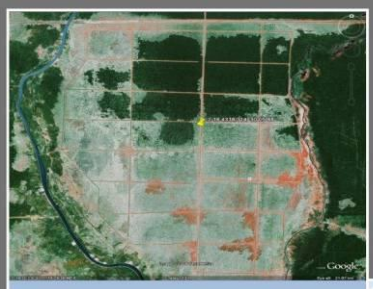
2009

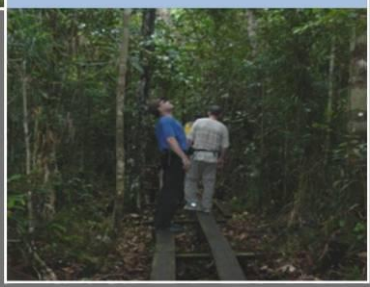
Australia Indonesia Partnership

Kemitraan Australia Indonesia

KALIMANTAN FORESTS AND CLIMATE PARTNERSHIP (KFCP)

DESIGN DOCUMENT





Cover photos: Aerial view shows degraded peatland drained by canals in the northern part of Block A. The main east-west canals are visible at the top of the image (top left, courtesy Google Earth); blocked canal in Sebangau National Park (bottom left, courtesy Grahame Applegate); main canals draining the Ex-Mega Rice Project area (top right, courtesy Ruandha, Indonesian Ministry of Forestry); and intact peat swamp forest in Block E of the Ex-Mega Rice Project (bottom right, courtesy Ruandha, Indonesian Ministry of Forestry).

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ACRONYMS AND GLOSSARY

ACIAR	Australian Centre for International Agricultural Research
ADB	Asian Development Bank
AMDAL	*Analisis mengenai Dampak Lingkungan* (Environmental Impact Assessment)
ANU	Australian National University
AUD	Australian dollar
ASEAN	Association of South East Asian Nations
AusAID	Australian Agency for International Development
AWG-LCA	Ad Hoc Working Group on Long-term Cooperative Action under the Convention
BAPLAN	*Badan Planologi* (Ministry of Forestry Planning Agency)
BAPPEDA	*Badan Perencanaan Pembangunan Daerah* (Regional Planning Development Agency)
BAPPENAS	*Badan Perencanaan Pembangunan Nasional* (National Planning Development Agency)
Beje	Traditional fresh water fishery systems
BLU	*Badan Layanan Umum* (Public Service Agency)
BOS	Borneo Orang-utan Survival
BRI	*Bank Rakyat Indonesia*
CDM	Clean Development Mechanism
CER	Certified Emission Reduction
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
DAC	Development Assistance Committee at the Organisation for Economic Cooperation and Development
DCC	Department of Climate Change (Australian Government)
DFID	Department for International Development (United Kingdom)
DOE	Designated Operational Entity
EA	Evaluability Assessment
EMRP	Ex-Mega Rice Project
ENSO	El Niño-Southern Oscillation Events
EPBC	Environment Protection and Biodiversity Conservation Act
EU	European Union
FCPF	Forest Carbon Partnership Facility (World Bank)
FLEGT	Forest Law Enforcement, Governance and Trade (EU)
FMU	Forest Management Unit (*Kesatuan Pengelolaan Hutan*)
FOMAS	Forest Resource and Management System
FRIS	Forest Resource Information System
FWI	FireWatch Indonesia
GEF	Global Environment Facility
Gemor	Tree (*Alseodaphne sp.*), the bark of which is used as material for the manufacture of mosquito repellent
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).
GIS	Geographic Information Systems
GoA	Government of Australia
GoI	Government of Indonesia
GTZ	*Deutsche Gesellschaft für Technische Zusammenarbeit*
Handil	narrow, hand-dug canal in peat
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
INCAS	Indonesia National Carbon Accounting System
INPRES	Presidential Instruction
IP	Implementing Partner
Jelutung	Rubber-like material obtained from the latex of *Dyera costulata* trees
JICA	Japan International Cooperation Agency
KDP	Kecamatan Development Program
KFCP	Kalimantan Forests and Climate Partnership
KfW	*Kreditanstalt für Wiederaufbau* (German Development Bank)
KPH	*Kesatuan Pengelolaan Hutan* (Forest Management Unit)
KPK	Corruption Eradication Commission
LIDAR	Light Detection and Ranging (remote imaging device)
M&E	Monitoring and Evaluation
MC	Managing Contractor
MoE	Ministry of Environment (Indonesia Government)
MoF	Ministry of Forestry (Indonesia Government)
MRP	Mega Rice Project
Musrenbang Desa	Village consultative planning process
NCAS	National Carbon Accounting System (Australia)
NGO	Nongovernmental Organisation
NOAA	National Oceanic and Atmospheric Administration (USA)
NP	National Park
N_2O	Nitrous Oxide
NTFP	Non-Timber Forest Product
PAF	Performance Assessment Framework
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.
Permenhut	*Peratuturan Menteri Kehutanan* (Minister of Forestry Regulation)
PES	Payment for Environmental Services
PLG	*Pengembangan Lahan Gambut* (Central Kalimantan Mega Rice Project)
PNPM	*Program Nasional Pemberdayaan Masyarakat* (National Program for People's Empowerment)
PO	Partnership Office
PSF	Peat Swamp Forest
REDD	Reducing Emissions from Deforestation and Forest Degradation in Developing Countries
REL	Reference Emissions Level
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
WII	Wetlands International-Indonesia Program
WWF	World Wide Fund for Nature

Currency

A$1.00 = Rupiah 8,288 = US$0.80

June 2009

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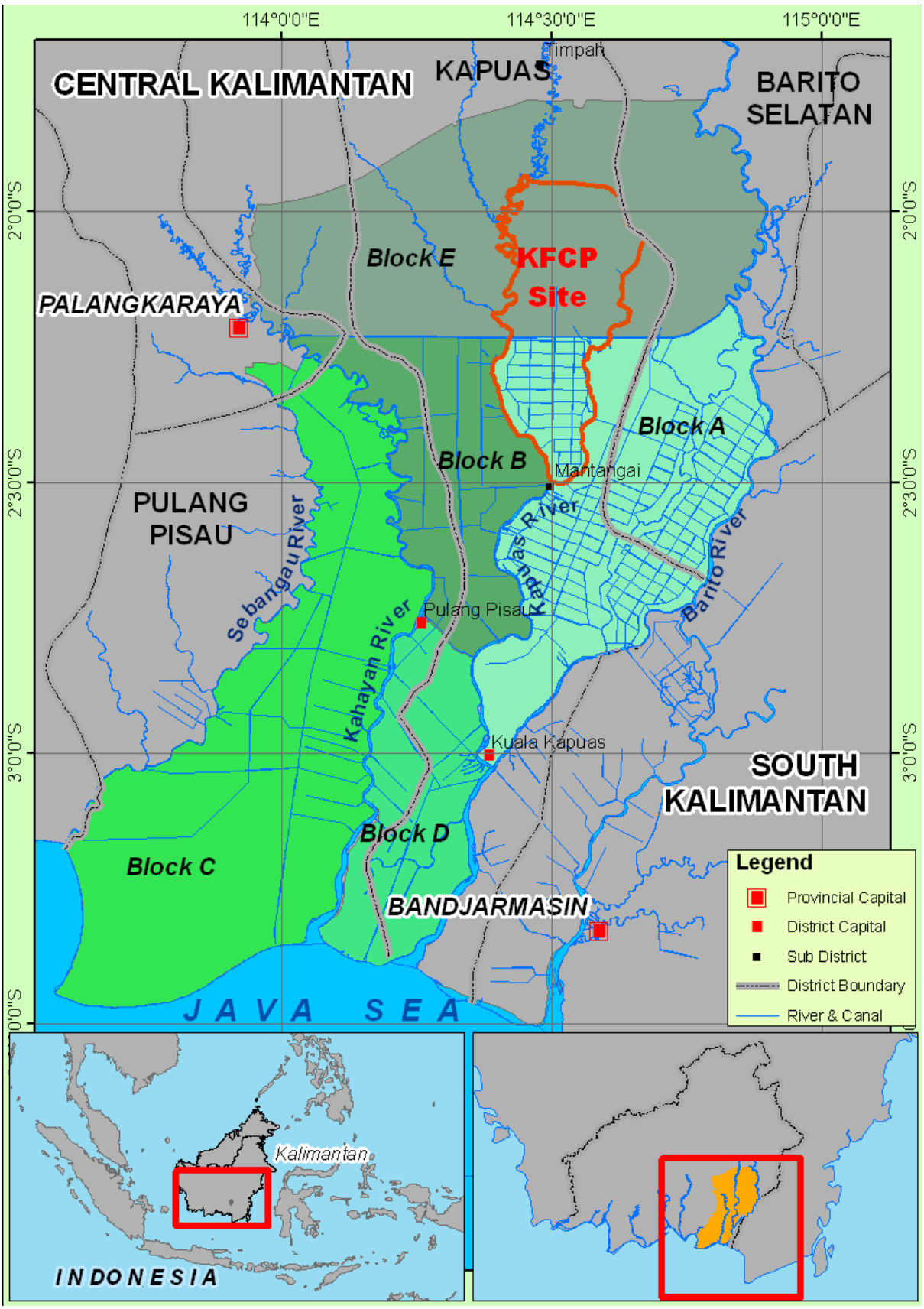
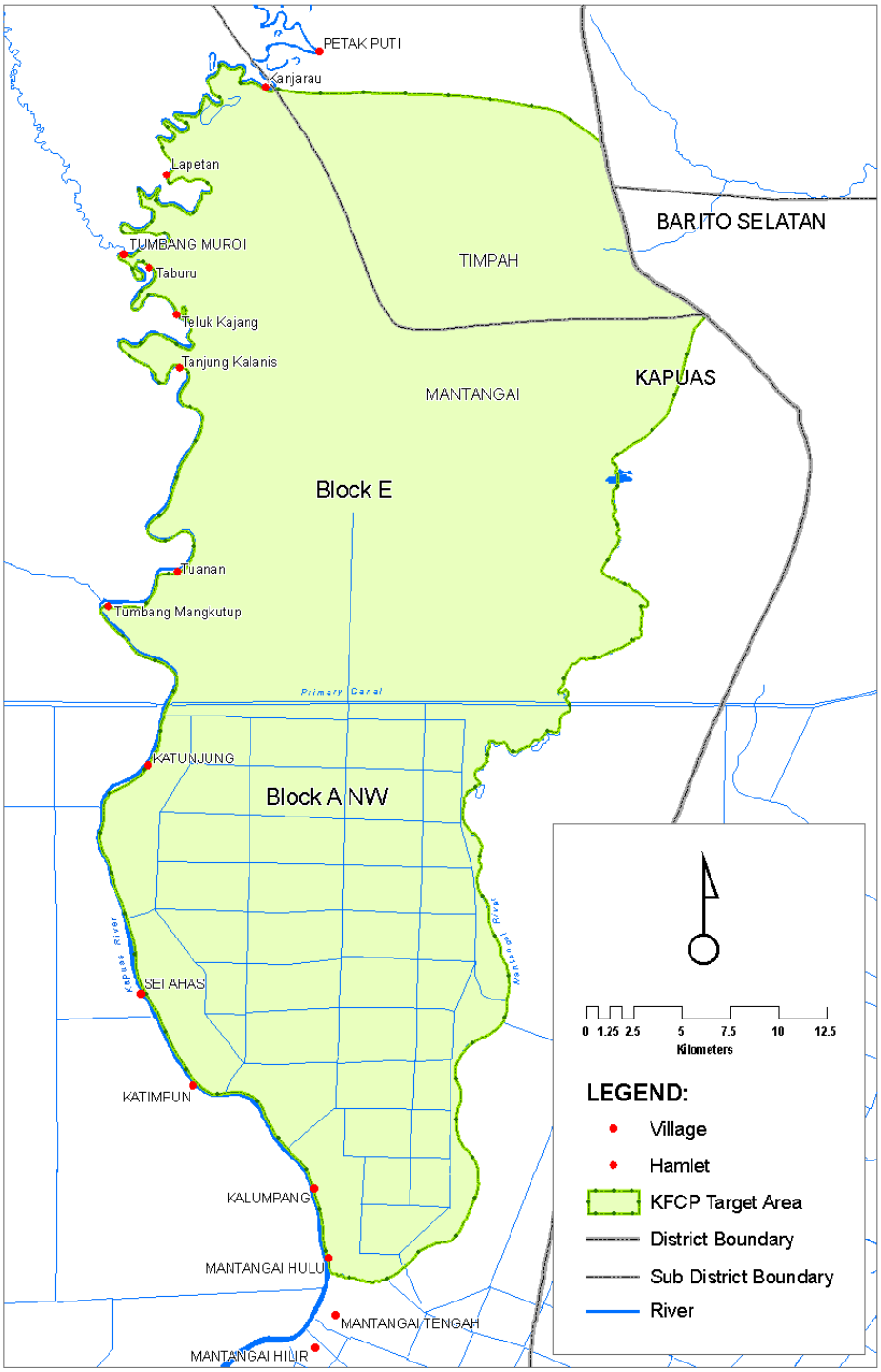


MAP 2. DETAILED MAP OF THE KFCP DEMONSTRATION SITE



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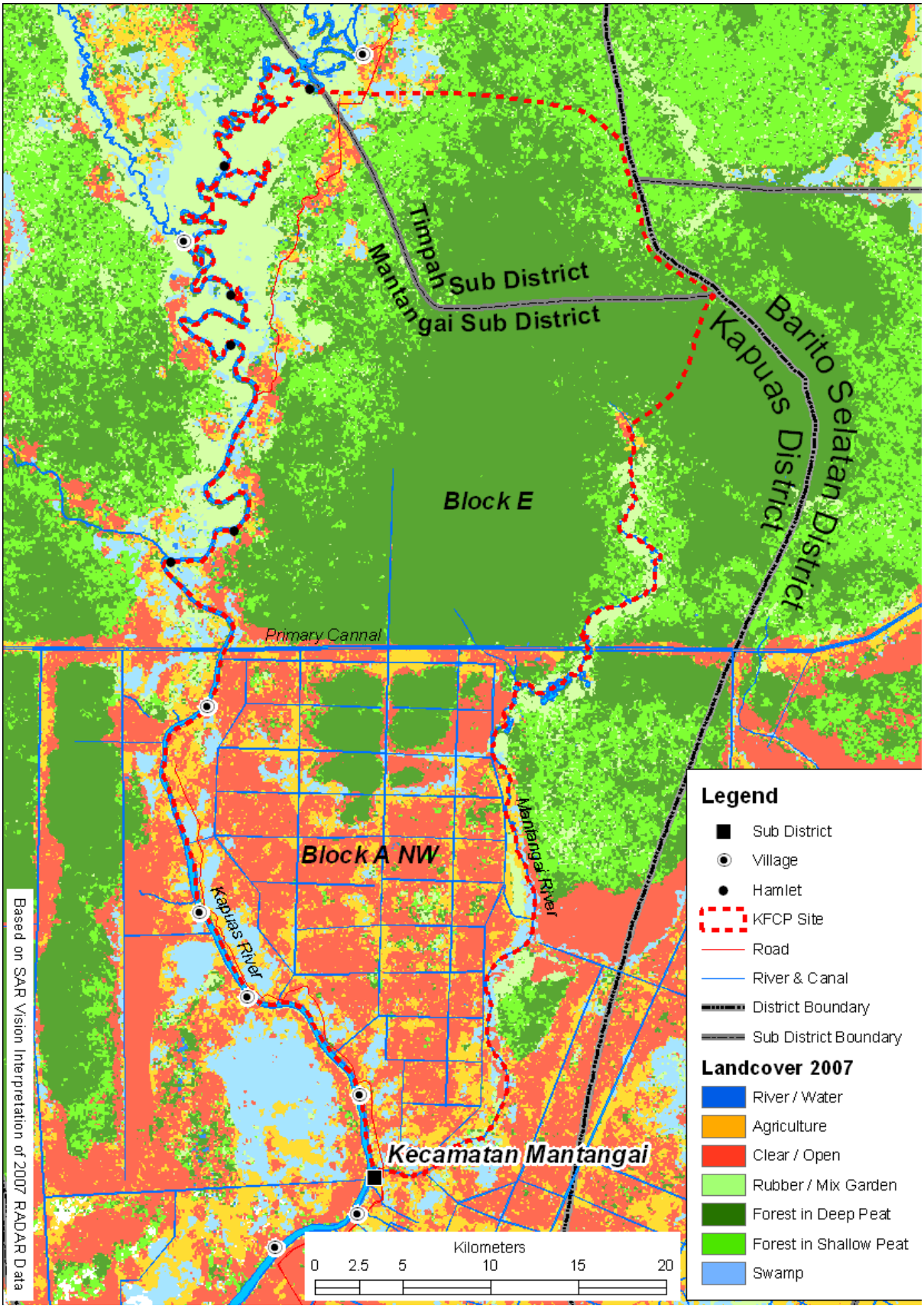
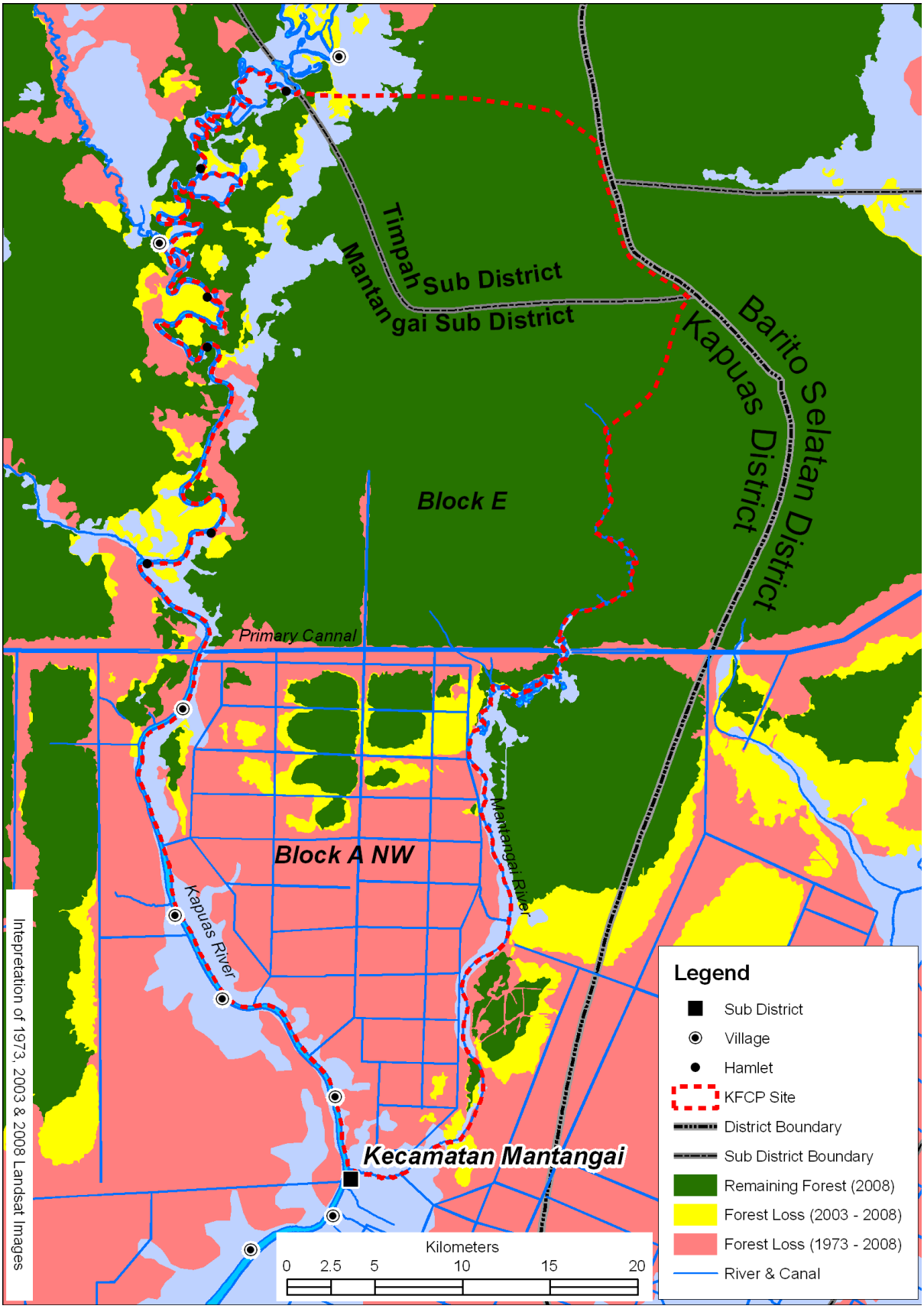
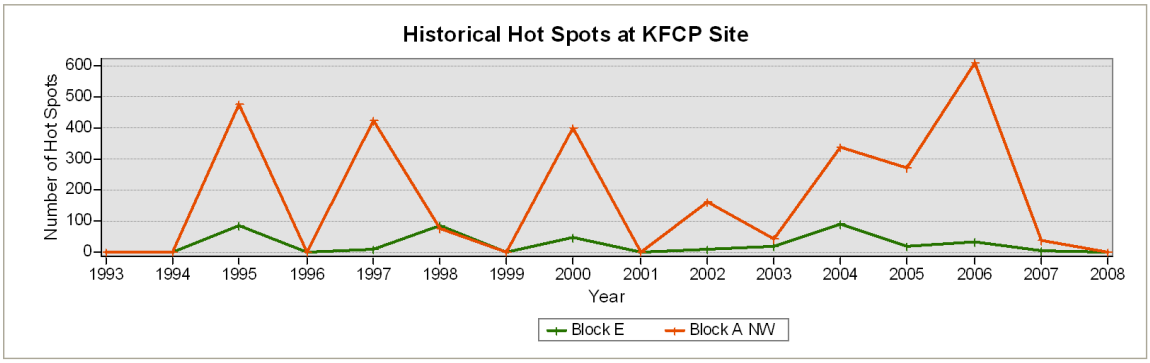
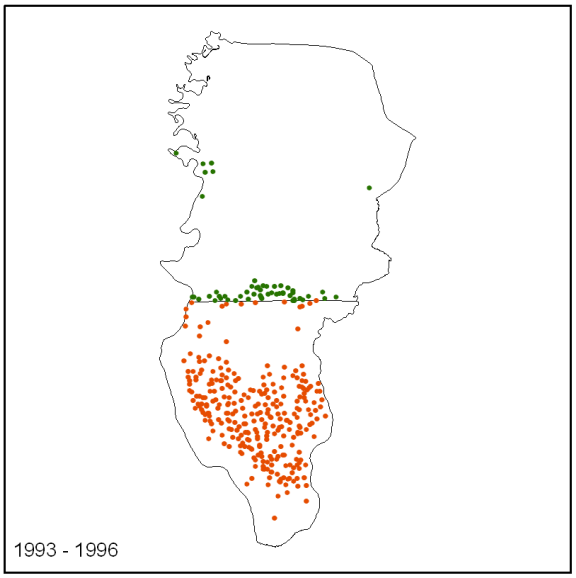


