Global Environmental Center (Faizal Parish-Malaysia), Borneo Orangutan Survival, Wetlands International
    - Two key Indonesia experts on peatland rehabilitation: Swedo Hestern Limin, Nyoman Suryadiputra

2. Uncertainties on Emission Estimates. The current level of uncertainties on GHGs emission estimates from fires and decomposition are large enough to require a major research effort associated with the project. The "Deforestation Avoidance" component of the project is less challenging and one that is suitable for an application and further development of the Australian National Carbon Accounting System (NCAS). The "Rehabilitation" component of the project will

require a substantial investment on targeted research to produce the base lines and monitor GHGs emission reductions from the various proposed interventions.

Attachment 6. Roles of managing contractor

AusAID proposes to appoint a managing contractor to manage Australia's inputs to the Kalimantan Forests and Climate Partnership (KFCP). The KFCP is expected to commence in January 2009 following a detailed design phase (during the second half of 2008). The KFCP is expected to extend for a period of 3.5 years.

Pending confirmation of the approach from GoI, it is intended to contract delivery of the KFCP as part of a larger facility delivering the broader IAFCP program, which encompasses additional enabling support (and any additional demonstration activities which might be supported under IAFCP). This approach aims to provide greater flexibility in program delivery; and maximise exchange of information and personnel between related elements of the program, such as support for development of Indonesia's Forest Resource Information System (FRIS) and the demonstration activities.

As input to development of the Request for Tender for the proposed IAFCP Facility, possible broad selection criteria to be addressed by organisations or consortiums in their expressions of interest are listed below:

1. Experience of the organisation in the forests sector in Indonesia;
2. Experience in managing complex institutional strengthening programs, preferably in one or more of the following areas: forestry, natural resource management, community infrastructure;
3. Proven management capacity, including:
    - Ability to provide appropriate management and administrative support, including financial administration, and support teams in remote and relatively isolated areas;
    - Ability to access technical specialists for long and short term inputs, particularly in the areas of REDD policy, carbon accounting, community development, and sustainable forest management;

Selection criteria may need to be refined or defined in more detail as the detailed design is further developed.

Indicative tasks to be undertaken by the managing contractor

Although the detailed design will advance further the discussion on the specific roles of the managing contractor, a preliminary overview is presented below.

Readiness: A range of capacity building and socialisation activities will need to be undertaken, although this will be initiated during the detailed design phase. The managing contractor may expect to provide technical inputs (including the preparation of training and awareness materials) and meet publication, dissemination and training costs. The managing contractor will need to liaise with MoF and GTZ (as a minimum) in regard to the production of awareness materials.

Readiness also includes the planning of activities, and while the detailed design team will prepare a 'project design document' detailed plans will need to be prepared by the managing contractor in consultation with government agencies (at national, provincial and district levels) and non-government agencies (including, for example, NGOs participating in CKPP) on an annual basis.

Implementation of interventions generally: The extent to which the managing contractor will directly implement interventions can only be determined once the overall governance arrangements and payment mechanisms for the REDD demonstration activity are established. It is possible that

actors involved directly in emissions reductions activities may be directly sub-contracted to the managing contractor, and that the managing contractor would manage the transfer of incentive-based payments to sub-contractors on the basis of agreed outputs.

Rehabilitation: The construction of dams, in-filling of canals, establishment of nurseries and planting of seedlings are likely to be sub-contracted by the managing contractor. The managing contractor is likely to play a key role in the planning (and contracting) of activities at a village or local level, and will need to monitor progress and evaluate outcomes, paying particular attention to social and environmental impacts, transparency and accountability.

Avoided deforestation: Avoiding deforestation will only be permanent if local communities have incentives to protect or conserve forest areas. The identification and implementation of alternative livelihood activities are expected to play a key role in this respect. While much of this work is likely to be sub-contracted, the managing contractor will need to oversee (or monitor) the social impact assessment (which should be ongoing throughout the life of the KFCP, identify existing livelihoods and identify possible alternatives), the planning, coordination, and contracting of activities at village level, and the implementation of agreed activities.

An important aspect of the rehabilitation and avoided deforestation work will be socialisation of the REDD demonstration activity, and awareness of the range of benefits that rehabilitation and forest protection or conservation provide.

Measurement: As discussed in Section 4.3, considerable research is required as part of the REDD demonstration activity. This is likely to be sub-contracted by the managing contractor (based on TOR drafted by the managing contractor and approved by the steering committee). The managing contractor is also likely to sub-contract technical experts that contribute to the 'reference panel' for finalising the processes for estimating an emissions baseline and measuring emission reductions. The managing contractor will, however, need to effectively manage this process to ensure the reference panel delivers the expected outcomes.

Payment mechanisms: The managing contractor will be expected to consult with GoI stakeholders to develop payment mechanisms trialled under the KFCP; to trial these payment mechanisms; to evaluate their effectiveness in terms of providing an incentive to various stakeholders to reduce GHG emissions now and in the longer term; and to provide recommendations as to how REDD payments may best be included in both Indonesia and in an international climate change framework (if differences are required). While the managing contractor may appoint specific staff to manage this area of work, external short-term technical expertise is also likely to be required. One of the greater challenges in respect to this work is to develop and trial payment mechanisms when Indonesia is simultaneously developing REDD methodologies or undertaking separate demonstration activities. Close liaison with key Indonesian bodies is therefore required.

Coordination: It is envisaged that the managing contractor will be required to:

- Provide secretariat support for the KFCP steering committee;
- Liaise with BAPPEDA to help ensure the provincial secretariat performs an effective role;
- Liaise with IFCI in respect to the development of FRIS and other climate initiatives being undertaken in Indonesia;
- Liaise with other donors, in particular GTZ and the Netherlands;
- Provide support to and/or manage the reference group or scientific panel (described earlier); and
- Maintain close contact with AusAID, Jakarta and respond to queries from, and engage in ongoing communication with, AusAID (Canberra) and DCC.

Management: The managing contractor will be required to undertake the usual range of tasks required to manage an aid program:

- Establish and maintain an office in Palangka Raya (and possibly a second office in Jakarta);
- Prepare annual plans;
- Effectively manage staff and short-term technical advisors;
- Fund a range of activities and maintain financial records;
- Establish effective M&E procedures, including risk management;
- Complete a range of progress reports; and
- Provide advice to AusAID and provide support to officials from AusAID, DCC and GoI when visiting Central Kalimantan.

Promotion of results and policy advice: In addition to the management and coordination arrangements for KFCP as a whole, the managing contractor will need to give specific attention to how results and lessons learned from the REDD demonstration are promoted, both within Indonesia and internationally. As part of the analysis undertaken, policy issues need to be identified and policy options raised with the KFCP steering committee and/or appropriate authorities.

Attachment 7. Draft Scope of Services for the Design Team

The draft Scope of Services describes the tasks to be undertaken during the detailed design phase of the Kalimantan Forests and Climate Partnership (KFCP). The detailed design phase is expected to undertaken over a six month period commencing July 2008.

Tasks to be undertaken during the design phase

The main tasks to be undertaken – or initiated – are outlined below. Those tasks to be initiated are marked accordingly.

1. Establish an office in Palangka Raya
    - Equip an office (within the BAPPEDA complex);
    - Organise local transportation (vehicle hiring services);
    - Confirm accommodation arrangements for staff during the design period;
    - Establish a KFCP design bank account or alternative financial arrangements; and
    - Identify and appoint a locally-engaged office manager to provide secretarial, reception, filing and travel support.
2. Confirm the location of the initial REDD demonstration activity
    - Seek confirmation from provincial and district authorities on future land use within the EMRP area (and possibly within and adjacent to Sebangau National Park);
    - In consultation with provincial and district authorities, seek clarification from Shell Canada as to their intentions for conducting a voluntary carbon trading project in Block E;
    - Hold discussions with national, provincial and district authorities and confirm support for the proposed location;
    - Hold discussions with representatives from CKPP and confirm support for a cooperative program (or cooperation in other senses), in particular, in the area of Block A which requires re-flooding and reforesting;
    - Undertake consultation with communities.
    - Confirm with leaders of selected villages that there is support for the rehabilitation of the proposed area (the southern half of the proposed site) and that operational bases can be established in the area; and
    - Ascertain the level of interest of local communities for the provision of labour for proposed interventions, and gauge the quantity of labour that is likely to be available.
3. Identify land owners and secure certainty over land tenure
    - Clarify land categories within the demonstration site;
    - Identify land owners and any customary tenure arrangements;
    - Ensure the spatial land use plan covering the demonstration site has been finalised and endorsed by the national, provincial and district governments, affected local communities and other significant stakeholders, including private companies with interests in or near the demonstration site; and
    - Seek agreement from all parties for the REDD demonstration activity to be undertaken in the proposed demonstration site, on the understanding that this is a long-term (and preferably permanent arrangement), not a short-term commitment.
4. Identify key stakeholders and assist in establishing key decision making bodies
    - Identify key stakeholders;

- Once IFCI has established the national-level management committee for the KFCP, and called a meeting, facilitate a discussion on the committee's roles and responsibilities, outline a program for the detailed design work, and agree on the timing/purpose of the next meeting;
- Meet with the provincial KFCP secretariat and articulate its roles and responsibilities, outline a program for the detailed design work, and agree on a schedule of meetings for the design phase; and
- Meet with the Bupati of Kapuas and develop appropriate coordination arrangements for activities within the District.

5. Conduct a preliminary review of the legislative framework for conducting the REDD demonstration activity in Central Kalimantan
   - Assess existing legislation affecting the capacity to conduct a REDD demonstration activity in Central Kalimantan; and
   - Provide recommendations for legislation required to enhance REDD activities in Central Kalimantan, giving due consideration to issues relating to permanence.
6. Clarify the potential area of rehabilitation, reforestation and avoided deforestation in the demonstration site
   - Once confirming the location of the initial REDD demonstration site, prepare a series of maps (drawing on the resources of the EMRP master planning process) to summarise available information on the site (including peat depth, forest cover, land proposed for conservation, land proposed for rehabilitation, etc);
   - Based on the above, and in consultation with the KFCP provincial secretariat, demarcate the boundary of the demonstration site; and
   - Calculate the maximum potential area of rehabilitation (re-flooding and re-planting) and avoided deforestation.
7. Update the REDD demonstration cost estimate based on the above
   - Working in association with CKPP and government, estimate the cost (and the GoA contribution) for the rehabilitation component of the REDD demonstration;
   - Prepare preliminary costs of other components; and
   - Confirm the area that can be rehabilitated with the available level of funding.
8. Plan and conduct a Social Impact Assessment
   - Identify which villages (and potentially other communities or individuals) will be affected by the REDD demonstration;
   - Identify local experts in social impact assessment (possibly using personnel from the University of Palangka Raya, and involving students for field work);
   - Working in collaboration with local experts, undertake a review of available data for each affected village;
   - Identify other information requirements and prepare a program of data collection and analysis which will establish a baseline from which the impact of the REDD demonstration can be subsequently assessed (refer Section 6.3). This program should address differences in the ways and purposes for which men and women and other social groups (especially disadvantaged and vulnerable groups) access and use the peatland and how this affects their knowledge, access to resources and services, and livelihood opportunities;
   - Outline an ongoing social monitoring program to help monitor social impacts and inform KFCF management of changes/issues in the demonstration area.

9. Initiate a program of activities that will lead to the calculation of baseline emission levels, the monitoring of emission levels, and the calculation of emission reductions for (i) the demonstration site and (ii) a larger reference area such as Kapuas District
   - Review and analyse all NATIONAL SCALE spatial datasets and other current data sets, knowledge and measurement systems or models (including a review of mapping capacity);
   - Conduct preliminary work on estimation of carbon stocks through destructive sampling and assessment of changes in total soil C under differing land uses;
   - Commence analysis of non-CO2 emissions from peat lands using chambers;
   - Commence analysis of combustion efficiency of peat under differing conditions, including non-CO2;
   - Review and refine methods of fire mapping in peat systems;
   - Identify relevant technical expertise and provide information on KFCP;
   - Assemble those experts willing to participate in KFCP Technical Panel and – with a suitable convenor – commence a focused discussion aiming to:
     - Clearly articulate a process suitable for KFCP and wider (international) use to (i) calculate baseline emission levels and (ii) monitor emission levels;
     - Clarify the reference area for the REDD demonstration activity;
     - Outline a sampling regime and data collection program; and
   - Prepare an implementation schedule and cost estimate in consultation with DCC.

10. Assess the drivers of deforestation and forest degradation, and outline the interventions that will be undertaken in the demonstration site, including a review of existing practices and research results, and developing a plan of activities in consultation with other government and non-government agencies working in the area

    Peat restoration activities (re-flooding and reforestation):
    - Review the EMRP master plan for re-flooding and reforestation;
    - Review and/or update existing village land-use plans (including plans of other stakeholders – government, research organisations and NGOs);
    - Review existing rehabilitation activities in the project area (dams and reforestation, including Gerhan), quantify objectives of rehabilitation and reforestation (both short term and long term), review dam construction options, type and source of dam materials, type of trees to be planted, labour availability and management options, source and germination of seeds, options for establishing nurseries, options for planting and tree maintenance, dam maintenance requirements;
    - Prepare an implementation schedule and cost estimate for rehabilitation activities;

    REDD activities
    - Review EMRP master plan for conservation;
    - Undertake preparatory work with communities to better understand community dynamics and complete an assessment of the drivers of deforestation in the target areas (including an assessment of cash and non-cash income sources for both males and females and markets);
    - Review and/or update existing village land-use plans (including location/length of canals in forest areas, plans of other stakeholders – government, research organisations and NGOs);
    - Develop plans for blocking canals; and
    - Prepare an implementation schedule and cost estimate for rehabilitation activities.

11. Identify the roles and responsibilities of different parties in REDD governance and outline in detail one or more payment mechanisms that will be trialled
    - Map official and practical relations between the different levels of government and document the capacity to implement decisions related to land use. Identify cases of opposing views between different layers of government and review which view prevailed on the ground;
    - Review existing research on opportunity costs related to different types of land use (break down the opportunity costs (Net Present Value) into potential income for regulators at different levels of Government, investors, workers and communities);
    - Review available literature on community land mapping and rapid land tenure assessments;
    - Review legal status of REDD carbon credits as usufruct of land on which they are produced. Review the types of licence needed to produce REDD carbon credits;
    - Engage the GoI on the definition of deforestation and degradation that should be used for the demonstration activity; and
    - Prepare an implementation schedule and cost estimate.
12. Undertake an assessment of local and other institutions that will (or will potentially be) involved in implementation of the demonstration activity, outlining the required capacities and any capacity building support they require

    As part of the process for tasks # 4, 5, 6 and 7 (above):
    - Identify expertise capable of implementing demonstration activities (giving preference when possible to local agencies and institutions);
    - Undertake a preliminary assessment of these institutions and confirm their willingness to participate in the REDD demonstration;
    - Outline capacity building needs for these institutions, including:
        - Staff to be trained and type of training to be provided (including for example, formal or informal training, duration, follow-up training requirements/advice/mentoring, etc);
        - Potential trainers;
        - Prepare an implementation schedule and capacity building cost estimate.
13. Reporting regularly on the readiness to implement the demonstration activity and initiate an awareness program on REDD, the REDD demonstration and the KFCP more broadly
    - Report regularly on the readiness to implement the REDD demonstration activity, as discussed under Component 1 and including:
        - The level of awareness among key stakeholders of REDD and the KFCP;
        - The level of support among key stakeholders for REDD in general and more specifically, the activities proposed under the KFCP;
    - Socialise REDD and the KFCP with key stakeholders (including impacts of the KFCP on various stakeholders, and the opportunities this may provide);
    - Subject to consultations with GTZ (which may result in some of the following activities being undertaken by GTZ rather than KFCP):
        - Prepare a series of brief publications on what is REDD (and the differences between REDD and voluntary markets), what is a REDD demonstration activity and what is the KFCP trying to achieve;
        - Tailor the respective publications to different audiences (national, provincial and district government agencies, other organisations, communities, etc); and
        - Translate and distribute as appropriate and socialise activities with government agencies and communities.