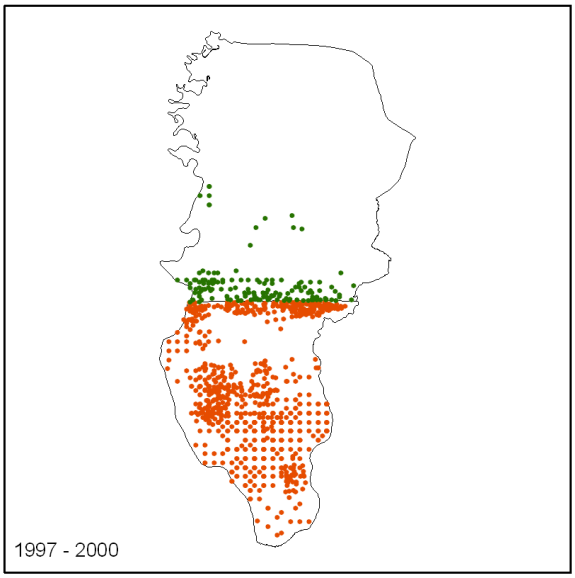
MAP 4. CHANGES IN FOREST COVER IN KFCP DEMONSTRATION SITE

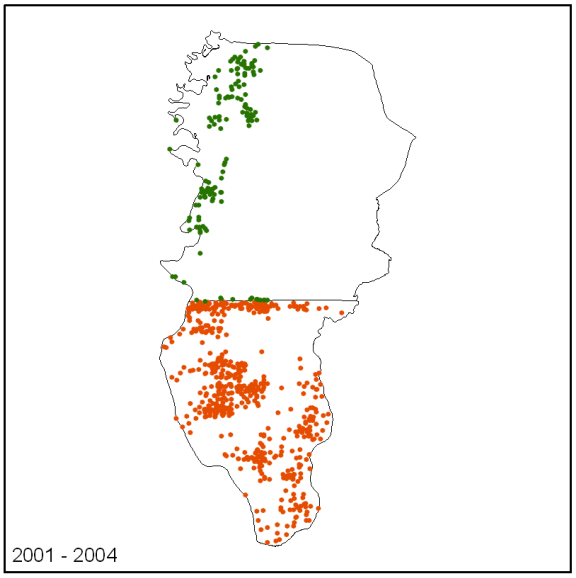


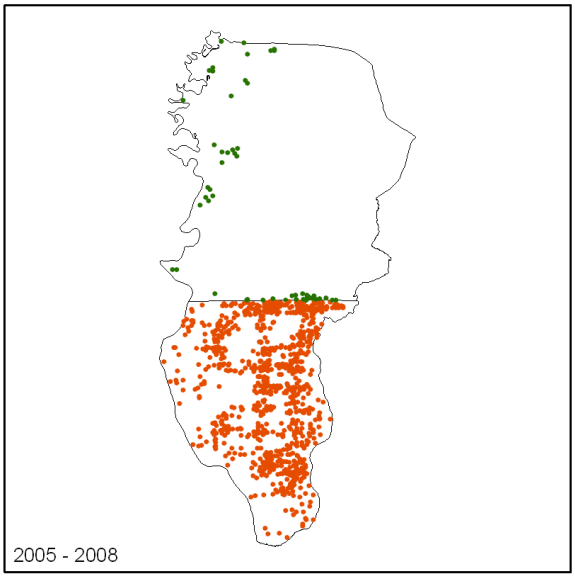
MAP 5. FIRE FREQUENCY IN KFCP DEMONSTRATION SITE











1.0 EXECUTIVE SUMMARY

1.1 INDONESIAN AND AUSTRALIAN GOVERNMENT REDD POLICIES AND PROGRAMS

Indonesia and Australia are both actively supporting international efforts on Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD) and are strong advocates for a REDD market mechanism to be included in a post-2012 global climate change outcome. Indonesia has taken a leading role among developing countries in developing a national framework for REDD, including progress on REDD policy and regulations and the development of a national carbon accounting system.

The Indonesia-Australia Forest Carbon Partnership (IAFCP) was agreed between the President of the Republic of Indonesia and the Prime Minister of Australia on 13 June 2008. $40 million of funding has been committed to the IAFCP to date, including a $10 million package on forests and climate and $30 million for the Kalimantan Forests and Climate Partnership (KFCP) (refer Box 2.2). The IAFCP builds on and formalises existing long-term practical cooperation between Indonesia and Australia on REDD 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*
- *Further development of demonstration activities, and the provision of related enabling assistance, to trial approaches to reduce emissions from deforestation and forest degradation.*

There has been excellent progress under the IAFCP to date, including agreement at the Australia–Indonesia Ministerial Forum in November 2008 on the *Roadmap for Access to International Carbon Markets* and to develop a second REDD demonstration activity under the IAFCP. Indonesia and Australia's pioneering joint submission on REDD at the United Nations Framework Convention on Climate Change Conference of Parties 14 (UNFCCC COP 14) meeting in Poznan in December 2008 (which included early lessons learned from the KFCP) was well received by countries as a leading example of developing-developed country cooperation on REDD (see Attachment 12).

Australia's $200 million International Forest Carbon Initiative (IFCI) funds the IAFCP. The IFCI is Australia's contribution to the global effort on REDD and aims to demonstrate that REDD can be part of an equitable and effective post-2012 global climate change outcome. A central element of the IFCI is taking practical action on REDD through the IAFCP and the Papua New Guinea–Australia Forest Carbon Partnership. These partnerships demonstrate possible ways to address the technical and policy hurdles to REDD and provide lessons learned for input to REDD negotiations under the UNFCCC.

The IFCI works in three key areas:

- *Increasing international forest carbon monitoring and accounting capacity;*
- *Undertaking practical demonstration activities to show how REDD can be included in a post-2012 global climate change agreement; and*
- *Supporting international efforts to develop market-based approaches to REDD.*

The Australian Government Department of Climate Change (DCC) and Australian Agency for International Development (AusAID) jointly lead the IFCI. See Attachment 3 for IFCI's latest fact sheet.

Australia is playing a key role in international climate change forums and in working with other countries to promote the development of market-based approaches to REDD. In March 2009, Australia submitted a comprehensive proposal for a future forest carbon market mechanism to the UNFCCC. The proposal is available at http://www.climatechange.gov.au/international/publications/Australia_REDD_submission.pdf.

The delivery mechanism to support the IAFCP is the **Indonesia-Australia Forest Carbon Partnership Facility** (IAFCP Facility—hereafter referred to as 'the Facility'). The Facility is the vehicle through

which government-to-government activities on REDD in Indonesia will be implemented. This places the Governments of Indonesia (GoI) and Australia (GoA) firmly as partners in directing and benefiting from the activities that the Facility will undertake. All activities delivered through the Facility aim to reach the overarching goal of IFCI, which is to demonstrate that REDD can be part of an equitable and effective post-2012 global outcome on climate change. The KFCP is a financially and technically significant part of the Facility.

1.2 KALIMANTAN FORESTS AND CLIMATE PARTNERSHIP OVERVIEW

KFCP Goal: to demonstrate 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 post-2012 global climate change agreement and enable Indonesia's meaningful participation in future international carbon markets.

As the first demonstration activity under the IAFCP—the Kalimantan Forests and Climate Partnership—the Governments of Indonesia and Australia will work in partnership to pursue multiple objectives intended to demonstrate REDD-related activities at a scale that will achieve development results and co-benefits while also generating knowledge that can applied elsewhere in Indonesia and used to inform international discussions on REDD. The KFCP is intended to be a **learning activity** in which technical, scientific, and institutional innovations are tested, refined, and communicated to add to the body of REDD knowledge and experience. The KFCP goal is stated below. The **Objective Tree for the KFCP** (Figure 2) indicates its goal, purpose, four components, and supporting outputs to achieve REDD-related results.[1] The four components correspond to the key aspects of REDD: 1) reducing greenhouse gas (GHG) emissions through incentives to local people and technical means; 2) developing methods and capacity to measure and monitor GHG emissions; 3) developing and testing equitable and practicable payment mechanisms to channel financial payments to those people and organisations that contribute to achieving emissions reductions, and 4) building institutional and technical readiness on the part of local government and villages to implement REDD on a sustainable basis.

The KFCP design document is divided into sections that address the following aspects of the design:

- **Section 2**: introduces information on the design process, Indonesian and Australian government REDD policies and programs, international context for REDD, an overview of the KFCP design, and a description of relevant GoI and donor programs;
- **Section 3**: explains the implementation strategy and provides detailed description of the design of the four components;
- **Section 4**: describes the structure and process of KFCP management and partnership coordination;
- **Section 5**: discusses compliance with AusAID policies and approaches to cross-cutting issues;
- **Section 6**: describes approaches to risk management and sustainability;
- **Section 7**: describes the framework for monitoring, evaluation, and knowledge capture;
- **Section 8**: discusses KFCP's current budget and the strategy for scaling up if more funds become available; and
- **Attachments**: 12 attachments provide details on the background and technical approach.

The Kalimantan Forests and Climate Partnership is one of the first large-scale REDD demonstration activities in Indonesia and the first in tropical peatland anywhere in the world. Land clearing and fires in Indonesia's peatlands are a major source of global GHG emissions because these ecosystems contain very high carbon stocks, mostly in belowground biomass. Exposed peat dries rapidly, resulting in oxidation of the organic matter, and creating a serious threat of fire in dry periods. Halting peatland drainage, along with stopping or reversing degradation/deforestation of peat swamp forest, offers great potential for emission reductions.

The KFCP will work to contribute to REDD in many areas, including:

[1] The KFCP goal has been divided into a goal and purpose statement in keeping with standard practice.

- Demonstrating **genuine emissions reductions can be achieved** from REDD activities;
- Demonstrating **credible, equitable, and effective approaches to REDD**;
- Trialing **innovative, market-oriented approaches** to REDD financing and REDD implementation measures;
- **Documenting the positive and negative social and economic impacts of the REDD demonstration** on participating communities, especially focusing on the results of KFCP interventions that are targeted at communities with emphasis on gender;
- Providing lessons learned from the KFCP for Indonesia and Australia to introduce to the UNFCCC negotiations on REDD to support efforts to include REDD in a **post-2012 global climate change outcome**;
- Contributing to IAFCP objectives by complementing and supporting IAFCP activities including the *Roadmap for Access to International Carbon Markets*, the development of the Forest Resource Information System (FRIS) and the National Carbon Accounting System (INCAS) for Indonesia, and the FireWatch Indonesia project;
- Demonstrating how to effectively **manage and conserve tropical peat forests** based on state-of-the-art scientific knowledge, with the potential to apply these techniques throughout Indonesia's extensive peatlands;
- Producing **co-benefits** in terms of providing livelihood options and cash payments for REDD services to target villages, conserving biodiversity, reducing health impacts and economic losses from smoke, and clarifying land tenure and property rights of communities, thereby providing a basis for economic security while reducing the threat of conflict;
- Contributing to strengthening Indonesia's **REDD-enabling environment** by identifying policy options, clarifying institutional responsibilities and capacity-building requirements, and outlining options for the socialisation of REDD and related issues.

Site Location and Description. The KFCP field demonstration activity will be implemented within a single peat dome of approximately 120,000 hectares[2] in the northern part of the Ex-Mega Rice Project (EMRP) area in Central Kalimantan (approximately 2° south and 115° east—see Map 1). The Kapuas River to the west and southwest and the Mantangai River to the east and southeast border the site. Within the EMRP area, roughly half of the site is located in the northern part of EMRP Block A, and half to the north in Block E. The demonstration site lies completely within Kapuas District, divided between the sub-districts of Mantangai and Timpah. The demonstration site is sparsely populated, with approximately 9,000—mostly Ngaju Dayak—residents living in 14 villages and hamlets strung out along the banks of the Kapuas River (see Map 2). The residents of these villages use land near their villages for food crop and rubber cultivation, while harvesting timber, non-timber forest products (NTFPs), and fish from more remote parts of the demonstration site. Villages are relatively remote; have limited public infrastructure; and the level of access to, and quality of both health and education services, is relatively poor impacting on maternal health and women. Isolation limits the range of available employment opportunities, and the deforestation of large areas of land since 1996 has greatly reduced livelihood opportunities.

The majority of the KFCP demonstration site is part of the National Forest Estate, which is under the Ministry of Forestry's (MoF) authority. The current designation of this area is 'production forest', but will likely change to 'protection forest' or 'wildlife reserve' status within the next year or two. Dayak communities have lived within the site for generations and claim land within five kilometres of their villages based on their customary law. Much of the demonstration area is located on a peat dome (peat over three metres in depth) that is very sensitive to disturbance. The EMRP's canal building dramatically altered the area hydrology and much of the forest was cleared or degraded. Relatively intact peat swamp forest covers the northern half of the dome (Block E). The southern part of the area (Block A North) is a mixture of logged over and degraded peat swamp forest and cleared areas.

[2] About 70,000 hectares are covered in logged-over forest, while in the southern part of the dome covering 50,000 hectares, much of the forest has been cleared and the remainder is very degraded. Emissions from peatland degradation contribute significant GHG emissions globally. About 30% of global peat occurs in the tropics—and two-thirds of that percentage occurs in Indonesia. Indonesia contains about 22.5 million hectares of peatland (12% of Indonesia's land area).

1.3 IMPLEMENTATION APPROACH

The KFCP is being implemented in two distinct but integrated phases:

- **Early Implementation Phase** *(1 January to 30 June 2009)*. These activities lay the foundation for full-scale implementation to socialise REDD, create a socioeconomic baseline, design a GHG estimation and monitoring system, build the institutional framework for the KFCP at the province and district levels, and complete the design of the overall activity. These activities are carried out by implementing partners, consultants, and the Peat and GHG Working Group, under the direction of the Partnership Office (PO).
- **Implementation Phase** *(1 July 2009 to 30 June 2012)*. The Managing Contractor (MC) takes over implementation of the KFCP under the direction of the KFCP Coordinator. These dedicated management resources permit rapid scaling up of implementation activities based on the knowledge and groundwork created during the Early Implementation Phase. The *Facility Design Document* identifies an initial 'Through COP 15 Phase' where emphasis is on capturing knowledge relevant to REDD while continuing to pursue implementation in all components aggressively.

The KFCP implementation strategy is designed to deliver both development results and learning results with an emphasis on adaptability and flexibility. The ability to move seamlessly from early implementation activities to implementation is crucially important given the relatively short three-year life of the activity. The immediate need is to capture information from the early implementation phase and the first few months of the implementation phase to inform international discussions and technical meetings prior to negotiations on REDD at COP 15 in December 2009.

1.3.1 Logic of the KFCP Intervention Strategy

All KFCP interventions in concert aim to reduce deforestation and degradation of peat swamp forest, primarily by reducing fire risk and mitigating the frequency and severity of fire. Specifically, as described in Component 1:

- **Blocking canals** to raise the water table and re-wet the peat will inhibit oxidation, including the incidence and spread of fire.
- **Re-establishing tree cover** in highly degraded areas by encouraging natural regeneration and re-planting will help raise soil moisture levels and humidity, thus further reducing fire risk especially in dry years.
- **Introducing livelihood interventions** will provide incentives to adopt farming techniques or other livelihood options equally accessible by women and men that do not require the use of fire in peatlands nor depend on illegal logging.

Smallholder farmers and larger-scale plantation operators use fire for land clearing. Both the choice of commercial crops introduced to peatlands (principally oil palm and rubber) and the easy use of fire to clear land are made possible by the drainage of peatlands by canals, as occurred on a large scale in Central Kalimantan with the Mega-Rice Project in the mid-1990s. That event fundamentally altered the ecology and economy of the area, so that people whose livelihoods were adapted to a more-or-less natural peat swamp forest environment have been forced, in the last decade, to cope with drier and less stable conditions, becoming more dependent on peatland farming and the use of fire to clear land. **The KFCP fire risk strategy will focus on high risk time periods (e.g., El Niño years) and high risk areas, such as along canals.** If communities perform well in managing fire at priority times and places, they should receive a performance-based incentive payment in a transparent and gender equitable manner.

For the KFCP to succeed in significantly restoring the hydrology and ecology of the peat swamp forest ecosystem to reduce GHG emissions, **a new set of incentives to encourage sustainable land use and forest protection must be developed, offered, and accepted by people** in affected communities. **The precise package of economic, social, and policy incentives will vary from one community to another** with differences in their ecological situation (from relatively intact to highly degraded forest) and the corresponding mix and sequence of technical interventions. This will require programmatic flexibility and a detailed, local-level understanding of the perceived benefits of current, unsustainable practices and

barriers to adopting those that foster REDD outcomes. Local government at provincial and district levels must be involved in and supportive of the REDD-related activities taking place in communities.

1.3.2 Incentives to Encourage Sustainable Practices will take Three Forms

- *Input-based:* immediate remuneration or other direct benefits linked to adopting and implementing interventions, such as building dams, planting trees, supplying dam-building and tree-planting operations, or eliminating fire use on peat soils (with special emphasis on strengthening activities managed by women);
- *Performance-based:* annual payments for sustaining interventions so as to achieve the desired results, such as maintaining dams to keep water levels high, protecting forest from encroachment, or reducing the incidence and extent of fire; or
- *Outcome-based:* payments commensurate with GHG emissions reductions, initially as a proxy for tradeable credits but later may be part of a forest carbon market.

The KFCP design framework consists of the following four components, each with a number of supporting outputs (see Figure 2).

Component 1: Deforestation and Degradation of Peat Swamp Forest Reduced

This component forms the core of the KFCP demonstration activity, providing a framework within which other activities must be integrated. It involves activities aimed at villages in the demonstration area as well as forest and peatland restoration activities. The village-level development activities are challenging in their own right and must be harmonised with REDD-related socialisation, behaviour change, culturally induced gender practices, peat restoration activities, reforestation, GHG monitoring, and payment mechanisms.

Village Engagement. Gaining the support of all segments of communities in the demonstration site is a precondition for emissions reduction. Gaining their trust and support will take time, effort, and the ability to offer real incentives based on their labour inputs, performance, or the outcomes they achieve in terms of reduced GHG emissions. Climate change is a remote threat compared with livelihood threats that are apparent and pressing. Potential financial benefits from carbon credits seem remote, if the concept is understood at all. The KFCP will work with communities to identify livelihood alternatives that are in keeping with the overarching goal of reducing emissions; and are also financially rewarding, sustainable, and sensitive to gender and social inequality. An effective and consistent REDD communications message is essential. Implementing partners (IPs) will focus on helping communities and government work together to resolve land tenure issues and will identify and try to defuse potential causes of conflict.

Rehabilitation. The basic elements of peat swamp forest hydrological rehabilitation are:

1. **Dam canals to wet peat** near canals, and halt further drop in the water table and reduce GHG emissions from the wet peat.
2. **Promote natural regeneration in degraded forest** areas by damming canals in their proximity, protecting them from burning and illegal logging.
3. **Manage fire and land use along rivers and near settlements** in accordance with annual variations in rainfall. Block the small and large canals to prevent people from reaching deep into peat where they can start fires and log illegally.
4. **Re-establish trees (natural or artificial regeneration) on areas that have been deforested**.

Component 2: KFCP GHG Emissions Estimation and Monitoring Program Established and Linked to INCAS

This component requires two distinct, but interrelated major tasks:

- Developing, testing, and validating a **GHG estimation and monitoring system** for the KFCP that estimates changes in emissions as a result of KFCP interventions using methodologies to meet likely UNFCCC standards for REDD; and
- **Operationalising GHG estimation and monitoring** through remote sensing and direct ground measurement in ways that will meet the requirements of a future REDD carbon market and can be integrated into FRIS/INCAS.

There is currently no international agreement about whether, or how, to incorporate actions to reduce emissions from deforested and degraded peat swamp forest in a future climate change agreement, and whether to incorporate these into future actions on REDD. Hydrological restoration activities under the KFCP will therefore be aimed at building international knowledge; and providing lessons learned to contribute to UNFCCC discussions through 2009, in areas such as research required to develop the methodologies required for estimating changes in GHG emissions from the interventions measurement and monitoring of peatland characteristics and GHG emissions, and in informing approaches for hydrological restoration and rehabilitation activities to reduce emissions from deforested and degraded peat swamp forests. A site-specific reference emissions level (REL) will be developed based on pre-intervention measurements of peat depth, deforestation rates, forest cover, socio-economic conditions, policies, and practices.

Component 3: Practical and Effective REDD GHG Payment Mechanisms Demonstrated

An important element of REDD demonstration activities will be to experiment with different approaches to establishing equitable and effective payment mechanisms. To be effective, REDD incentives must target both actors whose practices are proximate causes of deforestation and degradation as well as economic and policy drivers. Leading up to COP 15, learning about payment mechanisms will be more important than testing the actual payments in order to quickly gain experience that can inform international negotiations on REDD and prepare the basis for REDD payments once emission reductions have been achieved and verified. Progress towards making actual payments will have to be demonstrated later, to prepare to meet eventual market demand. Designing a workable payment mechanism or mechanisms will require not only technical solutions, but also a fair and transparent process of consultation with affected stakeholders accessible by poor and marginalized women and men.

Incentives aimed at changing land use or forest management should directly target resource users (individuals or groups) but ensure that while much of the work is male dominated, women will have equal access to these resources. Incentives aimed at policy change should target appropriate agencies and levels of government. For example, districts could be provided with incentives for land use and development planning that reduces deforestation and forest degradation. Incentives aimed at changing economic drivers could target government, the private sector (such as through tax policy), or both. Initially, incentive payments will be made for achieving tangible milestones towards emissions reductions, including readiness as well as intervention strategies. Later, payments will link more directly to actual emissions reductions.

Component 4: REDD Management/Technical Capacity and Readiness Developed at Provincial, District, Sub-district, and Village Levels

This component is designed to integrate the KFCP and REDD into planning and governance at the province and district levels by developing management institutions, a legal framework, and technical capacity to support demonstration activities and eventually, local integration into a REDD carbon market. Political support already exists at the provincial level and will be built at the district level during the implementation phase. Because the forest use classification of the demonstration site is currently in transition, it will be important to establish a firm legal and operational basis for implementation—a Forest Management Unit is a promising option that will be investigated during the Early Implementation Phase with local government and MoF. There is also the issue of licences and approvals from GOI authorities surrounding the proposed interventions. The KFCP will work closely with the relevant district authorities as well as those of the province to ensure full compliance and integration of the activities. This process will help ensure development of operational links with the district and province and make certain the KFCP is part of the Kapuas District development plans. Efforts at technical capacity building will have to be closely coordinated with the proposed EMRP Master Plan Implementation Project because they will also be working on capacity development for peat management. The KFCP should focus primarily on REDD-related aspects.

1.4 MANAGEMENT AND COORDINATION

The MoF is the KFCP's national-level executing agency within the GoI. The KFCP must develop a strong relationship with government at province and district levels as their political and administrative support will be essential for testing and implementing the various REDD-related interventions. Provincial government

will provide policy guidance and support, while the district will provide technical coordination among government agencies. The entire demonstration site is within the Kapuas District, which has legal authority over land use outside the forest estate and has an important voice in land tenure decisions. Ultimately, the sustainability of REDD interventions will rest on how well the process has been accepted and institutionalised at the provincial and district levels. Acceptance has legal, institutional, and political dimensions. The PO established an interim KFCP office in the provincial capital of Palangka Raya, co-located with the Provincial Planning Board. It is expected that the KFCP will maintain its current office and may establish subsidiary offices in one or more of the following towns: Kuala Kapuas (the district capital), and/or Mantangai or Timpah (the two sub-district capitals).

Management Structure and Coordinating Mechanisms. Figures 4 a and b depict the management structure for the KFCP. Implementation will be the responsibility of a Managing Contractor, chosen through a competitive bidding process. A coordinator, based in Palangka Raya, will head the MC's KFCP team, and manage field demonstration activities with the support of a small technical staff. The coordinator will supervise the IP's work and ensure their activities are coordinated. KFCP coordinating teams at the provincial and district levels, comprised of government officials and other stakeholders, will ensure that field implementation is coordinated with government agencies and plans. A provincial secretariat, and possibly one at district level, will facilitate government interactions. The KFCP Coordinating Committee will provide implementation guidance through the PO, which will facilitate communications with the IAFCP Steering Committee, the MoF, and other GoI agencies that may become actively involved as payment mechanisms and REDD monitoring protocols are developed and GoI's REDD institutions evolve.

1.5 OTHER DESIGN FACTORS

Cross-Cutting Issues. The KFCP's design and implementation will comply with GoA and GoI policies on gender/social disparity, anti-corruption, environmental protection, and child protection. Guidelines for ensuring compliance are discussed in Section 5.

Sustainability and Risk Management. Achieving sustainability will require managing risk, which has technical, governance, social, REDD, climate, and management dimensions as discussed in Section 6 and the Risk Matrix in Attachment 11.

Monitoring and Evaluation. The IAFCP M&E specialist, together with the KFCP coordinator and the PO, will develop a comprehensive Monitoring and Evaluation Plan for the KFCP within three months of inception. This plan must be able to be operationalised—that is, a fully elaborated plan with fully designed methods and tools for comprehensive M&E activities, including evaluative research, sound management of spatial and non-spatial data, and coordinated data sharing with relevant government agencies and IPs. At a minimum, it will comprise objective and verifiable indicators of intermediate results and outputs, including measurement or estimation of the following:

- Interventions to avoid or reduce peatland degradation, such as re-wetting and re-greening;
- Fire risk reduction;
- GHG emissions levels (REL and reductions);
- Governance indicators appropriate for payment mechanisms;
- Distribution of incentives and other benefits;
- Social, economic, and environmental impacts; and
- Gender disaggregated data from activity to impact level.

Budget. A summary budget, covering the early implementation phase and AusAID fiscal years 2010 through 2012 is provided in Attachment 8. The KFCP has a total budget of AUD 30 million, with an additional AUD 1.4 million to contribute to peat and GHG estimates. The summary budget, which includes the additional AUD 1.4 million, is provided in Section 8.1 and Attachment 8.

2.0 INTRODUCTION

2.1 PURPOSE OF THIS DOCUMENT IN THE DESIGN PROCESS

The Kalimantan Forests and Climate Partnership (KFCP) is the first Reducing Emissions from Deforestation and Forest Degradation in Developing Countries (REDD) demonstration activity under the Indonesia–Australia Forest Carbon Partnership (IAFCP). The KFCP is a collaborative partnership between the Governments of Indonesia (GoI) and Australia (GoA), involving multiple agencies, provincial and district governments, numerous implementing and supporting partners, scientific organisations from around the globe, and local communities who live in the demonstration site. The KFCP is focused on demonstrating how REDD activities can be successfully implemented. It aims to support and inform international negotiations on REDD under the United Nations Framework Convention on Climate Change (UNFCCC). The KFCP will draw on a range of expertise, including *in situ* capacity and knowledge on the ground, to undertake REDD interventions; and to meet the unique challenges presented by working in a degraded peat forest ecosystem.

The KFCP Design Document is primarily intended to guide implementers of the demonstration activity and written with that audience in mind.

The design document intends to achieve the following purposes:

- **Capture information** from the design process and preparatory activities;
- **Record a common understanding among KFCP partners** about the design of the activity, providing a point of reference for design adjustments and evaluation; and
- Provide **a broad framework for endorsement by GoI and GoA** that will guide the future direction of the KFCP.

Design Process. The KFCP design is a phased process consisting of a framework design followed by a detailed design. The IAFCP Steering Committee endorsed the KFCP Framework Design in October 2008 and the detailed design commenced in the last quarter of 2008. Development of this Design Document took place over the first calendar quarter of 2009, in collaboration with the GoI and assistance from implementing partners (IPs). A competitive bidding process to select a Managing Contractor (MC) to implement the IAFCP Facility ('the Facility') and KFCP was in progress, to be completed in June. The design presented in this document is based on:

- The Final Report of the Framework Design Mission of the Kalimantan Forests and Climate Partnership (15 September 2008). **Readers are encouraged to consult this document, which provides additional technical information relevant to the KFCP**;
- The Facility Design Document of the Indonesia-Australia Forest Carbon Partnership Facility (17 December 2008);
- Presidential Decree 2/2007 and the supporting Master Plan for the Rehabilitation and Revitalisation of the Ex-Mega Rice Project Area in Central Kalimantan (October 2008);
- The KFCP Design Workshop held in Palanka Raya, Central Kalimantan 27-29 January 2009 involving GoI officials from the national, province, and district levels, Australian Agency for International Development (AusAID) representatives, the staff of the Partnership Office (PO), and implementing and supporting partners;
- Consultations with staff of AusAID/Canberra and the Australian Department of Climate Change (DCC);
- Inputs from the PO staff and several consultants working on technical and management aspects of the design; and
- Three rounds of revisions of the document based on an internal review, a broad external review, and a formal peer review.

The KFCP is intended to be a learning activity in which technical, scientific, and institutional innovations are tested, refined, and communicated to add to the body of REDD knowledge and experience. The KFCP design needs to be responsive, adapting activities to the results of field-based learning, research findings, and emerging issues in international climate change negotiations. An

important means to ensure flexibility is to engage IPs with experience in the demonstration area, doing the same types of activities they will be called upon to carry out in the KFCP. This will facilitate moving from the Early Implementation Phase into the Implementation Phase with no loss of momentum and will aid rapid design adjustments.

2.2 INDONESIAN AND AUSTRALIAN GOVERNMENT REDD POLICIES AND PROGRAMS

Indonesia and Australia are both actively supporting international efforts on REDD and are strong advocates for a REDD market mechanism to be included in a post-2012 global climate change outcome. Indonesia has taken a leading role among developing countries in developing a national framework for REDD, including progress on REDD policy and regulations and the development of a national carbon accounting system.

The Indonesia-Australia Forest Carbon Partnership was agreed between the President of the Republic of Indonesia and the Prime Minister of Australia on 13 June 2008. Funding of $40 million has been committed to the IAFCP to date, including a $10 million package on forests and climate and $30 million for the KFCP (refer Box 2.2). The IAFCP builds on and formalises existing long-term practical cooperation between Indonesia and Australia on REDD 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*
- *Further development of demonstration activities, and the provision of related enabling assistance, to trial approaches to reduce emissions from deforestation and forest degradation.*

There has been excellent progress under the IAFCP to date, including agreement at the Australia–Indonesia Ministerial Forum in November 2008 on the *Roadmap for Access to International Carbon Markets*, and to develop a second REDD demonstration activity under the IAFCP. Indonesia and Australia's pioneering joint submission on REDD at the UNFCCC Conference of Parties 14 (COP 14) meeting in Poznan in December 2008 (which included early lessons learned from the KFCP) was well received by countries as a leading example of developing-developed country cooperation on REDD (see Attachment 12).

Australia's $200 million International Forest Carbon Initiative (IFCI) funds the IAFCP. The IFCI is Australia's contribution to the global effort on REDD and aims to demonstrate that REDD can be part of an equitable and effective post-2012 global climate change outcome. A central element of the IFCI is taking practical action on REDD through the IAFCP and the Papua New Guinea–Australia Forest Carbon Partnership. These partnerships demonstrate possible ways to address the technical and policy hurdles to REDD and provide lessons learned for input to REDD negotiations under the UNFCCC.

The IFCI works in three key areas:

- *Increasing international forest carbon monitoring and accounting capacity;*
- *Undertaking practical demonstration activities to show how REDD can be included in a post-2012 global climate change agreement; and*
- *Supporting international efforts to develop market-based approaches to REDD.*

The Australian DCC and AusAID jointly lead the IFCI. See Attachment 3 for latest fact sheet on the IFCI.

Australia is playing a playing a key role in international climate change forums and in working with other countries to promote the development of market-based approaches to REDD. In March 2009, Australia submitted a comprehensive proposal for a future forest carbon market mechanism to the UNFCCC. The proposal is available at http://www.climatechange.gov.au/international/publications/Australia_REDD_submission.pdf.

Text Box 2.1. The following GoI **Plans, Presidential Declarations, and Legal Instruments** are especially relevant to the KFCP:

- ***A National Action Plan Addressing Climate Change*** (February 2007) 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 rehabilitating areas of degraded forest, combating illegal logging, preventing forest fires, promoting low-impact logging, and effectively planning land use.
- ***A National Strategy and Action Plan for Sustainable Management of Peatlands*** (August 2006) aims to incorporate ecological and social issues as well as economic issues in decisions affecting the use of peatlands in Indonesia.
- The President of Indonesia issued the ***Presidential Decree on Climate Change Commission*** in July 2008 (Presidential Regulation No. 46, 2008). The commission is comprised of the Ministries of Finance, Coordinating Economy, Foreign Affairs, Environment, and Forestry, as well as the 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.
- The ***Presidential Decree on the Rehabilitation of the Ex-Mega Rice Project Area*** (INPRES 2/2007) concerns the rehabilitation, conservation, and sustainable development of the EMRP area, including broad land use zones (refer to Map 2). A process is underway to harmonise the EMRP Master Plan and its proposed land use categories and land use assignments with the existing provincial spatial plan (expected completion date is in 2009).
- The ***Minister of Forestry Decree establishing a Working Group on Reducing Emissions from Deforestation and Forest Degradation*** (SK 455 /Menhut –II /2008).
- The ***Ministry of Forestry Regulation No. 68/2008*** establishes criteria for REDD demonstration activities, especially which types of private and government bodies may act as proponents.
- The ***Minister of Forestry Decree on REDD*** (in draft as of early June 2009) will elaborate on implementation procedures for REDD demonstration activities.

The delivery mechanism to support the IAFCP is the **Indonesia-Australia Forest Carbon Partnership Facility**. The Facility is the vehicle through which government-to-government activities on REDD in Indonesia will be implemented. This places the Governments of Indonesia and Australia firmly as partners in directing and benefiting from the activities that the Facility will undertake. All activities delivered through the Facility aim to reach the overarching goal of the IFCI, which is to demonstrate that REDD can be part of an equitable and effective post-2012 global outcome on climate change. The KFCP is a financially and technically significant part of the Facility.

Text Box 2.2. 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 by helping to develop a national Forest Resource Information System (FRIS), including an Indonesian National Carbon Accounting System (INCAS); and supporting 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).
- ***Carbon accounting and monitoring systems.*** The MoF is developing a FRIS with Australian support as part of an evolving program of support and knowledge sharing based on lessons learned by Australia in developing a National Carbon Accounting System (NCAS). Joint efforts are underway to develop the INCAS, to match the information needs and standards that will be demanded by a market mechanism. The KFCP provides the opportunity to test the emerging systems using real data supported by on-the-ground monitoring.
- ***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 in Riau and Central Kalimantan), which will provide information required to more effectively manage, prevent, and suppress fires (and therefore reduce GHG 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.