14. Reporting on preliminary results/lessons learned from the KFCP
    - In consultation with DCC, prepare a program of reporting to provide preliminary results from the KFCP to inform international negotiations on REDD.
        - A particular focus of the report should be in outlining the desirable results and reporting necessary prior to the Copenhagen COP in December 2009
    - In consultation with DCC, determine an appropriate mechanism for DCC to provide feedback regarding the latest developments on REDD in international negotiations to inform the development and implementation of the KFCP.
15. Prepare a detailed design document
    - Submit a draft design document to GoA and GoI within three months of commencement, and a revised design document within two weeks of receiving comments on the draft. Both documents should include, as a minimum:
        - A detailed description of components and activities;
        - The roles and responsibilities of various parties;
        - Implementation schedules;
        - Cost details;
        - Management arrangements, including (i) assessment on the need for an office in Jakarta (ii) district-level coordination arrangements, as appropriate, and (ii) the Scope of Services for the managing contractor;
        - Articulate the management and coordination processes for scaling up the activity should additional funds (over and above the initial A$30 million) become available;
        - A risk management strategy; and
        - A detailed performance monitoring framework, paying due attention to AusAID's cross-cutting issues (in particular environment, gender and anti-corruption).

Jakarta office

The KFCP will need to liaise with government agencies at national level, donors and other organisations in Jakarta (and to a lessor extent in Bogor). It is likely that the majority of the KFCP steering committee members are based in Jakarta. The KFCP may therefore need an office – or office space - in Jakarta. The detailed design team will provide recommendations to this effect, including a specific location, size, staffing arrangements and costs, if deemed necessary.

Inputs

The detailed design team will include two long-term forests and climate specialists who will report directly to AusAID. Each will be engaged throughout the design period (6 months).

While managing the detailed design phase, the specialists will be able to access short-term technical inputs to assist in a range of tasks identified above. This may include research organisations, government and non-government agencies, private organisations and individuals from either Indonesian or foreign consultants. It is estimated that short-term inputs will in general focus on tasks # 5, 6, 8, 9, 10, 11, 12 and 14. The long-term specialists will be responsible for identifying the specific range of short-term inputs needed, outlining their terms of reference, and contracting and monitoring their inputs.

As an initial estimate, approximately 8 person months short-term input will be required, plus local organisations contracted for tasks such as social impact assessment, peat research, assessment of existing technologies in the demonstration area, and institutional analysis.

Within two weeks of the commencement of the detailed design phase, the design team will submit a work plan for the remainder of the design phase, including terms of reference and costs for any short-term inputs required.

Relationship with GoI and GoA agencies

As a government-to-government program, the design team is expected to liaise and work on a collaborative basis with GoA and GoI agencies. While most government agencies are represented in the national steering committee, the design team will be expected to field any questions, provide brief updates when requested, and provide limited support (if in a related field) to staff from AusAID, DCC, BAPPENAS, MoE and MoF. Within Central Kalimantan, the design team is expected to establish a close working relationship with the province (in particular the provincial BAPPEDA office, the EMRP master planning team, provincial forestry staff, staff from the University of Palangka Raya, and relevant staff within Kapuas District).

Relationship with potential managing contractors

Several organisations will be short-listed for the management of the KFCP and invited to participate in the detailed design phase. This is expected to involve no more than one representative from each short-listed organisation (or consortium). Furthermore, the representatives are expected to participate during the design period in an observer status, although opportunities are expected in which ideas can be exchanged and options discussed. Such discussions are expected to occur in an open forum managed by the design team, and generally not including GoI representatives. The visits by the short-listed representatives will be limited to time periods determined in consultation with AusAID.

Reporting requirements

In addition to the draft and final project design documents, the design team will (i) submit brief reports to AusAID on a monthly basis (focusing on achievements and any major issues/constraints) and (ii) provide brief presentations to the national steering committee, the provincial secretariat, and other bodies/organisations as deemed appropriate.

Financial management

The design team will be expected to maintain accurate financial records. This task may most effectively be out-sourced, possibly to an accounting company in Palangka Raya. A financial report should accompany each monthly report to AusAID.

Attachment 8. Preliminary Risk Assessment

The Preliminary Risk Assessment includes an assessment of risk based on the following criteria:

L = Likelihood of occurrence (1=Rare, 2=Unlikely, 3=Possible, 4=Likely, 5=Almost certain)
C = Consequence of occurring (1=Negligible, 2=Minor, 3=Moderate, 4=Major, 5=Severe)
R = Risk level - a combination of the above two assessments (E=Extreme, H=High, M=Medium, L=Low)

Further details relating to the likelihood and consequence scores, and resulting assessment of risk level, are provided in AusGUIDElines (refer www.ausaid.gov.au/publications - Ausguide)

Potential Risk	Potential Impact	Assessment			Preliminary Mitigation Strategy
		L	C	R	
1. Land use disputes or uncertainty (including allocation of land for other economic purposes such as oil palm and timber plantations)	Land use disputes could limit the ability to either rehabilitate land that is deforested or degraded, or to conserve intact forest areas. Given the hydrological characteristics of peat domes, this may reduce the effectiveness of work to re-flood (and therefore revegetate degraded areas).	4	4	E	The proposed REDD demonstration site is an area that has been zoned for protection under INPRES 2/2007, and was previously zoned as a protected area under the provincial land use plan. Despite this, it will be critical to confirm land use plans for the proposed demonstration area with both provincial and district authorities, and seek their support for the location of the proposed REDD demonstration site.
2. Parts of the recommended location are identified as a voluntary carbon trading project	Should Shell Canada fund a voluntary carbon trading project in parts of Block E, there may be some confusion as to who is doing what and what the total cost of any emission reductions may be. This could jeopardise the reliability of the cost information and emission reduction results obtained.	3	3	M	In consultation with provincial and district authorities, seek clarification from Shell Canada (and Shell Indonesia) as to their intentions, and respond accordingly. This may include identification of an alternative location, so needs to be undertaken at the onset of the detailed design phase.
3. Parts of Block E are designated as national park	Should the proposed demonstration area within Block E be designated as national park, questions may be raised as the additionality of any emission reductions achieved.	2	3	M	It will be important to confirm land use plans for the proposed demonstration site with both provincial and district authorities.
4. Failure to agree and/or accept proposed payment distribution mechanisms or approaches to supporting alternative livelihoods	If any level of government (national, provincial or district) does not agree with the payment distribution mechanism proposed, they may withdraw their support. This could, for example, lead to alternative land uses being proposed.	3	4	H	As a preliminary step, raise awareness on REDD and what an internationally acceptable REDD demonstration must include. In addition, clarify the roles and responsibilities of different stakeholders, and using this as a basis, develop payment mechanisms that reflect (i) the likely value of

Potential Risk	Potential Impact	Assessment			Preliminary Mitigation Strategy
		L	C	R	
	If communities are not provided with an incentive to participate in the proposed interventions, the effectiveness of the interventions, and/or their sustainability will be diminished.				actual emission reductions and (ii) the effort required by different stakeholders to achieve these reductions.
5. Inconsistent or conflicting policies between different levels of government	Reduced scope for implementing desired interventions, possibly risking the ability to reduce emission levels, and probably reducing the benefits derived from the REDD demonstration.	4	3	H	Working in the EMRP area should reduce the scope for conflicting government policies, but it will be important to liaise with a wide range of government agencies at national, provincial and district level and seek unilateral support for the REDD demonstration site, the proposed interventions, and the payment mechanisms.
6. Lack of coordination by/with government at different levels	Potential implementation delays, and potential for reducing the interventions trialled, possibly risking the ability to reduce emission levels, and probably reducing the benefits derived from the REDD demonstration.	3	4	H	As above.
7. Lack of community support/engagement, including failure to address the social and economic needs of communities as part of a REDD system	Potential to limit the scale of desired interventions, or the longevity of any actual emission reductions.	3	4	H	Ensure the role of communities in achieving emission reductions are outlined clearly, and develop payment mechanisms that reflect their role and help address their basic needs. Also need to ensure that interventions are designed in a way that doesn't adversely affect communities' livelihoods, e.g. ensuring dams are constructed in a way that doesn't unnecessarily limit ability to use waterways for transport.
8. A shortage of locally available labour for proposed interventions	It may not be possible to undertake the desired scope of works, limiting the effectiveness of the interventions and the REDD demonstration activity	2	3	M	Consult with communities during the design phase to gauge their interest in the proposed interventions, and the labour available, and develop interventions and/or work programs that reflect available resources.
9. Inability to meet $100 million funding target through raising up to	Project activities will not be scaled up and the initial targets (discussed by the two Governments) will not be reached. However, current targets (based on the	4	2	L	Identify a range of appropriate and realistic options for external contributions, and maintain the flexibility so that the KFCP can still operate effectively even if it does not reach

Potential Risk	Potential Impact	Assessment			Preliminary Mitigation Strategy
		L	C	R	
additional $70 million in external funding	initial A$30 million contribution) should not be jeopardised.				the $100m target.
10. Interventions are not effective in achieving expected levels of emissions reductions	If the proposed interventions do not lead to a measurable and sustainable decrease in emissions the REDD demonstration will be of limited use.	2	4	H	Assess existing interventions, conduct research as appropriate, and trial a range of interventions.
11. Lack of capacity to implement interventions on a large-scale to international standards	It may not be possible to undertake the desired scope of works, limiting the effectiveness of the interventions and REDD demonstration.	3	4	H	Identify roles and responsibilities of different stakeholders, identify the capacities needed to implement or support the implementation of the REDD demonstration, and provide capacity building as required. Manage expectations about the geographic scope that the KFCP can cover with limited resources.
12. UNFCCC meetings make limited progress on, or provide little support for, the inclusion of REDD in a post-2012 framework to address climate change.	Failure to reach agreement on how REDD might be included in a future international climate framework, may reduce the incentive to proceed with the REDD demonstration (although there may still be sufficient incentive to proceed on the basis of environmental and poverty alleviation objectives).	2	4	H	Ensure the KFCP has a direct link to national and international organisations working on REDD and ensure a two-way flow of information.