2.3 INTERNATIONAL CONTEXT - HISTORY OF REDD UNDER THE UNFCCC

Deforestation is responsible for approximately 20% of global GHG emissions, with around 13 million hectares of the world's forests being cleared each year. However, REDD is not currently included in the UNFCCC or Kyoto Protocol; this was due to concerns over the difficulties of measuring and ensuring genuine, lasting emission reductions from REDD. REDD has the potential to realise significant GHG emissions reductions, and may provide one of the most cost-effective opportunities for reducing emissions in the short term.

There has been considerable recent progress on REDD during international climate change negotiations. The Bali Action Plan, determined at COP 13 in December 2007, included agreement for countries to work towards including REDD in a post-2012 global climate change agreement.[3] In Bali, it was also agreed that countries should proceed to undertake efforts, including demonstration activities, to trial approaches to REDD, ahead of the establishment of a post-2012 arrangement.[4] Parties concluded at the Tokyo REDD workshop in June 2008 that the technical and methodological expertise now exists to deal with REDD and that there is no technical impediment to REDD's inclusion. The challenge is for parties to find solutions to remaining policy challenges and ensure REDD is included in a post-2012 outcome on climate change. Key policy challenges include:

- Determinations on the scope and form of a REDD mechanism; and

[3] Refer Decision 1/CP.13: UNFCCC COP, December 2007. Bali Action Plan. http://unfccc.int/meetings/cop_13.

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

- Issues relating to *additionality*, *leakage*, and *permanence*:
  - *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.

2.3.1 The KFCP as a REDD Demonstration Activity

The KFCP forms part of the international response to the call for action on REDD. The KFCP aims to trial approaches and provide lessons learned from on the ground REDD activities in Kalimantan to inform international negotiations on REDD. The KFCP is being designed at a time when the international and national frameworks for REDD are still under development.

The KFCP's objective is to demonstrate a credible, equitable, and effective approach to reducing emissions from deforestation and forest degradation, including from the degradation of peatlands, which can inform a post-2012 global climate change agreement. As part of this, the KFCP aims to trial a range of approaches to show how investment in REDD can achieve emission reductions while providing forest-dependent communities with livelihoods and promoting sustainable resource management. It will also contribute to developing governance, enforcement, and regulatory frameworks to support REDD. Lessons learned from the KFCP will help demonstrate how REDD can be part of a post-2012 global climate change agreement and how the approaches and methodologies tested in Central Kalimantan can be scaled up or replicated in other parts of Indonesia.

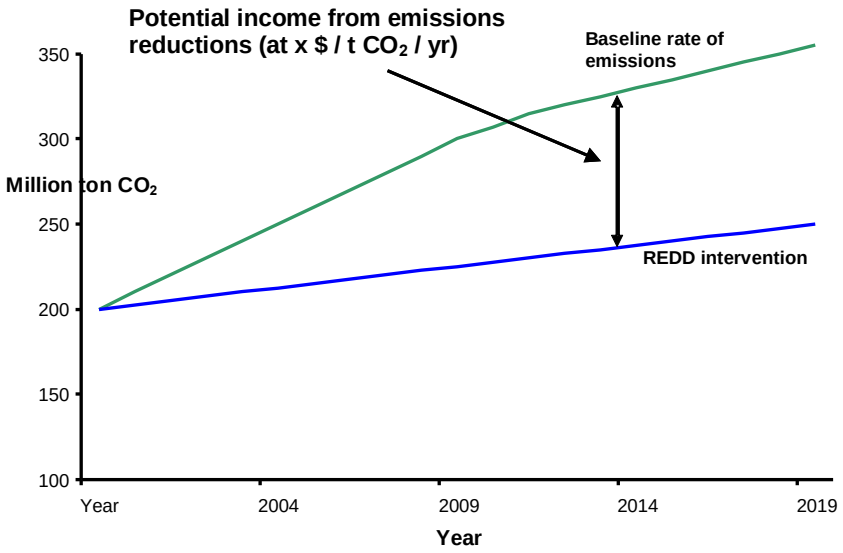
Under the KFCP, emissions from peat soils will also be taken into account as part of the accounting and monitoring of forest carbon stocks. Measurement of peat soil emissions will allow for aggregation or disaggregation with total emissions from forest trees and vegetation. This approach can help contribute to further international knowledge for REDD accounting and monitoring and the sustainable management of peat forest carbon stocks. In doing so, it is noted that there is currently no international agreement about whether, or how, to incorporate actions to reduce emissions from deforested and degraded peatland in a post-2012 climate change agreement, and whether it would be incorporated into future action on REDD.

2.3.2 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 reference emissions level in Figure 1);
3. Identification of characteristics of chosen site (e.g., governance and land use arrangements, community interests, etc.) and building of enabling conditions for REDD activity (e.g., payment mechanisms, etc.);
4. Identification of interventions to reduce emissions from deforestation and forest degradation (e.g., address drivers of deforestation, manage risks posed by natural hazards, etc.) and development of contractual arrangements for their implementation;
5. Intervention implementation;
6. Ongoing monitoring and measurement of changes in emissions against the reference emissions level, using agreed methodologies and data sets;
7. Report of emissions reductions achieved and submitted for independent verification; and
8. 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.

FIGURE 1. DIAGRAM ILLUSTRATING REDD REL AND EMISSIONS REDUCTIONS



Source: IFCA

2.3.3 Emissions from Deforestation and Forest Degradation in Indonesia

It has been estimated that 85% of GHG emissions in Indonesia are from land use change,[5] of which a high (although contested) proportion is attributed to deforestation of peatland 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, and environmental and economic consequences, the inclusion of emissions from peat forest degradation and peat fires reportedly increases Indonesia's ranking in total GHG emissions from 21st to 3rd (behind only the USA and China).[6]

The KFCP demonstration site is representative of peatlands and degraded peatlands in Indonesia, which will facilitate replication of methodologies and interventions developed in the KFCP. Emissions from peatland degradation[7] contribute significant GHG emissions globally. About 30% of global peat exists 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.[8] Furthermore, while the rate of deforestation has reportedly decreased since the 1990s, much of the deforestation continues to be on peatland, leading 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.

5 World Bank, DFID and PEACE, 2007. Indonesia and Climate Change: Current Status and Policies.

6 ibid.

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

8 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).

2.4 OVERVIEW OF THE DEMONSTRATION ACTIVITY

As the KFCP is the first demonstration activity under the IAFCP, the Governments of Indonesia and Australia will work in partnership to pursue multiple objectives intended to demonstrate REDD-related activities at a scale that will achieve development results and co-benefits while also generating knowledge that can applied elsewhere in Indonesia and used to inform international discussions on REDD. **The KFCP is intended to be a learning activity** in which technical, scientific, and institutional innovations are tested, refined, and communicated to add to the body of REDD knowledge and experience. The KFCP goal is stated below. The **Objective Tree for the KFCP** (Figure 2) indicates its goal, purpose, four components, and supporting outputs to achieve REDD-related results.[9] The four components correspond to the key aspects of REDD: 1) reducing GHG emissions through incentives to local people and technical means; 2) developing methods and capacity to measure and monitor GHG emissions; 3) developing and testing equitable and practicable payment mechanisms to channel financial payments to those people and organisations that contribute to achieving emissions reductions, and 4) building institutional and technical readiness on the part of local government and villages to implement REDD on a sustainable basis.

KFCP Goal: to demonstrate 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 post-2012 global climate change agreement and enable Indonesia's meaningful participation in future international carbon markets.

The KFCP is one of the first large-scale REDD demonstration activities in Indonesia and the first in tropical peatland anywhere in the world. Land clearing and fires in Indonesia's peatlands are a major source of global GHG emissions because these ecosystems contain very high carbon stocks, mostly in belowground biomass. Exposed peat dries rapidly, resulting in oxidation of the organic matter, and creating a serious threat of fire in dry periods. Halting peatland drainage, along with stopping or reversing degradation/deforestation of peat swamp forest, offers great potential for emission reductions.

The KFCP will work to contribute to REDD in many areas, including:

- Demonstrating **genuine emissions reductions can be achieved** from REDD activities;
- Demonstrating **credible, equitable, and effective approaches to REDD**;
- Trialing **innovative, market-oriented approaches** to REDD financing and REDD implementation measures;
- **Documenting the positive and negative social and economic impacts of the REDD demonstration** on participating communities, especially focusing on the results of KFCP interventions targeted at communities;
- Providing lessons learned from the KFCP for Indonesia and Australia to introduce to the UNFCCC negotiations on REDD to support efforts to include REDD in a **post-2012 global climate change outcome**;
- Contributing to IAFCP objectives by complementing and supporting IAFCP activities including the *Roadmap for Access to International Carbon Markets*, the development of the FRIS and INCAS for Indonesia, and the FWI project;
- Demonstrating how to effectively **manage and conserve tropical peat forests** based on state-of-the-art scientific knowledge, with the potential to apply these techniques throughout Indonesia's extensive peatlands;
- Producing **co-benefits** in terms of providing livelihood options and cash payments for REDD services to target villages, conserving biodiversity, reducing health impacts and economic losses from smoke, and clarifying land tenure and property rights of communities, thereby providing a basis for economic security while reducing the threat of conflict;

[9] The KFCP goal has been divided into a goal and purpose statement in keeping with standard practice.

- Contributing to strengthening Indonesia's **REDD-enabling environment** by identifying policy options, clarifying institutional responsibilities and capacity-building requirements, and outlining options for the socialisation of REDD and related issues.

Table 1 provides an indicative summary of how KFCP REDD activities may contribute to international discussions.

TABLE 1. THE 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:		
◆ Trialling methodologies for setting a REL (or reference level), including:	■	
— How to design RELs to avoid perverse incentives	■	
— How to ensure international consistency in RELs while also taking national circumstances into account		■
— Implications of national and sub-national approaches, including how these approaches can be used to address leakage	■	
◆ Measuring and reporting of emission reductions in demonstration activities	■	
◆ Trialling approaches to demonstrate that with effective monitoring, permanence can be assessed		■
◆ Trialling approaches to demonstrate that with effective monitoring, leakage can be assessed		■
◆ Trialling 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 (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:		
◆ Trialling approaches to identify and address the drivers of deforestation and forest degradation	■	
◆ Trialling approaches to demonstrate how investment in avoided deforestation can provide communities with equitable, predictable and sustainable benefits	■	
◆ Trialling approaches to establish appropriate and effective mechanisms for making incentive payments that promote poverty reduction and support sustainable livelihoods for forest-dependent communities	■	
◆ Contributing to the development of appropriate governance, enforcement, regulatory and sustainable forest management frameworks necessary to support developing countries' participation in a future national REDD system	■	

TABLE 2. CO-BENEFITS OF KFCP'S INTERVENTIONS

Interventions	Expected outputs	Co-benefits
Rewetting	Drainage and fire related peatland emissions have been reduced significantly	◆ Revival of indigenous fish pond systems (Lutu/Beje) ◆ Biodiversity conservation through reduced access (wetted areas) ◆ Employment and livelihood opportunities for women in nursery related work
	Canals blocked	Could provide alternative fish pond; and
Replanting	Increased vegetation cover	Improved livelihoods through increased availability of fruits, non-forest timber products and timber
	Sequestration of Greenhouse Gasses is enhanced	Biodiversity conservation (Planting fruit species attracting orangutan
Fire management	Reduced GHG emissions from fire	Improved health due to reduced exposure to haze
	Protection of livelihood assets and peatlands	Possible employment in REDD financed fire management schemes
Livelihood improvement	Development of improved value chains	Reduced illegal logging and extraction of forest resources leading to improved conservation
	Alternative livelihoods developed	Reduced logging and destructive extraction of non-forest timber products like gemor

2.5 SITE LOCATION AND DESCRIPTION

2.5.1 Site Selection

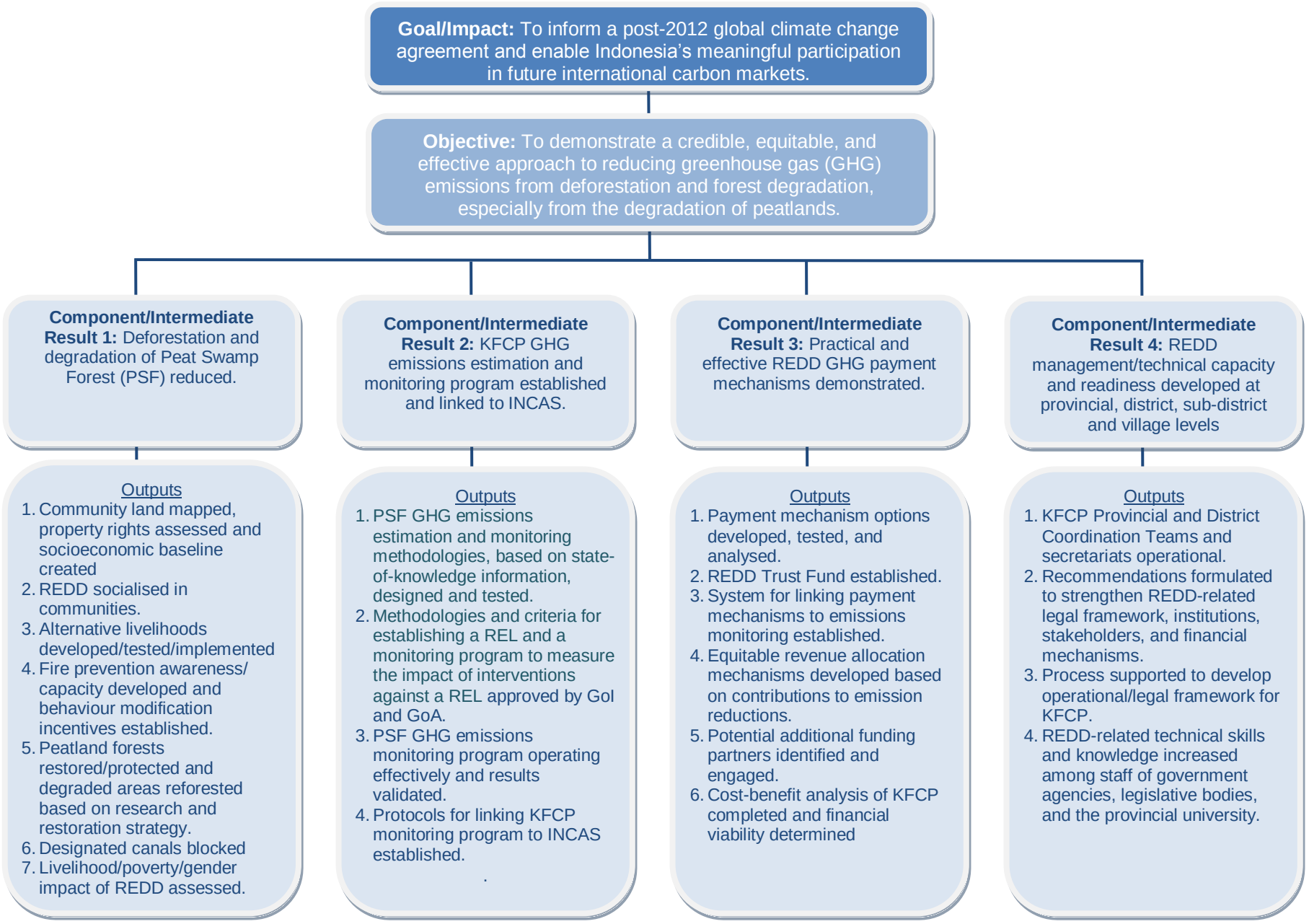
Government representatives from Indonesia and Australia who visited Central Kalimantan undertook a senior-level scoping mission for the KFCP in 2007. The mission held discussions with national and provincial agencies (along with the Central Kalimantan Provincial Governor and Vice-Governor, academic institutions, donors and non-government organisations currently working in the EMRP area and the Sebangau and Tanjung Puting National Parks), and recommended that the proposed KFCP REDD demonstration activity focus on Central Kalimantan as a representative area for the following reasons:

- Central Kalimantan contains 14% of Indonesia's 22 million hectares of peatland.
- 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.
- The Governor of Central Kalimantan has expressed support for trialling a REDD demonstration.

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 avoiding the deforestation and degradation of peat swamp forests, the area in Block E and Block A-NM of the EMRP contains characteristics of the larger EMRP with lowland peat swamp forest, which is seasonally waterlogged or inundated, degraded and drained peat swamp forests and large continuous areas of peat. The site chosen is between the Kapuas and the Mantangai Rivers within a 'management unit as detailed in the EMRP Master Plan and covers a peat dome as the hydrological unit. Details on the history of the area, causes of deforestation, and the site selection process are provided in the Final Report of the Framework Design Mission of the Kalimantan Forests and Climate Partnership (15 September 2008).

FIGURE 2. KALIMANTAN FORESTS AND CLIMATE PARTNERSHIP OBJECTIVE TREE



2.5.2 Location

The KFCP field demonstration activity will be implemented within a single peat ecosystem, or "dome," of approximately 120,000 hectares[10] in the northern part of the EMRP area in Central Kalimantan (approximately 2° south and 115° east—see Map 1). The Kapuas River to the west and southwest and the Mantangai River to the east and southeast (see Map 1) border the site. Within the EMRP area, roughly half of the site is located in the northern part of EMRP Block A, and half to the north of that in Block E. The demonstration site lies completely within Kapuas District and is divided between the sub-districts of Mantangai and Timpah.

2.5.3 Socioeconomic Situation

The demonstration site is sparsely populated, with approximately 9,000—mostly Ngaju Dayak—residents living in 14 villages and hamlets strung out along the banks of the Kapuas River (see Map 2). The residents of these villages use land near their villages for food crop and rubber cultivation, while harvesting timber, non-timber forest products (NTFPs) and fish from more remote parts of the demonstration site. The Kapuas River is the primary transportation artery, although a road is being built from Kuala Kapuas to Mantangai up the eastern side of the Kapuas River and a coal company plans to improve a former logging road that parallels the eastern side of the river in Block E to haul coal to a riverfront loading dock from its as-yet undeveloped mine, approximately 130 kilometres to the north.

Villages are relatively remote, have limited public infrastructure, and the level of access to and quality of both health and education services is relatively poor (see Attachment 1). Isolation limits the range of available employment opportunities, and the deforestation of large areas of land since 1996 has greatly reduced livelihood opportunities. Women tend to be more involved in activities close to home such as handicraft manufacture, raising small livestock, and managing rubber seedling nurseries. Traditional fresh water fishery systems (*beje*) and collection of forest resources have been greatly reduced by the Mega Rice Project and subsequent fires. Effective enforcement of forestry laws to curb illegal logging has forced the closure of sawmills that provided income to local men as loggers, and more significantly, as mill workers. Most families are not food self-sufficient and rely on wage labour and sale of latex and forest products to buy food, which marginalizes women who tend to produce their own food.

The National Bureau of Statistics estimates that 37.9% of the residents in Kapuas District live below the poverty level. The level is probably higher in the villages within the demonstration area. A socioeconomic baseline study during the early implementation phase will provide poverty data and other statistics by village and will identify which villages have long-standing connections with the site and should be engaged by the demonstration activity.

2.5.4 Land Tenure and Natural Resource Use Property Rights

The vast majority of the demonstration site is legally part of the National Forest Estate, which is under the MoF's authority. The area is currently designated as production forest, but is likely to be changed to protection forest or wildlife reserve status within the next year or two. Dayak communities have lived within the site for generations and claim land within five kilometres of their villages based on their customary law, which apparently was recognised by the colonial government prior to independence. During the development of the Mega Rice Project (MRP), the government recognised that villages had management rights and access tenure extending 1.5 kilometres inland from the riverbank. The district government is working with local NGOs and villages to formalise land tenure and some villages are permanently assigning specific plots of land to individual families, a change in traditional practice where land was used but not owned individually. Women are largely excluded from this process, as official land titles (in contrast to traditional land tenure) tend to be based on male heads of households. Households headed by single women are especially impacted. Villagers currently do not have formal rights to harvest forest resources in other parts of the site, although they obtain an important part of their livelihoods from the forest. Information about land tenure and

[10] About 70,000 ha are covered in logged-over peat swamp forest, while in the southern part of the dome covering 50,000 ha, much of the forest has been cleared and the remainder is very degraded.

property rights will be collected during the early implementation phase. Some form of gender-biased, secure land tenure and resource use rights are a necessary concomitant of long-term community participation in REDD demonstration activities, particularly fire prevention and peat restoration.[11]

2.5.5 Land and Natural Resource Use

Much of the demonstration area is located on a peat dome consisting of peat over three metres in depth that is both ecologically and hydrologically sensitive to disturbance. Tropical peat swamp forests are distinctive ecosystems, with a characteristic forest type and related plant and animal species, many of which are endemic. Peat swamp forests are the preferred habitat of orangutans and the demonstration area contains a relatively large population of this flagship species. The northern half of the dome (Block E) is covered by relatively intact peat forest, which has been logged by using railways to remove the logs, thus avoiding the need for canals, which are highly degrading to the forests due to their draining and subsequent drying effects. The southern part of the area south of the Main East-West canals is a mixture of logged over and degraded peat swamp forest and cleared areas, resulting from the land clearing and drainage activities of the MRP. The southern part of the area has been subjected to illegal logging and repeated burning for a decade and burn scars from past fires are common. An extensive grid of larger canals also drains the area, while small, locally dug *handil* canals penetrate inland from the river throughout the project area. Maintenance of and land use around the *handil* canals is managed through a customary system. Agricultural activities, including food crops and family-owned rubber plantations, are limited to the areas of community land along the Kapuas River, where mineral soils and shallow peat predominate. Fishing for a range of vertebrate species and prawns is important for both subsistence and to some extent, income. The forest is important for cash-earning products, including *jelutung* and *gemor*, and subsistence products used for house construction, food (both plants and animals), medicines, and handicrafts.

Illegal logging occurs across the site, although the extent and severity has decreased drastically in recent years in both Block E and Block A. Illegal logging was undertaken by people from both the local communities and others from further afield. Many of the small- to medium-scale sawmilling operations that were located downstream of the site were closed through government enforcement action, and some are believed to have moved further upstream, where timber is more abundant. Illegal gold mining is a serious problem in the stretch of the Kapuas River adjacent to Block E, where locally made hydraulic dredges are used to artificially erode the shoreline to process the soil and recover gold particles. This causes accelerated sedimentation and pollutes the river with mercury.

2.6 PHASES AND SEQUENCING

The KFCP is being implemented in two distinct but integrated phases as described:

- **Early Implementation Phase (1 January to 30 June 2009)**: Activities that lay the foundation for full-scale implementation, done by implementing partners, consultants and the Peat and GHG Working Group, under the direction of the PO to socialise REDD, create a socioeconomic baseline, design a GHG measurement and monitoring system, build the institutional framework for the KFCP at the province and district levels, and complete the design of the overall activity.
- **Implementation Phase (1 July 2009 to 30 June 2012)**: The Managing Contractor takes over implementation of the KFCP under the direction of the KFCP Coordinator. These dedicated management resources permit the rapid scaling up of implementation activities based on the knowledge and groundwork that was created during the early implementation phase. The *Facility Design Document* identifies an initial 'Through COP 15 Phase' where emphasis is on capturing knowledge relevant to REDD while continuing to pursue implementation aggressively in all components.

[11] Clear land tenure laws cannot be made a precondition of project development, because no projects would then ever be developed or they would all be developed in the same handful of places. Rather, the projects themselves can be made the instrument of change, where community management rights are first given to local people in a step-wise process to full land tenure.

2.6.1 Preparatory Activities

Partners, groups, and consultants will work on the following Early Implementation Phase tasks:

- **Design the socioeconomic baseline survey** and asses procedures/criteria for selecting livelihood options.
- **Conduct the socioeconomic baseline survey** in target villages and prepare for the village land use planning process, GHG monitoring system, and livelihood interventions with emphasis on those impacting on gender.
- **Assess land cover and forest status** in Block's A and E and contribute to development of the Peatland Restoration Strategic Plan.
- **Develop approaches to reforestation** and assess community use of forest resources.
- **Assess governance issues** related to REDD implementation at all levels and propose options for strengthening the legal framework and institutions and ensure equal access for women and men.
- **Analyse (with gender-bias) land tenure, land use as it affects the implementation of KFCP activities,** and assess the potential for agroforestry systems as livelihood options for both women and men.
- **Develop GHG measurement and monitoring protocols** for peat swamp forest. Peat and GHG Group has met twice and a draft review of the state of knowledge on peat and GHG measurements and emissions is completed and will be published.
- **Develop options for payment mechanisms** which enable equal access and benefits for women and men**.**
- **Develop a Peatland Restoration Strategic Plan** to guide canal blocking and reforestation (see Attachment 4 for summary).
- **Develop the GIS/Remote Sensing System**.
- **Review silvicultural and ecological requirements for rehabilitating peat areas** and identify research needed to support the rehabilitation process.

2.6.2 Sequencing

Activities must be carefully sequenced within each component of the KFCP, and in many cases, between components. The temporal relationship among the outputs is depicted in the Implementation Schedule in Attachment 10. Some examples of important implementation sequences are:

- **Institutional Arrangements**: Site-specific arrangements for implementing the KFCP, such as the designation of forest functions in the area and identification of REDD proponents, are expected to be agreed with partners during the Early Implementation Phase. Payment mechanisms will take longer, but should be ready for trial by the end of the first year. More general legal and governance arrangements for REDD may take longer to put in place.
- **Village Engagement**: The steps of the village engagement process described under Component 1 in Section 3 and in Attachment 2 must be done in sequence starting with the baseline survey and socialisation. Special attention will be given to ensure access for women and marginalized groups. Technical interventions, such as dam building and reforestation, may commence only when the necessary social enabling conditions have been created in villages that use or claim rights to the involved land or canals. Likewise, testing of payment mechanisms must wait until the necessary REDD socialisation has occurred and land tenure status is known in detail.
- **Calculating Reference Emissions Levels (REL)**: Data on the peat surface level and peat physical properties will be collected during the early implementation phase prior to interventions to calculate the REL of the field demonstration site. Other data such as peat bulk density and carbon content necessary for determination of REL can be determined during canal blocking activities without affecting the REL determination.
- **GHG Emissions Reduction Interventions**: The sequencing issues related to canal blocking and reforestation activities are discussed under Component 1 in Section 3.

2.7 RELEVANT GOI AND DONOR PROGRAMS IN CENTRAL KALIMANTAN

2.7.1 EMRP Master Plan

With assistance from the Government of the Netherlands, a *Master Plan for the Rehabilitation, and Revitalisation of the Ex-Mega Rice Project Area in Central Kalimantan* was completed in final draft form in October 2008. The plan is designed to support Presidential Instruction (INPRES) 2/2007 and addresses conservation, rehabilitation, and sustainable development of the 1.4 million hectare EMRP area. The goal of the master plan is to lay out a comprehensive implementation plan that addresses technical, environmental, socioeconomic, cultural, and institutional issues related to, and impacting on, the long-term sustainable rehabilitation of the EMRP area. The master plan provides new understanding of the EMRP hydrology and creates integrated spatial planning products and options for water management, land use, and socioeconomic development. The KFCP will plan and implement its activities within the master plan framework and will contribute to achieving the goals and objectives identified in the plan to the extent that they are consistent with REDD demonstration objectives.

2.7.2 Central Kalimantan Peatlands Project

The Government of the Netherlands supported 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 was implemented by Wetlands International, CARE International, World Wide Fund for Nature (WWF)-Indonesia, Borneo Orangutan Survival (BOS) Foundation, and the University of Palangka Raya, and focused on five key activities:

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

CKPP ended in December 2008, but a continuation of activities are expected with further Netherlands government funding. The KFCP will build on the work of a number of the CKPP partners. The work will build on the experience obtained from building a small number of experimental dams, which involved working with communities, but also some understanding of the engineering and use of different materials used in the construction. These canal blocking and reforestation activities were undertaken by BOS and Wetlands International who between them developed 20 + dams and identified useful species for both conservation and restoration and improved livelihoods and planted in excess of 500 ha of trees with communities on a small scale. CARE and BOS undertook community development including development of improved livelihood strategies involving fish farming in the rivers and non timber forest products such as rubber. The KFCP will coordinate closely with any further activities undertaken by these CKPP partners.

3.0 IMPLEMENTATION STRATEGY AND COMPONENT DESIGN

3.1 IMPLEMENTATION STRATEGY AND PRINCIPLES

The KFCP implementation strategy is designed to deliver both tangible, environmental and development results as well as learning results with an emphasis on adaptability and flexibility. The ability to move seamlessly from preparatory activities to implementation is crucially important given the relatively short three-year life of the activity. The immediate need is to capture information from the early implementation phase and the first few months of the implementation phase to inform international discussions and technical meetings prior to negotiations on REDD at COP 15 in December 2009, just six months after the KFCP officially launches.

The KFCP is the first of two REDD demonstration activities planned under the Indonesia-Australia Forest Carbon Partnership (see Section 2.2).

3.1.1 Key Implementation Approaches and Principles

- **Phased Approach**: design based on early implementation and implementation phases as described in Section 2.6.
- **Flexible/Adaptive Management**: use six-month "rolling" planning process to test interventions, generate and capture knowledge, and inform the subsequent round of planning.
- **Scientific Rigor**: deliver credible, defensible, and scientifically rigorous evidence to support negotiations on REDD.
- **Consistency and alignment** with UNFCC decisions and guidance on REDD as it develops.
- **Market Orientation**: support a market-based approach to REDD that can provide confidence to future markets for REDD.
- **Sequencing**: prioritise activities that are time consuming and necessary preconditions, like the village engagement process, payment mechanisms, and monitoring systems. Do reforestation on a trial basis because it is relatively expensive and can be scaled up quickly. Ensure that technical field interventions occur after necessary enabling conditions have been established in communities.
- **Communication**: understand the types of information various gender biased audiences need and how to communicate effectively (see Component 2 description).
- **Coordination**: use rolling planning system to coordinate with other IAFCP activities and develop mechanisms to harmonise KFCP plans and implementation with related GoI and donor programs.
- **Promotion of Climate Change Policies of Indonesia and Australia**: be consistent with the IAFCP and IFCI objectives and contribute to FRIS/INCAS.
- **Incorporation of Government of Australia (GoA) policies on the environment, gender equality, and anti-corruption**.
- **Working within GoI Systems**: follow government relevant planning procedures, policies, and approval processes to ensure ownership and sustainability. Important examples are the village consultative planning process (*Musrenbang Desa*), spatial planning at district and province levels, INPRES 2/2007, mainstreaming gender in development, and the EMRP Master Plan.
- **Develop local government ownership**: Follow a **roadmap for engagement** with local government as proposed by CARE and to be refined during implementation. This will include mechanisms for consultation, facilitation of dialogue among levels of government, and technical assistance/training for institutional and technical strengthening to support REDD implementation.
- **Do No Harm**: screen interventions and monitor to ensure that KFCP activities do not harm residents of the demonstration area in terms of livelihoods, land tenure, social/gender disparities, and corruption.
- **Scaling Up**: prepare provisional plans and budgets for different levels of additional funding.

- **Whole-of-dome approach**: plan and implement emission reduction interventions in the peat swamp forests, such as canal blocking, rehabilitation of degraded forest (promote natural regeneration and replanting), fire prevention /suppression, clarify land use and use rights and develop alternative livelihoods to aid in fire prevention, training fire suppression crews, early warning system, education within the context of the entire peat swamp forest ecosystem formed by a single dome.
- **Multiple Monitoring Tools**: design a monitoring system that is able to verify results by multiple means such as remote sensing, ground-truthing, output/result-level monitoring, periodic supervision missions by PO staff, and input from the technical panel and supporting partners.

3.1.2 Logic of the KFCP Intervention Strategy

All KFCP interventions in concert aim to reduce deforestation and degradation of peat swamp forest, primarily by reducing fire risk and mitigating the frequency and severity of fire. Specifically, as described in Component 1:

- **Blocking canals** to raise the water table and re-wet the peat will inhibit oxidation, including the incidence and spread of fire;
- **Re-establishing tree cover** in highly degraded areas by encouraging natural regeneration and re-planting will help raise soil moisture levels and humidity, thus further reducing fire risk especially in dry years; and
- **Livelihood interventions** that provide incentives to adopt farming techniques or other livelihood options that do not require the use of fire in peatlands nor depend on illegal logging.

The principal source of GHG emissions from a peat swamp forest subjected to drainage and clearing is the continuous oxidation of the exposed, dry upper layers of the peat. This is tremendously accelerated by fire in the dry season and especially in exceptionally dry years associated with the recurrence of El Niño-Southern Oscillation Events (ENSO).

Fire is used for land clearing by smallholder farmers and larger-scale plantation operators. Both the choice of commercial crops introduced to peatlands (principally oil palm and rubber) and the easy use of fire to clear land are made possible by the drainage of peatlands by canals, as occurred on a large scale in Central Kalimantan with the Mega-Rice Project in the mid-1990s. That event fundamentally altered the ecology and economy of the area, so that people whose livelihoods were adapted to a more-or-less natural peat swamp forest environment have been forced, in the last decade, to cope with drier and less stable conditions, becoming more dependent on peatland farming and the use of fire to clear land. **The KFCP fire risk strategy will focus on high risk time periods (e.g., El Nino years) and high risk areas, such as along canals.** If communities perform well in managing fire at priority times and places, they should receive a performance-based incentive payment.

For the KFCP to succeed in significantly restoring the hydrology and ecology of the peat swamp forest ecosystem to reduce GHG emissions, **a new set of incentives to encourage sustainable land use and forest protection must be developed, offered, and accepted by people** in affected communities. **The precise package of economic, social, and policy incentives will vary from one community to another** with differences in their ecological situation (from relatively intact to highly degraded forest) and the corresponding mix and sequence of technical interventions. This will require programmatic flexibility and a detailed, local-level understanding of the perceived benefits of current, unsustainable practices and barriers to adopting those that foster REDD outcomes. Local government at provincial and district levels must be involved in and supportive of the REDD-related activities taking place in communities.

Incentives to encourage sustainable practices will take three forms:

- *Input-based:* immediate remuneration or other direct benefits linked to adopting and implementing interventions, such as building dams, planting trees, supplying dam-building and tree-planting operations, or eliminating fire use on peat soils;[12]
- *Performance-based:* annual payments for sustaining interventions so as to achieve the desired results, such as maintaining dams in order to keep water levels high, protecting forest from encroachment, or reducing the incidence and extent of fire; or
- *Outcome-based:* payments commensurate with GHG emissions reductions, initially as a proxy for a future forest carbon market but later may be based on tradeable credits in a real market.

3.2 COMPONENT DESCRIPTIONS AND IMPLEMENTATION GUIDANCE

3.2.1 Component 1: Deforestation and Degradation of Peat Swamp Forest Reduced

TECHNICAL APPROACH

This component forms the core of the KFCP demonstration activity, providing a framework within which other activities must be integrated. It is also the costliest in terms of funds and management resources. The village-level development activities are challenging in their own right and must be harmonised with REDD-related socialisation, behaviour change, peat restoration activities, reforestation, GHG monitoring, and payment mechanisms. Because of this complexity, and the fact that much new ground is being broken in terms of how to operationalise REDD, this component presents relatively high levels of social, political, and technical risk.

The technical approach to Component 1 is designed to manage risk in the following ways:

- Implement a management system, described in Section 4, which ensures coordination and communication among the KFCP field management team, government agencies, and implementing partners.
- Articulate clear roles for all groups involved in the component, directly or indirectly (see Text Box 4.2 on group roles).
- Use the PO staff to coordinate with institutions and organisations outside the KFCP who can provide information and support.
- Apply state-of-knowledge information to design, planning, implementation, estimations, and monitoring based on inputs from research partners and consultants.
- Build government support by regularly consulting and coordinating closely with district- and provincial-level government.
- Follow a detailed, consistent series of steps to engage villages (see Figure 3 and Attachment 2) to ensure their needs and concerns are taken into account, including women and marginalised groups.

Peatland and Forest Threats

The following threats to peat swamp forests and the associated peat domes must be managed in order to achieve significant GHG emission reductions:

- **Use of fire** for land clearance, which often escapes beyond cultivated areas, especially during unusually dry years (see discussion below and Attachment 7);
- **Failure to effectively block canals** and prevent the construction of new canals threatens to lower the water table even further, thereby increasing emissions from oxidation, and fire;
- **Failure to control illegal logging**, which in Block E often uses small, hand-dug canals (*handil*) to transport logs to rivers; and

[12] Since canals now give access to land that is cleared with fire, canal-blocking will itself reduce such access and the associated fire risk along the canals, whence fire often spreads. Thus, current land users may be entitled to compensation for giving up that access.

- **Introduction of plantation crops into cleared peat swamp forest areas** that rely on low water table levels for growth (e.g., acacia and oil palm) either by small holders or through concession agreements.

KFCP Strategy for Reducing Use of Fire

Fire management and behaviour change communication will be integrated into the KFCP village engagement process and communications strategy, using livelihood options, land tenure security and performance payments as incentives, while building institutions at the village level to support implementation of government burning control laws. The KFCP's fire-reduction strategy will focus on areas at high risk (i.e., along canals) and periods of below normal rainfall. The village development planning process is an important means to guide land use in ways that will reduce the use of fire in peat. Local people view fire as a necessary management tool in agricultural lands to increase soil fertility and reduce the labour required for land clearance.

Agricultural livelihood options introduced by the KFCP must therefore seek to make agriculture on mineral soils more productive and financially attractive, while providing incentives to avoid growing annual and tree crops on deep peat, thereby reducing the likelihood that fires will spread. The KFCP should also improve market linkages for agricultural crops and non-timber forest products (NTFPs). This approach will have to be combined with providing non-agricultural livelihood options, cash incentives for not burning, and increased enforcement of government laws intended to restrict fire use in dry periods. Villagers will also learn basic construction skills working on KFCP dams that can be used to secure jobs on other peat rehabilitation activities planned for the EMRP area. Financially attractive and sustainable livelihood options and incentives will also reduce the incidence of illegal logging, which is arduous and not particularly rewarding in comparison to most other income sources.