Attachment 9. Preliminary Performance Assessment Framework

Objective statements	Potential Indicators	Comments on Data Collection & Performance Assessment
Objective: That the KFCP demonstrates how reducing emissions from deforestation and forest degradation, including the degradation of peatlands, may be part of an equitable and effective international response to climate change; and strengthens Indonesia's capacity to mitigate these sources of greenhouse gas emissions through participation in future international carbon markets.	• Contribution to Australian and/or Indonesian REDD submissions to the UNFCCC • Contribution to international knowledge on REDD • Contribution to international knowledge on emissions from peatland • GHG reductions • Development of processes for establishing emission baselines and measuring emission reductions • Development of payment mechanisms which provide incentives to achieve and sustain emission reductions • Social impact (and contribution to poverty reduction) • Increased local capacity in various aspects of REDD, including capacity of implementing agencies, research organisations, government agencies and communities	The contribution to international knowledge on emissions from peatland should include: • The measurement and monitoring of peatland emissions • Successful approaches to peatland rehabilitation and reforestation The CIFOR partnership will play a role in tracking performance at this broad level.
Areas of activity: 1. Readiness	• Development and approval (by key government agencies at different levels of government) of a detailed plan for a REDD demonstration activity in Central Kalimantan • General awareness and understanding of REDD within government agencies at national, provincial and district levels, and within communities in the selected location	
2. Activities to rehabilitate and restore degraded peatland	• Defined area of degraded peatland re-flooded • Area of degraded peatland reforested and number of trees	Will need to report on the activities of both KFCP and NGOs if working in an area with ongoing NGO activity

Objective statements	Potential Indicators	Comments on Data Collection & Performance Assessment
	established • Monitoring indicates GHG emission reductions from rehabilitation • Cost effectiveness of rehabilitation activities in comparison to the likely value of emission reductions • Areas of forest and non-forest land planted and numbers of trees planted for economic, conservation and forest restoration purposes • Social impact of rehabilitation activities	
3. Reducing emissions from deforestation and forest degradation	• Area of forest under improved management through active protection or conservation activities • Area of forest now under active management, with clear management objectives and plans approved at different levels of government • Demonstrated and verifiable GHG emission reductions from activities to reduce emissions from deforestation and forest degradation • Cost effectiveness of interventions (in comparison to the likely value of emission reductions) • Social impact of interventions	As above
4. Emissions accounting and monitoring	• Useful contribution to development of the methodologies for establishing emission baselines and monitoring emission levels • Submission for peer review of: o Emission baselines and recommended baseline for (i) the demonstration area and (ii) broader area of surveillance (eg. Kapuas District); o Emission calculations for (i) and (ii); and	

Objective statements	Potential Indicators	Comments on Data Collection & Performance Assessment
	○ Calculated emission reductions in (i) and (ii).	
5. Payment mechanisms	• Clarification and acceptance of the roles and responsibilities of various parties (government at different levels and local communities) • Agreement by the same parties as to one or more payment mechanisms that will be trialled; agreement on calculated cost, suggested mechanism for payments and the method to calculate the size of the payments • Analysis of payment mechanisms, in terms of (i) social impact, (ii) effectiveness in delivering emission reductions in the short and longer term; and (iii) the economic viability of payment mechanisms (when compared to the likely value of emission reductions) and the contribution to an REDD investment climate	
6. Coordination and promotion of results	• Identification and analysis of specific policy issues • Promotion of results and recommendations at national and international levels	
Cross-cutting issues: • Environment	• Improvements in natural resource management • Improvements in environmental governance • Improved response to climate change within Indonesia • Environmental co-benefits (e.g. biodiversity and improved watershed management) produced by interventions	Incorporated in the goal (capacity building indicator) and activities # 2 and 3
• Gender	• Participation of men and women in KFCP interventions • Allocation of benefits (from the REDD demonstration activity) to men and women	Incorporated in the goal (social impact indicator) and activity # 5
• Anti-corruption	• Established and widely agreed processes for establishing emission baselines and measuring emission reductions	Incorporated in activities # 4 and 5

Objective statements	Potential Indicators	Comments on Data Collection & Performance Assessment
	• Clear and fair payment mechanisms • Transparency and accountability in all measurements and financial transactions	
Managing contractor performance:	• Clear implementation plans developed, in consultation with other stakeholders, and circulated as appropriate • Effective support provided to the steering committee • Effective communication with all stakeholders • Alignment of support to GoA and GoI policies and priorities • Effective use of technical advisors and technical advice • Level of local program ownership and participation (provincial, district and village levels) • Development of approaches which are appropriate, innovative and sustainable • Provision of physical and financial data to enable the steering committee to effectively monitor progress and evaluate performance and impact • Effective treatment of risks • Demonstration of continuous learning • Donor harmonisation • Promotion of gender equality and effective treatment of gender issues • Sufficient emphasis given to capacity building	

Social engagement and impact

The first task is to identify which villages (and potentially other communities or individuals) will be affected by the REDD demonstration. The second task will be to undertake a social impact assessment to (i) help plan and manage proposed interventions and (ii) establish a baseline from which the impact of the REDD

demonstration can be subsequently assessed. The baseline should include information that summarises the lifestyle of the affected villages and their level of understanding of, and attitudes to, various aspects of the proposed activity. All information, including attitudinal data, should be disaggregated by gender. Baseline information may include, for example:

- Community/village history (focusing on origins of community members);
- Basic demographic information (family composition, age, sex and ethnicity);
- Social dynamics, including disparities and conflicts related to gender and other differences;
- Institutional analysis;
- Information on access to and quality of health and education services;
- Literacy;
- Economic activities (cash and subsistence, paying particular attention to the use of forest and aquatic resources) and income levels;
- Trends in livelihood strategies and vulnerability;
- Household assets;
- Expenditure patterns;
- Access to services and to information;
- Culturally significant locations and events (particularly relating to the forest or forest areas);
- Community aspirations and trends; and
- Awareness of and attitudes to forest use, conservation, etc.

Gender disaggregated data should be recorded when appropriate, and analyses conducted to ensure impacts and attitudes are reported by gender.