Land Tenure

As discussed in Section 2.5.4, land tenure is a complex issue in the KFCP demonstration activity area, for historical and legal reasons, resulting in uncertainty over how much land a village may claim and exactly what rights are associated with various types and intensities of land and natural resource use. This is not unusual—unclear land tenure and natural resource property rights are ubiquitous in forested areas of Indonesia. The resolution of the tenure issue has important implications for community legal entitlement to credits for GHG emissions reductions in the demonstration site and beyond.

The pending MoF classification change from production forest to protection forest also has implications for land use by villagers. During the Early Implementation Phase, a KFCP implementing partner is working with communities to map their current land use and another implementing partner is investigating the legal and historical basis for tenure claims as a means to inform this dialogue further. An effort by Dayak advocacy groups and some local politicians to obtain legal recognition for customary tenure at the district level could also affect the outcome of this fluid situation. The KFCP cannot directly intervene in the political and administrative processes related to land tenure but can provide all parties to the discussion with information about current land use, the types of land use changes required to make REDD effective, and the characteristics of tenure arrangements needed to support these changes.

Disputes and Conflicts

KFCP interventions have the potential to create conflict at the community level in the following ways:

- Efforts to clarify and document land use and customary ownership can awaken dormant land disputes within communities and with adjacent communities, and can create conflict with local government and with the MoF;
- Livelihood interventions can be perceived to unfairly favour particular groups in the community, leading to disputes; and
- REDD payment mechanisms, or even KFCP incentive payments, can cause disputes or outright conflict if the distribution of benefits is not perceived to be fair or if outsiders attempt to grab land to obtain benefits.

The KFCP will identify potential conflict and develop means to avoid or mitigate it as part of the village engagement process. Implementation partners will spend months working with communities to understand their land use and land ownership patterns. This participatory process is expected to bring latent disputes to light and the village workers will seek to defuse the basis of the conflict. The KFCP can help communities to avoid conflicts with government agencies and outsiders by ensuring objectivity and transparency in negotiations over land and incentive/carbon payments. The livelihood option design and implementation process will include conflict-related selection criteria.

Village Engagement

Gaining the support of all segments of communities in the demonstration site is a precondition for emissions reduction. Gaining their trust and support will take time, effort, and the ability to offer real incentives. These communities are generally mistrustful of outside interventions after their very negative MRP experience and are somewhat jaded from subsequent experience with programs that offered assistance in forms that were not profitable or sustainable. Rates of poverty are high in these communities and local economies have suffered from the closure of local sawmills, the fall in the price of latex, and the increase in the price of rice. Climate change is a remote threat compared with livelihood threats that are apparent and pressing. Potential financial benefits from carbon credits seem remote, if the concept is understood at all. An effective and consistent REDD communications message is essential.

A threshold requirement for KFCP success with local people is the ability to replace lost income from limitations on use of forest resources, coupled with some form of tenure over village lands. In providing incentives, care must be taken not to create an economic pull effect by the appearance of a windfall—there is evidence of out-migration from the area and it would be counterproductive to reverse that trend. Care will be required to direct benefits to the people who deserve and need them most, while avoiding capture of benefits by village elites, a common problem in rural development.

The village engagement process must observe the following principles:

- Be **participatory** to ensure local ownership;
- Be gender biased and ensure equal access to processes and resources for women and men, in particular those of marginalized groups;
- Provide the opportunity for **free and informed consent**;
- Be **flexible and adaptive**;
- **Follow sound development principles**, such as ensuring that livelihood alternatives are financially and socially feasible, gender sensitive, and sustainable (see livelihood standards in Attachment 1);
- Ensure that alternative **livelihoods are compatible with REDD** objectives;
- **Target groups most responsible for emissions-increasing practices** for behaviour change and offer real income alternatives;
- Ensure that interventions **do not make people worse off** if REDD is not accepted internationally—**do no harm!**
- **Do not exacerbate gender and socially based disparities** (see Section 5.1 for a discussion of gender and social inequality issues in the KFCP); and
- Ensure village planning is done within the GoI-mandated **village-level planning process (*Musrenbang Desa*)** but ensure that the process leads to improved access for women to development outcomes. These plans provide a means to integrate village plans into higher levels of spatial planning, make land use compatible with REDD, and provide a basis for validating land tenure claims.

Reducing Peat Swamp Forest Deforestation and Degradation – Peat Rehabilitation and Hydrologic Rehabilitation

To reduce deforestation and further degradation of the peat swamp forests, it is important to adopt the whole-of-dome approach as the protection strategy because the condition of the forests on the dome are influenced by what happens downstream of the particular patch of forest. An intact patch of forest

will be severely impacted in both the short and long term and become degraded and eventually destroyed if water levels are not maintained. This is best achieved by blocking any canals located downstream and rehabilitating the degraded forest areas with tree species to reduce run-off from the dome, thus keeping the peat moist for longer. The dams themselves will not raise levels sufficiently in the short term, but are essential to stop further drying of peat in their vicinity, and therefore GHG emissions. Dams also reduce access to areas by people, which will reduce the risk of fire and by increasing moisture levels of the peat close to the canals.

Text Box 3.1. Standards for Peatland Livelihood Interventions

Key principles for identifying and selecting livelihood interventions on peatlands

1. Should meet sustainable livelihood indicators (economic, ecological/environmental, human security), and as such, promote sustainable land use of forest and tropical peat lands;
2. Be socially inclusive and involve groups that are marginalised or have limited access to community decision-making processes;
3. Be gender sensitive; and
4. Should support efforts to ensure equitable and fair access to land tenure.
5. Do not create or exacerbate conflict.

Connections among fire, livelihoods, and GHG emissions in Attachment 9.

Livelihood standards for peatlands are as follows:

Standard 1: mainstream fire management. Given the overarching risk of fire and its devastating impact as well its strong link with livelihood development, fire management has to be mainstreamed in peatland development activities.

Standard 2: analyse drivers of deforestation. Any intervention should start with an analysis of deforestation and forest and peatland degradation. REDD interventions will need to have a clear link with efforts to address drivers of deforestation and forest degradation.

Standard 3: ensure inclusiveness. Community-based planning should be disaggregated according to how different groups within a community relate to forest/peatland. Interventions must be designed based on livelihood strategies of these social groups.

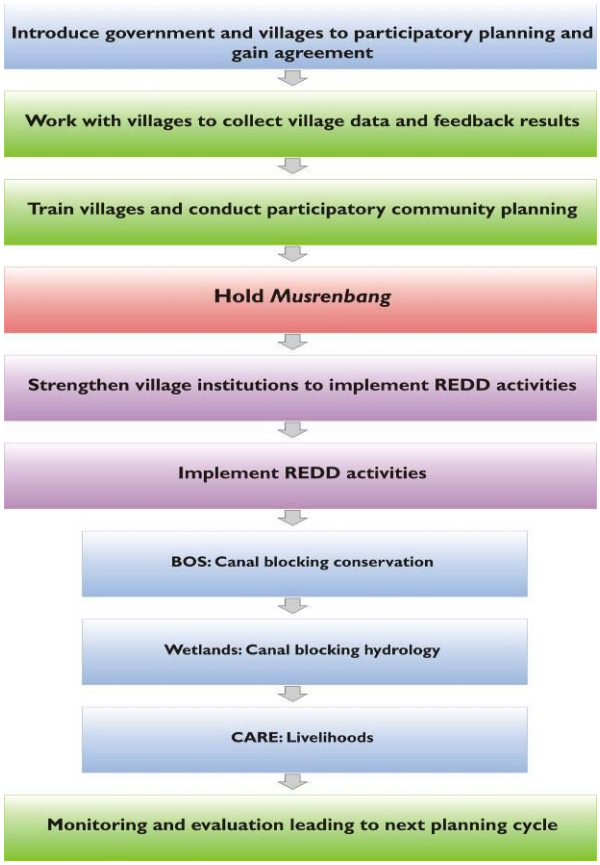
Standard 4: screen agricultural activities. Agriculture interventions have to be assessed carefully as agriculture development may increase greenhouse gas emissions on peatlands. Furthermore, if the intervention results in unstable incomes over time, pressure on natural resources will increase.

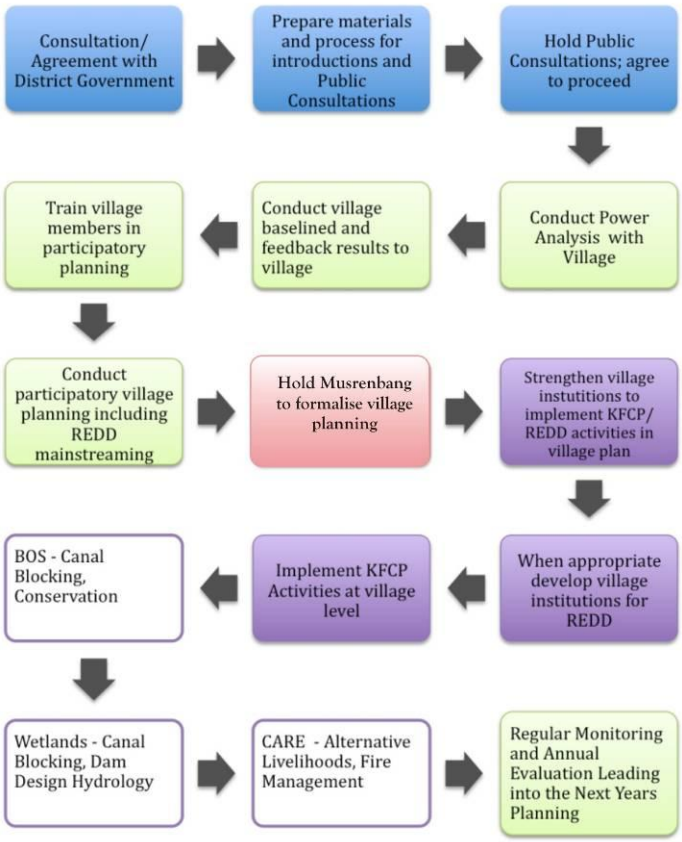
Standard 5: assess hydrological impact. A REDD-related livelihood intervention in peatlands should always be considered for its hydrological impact. Drainage is a key cause of emissions and leads to fire.

Standard 6: REDD should generate new employment. Reduced access to resources will lead to reduced employment opportunities if no additional steps are taken. Alternative sources of income have to be developed which ensure that communities/households are not exposed to declines in purchasing power and have long-term skills for the future.

Standard 7: ensure community ownership. All livelihood interventions should be initiated through participatory technology development/community development processes and must be financially and socially feasible.

FIGURE 3. FLOW CHART OF STEPS TO ENGAGE VILLAGES





Rehabilitation of degraded peat swamp forests in the proposed Protection Forest downstream from intact forests either by promoting natural regeneration or replanting with native species, adapted to fluctuating high water table levels, will assist with initiating the ecological processes essential for keeping the peat surface moist and reducing water runoff (by creating natural barriers) from the upper sections of the dome. Hence the interventions are all designed to reduce further degradation of the peat swamp forests, which if not undertaken will lead to deforestation and a huge increase in GHGs. For example, reforestation (natural or artificial) in this context is not carried out for the sake of establishing more trees in the traditional sense, but is essential for controlling water flows and starting the ecological process essential for protecting the remaining forests upstream. The same rationale exists for improving livelihoods of local communities; it is part of the fire prevention strategy. Fire is one of the main causes of deforestation, so preventing fires from starting in degraded forests which have been logged and partially drained by small canals as is the case in Block E, has a major influence on determining the integrity of the remaining peat swamp forest.

Although there are many activities to be undertaken to avoid further loss and degradation of the peat swamp forest, they are all part of the REDD process in the context of peat swamp forests. From a project implementation and management perspective, the various activities and interventions can all be undertaken and planned in a way that their costs and impacts can be evaluated independently of each other.

The basic elements of peat swamp forest hydrological restoration and reforestation will be guided by the results of previous research and development, the Draft Strategic Peatland Rehabilitation Plan for Block A-NW (see Attachment 4), and technical collaboration with scientists working to implement the EMRP Master Plan. Details of where and when the interventions will be made, including dams, recommended vertical intervals of dams on the different canal types, dam types and associated activities, species and area to be reforested by both natural regeneration and replanting and the locality and village will be determined in a Strategic Peatland Rehabilitation Plan for Block A-NW. A plan for Block E will be developed after the village survey work has been completed. **The basic elements of the interventions are:**

1. **Dam canals to wet peat** near canals and halt further drop in the water table and reduce GHG emissions from the wet peat. Scientists working independently and on the EMRP Master Plan have determined that it is not feasible to raise water tables to former levels in the short term because the canals are now significantly lower than the upper surface of the peat dome due to increased oxidation in the proximity of the canals. This applies to both Blocks E and A, with Block A having significantly less peat swamp forest in proximity to the canals than Block E.
2. **Promote natural generation in degraded forest** areas by damming canals in their proximity, protecting them from burning and illegal logging.
3. **Manage fire and land use along rivers and near settlements** in accordance with annual variations in rainfall. Block the small and large canals to prevent people from reaching deep into peat where they can start fires and log illegally.
4. **Re-establish trees (natural or artificial regeneration) on areas which have been deforested**, as this provides a means of assisting the reduction of overland flow of water on the peat (reducing run-off) and to keep the surface of the peat moist when litter layers develop. Replanting is part of the rehabilitation process and is essential for sustainable peat restoration, and to protect forested peat from further degradation.

Approach to Rehabilitating the Degraded Peat Swamp Forest. Initially, planting will be done on a demonstration basis, to test a new range of tree species[13] to be scaled up to a size that allows techniques and procedures for measuring and monitoring the impacts to be credible. Currently there funds available to rehabilitate 3,000 ha (See Attachment 4, which is a summary of the Draft Strategic

[13] Results of work proposed to commence in June 2009 on Peat Swamp Forest Ecology and Silviculture will be used in the rehabilitation of the KFCP demonstration area.

Peatland Rehabilitation Plan for Block A-NW). If additional funds become available,[14] one option would be to replant a larger area in Block A.

The rehabilitation process in Block E will primarily focus on facilitating natural regeneration as there are fewer and smaller areas in Block E, which are fully deforested, thus not requiring the additional level of effort.

Canal Blocking. Construction of dams and palisades on the canals could reduce emissions quickly by blocking access, reducing water draining from the site, and stabilizing the water table. The basic approach as outlined in the Draft Strategic Peatland Rehabilitation Plan for Block A-NW is to start at the centre of the dome and work outwards, spacing dams and palisades at head heights of 20cm to avoid putting too much hydraulic pressure on each dam (this has caused dam failure in the past). Options for developing over 360 dams and palisades dams in different configurations and cost implications have been developed in the Draft Strategic Peatland Rehabilitation Plan for Block A-NW. Larger dams are generally required in Block A and smaller ones in Block E. Methods for constructing more cost-efficient dams have been outlined in the Draft Plan including ways of achieving economies of scale through bulk purchase and transport of materials and use of contractors in agreed areas.

Sequencing. The sequencing of the various interventions will be important. One of the management considerations is to recognise that the activities in Block E can be implemented without much operational reference to Block A as one is not dependent on the other. The main reasons are that the access to the site is different, the villagers are all distinct and independent apart from the villages immediately either side of the main east –west canal which divides Block E from Block A and the nature of the interventions will be different; i.e., the dams in the Block E will be small as the canals are only 1-1.5 metres wide and have been dug using a chainsaw, unlike those in Block A which are up to 10 metres wide and dug with excavators.

A number of the intervention activities can commence simultaneously in both areas, and these include village discussions on areas to reforest; canal locations; payment details for work to undertake the activities and for ongoing maintenance (incentives); nursery development (contract discussions, training, access to seed sources, collection and storage) to take six to nine months as tropical tree species take time to develop in the nursery; canal design and development of new canal types and construction methods; sourcing large quantities of dam construction materials and bringing them to the site in the wet season when water levels are high (particularly in Block A-NW).

As indicated previously, planting must be done just prior to the canal blocking in the agreed area to facilitate access. Maintenance of canals and planted trees will commence just after the trees are planted and dams constructed and continued for three years. Fire prevention activities include improved livelihood identification and subsequent training and implementation. Fire suppression activities can commence immediately, as these are independent of the dam construction and planting activities.

One of the main risks identified in the implementation of the KFCP is capacity. The KFCP will need to be cognisant of this in the detail planning with communities and NGO partners to ensure there are sufficient resources to undertake the work. The KFCP may need to outsource some activities with the consent of local communities and the district authorities if progress is hampered by lack of manpower and local expertise.

[14] It is envisaged that reforesting the deforested are in Block A-NW would require treating an area of 27,500 ha costing in the order of AUD 25 million, far in excess of what is currently available in KFCP.

EXPECTED OUTPUTS

TABLE 3 COMPONENT 1 OUTPUTS

Output	Early Imp Phase Activities	Status June 09	Implementation Guidance
1.1 Community land use mapped, property rights assessed & socioeconomic baseline created.	CARE leading creation of SE baseline during early implementation phase with input from ICRAF & Kemitraan	Socioeconomic baseline will be completed in most villages	See Attachment 2 for steps in this process. Initial steps already completed in some villages under CKPP, requiring a tailored strategy to engage each village. The quality and consistency of baseline critical for REDD monitoring – technical panel working group to provide guidance.
1.2 REDD socialised in communities	CARE to develop and test REDD message during early implementation phase	Standard message crafted and all KFCP partners informed	The content and delivery of the message to communities and local government is critical to their support for REDD interventions. Care is needed not to raise expectations while still generating support.
1.3 Alternative livelihoods developed, tested, and implemented	Initial screening standards developed and current livelihood status identified.	Livelihood standards accepted and some alternatives identified	See list of livelihood standards in Attachment 2, which is expected to lead to creation of a menu of interventions. REDD/gender/ environmental impact screening critical.
1.4 Fire prevention awareness/capacity developed & behaviour modification incentives established.	Past experience with fire management reviewed in context of GoI policy.	Initial approach to fire risk management developed.	KFCP interventions should be in line with GoI policy and institutions and harmonised with the Master Plan approach. Fire risk should be managed based on climatic conditions.
1.5 Peatland forests restored/protected & degraded areas reforested based on research & restoration strategy	Restoration Strategy and input from Peat Group.	Restoration Strategy completed	Design approach based on Restoration Strategy.
1.6 Designated canals blocked.	Restoration strategy and input from Peat Group.	Restoration strategy completed	Follow approach described above.
1.7 Livelihood/poverty/gender impact of REDD assessed.	none	Socioeconomic baseline established.	This will be undertaken in Year 3 when impacts are clear.

3.2.2 Component 2: KFCP GHG Emissions Estimation and Monitoring Program Established and Linked to INCAS

TECHNICAL APPROACH

This component requires two distinct, but interrelated major tasks:

- Developing, testing, and validating a **GHG estimation and monitoring system** for the KFCP that estimates changes in emissions as a result of KFCP interventions using methodologies to meet likely UNFCCC standards for REDD; and
- **Operationalising GHG estimation and monitoring** through remote sensing and direct ground measurement in ways that will meet the requirements of a future REDD carbon market and can be integrated into FRIS/INCAS.

A Peat and GHG Group of the IAFCP Technical Panel began work in February 2009 to identify what is required to be estimated and effective methods by which estimates will be made to detect changes in GHG emissions (CO_2 CH_4 and N_2O) in the KFCP demonstration area. A GIS/remote sensing specialist began to construct a monitoring and database system that can support the KFCP monitoring protocol, with a view towards integrating it in FRIS/INCAS in the future. A detailed discussion of the issues related to establishing a REDD REL and monitoring system for the KFCP is in Attachment 6.