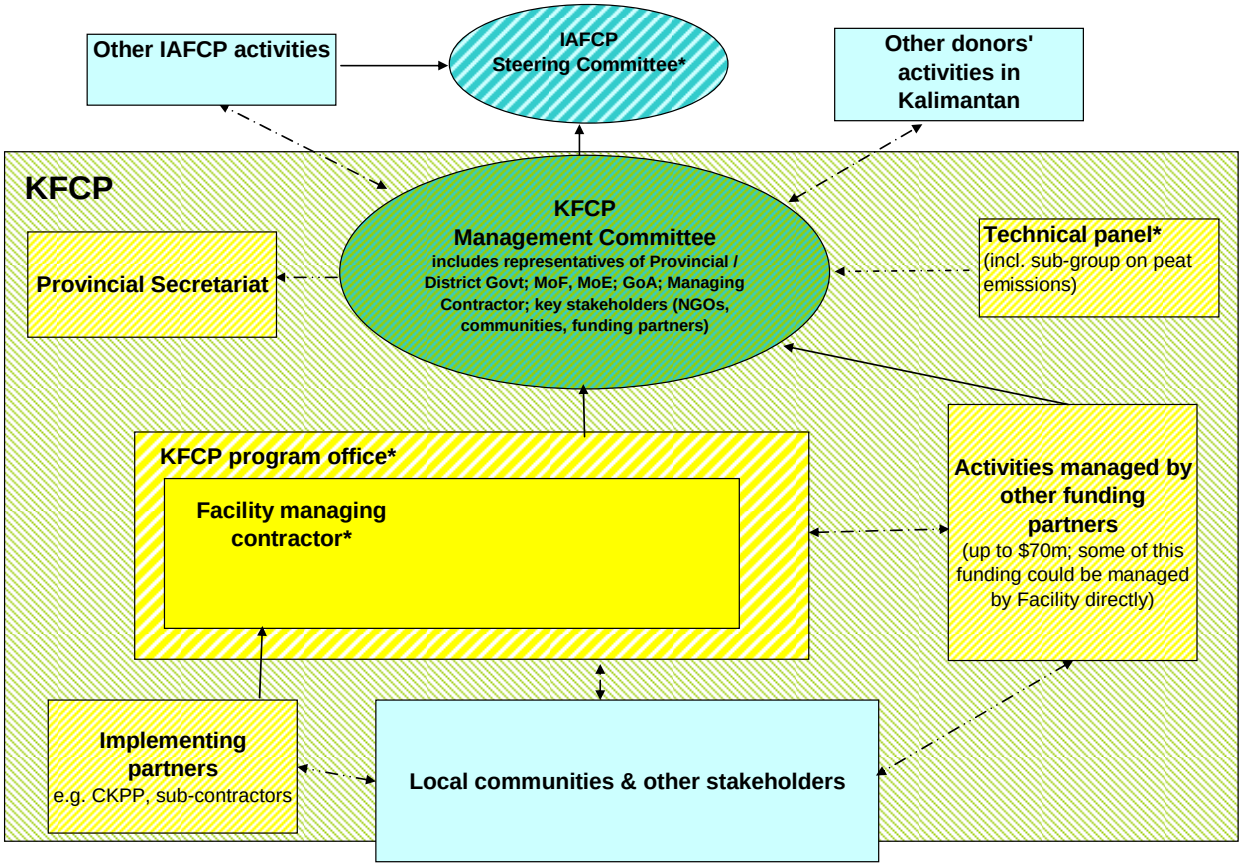
It may be appropriate to tabulate existing data for each village (for example, using information from the last Census, and other sources), and supplement this with data collected from a sample of villages and potentially a sample of households within those villages.

During implementation, a program will need to be undertaken to monitor and evaluate the social impacts of the REDD demonstration. This should include attitudinal information to monitor community responses (and record both problems and suggestions) and assess impacts over time. A social monitoring program can play an important role in terms of establishing a two-way exchange of information between communities and managers/researchers. The social impact assessment will need to be updated towards the end of the REDD demonstration period to report definitively on the social and economic impact of the interventions (giving due consideration to differences between gender, ethnicity, economic groups, etc.), the attitudes of the people to the demonstration and other factors, and reporting on other indirect impacts that may have occurred.

The initial social impact assessment (to establish a social baseline) should be undertaken during the detailed design stage. Although local capacity needs to be assessed at the onset of the detailed design stage, it is envisaged that capacity exists within the University of Palangka Raya to undertake the social impact

assessment. External technical assistance in social impact assessment may be required to (i) develop a list of indicators for the social baseline, (ii) prepare a sampling framework and data collection program (iii) assist in the compilation of data and initial analysis and (iv) provide oversight during subsequent M&E activities.

Attachment 10. Draft management structure



Notes:
Solid arrows show reporting lines; Dashed arrows show coordination / advice / information exchange linkages
*Indicates where function may be shared with other IAFCP activities

Attachment 11. English translation of Indonesia's draft Regulation on Reducing Emissions from Deforestation and Degradation

REGULATION OF THE MINISTER OF FORESTRY

Number :

ON

IMPLEMENTATION PROCEDURES FOR REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION (REDD)

WITH THE BLESSINGS OF GOD ALMIGHTY

MINISTER OF FORESTRY,

Considering: a. that the United Nations Framework Convention on Climate Change has been adopted by Law Number 6 of 1994, thus Indonesia is a party to that convention,

b. that deforestation and forest degradation contribute to greenhouse gas emissions (GHG),

c. that the effort to reduce emissions from deforestation and forest degradation is voluntary in nature and shall respect the sovereignty of developing countries in exploiting their forest resources,

d. that in accordance with the 13th Conference of Parties to the Convention on Climate Change, each state is encouraged to engage in efforts to reduce emissions from deforestation and forest degradation, in accordance with the conditions and responsibilities as regulated in the convention,

e. that implementation procedures are needed for the implementation of activities to reduce emissions from deforestation and forest degradation within the framework of REDD,

f. that the aforementioned efforts to reduce emissions from deforestation and forest degradation are among the responsibilities of the Ministry of Forestry.

g. that in relation to the aforementioned issues, a procedure for the implementation of reducing emissions from deforestation and forest degradation (REDD) needs to be determined in a Regulation of the Minister of Forestry.

Bearing in Mind: a. Law Number 6 of 1994 on the Adoption of the United Nations Framework Convention on Climate Change (State Gazette of the Republic of Indonesia Year 1994 Number 42, State Gazette Supplement Number 3557);

b. Law Number 23 of 1997 on Environmental Management (State Gazette of Republic of Indonesia Number 68 Year 1997, State Gazette Supplement Number 3699);

c. Law Number 41 of 1999 on Forestry (State Gazette Of Republic of Indonesia Number 167, State Gazette Supplement Number 3888) amended by Law Number 19 of 2004 on The Enactment of Government Regulation In Lieu of Law Number 1 of 2004 on Amendment of Law Number 41 of 1999 on Forestry (State Gazette of Republic of Indonesia Number 86 Year 2004, State Gazette Supplement Number 4412);

d. Law Number 32 of 2004 on Regional Autonomy (State Gazette of Republic of Indonesia Number 125 Year 2004, State Gazette Supplement Number 4437);

e. Law Number 17 of 2004 on the Ratification of Kyoto Protocol to the United Nations Framework Convention On Climate Change (State Gazette of Republic of Indonesia Number 72 Year 2004, State Gazette Supplement Number 4403);

f. Law Number 26 of 007 on Spatial Planning (State Gazette of Republic of Indonesia Number 68 Year 2007, State Gazette Supplement Number 4725);

g. Government Regulation Number 6 of 2007 on Forest Management and Forest Management and Forest Utilization Planning (State Gazette of Republic of Indonesia Number 22 Year 2007, State Gazette Supplement Number 4696) as amended in Government Regulation Number 3 of 2008 (State Gazette of Republic of Indonesia Number 16 Year 2008, State Gazette Supplement Number 4814);

h. Decision Number 2 (Decision 2/CP.13) of the 13th Conference of Parties to the Convention on Climate Change on Reducing Emissions from Deforestation and Forest Degradation (REDD).

DETERMINED

To Enact: REGULATION OF THE MINISTER OF FORESTRY ON THE IMPLEMENTATION PROCEDURES FOR REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION (REDD).

CHAPTER I

DEFINITION

Article 1

In this regulation what is referred to as:

1. Forest is an ecosystem unit forming land cover [and] containing biotic natural resources dominated by woody vegetation in natural affinity with the surrounding environment, inseparable from one another.
2. Forest estate is a certain area that has been assigned or determined by government to be maintained as permanent forest.
3. State forest is forest on land unencumbered by proprietary rights.
4. Proprietary forest is forest on land encumbered by proprietary rights.
5. Customary forest is state forest within an area of customary community [tenure].
6. Production forest is an area of forest with the main function to produce forest products.
7. Protection forest is an area of forest with the main function to protect life support systems [such as to] regulate water management, prevent floods, control erosion, prevent intrusion of seawater, and maintain fertility of soil.
8. Conservation forest is an area of forest with distinct characteristics that has the main function to preserve the biodiversity of flora and fauna and associated ecosystems.
9. Deforestation is the permanent alteration of a forested area to become non-forested as a result of human activities.
10. Forest degradation is the reduction of the amount of forest cover and carbon stock during a certain period of time as a result of human activities.
11. Minister is the Minister who is responsible for the forestry sector.
12. REDD commission is a commission established by the Minister which has the task to manage the implementation of REDD.
13. Regional governments are Governors, Regents, or Mayors and other regional apparatus that execute regional governance.

Article 2

Reducing Emissions from Deforestation and Forest Degradation, referred to as REDD comprises all forest management activities that decrease the reduction of forest cover and carbon stock through various activities.

CHAPTER II

LOCATION AND REQUIREMENTS

Article 3

REDD may be implemented in:

a. The area of Wood Forest Product Utilization License in Natural Forest (IUPHHKHA)
b. The area of Wood Forest Product Utilization License in Plantation Forest (IUPHHKHTI).

c. The area of Forest Product Utilization License in Community Forest.
d. The area of Wood Forest Product Utilization License in Community Plantation Forest (IUPHHKTR)
e. The area of Ecosystem Restoration Wood Forest Product Utilization License.
f. The area of Production Forest Management Unit (KPHP)
g. The area of Protection Forest Management Unit (KPHL)
h. The area of Conservation Forest Management Unit (KPHK)
i. The area of customary forest.
j. The area of proprietary forest.
k. The area of state forest.

Article 4

The proponents of REDD are:

a. The holder of Wood Forest Product Utilization License in Natural Forest (IUPHHKHA).
b. The holder of Wood Forest Product Utilization License in Plantation Forest (IUPHHKHTI).
c. The holder of Forest Product Utilization License in Community Forest.
d. The holder of Wood Forest Product Utilization License in Community Plantation (IUPHHKTR).
e. The holder of Ecosystem Restoration Wood Forest Product Utilization License.
f. The head of Production Forest Management Unit (KPHP)
g. The head of Protection Forest Management Unit (KPHL)
h. The head of Conservation Forest Management Unit (KPHK)
i. The holder of customary forest management license.
j. The owner of proprietary forest.
k. The manager of state forest.

Article 5

l. The REDD requirements for the area of Wood Forest Product Utilization License in Natural Forest (IUPHHKHA), the area of Wood Forest Product Utilization License in Plantation Forest (IUPHHKHTI), the area of Forest Product Utilization License in Community Forest, the area of Wood Forest Product Utilization License in Community Plantation Forest (IUPHHKTR), the area of Ecosystem Restoration Wood Forest Product Utilization License are:

   a. Wood Forest Product Utilization License in Natural Forest (IUPHHKHA)/ Wood Forest Product Utilization License in Plantation Forest (IUPHHKHTI)/ Forest Product Utilization License in Community Forest/ Wood Forest Product Utilization License in Community Plantation Forest (IUPHHKTR)/ Ecosystem Restoration Wood Forest Product Utilization License.
   b. Recommendation for REDD implementation from the local government.
   c. Fulfillment of the location criteria and indicators for REDD implementation.
   d. REDD implementation plan.

2. The provisions on Forest Products Utilization License as referred to in paragraph (1) letter a are regulated in a separate Ministerial Regulation.

Article 6

1. The REDD requirements for Production Forest Management Unit (KPHP)/ Protection Forest Management Unit (KPHL)/ Conservation Forest Management Unit (KPHK) are:
   a. Decree on the establishment of Production Forest Management Unit (KPHP)/ Protection Forest Management Unit (KPHL)/ Conservation Forest Management Unit (KPHK).
   b. Recommendation for REDD implementation from local government.
   c. Fulfillment of the location criteria and indicators for REDD implementation.
   d. REDD implementation plan.
2. The provisions on Forest Management Unit as referred to in paragraph (1) letter a are regulated in a separate Ministerial Regulation.

Article 7

1. The REDD requirements for customary forest are:
   a. Decree on the right to manage customary forest
   b. Recommendation for REDD implementation from local government.
   c. Fulfillment of the location criteria and indicators for REDD implementation.
   d. REDD implementation plan.
2. The provisions on customary forest management as referred to in paragraph (1) letter a are regulated in a separate Ministerial Regulation.

Article 8

1. The REDD requirements for proprietary forest are:
   a. Valid certificate of land or forest ownership or ownership letter from local government.
   b. Recommendation for REDD implementation from local government.
   c. Fulfillment of the location criteria and indicators for REDD implementation.
   d. REDD implementation plan.
2. The provisions on proprietary forest management as referred to in paragraph (1) letter a are regulated in a separate Ministerial Regulation.

Article 9

1. The REDD requirements for other state forests are:
   a. Decree of the Minister of Forestry on assignment of other state forest.
   b. Recommendation for REDD implementation from local government.
   c. Fulfillment of the location criteria and indicators for REDD implementation.
   d. REDD implementation plan.
2. The provisions on other state forest management as referred to in paragraph (1) letter a are regulated in a separate Ministerial Regulation.

Article 10

1. The guidelines for the issuance of REDD implementation recommendation by Local Government as referred to in Article 5 Paragraph (1) letter b, Article 6 Paragraph (1) letter b, Article 7 Paragraph (1) letter b, Article 8 Paragraph (1) letter b, Article 9 Paragraph (1) letter b is regulated in Appendix 1 of this Regulation.

2. The criteria for REDD implementation locations as referred to in Article 5 Paragraph (1) letter c, Article 6 Paragraph (1) letter c, Article 7 Paragraph (1) letter c, Article 8 Paragraph (1) letter c, Article 9 Paragraph (1) letter c is regulated in Appendix 2 of this Regulation.
3. The guidelines for the formulation of REDD implementation plans as referred to in Article 5 Paragraph (1) letter d, Article 6 Paragraph (1) letter d, Article 7 Paragraph (1) letter d, Article 8 Paragraph (1) letter d, Article 9 Paragraph (1) letter d is regulated in Appendix 3 of this Regulation.

CHAPTER III

IMPLEMENTATION PROCEDURES

Article 11

1. A proponent of REDD as mentioned in Article 4 shall submit a proposal to the Minister along with all requirements mentioned in Article 5, Article 6, Article 7, Article 8, and Article 9.
2. The Minister shall direct the REDD Commission to assess the REDD proposal referred to in paragraph (1).
3. The REDD commission shall assess the proponent's proposal.
4. Within 14 (fourteen) days after receiving the assessment of REDD commission as referred in paragraph (3), the Minister can decline the proposal or approve the proposal by issuing REDD Implementation License.
5. Within 90 (ninety) days at the latest after the License is granted by the Minister, the proponent shall forthwith commence the REDD activities.

Article 12

The guidelines for REDD proposal assessment as referred to in Article 11 paragraph (3) are stated in Appendix 4 of this regulation.

CHAPTER IV

TIME PERIOD

Article 13

1. The maximum time period for REDD implementation in the area of Wood Forest Product Utilization License in Natural Forest (IUPHHKHA), the area of Wood Forest Product Utilization License in Plantation Forest (IUPHHKHTI), the area of Forest Product Utilization License in Community Forest, the area of Wood Forest Product Utilization License in Community Plantation Forest (IUPHHKTR), the area of Ecosystem Restoration Wood Forest Product Utilization License is equal to the period of for the license.
2. The maximum time period for REDD implementation in the area of Production Forest Management Unit (KPHP), the area of Protection Forest Management Unit (KPHL), the area of Conservation Forest Management Unit (KPHK) and other state forest is 30 (thirty) years.

3. The maximum time period for REDD implementation in customary forest and proprietary forest is 30 (thirty) years.

CHAPTER V

RIGHTS AND RESPONSIBILITIES

Article 14

The proponents of REDD have the following rights:

1. Receive the amount of incentives according to the reduction of emissions achieved.
2. Trade REDD certificates.

Article 15

The proponents of REDD have the following responsibilities:

1. Conduct the activities of forest management within the framework of REDD implementation.
2. Set reference emission [levels] in the beginning of activities.
3. Conduct monitoring in accordance with the plan.
4. Submit monitoring reports to the Minister through the REDD Commission.
5. Distribute incentives to all stakeholders in accordance with the plan.

CHAPTER VI

REFERENCE EMISSIONS, ACCOUNTING, MONITORING AND REPORTING

Article 16

The Minister shall direct the organizational unit responsible for forestry planning to set reference emissions at the national level.

Article 17

The guidelines for setting reference emissions as referred to in Article 15 paragraph (2) and Article 16, monitoring and reporting of REDD implementation as referred in Article 15 paragraph (3) and (4) are stated in Appendix 5 of this Regulation.