GHG Emissions Estimation and Monitoring

Estimation and Monitoring. In order to effectively monitor the impact of the interventions on GHG emissions and changes to the area of peat swamp forests and their degradation, initial estimations will be undertaken on a number of parameters prior to any interventions in order to ensure a good basis for the monitoring and evaluation. These estimations will also be used to determine the various RELs and current emission levels and for determining the RELs. It is important to recognise which parameters need to be estimated prior to the commencement of interventions and which can be done during the project. For example, social and village RELs and GHGs emissions for determining RELs from the current area of the peat swamp forests in the KFCP area are well underway and need to be carried out before full-scale interventions are implemented. This will be done during the Early Implementation Phase.

In developing a REL, the KFCP will need to determine the carbon content of the above and below ground component and the methodologies by which the changes in avoided emissions and changes in forest quality and area will be estimated.[15] This work can be done following commencement of the interventions. In terms of GHGs, the KFCP will undertake a LIDAR study prior to the interventions to determine the elevation of the peat in the peat swamp forests, but will subsequently need to undertake research into carbon content of the below (peat) and above ground forest biomass (no data at present), carbon content of peat at different depths and position in the dome (determined by the forest type when peat was developed), bulk density which varies with depth and position in the dome and areal extent of the project area and peat depth.

The KFCP interventions will involve canal blocking, forest rehabilitation, identifying and testing improved livelihoods, fire prevention and suppression. Peat swamp forest REL emissions will need to be modelled with some degree of confidence and then monitoring and modelling applied to estimate reductions as a result of these restoration and incentive-based activities aimed at reducing GHGs. Under the KFCP, emissions of both CO2 and non-CO2 GHGs from peat soils will also be taken into account as part of the accounting and monitoring of forest carbon stocks for REDD activities if the research underway supports monitoring these gases in peat swamp forests. Peat emissions will be measured in a way that allows for it to be aggregated with or disaggregated from the carbon content and potential CO2 emissions from avoiding deforestation or forest degradation of the above ground component including understory vegetation. This approach will help contribute to further international knowledge for REDD accounting and monitoring and the sustainable management of peat swamp forests.

In undertaking hydrological 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 peat swamp forest in a future climate change agreement, and whether it would be incorporated into future action on REDD. Hydrological restoration activities under the KFCP will therefore be aimed at building international knowledge, and providing lessons learned to contribute to UNFCCC discussions through 2009, in areas such as: research required to develop the methodologies required for estimating changes in GHG emissions from the interventions measurement and monitoring of peatland characteristics, GHG emissions, and in informing approaches for hydrological restoration and rehabilitation activities to reduce emissions from deforested and degraded peat swamp forests.

The Peat and GHG Group will meet frequently during the initial phases of its operation – it convened for the first time in February 2009 and met again in April to identify the key GHG based scientific needs that relate to the KFCP and finalise a review of the state of knowledge on peat swamp forest characteristics: peatland hydrology; GHG emissions from peat, above ground biomass; impact on peat swamp forests of past management and current interventions; methodologies for collecting data and monitoring peat swamp forests and their emissions. A site-specific REL will be developed based on pre-intervention measurements of peat depth, deforestation rates, forest cover, socio-economic conditions, policies and practices. The KFCP REL will be the basis for determining a broader REL for example at the management Unit level or at the INPRES level – EMRP.

[15] Much of this information and methodologies is being provided by the Peat and GHG Group who will have a review of the current knowledge and gaps and what research is to be done along with agreed GHG methodologies by June 09.

Approach to Reference Emission Levels, Permanence, Additionality and Leakage

Indonesia is taking a national approach to REDD, with sub-national implementation. In draft regulations released in March 2009, Indonesia has proposed an approach to establishing RELs at the national, sub-national and project level. As a demonstration activity, the KFCP will aim to trial more than one approach to setting site-specific RELs for REDD. It will also be important to relate this to RELs that are established at different scales:

- A **site-specific REL** will be developed based on pre-intervention measurements of peat depth, deforestation rates, forest cover, and socio-economic conditions, policies and practices. Historical data will further inform this analysis, with the caveat that the Mega Rice Project fundamentally altered the area, making historical averages of questionable relevance for determining a REL. REL measurements will be retrospectively evaluated and interpreted as methodologies are tested and refined.
- A **regional REL** will be developed for the EMRP area and/or adjacent districts as a whole using data and analysis from the Master Plan to allow the KFCP to monitor regional leakage.
- While the KFCP will not be setting a national REL, once a methodology for a **national REL** has been developed by FRIS and INCAS, the KFCP site-specific and regional RELs can be embedded with appropriate methodological adjustments.

The KFCP recognises the importance of addressing permanence, additionality and leakage as part of REDD. A national approach is likely to be the most appropriate way to address these issues as part of a future post-2012 REDD mechanism. As a site-based demonstration activity, there are limitations to how much the KFCP can address these issues, particularly given Indonesia's national systems for carbon accounting and monitoring are still under development and the Parties to the UNFCCC are yet to agree international standards and guidelines on how to address these issues. Given this, the KFCP will focus on collecting information and trialling small scale approaches to help contribute to international knowledge on the types of challenges that will be faced in dealing with permanence, additionality and leakage.

Areas where the KFCP may be able to contribute knowledge are:

- *Permanence* – The KFCP will measure and monitor forest carbon stocks over the life of the KFCP demonstration activity, with the aim of transitioning to long-term arrangements in the future within a post-2012 international REDD mechanism.
- *Additionality* - The KFCP will collect information for the site-specific REL prior to commencing interventions. The KFCP will attempt to monitor changes in emission levels against the site-specific REL over the life of the project to assess whether interventions have resulted in reduced emissions and show additionality.
- *Leakage* - Intra-national leakage is best minimised by taking a national approach—where any displacement of emissions from one area to another within the national boundary is detected by a national carbon accounting system and reflected in the national forest emissions level. As Indonesia's national carbon accounting system is still in the design phase, the KFCP will take a more focused approach. The KFCP will measure and monitor GHG for the KFCP site, and monitor a regional area directly surrounding the site such as adjacent districts or the Ex-Mega Rice Project Area. As well as carbon accounting and monitoring, the KFCP will also look to monitor changes in land use behaviour in the areas immediately surrounding the site to collect information and report any changes as a result of REDD activities. This will allow the KFCP to provide some small-scale information on leakage affects of REDD activities that contributes knowledge on how to better deal with leakage at a broader scale in a future REDD system.

GIS and Remote Sensing

A KFCP-based GIS and database will be established to ensure all of the estimations and measurements required for monitoring and evaluation are accurately captured, stored and readily available. Remote sensing requirements will be determined with those required for estimating changes to the carbon stocks in the PSF and GHG emissions drafted by the Peat and GHG Group. It is anticipated that the Facility M&E Specialist will work with the KFCP GIS and Remote Sensing Specialist and the Peat & GHG Group, as well as the PO, to finalise the systems required early in Year 1. Selection of the type of

remote sensing products to use will be critical from the standpoints of accuracy, cost, availability, and sustainability of the satellite platform. It is anticipated that medium resolution images will be needed (approximately 2.5 metre resolution) in order to track land cover change while LIDAR (Light Detection and Ranging Imaging) will be used to estimate changes in peat depth. The technical level of the system must be high enough to demonstrate the viability of the GHG emissions monitoring through measurement in changes to peat levels, while eventually being able to integrate into FRIS/INCAS. This may mean testing both high and low resolution products and compare to the national system. The KFCP results and findings are expected to inform the development of the national system.

Related activities are the potential development of a differential correction GPS base station to allow accurate measurement of peat subsidence in the demonstration area, use of remote sensing images as a basis for village mapping, and airborne laser as a basis for establishing permanent base line surface level measurement. Reports of fire hotspots and burned area mapping by the FireWatch Indonesia system will be used for checking the success of fire prevention measures and fire-related emission calculations.

Early Implementation Phase

- Form the peat & GHG Group and convene the first meeting which will plan a review of the information required for estimating peat swamp forest GHG emissions, develop a work plan for the group's activities for 2009 and integrate this with 'lessons learned' for input into the three UNFCCC meetings in 2009;
- Develop a KFCP GIS and database and input data from groups working in Central Kalimantan and the EMRP;
- Prepare for LIDAR radar imaging information for the KFCP area covering at least 150,000 ha (includes a reference area);
- 2nd meeting of the Peat and GHG Group in the peat swamp forests in the KFCP area (BOS Release camp); and
- Finalise the review of information required for estimating GHG from peat swamp forests.

Implementation Phase

- Develop methodologies for the estimation of carbon content of peat swamp forests and peat characteristics and GHG emissions;
- Develop scoping documents for additional research required for estimating GHG from peat swamp forests (above and below ground);
- Implement methodologies for estimating and monitoring GHG from peat swamp forests, including stocks in water courses and dams, impact of fires, erosion of the peat from rainfall run-off; and
- Monitor impact of interventions on peat swamp forests and GHG emissions.

EXPECTED OUTPUTS

TABLE 4. COMPONENT 2 OUTPUTS

Output	Early Imp Phase Activities	Status June 09	Implementation Guidance
2.1 Peat Swamp Forest GHG emissions measurement and monitoring methodologies, based on state-of-knowledge information, designed and tested.	PSF GHG Group formed, gathering information, and working on REL and monitoring.	State-of-knowledge review complete. Initial concept for REL and monitoring complete.	Work of the PSF GHG Group and GIS/remote sensing/M&E must be rapidly integrated during 2009 and reported to GoA and GoI representatives at UNFCCC meetings leading to COP 15.
2.2 Methodologies and criteria for establishing a REL and monitoring program to measure impact of interventions against REL approved by GoI and GoA.	Coordinate with ERMP Master Plan Team and FRIS nested approach to REL. Identify research needs.	Nested REL approach accepted.	Reach agreement on methodologies for GHG measurement and monitoring for meetings prior to COP 15. Reach agreement on measurement and monitoring program.
2.3 PSF GHG emissions monitoring program operating effectively and results validated.	Review and assess methodologies	Pilot monitoring program established.	Begin operation as soon as possible, initially on a trial basis.
2.4 Protocols for linking the KFCP monitoring program to INCAS established.	Information exchange and consultations	Agreement on remote sensing testing protocols	Work closely with FRIS/INCAS group. The KFCP will be key reference site for Peat Swamp Forest.

3.2.3 Component 3: Practical and Effective REDD GHG Payment Mechanisms Demonstrated

TECHNICAL APPROACH

An important element of REDD demonstration activities will be to experiment with different approaches to establishing equitable and effective payment mechanisms, guided by national and international experience with incentives and payment mechanisms in other areas, including payment for environmental services. To be effective, REDD incentives must target both actors whose practices are proximate causes of deforestation and degradation as well as economic and policy drivers. Incentives should send clear signals to targeted actors and decision-makers and be linked to tangible, visible outcomes (a principle called "line of sight"). To be equitable, payment mechanisms should not disenfranchise legitimate forest resource users, marginalize women by restricting access only to active users, nor provide disproportionate benefits to privileged groups. Perverse incentives should be anticipated and avoided insofar as possible. Good governance is important not only for the sake of equity and accountability but also to make sure the mechanism works as intended to reduce GHG emissions.

Leading up to COP 15, learning about development of payment mechanisms will be more important than testing the actual payments in order to quickly gain experience that can inform international negotiations on REDD and prepare the basis for REDD payments once emission reductions have been achieved and verified. Progress towards making actual payments will have to be demonstrated later in order to be prepared to meet eventual market demand and to satisfy heightened expectations in the KFCP demonstration area. A phased approach to the basis of payment may be appropriate as capacity to implement and monitor REDD activities develops. Designing a workable payment mechanism or mechanisms will require not only technical solutions but also a fair and transparent process of consultation with affected stakeholders. Though it may be lengthy, social inclusive consultation and negotiation is necessary in order to ensure acceptance, suitability to local conditions, and social sustainability of payment mechanisms.

Initially, incentive payments will be made for achieving tangible milestones towards reducing deforestation and forest degradation, including readiness as well as intervention strategies. Later payments will be linked more directly to measurable emissions reductions. Payment trials will therefore benefit from having an overarching facility to pay for emission reduction incentives. This facility could

take the form of a trust fund, which could later also support other IAFCP demonstration activities, or be pooled with other donors' funds to form a joint trust fund. Payment mechanisms and associated institutional arrangements are complex, with many moving parts to consider at different levels of governance. The design process is simplified by breaking the overall mechanism into components, each of which can be developed in parallel with the others and treated independently for purposes of designing a workable mechanism, provided it can eventually be connected to the other components. In the KFCP, components will be developed at village, district, and provincial levels. Work at each level will be guided by emerging policy at higher government levels, up to and including national policy.

The design of KFCP payment mechanisms should draw on lessons and best practise from payment for environmental services (PES), conditional cash transfer and social protection activities. Although such activities have different purposes to the KFCP applicable lessons may be available in areas such as working through partner government systems, targeting appropriate recipients for payments (individuals or groups) and the advantages and disadvantages of cash versus in-kind payments. AusAID Environment Advisors and the AusAID Social Protection Expert Panel can assist in the design of payment mechanisms, particularly by providing advice to the KFCP implementation team, participating in design and reviews of design and responding to specific technical queries.

In addition, the design process can be expedited by building or modelling REDD payment mechanisms on existing institutions and systems, including traditional as well as more formal institutions.

- **At village and sub-district levels**, the National Program for People's Empowerment (PNPM) offers a mechanism to distribute funds for locally driven initiatives, which could be linked to REDD interventions. Customary institutions of land and forest tenure may offer a way to allocate some benefits.
- **At district level**, a public service agency (BLU) may provide an institution for governing REDD payments to lower levels. Licenses for managing environmental services are within the purview of district government and could form a basis for REDD payments.
- **Forest management units** (KPH) and the current framework of forest utilisation rights and licenses provide a basis for apportioning forest use rights and payments linked to REDD. Current law recognises community-based rights including concessions and customary forest.

Payments will have to be closely linked to monitoring of GHG emissions and socioeconomic impact in order to verify and certify reductions, create a system that is credible, and inform the development of INCAS. Payments may be distributed through more than one channel or differently at different levels of governance. An option for the KFCP is for a district-level institution, such as a public service agency, to act as REDD proponent in terms of the national regulation, while local resource users such as community groups or other license-holders would act as proponents to the district. The local proponents would thus be "bundled" together under a single entity at district level, possibly with management coordination from a forest management unit, to reduce transaction costs and improve monitoring and supervision. REDD payments might be made from the trust fund to the district proponent and thence distributed to the local proponents; or (some) payments might be made directly to local proponents. The KFCP will model and test various approaches before scaling up.

Incentives aimed at changing land use or forest management should directly target resource users (individuals or groups). The bulk of incentives under the KFCP are anticipated to be targeted in this way. Incentives to encourage sustainable land use and forest management will take three forms:

- *Input-based:* immediate remuneration or other direct benefits linked to adopting and implementing interventions, such as building dams, planting trees, supplying dam-building and tree-planting operations, or eliminating fire use on peat soils;[16]
- *Performance-based:* annual payments for sustaining interventions so as to achieve the desired results, such as maintaining dams in order to keep water levels high, protecting forest from encroachment, or reducing the incidence and extent of fire; or

[16] Since canals now give access to land that is cleared with fire, canal-blocking will itself reduce such access and the associated fire risk along the canals, whence fire often spreads. Thus, current land users may be entitled to compensation for giving up that access.

- *Outcome-based:* payments commensurate with GHG emissions reductions, initially as a proxy for a future forest carbon market but later may be based on tradeable credits in a real market.

Incentives aimed at policy change should target appropriate agencies and levels of government. For example, districts could be provided with incentives for land-use and development planning that reduces deforestation and forest degradation (an approach being taken by the KfW REDD program in West and East Kalimantan). Incentives aimed at changing economic drivers could target government, the private sector (such as through tax policy), or both. An example in the context of the KFCP is investment in sustainable agriculture within the EMRP area to stabilise land use and draw pressure away from forests on deep peat, as proposed in the EMRP Master Plan.

Establishment of a Trust Fund

While in theory payments could be distributed directly from the IAFCP (e.g., out of the Australian aid program's consolidated fund) to actors involved in reducing emissions, in practice it would be preferable to designate a separate financial instrument in which payments from Australia (and potentially other donors) could be deposited, and then disbursed for KFCP incentive payments according to agreed procedures. Holding the funds in a trust fund would have the advantage of providing a strong signal to governments and communities that emission reductions would be paid for. IAFCP could partially capitalise the trust fund upfront (say for the estimated costs of the first two years of operation), and then make periodic replenishments subject to agreed benchmarks. Independent governance of the trust fund could help ensure that if disputes arose about entitlements to receive funds, they could be resolved in a transparent and fair way. Options for funds are discussed further in the IFCA study on REDD Payment Mechanisms.

The development and testing of payment mechanisms will be based on the principles below and follow the described process.

Principles

- Payment mechanisms must provide sufficient incentive for forest users, managers, and policy-makers to reduce emissions and to maintain emission reductions in the longer term.
- Payments must be equitably and transparently distributed to those who have contributed to emissions reductions but ensure that within household benefiting women have access and a significant degree of control of these funds. Affected communities must be directly engaged in the design and testing of the mechanisms, ensuring that the needs of women and vulnerable groups are adequately addressed.
- The KFCP should anticipate and as far as possible avoid creating perverse incentives.
- Collective payments should be tested in addition to individual payments.
- REDD interventions should "do no harm" insofar as members of affected communities must not be made worse off by incentives and, if possible, should benefit from them. The link between REDD and poverty reduction should be explored, and the social impact of REDD demonstration activities must be quantified (see Component 1).
- Emission estimates linked to payments will be results-based, transparent, verifiable and able to be estimated consistently over time. Payments should be linked to tangible, visible outcomes ("line of sight").
- Mechanisms must conform to the GoI legal framework and administrative procedures, including REDD regulations as they evolve.
- Mechanisms must be designed to meet the verification needs of carbon markets.
- Mechanisms must be as simple as possible (but not simpler) to reduce transaction costs and to facilitate supervision. Their development can be simplified by building up complex mechanisms from constituent components, where possible using existing institutions and systems ("off-the-shelf parts").
- The role of verifying contributions to emissions reductions and quantifying payments to specific groups and individuals must be separated from the role of making payments in order to ensure greater accountability and transparency.

Implementation Process

Early Implementation Phase

- Develop a Payment Mechanisms and Governance Working Group within the Technical Panel to advise on best practices and evaluate the further design and testing of REDD incentives. The Working Group can include and/or seek advice from AusAID environment advisors and the AusAID Social Protection Expert Panel.
- Consult with government and non-government stakeholders about how payment mechanisms could work and how they should be governed, and integrate the results into the design of payment mechanisms for the KFCP. Key issues include:
  - Identifying a KFCP project proponent or proponents, as set out in Permenhut 68/2008 on REDD Demonstration Activities, and determining what their role should be in relation to the payment mechanism; and
  - Ensuring KFCP's payment mechanism is consistent with emerging policy and regulations.
- Establish an interim trust fund in FY 2009 that could later be formalised as a REDD facility to provide initial capitalisation for KFCP readiness and emissions reductions and could also support other IAFCP demonstration activities.