CHAPTER VII

VERIFICATION AND CERTIFICATION

Article 18

1. Within 14 (fourteen) days after the monitoring report is submitted by a REDD proponent as referred to in Article 15 paragraph (4) to the REDD Commission, the REDD Commission shall engage an Independent Appraisal Institution to conduct verification.
2. The Independent Appraisal Institution shall report the verification result to the REDD Commission and REDD proponent.
3. The verification cost shall be borne by the REDD proponent.
4. Within 30 (thirty) days after receipt of the verification result from the Independent Appraisal Institution, the REDD commission shall issue a REDD Certificate to the REDD proponent.

Article 19

The guidelines for verification as referred to in Article 19 paragraph (1) are stated in Appendix 6 of this Regulation.

Article 20

1. The Minister shall direct the organizational unit responsible for forestry research and development to conduct the accreditation of Independent Appraisal Institutions.
2. The mechanism and procedure for Independent Appraisal Institutions accreditation process shall be regulated in a separate Ministerial Regulation.

Article 21

The REDD Commission shall submit regular reports on REDD implementation to the Minister and the focal point of the United Nations Convention on Climate Change to be forwarded to the United Nations Convention on Climate Change.

CHAPTER VIII

INCENTIVE DISTRIBUTION AND LIABILITIES

Article 22

The distribution of incentives from REDD implementation will be regulated in a Government Regulation.

Article 23

1. Thirty percent of the total of REDD credits shall be deposited with the Commission as collateral for REDD implementation at the national level.
2. The collateral referred to in paragraph (1) may be used by Government for:
   a. Management of emission reduction at the national level, and/or
   b. Empowerment of communities in areas surrounding the forests.
3. The mechanism and procedures for utilizing REDD implementation collateral shall be regulated in a separate Ministerial Regulation.

CHAPTER IX

TRANSITIONAL PROVISIONS

Article 24

The funds for REDD demonstration activities shall come from the participation of parties to the United Nations Convention on Climate Change.

Article 25

Prior to the establishment of a system for Independent Appraisal Institutions, the function of those institutions shall be executed by an Independent Appraisal Team that will be established by the organizational unit responsible for forestry research and development.

Article 26

Prior to the establishment of Production Forest Management Units (KPHP) and Protection Forest Management Units (KPHL), the government agencies responsible for the management of production forest and protection forest may be the REDD proponent.

Article 27

Other forest carbon trading initiatives, yet to be regulated, shall refer to this Regulation.

CHAPTER X

CONCLUDING PROVISION

Article 28

This Regulation shall come into effect on the date of enactment

In order that all may take cognizance hereof, this Ministerial Decree is promulgated by its insertion in the State Gazette of the Republic of Indonesia.

Enacted in: Jakarta

On:

Minister of Forestry

Dr (HC) M.S. Kaban

Promulgated in: Jakarta

On:

MINISTER OF LAW AND HUMAN RIGHTS

THE REPUBLIC OF INDONESIA

ANDI MATTALATTA

STATE GAZETTE OF THE REPUBLIC OF INDONESIA YEAR.....NUMBER.....

APPENDIX 1 GUIDELINES FOR PROVISION OF LOCAL GOVERNMENT'S RECOMMENDATION FOR REDD IMPLEMENTATION

For the purpose of the provision of recommendation for REDD implementation, local government shall verify/assess:

1. The status and area of forest that is proposed by the proponent.
2. The consistency between the REDD location plan and the Local Spatial Plan.
3. The consistency between the REDD implementation plan and development priorities including poverty alleviation.

Based on the verification/ assessment point 1 to point 3, the Local Government may recommend REDD implementation in its region.

APPENDIX 2 CRITERIA FOR REDD LOCATIONS AND ACTIVITIES

A. The selection of REDD locations shall be based on the following aspects:

1. Data and information
2. Biophysical and ecological [criteria]
3. Threats and challenges
4. Social, economic, and cultural [criteria]
5. Economic viability
6. Governance

Data and information: availability and completeness of data and information (historical) on the area of forest and carbon stock together with any relevant data required for REDD implementation.

Biophysical and ecological [criteria]: ecosystem diversity; carbon stock; biodiversity and uniqueness

Threats and challenges: type and level of threat; level of risk for the location from deforestation and/or degradation

Social, economic, and cultural [criteria]: dependency of communities on the location; existence of conflict; involvement of stakeholders in forest management, and clarification of 'pro poor' dimensions.

Economic viability: estimation of revenue from REDD and estimation of the cost needed to ensure long term reduction of emissions from deforestation and/or forest degradation in the in the location and the area surrounding the location.

Governance: efficiency and effectiveness of bureaucracy (clear division of roles, responsibilities, and accountability among all stakeholders), and law enforcement,

B. The selection of locations for REDD demonstration activities should consider bio-geographic distribution of Indonesia's regions.

APPENDIX 3 GUIDELINES FOR THE FORMULATION OF REDD IMPLEMENTATION PLANS

REDD implementation plans should be written in Bahasa Indonesia and English. The format of a REDD implementation plan comprises a cover page, table of content, introduction/ background, and at least 3 (three) main sections in the body of the proposal.

1. Cover page contains basic information such as title, summary, implementing institutions, time period and estimation of investment/fund.
2. Table of contents.
3. Introduction/ background explains the REDD activity in its international context, relevancy/consistency with

national and local development priorities.

4. The main body of the proposal contains the information about:
   a. Biophysical and ecological conditions of the proposed location and its surroundings; threats and challenges; social, economic, and cultural [characteristics]; economic viability; and forest governance.
   b. Data and information availability, explanation about data and information collection methodology, analysis of change in forest cover and carbon stock, calculation of avoided deforestation/degradation in the location due to REDD (displacement of activities), and monitoring.
   c. Explanation of activity management including investment plan/ fund availability and fund utilization plan, impact analysis, management of contraints and risk, distribution of rights and responsibilities among the proponents, and the role of relevant stakeholders.

APPENDIX 4 GUIDELINES FOR THE REDD PROPOSAL ASSESSMENT

The assessment of REDD proposals should be conducted with analysis upon:

1. Adherence to location and activity criteria as stated in Appendix 1 of this Regulation, namely: (1) Data and information (2) Biophysical and ecological conditions, (3) Threats and challenges, (4) Social, economic, and cultural [criteria] and (5) Governance.
2. The completeness and clarity of information in the proposal, adherence to the relevant guidelines in this document, and consistency with the aim of the Convention and national development priorities.

APPENDIX 5 GUIDELINES FOR SETTING REFERENCE EMISSION [LEVELS], MONITORING AND REPORTING OF REDD ACTIVITIES

A. Reference Emission Level (REL)

1. REDD in Indonesia shall use a national approach with sub-national (REDD activity location) implementation. Thus the reference emission level shall be set at [both] national and implementation (REDD activity location) levels.
2. Reference Emission Level (REL) at national level shall be set by the Ministry of Forestry, while emissions at the implementation level shall be set by proponents and verified against the national reference emission level.

B. Assessment of changes in forest cover and carbon stock

1. Assessment of changes in forest cover and carbon stock shall use IPCC guidelines (IPCC Good Practice Guidance for Land Use, Land Use Change and Forestry/ GPG-LULUCF),
2. The proponent may choose an approach and tier in the IPCC guidelines based on their preparedness/capacity.
3. The following table contains approach and tier options as referred to in point 2 of this appendix,

Approach for activity data: Area Change	Tiers for emission factors: change in C stocks
1. Non-spatial country statistics (e.g. FAO) – generally gives net change in forest area	**Tier 1 (basic).** IPCC default mean annual increment (for degradation) and/or forest biomass stock (for deforestation) values for broad continental forest types—includes six classes for each continental area to encompass differences in elevation and general climatic zone; default values given for all vegetation-based pools
2. Based on maps, surveys and other national statistical data	**Tier 2 (intermediate).** Country specific data: Mean annual increment and/or forest biomass values from existing forest inventories and/or ecological studies. Default values provided for all non-tree pools. Newly-collected forest biomass data.
3. Spatially specific data from interpretation of remote sensing data	**Tier 3 (most demanding).** Repeated measurements of trees from permanent plots and/or calibrated process models. Can use default data for other pools stratified by in-country regions and forest type, or estimates from process models.

C. Monitoring

1. Monitoring of REDD activity shall be conducted to assess the changes in carbon stock from the Reference Emission Level.
2. The critical elements in monitoring are credibility, transparency, and accuracy, based on scientific principles and consistent with agreed international regulations.
3. Monitoring should be conducted regularly at least once every 5 (five) years, except for the period of 2008-2012 when monitoring should be conducted every year.

D. Reporting

The reporting of REDD activities should be conducted periodically in accordance with the monitoring period.

APPENDIX 6 GUIDELINES FOR VERIFICATION OF REDD ACTIVITIES

1. Prior to any COP decision on REDD Procedures, the verification of REDD activities should among others refer to the Appendix of COP 13 Desicion Number 2, 2007. Verification should be done according to the following points:
   - The calculation of emission changes should be result s-based, measurable, transparent, and consistent over time.
   - The baseline [is] the Reference Emission Level (REL)
   - Emission reduction achieved based on reporting guidelines (Good Practice Guidance for Land Use, Land-use Change and Forestry)
   - The existence of displacement activities as a result of the aforesaid activity and how it should be

calculated/ handled

- Consistency with provisions under UNFF, CCD and CBD
- The transparency and fairness in distribution of REDD incentives and contribution to the goals of the Convention and national development.

2. After the issuance of a COP Decision on REDD Procedurse, the verification of REDD activities shall refer to the COP Decision and should be consistent with prevailing laws and regulations.

Attachment 12. Presidential Regulation No. 46, 2008 on the establishment of a Climate Change Commission

PRESIDENTIAL REGULATION OF THE REPUBLIC OF INDONESIA

NUMBER 46 YEAR 2008

ON

NATIONAL COUNCIL FOR CLIMATE CHANGE

WITH GOD'S MERCY

PRESIDENT OF THE REPUBLIC OF INDONESIA,

Considering:

a. that the excessive increase in greenhouse gas has led to a global climate change that degrades the environment and harms life;
b. that the geographic position of Indonesia as an archipelagic country is prone to climate change that should be controlled on the principle that all are responsible in accordance with each country's social, economic and technological capacities;
c. that to improve the coordination of control over the climate change and to strengthen the position of Indonesia in international forums on climate change, it is deemed necessary to establish a National Council for Climate Change;
d. that based on the considerations mentioned in item a, item b, and item c, it is necessary to establish a Presidential Regulation on National Council for Climate Change;

Recalling:

1. Section 4, subsection (1) of the 1945 Constitution of the Republic of Indonesia;
2. Law Number 6 Year 1994 on Ratification of United Nations Framework Convention on Climate Change (Government Gazette of the Republic of Indonesia Year 1994 Number 42, Annex to Government Gazette of the Republic of Indonesia Number 3557);
3. Law Number 23 Year 1997 on Environment Management (Government Gazette of the Republic of Indonesia Year 1997 Number 68, Annex to Government Gazette of the Republic of Indonesia Number 3699);
4. Law Number 17 Year 2004 on Ratification of Kyoto Protocol to the United Nations Framework Convention on Climate Change (Government Gazette of the Republic of Indonesia Year 2004 Number 72, Annex to Government Gazette of the Republic of Indonesia Number 4403);
5. Law Number 25 Year 2004 on National Development Planning System (Government Gazette of the Republic of Indonesia Year 2004 Number 104, Annex to Government Gazette of the Republic of Indonesia Number 4421);

HAS DECIDED:

To establish: PRESIDENTIAL REGULATION ON NATIONAL COUNCIL FOR CLIMATE CHANGE.

Section 1

In this Presidential Regulation:

1. Climate Change is a change in the average condition of a climate and/or various climates from time to time as a result of human activities.
2. Adaptation to Climate Change is a process to strengthen and build a strategy for anticipating the impacts of climate change and implement it to reduce the negative impacts and reap the positive benefits.
3. Climate Change Mitigation is an effort to control and prevent climate change through activities that can reduce emission/increase greenhouse gas absorption from various sources.
4. Transfer of Technology is an effort to transfer environmentally-friendly technology to mitigate and adapt to climate change impacts.
5. Funding is an effort to find financing sources for adaptation and mitigation activities, both foreign and domestic sources.
6. Carbon Trade is an activity of selling and buying carbon emission reduction certificates resulting from climate change mitigation.

Section 2

To coordinate the control over climate change and to strengthen the position of Indonesia in international forums on climate change, a NATIONAL COUNCIL FOR CLIMATE CHANGE is established.

Section 3

The NATIONAL COUNCIL FOR CLIMATE CHANGE as referred to in Section 2 has the tasks of:

a. formulating national policies, strategies, programs and activities to control climate change;
b. coordinating activities in controlling climate change including the activities of adaptation, mitigation, transfer of technology and funding;
c. formulating mechanism and procedure for carbon trade;
d. monitoring and evaluating the implementation of policies on control of climate change;
e. strengthening the position of Indonesia to encourage developed countries to be more responsible for controlling climate change.

Section 4

The NATIONAL COUNCIL FOR CLIMATE CHANGE is composed of:

a. Chairperson	:	President of the Republic of Indonesia
b. Vice Chairpersons	:	1. Coordinating Minister of People's Welfare
		2. Coordinating Minister of Economy
c. Executive Director/ Member	:	Ir. Rachmat Witoelar
d. Members	:	1. State Secretary
		2. Cabinet Secretary
		3. State Minister of Environment
		4. Minister of Finance
		5. Minister of Home Affairs

6. Minister of Foreign Affairs
7. Minister of Energy and Mineral Resources
8. Minister of Forestry
9. Minister of Agriculture
10. Minister of Industry
11. Minister of Public Works
12. State Minister of National Development Planning/Head of Bappenas
13. Minister of Marine Affairs and Fisheries
14. Minister of Trade
15. State Minister of Research and Technology
16. Minister of Transportation
17. Minister of Health
18. Head of the Meteorology and Geophysical Agency

Section 5

(1) In carrying out its tasks, the NATIONAL COUNCIL FOR CLIMATE CHANGE will be assisted by some Working Units.

(2) The Working Units as referred to in subsection (1) are composed of:
   a. Adaptation Working Unit;
   b. Mitigation Working Unit;
   c. Transfer-of-Technology Working Unit;
   d. Funding Working Unit;
   e. Post-Kyoto 2012 Working Unit;
   f. Forestry and Land Use Conversion Working Unit.

(3) If deemed necessary, the Executive Director may establish working units other than ones referred to in Section (2).

Section 6

(1) The memberships of the Working Units as referred to in Section 5 shall be represented by relevant Government agencies and experts.

(2) The composition, work procedure, appointment and discharge of Members of the Working Units as referred to in subsection (1) shall be established by the Executive Director.

Section 7

(1) To support the tasks of the NATIONAL COUNCIL FOR CLIMATE CHANGE, a secretariat shall be established to be led by a Secretariat Head.

(2) The Secretariat Head as referred to in subsection (1) shall be appointed and discharged by the Executive Director.

(3) The Secretariat as referred to in subsection (1) and subsection (2) has the task of providing administrative support for the NATIONAL COUNCIL FOR CLIMATE CHANGE.

(4) The organizational structure and work procedure of the NATIONAL COUNCIL FOR CLIMATE CHANGE's Secretariat shall be established by the Executive Director.

Section 8

(1) Employees of the NATIONAL COUNCIL FOR CLIMATE CHANGE's Secretariat may come from Civil Servants and non-Civil Servants.

(2) The career development of Civil Servants of the NATIONAL COUNCIL FOR CLIMATE CHANGE's Secretariat as referred to in subsection (1) shall be undertaken by their parent agencies in accordance with the legislation.

Section 9

(1) The NATIONAL COUNCIL FOR CLIMATE CHANGE shall hold periodic coordination meetings at least on a quarterly basis or at any time whenever necessary.

(2) If deemed necessary, the NATIONAL COUNCIL FOR CLIMATE CHANGE may involve Ministers and/or officials or others deemed necessary in the coordination meetings held by the NATIONAL COUNCIL FOR CLIMATE CHANGE.

(3) Further provisions on work procedure of the NATIONAL COUNCIL FOR CLIMATE CHANGE shall be regulated by the Executive Director.

Section 10

All expenses needed by the NATIONAL COUNCIL FOR CLIMATE CHANGE to carry out its tasks shall be charged to the National Budget, in this case, Budget of the State Ministry of Environment.

Section 11

This Presidential Regulation comes into force on establishment.

Established in Jakarta
On 4 July 2008
PRESIDENT OF THE REPUBLIC OF INDONESIA
DR. H. SUSILO BAMBANG YUDHOYONO

Certified to be a true copy,
Deputy Cabinet Secretary for Legal Affairs,
(signed over seal)
Dr. M. Iman Santoso