Implementation Phase

- Finalise the design of a uniform payment mechanism to be tested in consultation with experts, communities, local government, and relevant GoI agencies.
- Advise and assist local government to develop appropriate institutional and governance arrangements to support REDD payments.
- Develop and implement program for testing and assessing the payment mechanism, beginning with incentives for achieving milestones and progressing to emissions reductions payments.
- Continuously document results, communicating what has been learned to the UNFCCC.
- Modify payment mechanism as necessary based on REDD decision taken at COP 15.
- Integrate selected mechanism into evolving national systems.

EXPECTED OUTPUTS

TABLE 5. COMPONENT 3 OUTPUTS

Output	Early Imp Phase Activities	Status June 09	Implementation Guidance
3.1 Payment mechanism options developed, tested, assessed	**Mechanism options design and consultations**	**Mechanism options selected for field testing**	**Begin testing when experts, local government, and communities concur**
3.2 REDD Trust Fund established	**Trust Fund design and preparations**	**Interim Fund Established**	**Consultation needed to establish final form and governance of fund**
3.3 System for linking payment mechanisms to emissions monitoring established	**Develop methods for linking GHG emissions measurement and monitoring system with payment mechanisms.**	**System development in progress**	**Link payment mechanisms to KFCP monitoring and to INCAS**
3.4 Equitable revenue allocation mechanisms developed	**Community and local government consultations**	**Stakeholder positions understood**	**Refine mechanisms based on socioeconomic survey and consultations in villages. Evaluate governance and corruption issues. Link to emission reductions or milestones.**
3.5 Potential additional funding partners identified and engaged	**Ongoing effort**	**Shortlist of potential funding partners identified.**	**Continue effort to find funding partners or other mechanisms for paying for carbon credits.**
3.6 Cost-benefit analysis of the KFCP completed and financial viability determined	**None**	**Not started**	**Begin late in Year 2. Should enable comparison with costs and benefits of voluntary market REDD activities.**

3.2.4 Component 4: REDD Management/Technical Capacity and Readiness Developed at Provincial, District, Sub-district, and Village Levels

TECHNICAL APPROACH

This component is designed to integrate the KFCP and REDD into planning and governance at the province and district levels by developing management institutions, a legal framework, and technical capacity to support demonstration activities and eventually, local integration into a REDD carbon market. Political support already exists at the provincial level and will be built at the district level during the implementation phase. Given that the forest use classification of the demonstration site is currently in transition, it will be important to establish a firm legal and operational basis for implementation – a Forest Management Unit is a promising option that will be investigated during the Early Implementation Phase with local government and MOF. There is also the issue of licences and approvals from the GoI authorities surrounding the proposed interventions. The KFCP will work closely with the relevant District authorities as well as those of the Province to ensure full compliance and integration of the activities. This process will help to ensure operational links are developed with the District and Province and ensure the KFCP is part of the Kapuas District development plans. Efforts at technical capacity building will have to be closely coordinated with the proposed EMRP Master Plan Implementation Project because they will also be working on capacity development for peat management. The KFCP should focus primarily on REDD-related aspects.

Readiness

Readiness refers to the preparation required to implement an REDD demonstration activity and, more broadly, for the long-term sustainability of REDD. For the KFCP, this will include the following aspects:

- **Legislative framework.** The Minister of Forestry issued a decree in December 2008, enabling REDD demonstration activities to get underway. A more comprehensive ministerial regulation governing various aspects of REDD has been drafted and is under review. Local government decrees from the provincial and district authorities authorising the implementation of the KFCP are expected during the early implementation phase. During the course of the demonstration activity, KFCP partners will review legislation and provide advice to help ensure permanence of emission reductions.
- **Institutional Arrangements.** Responsibility for coordinating among government agencies has been assigned to the provincial and district development planning boards (Bappeda). The implementing agency at national level will be in the Ministry of Forestry. Authority for forest management within the area of activity will lie with the district or provincial Forestry Service depending on the forest use classification—most likely Protection Forest (*Hutan Lindung*) — and its boundaries. In order to closely involve local communities in REDD interventions and benefits, the design team proposes that individual management units be locally constituted and community-based, which could be achieved through the Village Forest (*Hutan Desa*) designation.
- **Development Planning.** To ensure long-term sustainability, the KFCP needs to be integrated into district and provincial annual work plans (RKP and RKK) and the Medium-Term Development Plan (RPJM). The 2010 RKP process is underway. Preparation of the RPJM 2011-2016 will start in June-August 2009. Consultation at provincial and district level will be undertaken to support this outcome.

A vital question to be addressed during early implementation of the KFCP concerns the identification of a project proponent or proponents. A range of options is specified in the existing ministerial regulation on REDD demonstration activities, as well as in draft policy currently being developed by the government. For instance, local proponents associated with community forest concessions could be "bundled" under either a Forest Management Unit or another district level institution.

Capacity for Effective Governance

Starting in the early implementation phase, the KFCP will endeavour to facilitate governance and institutional arrangements based on principles of transparency, accountability, good governance and participation following a roadmap for local government engagement proposed by CARE. It will be critical to build local government ownership of KFCP activities in order to ensure sustainability after the formal implementation period.

Training workshops in REDD awareness will be designed and pilot tested for government officials and other important stakeholders at the district level. Initially the training component will emphasise the need to build local government capacity to support the implementation of the KFCP and other REDD initiatives in Central Kalimantan, particularly in the Kapuas District. Training will emphasise the importance of good governance through multi-stakeholder approaches.

Long-term training needs in Central Kalimantan are significant. During early implementation, the KFCP will review existing training and capacity-building efforts related to REDD in the province and undertake a detailed assessment of training needs; develop training modules; identify prospective participants from local government, the private sector, and civil society; and undertake pilot-testing of training modules. Core training modules are likely to include multi-stakeholder processes, conflict resolution, application of the freedom of information act (Law No 14/2008), the Master Plan for the Rehabilitation of the Ex-Mega Rice Project Area, and concepts, methods and risk management associated with REDD. The initial focus of training will be on building capacity in local government, particularly in key agencies directly involved in the KFCP.

Fostering a wider understanding of REDD will support implementation of the KFCP, through building awareness and creating a more realistic set of expectations around REDD, and long-term commitment and acceptance on REDD from local stakeholders.

EXPECTED OUTPUTS

TABLE 6. COMPONENT 4 OUTPUTS

Outputs	Early Imp Phase Activities	Status June 09	Implementation Guidance
4.1 KFCP Provincial and District Coordination Teams and secretariats operational	Provincial team/secretariat established in Nov 08 and District team requested.	Teams established and operating at both levels	KFCP Coordinator must engage with these teams as a regular part of management and external communications.
4.2 Recommendations formulated to strengthen REDD-related legal framework, institutions, stakeholders, and financial mechanisms.	Preliminary assessment by PO and Kemitraan to assess needs and establish priorities	Preliminary assessment and action plan developed.	This activity may require input from a law and institutions consultant to refine priorities and action plan. Could be done in cooperation with donor partners.
4.3 Process supported to develop operational/legal framework for the KFCP.	PO and GoI partners assessing options	Framework selected and process of establishment begun	Will depend on framework and assignment of final forest classification status.
4.4 REDD-related technical skills and knowledge increased among staff of government agencies, legislative bodies, and the provincial university.	No Activities	No Activities	May require capacity-building consultant to develop plan in consultation with government and donor partners. The KFCP should focus on REDD.

4.0 KFCP MANAGEMENT AND PARTNERSHIP COORDINATION

The KFCP presents a management challenge because of its multi-dimensional partnerships and the fact that it combines elements of a rural development project with REDD-related science and learning, socialisation, policy development, and multiple-audience communications. Meeting this challenge will require that reporting relationships and internal/external communications procedures are developed early in the activity (see Section 4.2). It will also be important for the Managing Contractor to field a team that can effectively perform a wide range of roles and functions (see Text Box 4.1).

The Ministry of Forestry is KFCP's national-level executing agency for the GoI. The Ministry is currently evaluating the most appropriate status of forest in the demonstration site and adjacent areas covered by the INPRES. This is expected to entail a change in status, from production forest to either conservation or protection forest. The final decision will affect the institutional and legal arrangements for managing the area within the Ministry and will determine the role of local government. The potential establishment of a Forest Management Unit (KPH or FMU) would further alter how the KFCP relates to the GoI.

The KFCP must develop a strong relationship with government at province and district levels as their political and administrative support will be essential for testing and implementing the various REDD-related interventions (see Component 4). Provincial government will provide policy guidance and support, while the district will provide technical coordination among government agencies, which is best done at the level closest to the field. The entire demonstration site is within Kapuas District, which has legal authority over some forest functions and licenses as well as land use outside the forest estate and has an important voice in land tenure decisions. **Ultimately, the sustainability of REDD interventions will rest on how well the process has been accepted and institutionalised at the province and district levels.** Acceptance has legal, institutional, and political dimensions.

The IAFCP PO established an interim KFCP office in the provincial capital of Palangka Raya, co-located with the provincial Planning Board. This office, established in late 2008, is managed by a Project Coordinator supported by an Administrative Officer. An expatriate interim coordinator was appointed in May 2009 to guide the Early Implementation Phase activities until the Managing Contractor's KFCP Coordinator and Field Team are in place. It is expected that the KFCP will maintain an office in the Provincial Planning Board and may establish subsidiary offices in one or more of the following towns: Kuala Kapuas (the district capital), Mantangai or Timpah (the two sub-district capitals). It is likely that office space in these towns would be shared with IPs who in some cases already have offices in one or more of these towns.

Text Box 4.1. Functions and Tasks of the Field Management Team

1. Supervise and coordinate activities of Implementing Partners, Supporting Partners, and other sub-contractors.
2. Design and Implement Performance Assessment Framework.
3. Manage KFCP finances and administration.
4. Liaise with government agencies at provincial and district levels through KFCP Coordinating Teams and supporting Secretariats
5. Maintain and improve KFCP GIS and remote sensing program initiated in the early implementation phase. Coordinate with FRIS/INCAS.
6. Work with the PO to monitor GHG emissions against established baseline.
7. Develop and implement system for capturing and communicating knowledge.
8. Maintain dialogue with Research Partners.
9. Contract and supervise short term consultants.
10. Develop and implement REDD communications strategy.
11. Build REDD capacity of government partners.
12. Coordinate with related donor activities such as EMRP Master Plan Implementation and CKPP 2.
13. Scale up KFCP activities if/when additional funding becomes available.

4.1 MANAGEMENT STRUCTURE AND COORDINATING MECHANISMS

The management structure for the KFCP is depicted in Figures 4a and 4b and the roles of the groups in the structure are explained in Text Box 4.2. The KFCP Coordinator, who reports to the Facility Manager, manages field demonstration activities with the support of a small technical staff (the Field Management Team), the composition of which will be determined by the Managing Contractor in consultation with the Partnership Office. This team must be able to perform the tasks and functions listed in Text Box 4.1. The Coordinator supervises the work of the Implementing Partners and ensures that their activities are coordinated. KFCP Coordinating Teams at the province and district levels will ensure that field implementation is coordinated with government agencies and plans. Forests and Climate Specialists in the IAFCP Partnership Office will provide technical oversight of activities, in line with management arrangements established for the IAFCP. Further details of management arrangements for the IAFCP are described in the IAFCP Design Document.

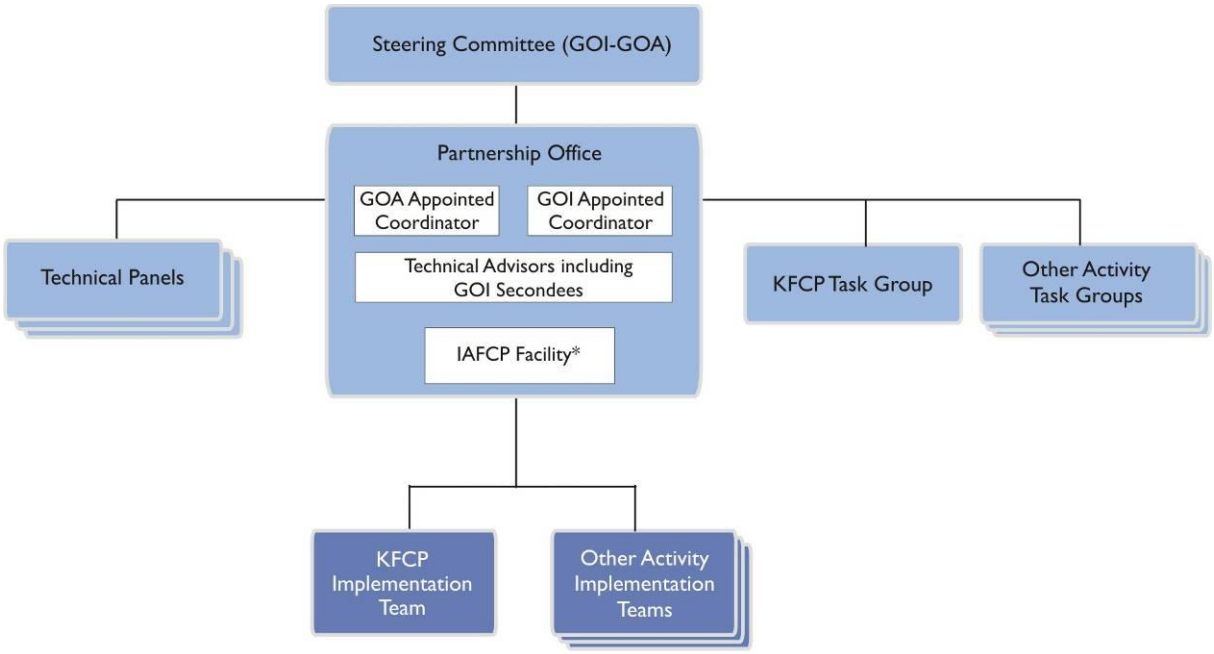
A provincial secretariat, and perhaps one at district level, will facilitate government interactions and support specific aspects of implementation. The KFCP Coordinating Committee provides guidance through the Partnership Office. The management structure should be elaborated by the KFCP Coordinator to provide details of reporting relationships and communications procedures. Planning and coordination procedures, such as the indicative list below, must be developed and elaborated through a consultative process with Implementing Partners.

Coordination of Implementing Partner (IP) activities will be critically important to successful implementation of field activities because IP activities must be carefully sequenced and mutually supporting at the village/field level (see Figure 3 and Attachment 2 for the steps in this process). The partners—CARE, Wetlands International-Indonesia (WII), and BOS—have distinct tasks, but must work in close temporal, spatial, and technical coordination to complete the interventions needed to reduce GHG emissions from peatlands and forests. The following steps and ground rules provide a starting place for the KFCP Coordinator to build such coordination:

- Hold a team building exercise at beginning of implementation phase;
- Develop clear, mutually agreed TOR for implementing partners;
- Ensure that the management role of the KFCP Coordinator and his/her staff is understood and accepted by all;
- All partners make commitment to coordination and agree on sanctions for failing to follow coordination procedures;
- Negotiate ground rules for the village engagement process, including timing of interventions, especially those related to the *musrenbang* village planning process;
- Develop a guidebook for field workers describing the village engagement process and related coordination among implementing partners;
- Hold regularly scheduled meetings among the coordinator and IPs;
- Hold semi-annual planning workshops to develop integrated, six month rolling plans;
- Agree on how to share use of office space, guest houses, and field camps;
- Develop and observe communications protocols among field teams; and
- Develop project intranet to expedite communication, scheduling, and information sharing. A satellite connection may be needed for Mantangai.

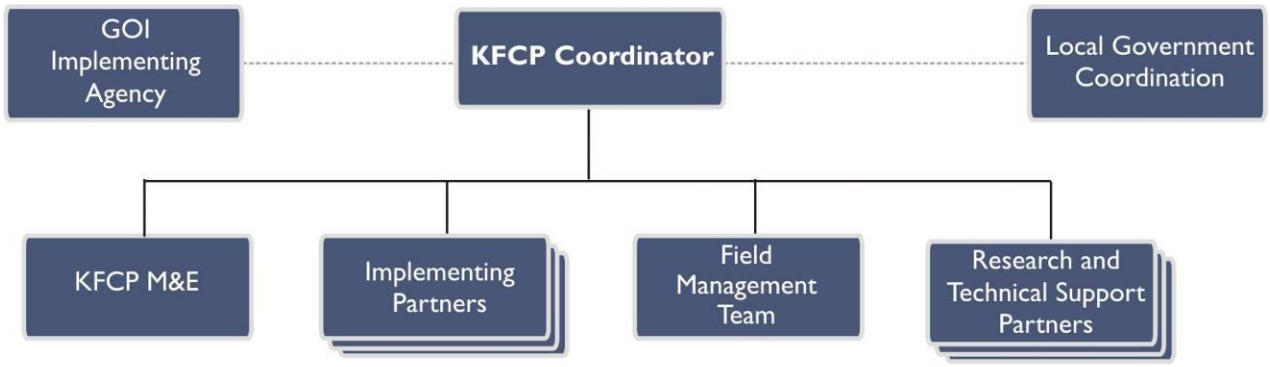
Internal Communication among the KFCP field management team (i.e., MC staff) and the implementing partners will be key to successful implementation on the ground. The Coordinator should design this system to encourage free and open telephone and e-mail communication among the partners supported by face-to-face meetings at key events, such as planning workshops, coordination meetings, and government presentations. Maintaining good communication also has a technical dimension in this remote area, requiring protocols for telephone and e-mail communication to ensure that everyone can communicate important information. There is mobile telephone reception over parts of the area. The Coordinator may wish to set up an intranet as a means to share work schedules, reports, and news from the field. A satellite link may be required in Mantangai and/or Timpah to allow regular e-mail and voice communication.

FIGURE 4A. IAFCP STRUCTURE



* See the Facility Design Document for more information on the IAFCP Facility structure.

FIGURE 4B. KFCP IMPLEMENTATION TEAM STRUCTURE



Note:

---------- Indicates coordination/collaboration

Text Box 4.2. Roles of Groups within the Indonesia-Australia Forest Carbon Partnership (IAFCP) and the KFCP

IAFCP Groups

- The IAFCP **Steering Committee (SC)** reports to and represents the two partner governments. It sets the agenda for all work in the IAFCP, including KFCP, reviews results, and provides policy advice.
- The **Partnership Office (PO)**, led by **two Coordinators appointed by the two Governments**, is directed by and reports to the Steering Committee. The Partnership Office advises the Steering Committee on all aspects of IAFCP operation and leads/directs all work under the IAFCP.
- Activity **Task Groups (TG)**, comprising individuals with a direct interest in managing activities under the IAFCP, including KFCP (see discussion below of KFCP Coordinating Committee).
- A **Technical Panel (TP)** provides technical guidance to the Steering Committee and appraisal of work designs and activity results. Working Groups will be formed and dissolved on an as-needed basis to address specific issues such as design of the peat GHG monitoring system, design of payment mechanisms, and design of the KFCP socioeconomic baseline survey and related monitoring protocols.
- The **IAFCP Facility** supports IAFCP implementation and is supervised by the **AusAID Coordinator of the Partnership Office**. A **Managing Contractor (MC)** will be selected through competitive bidding to implement the Facility, including the KFCP and other demonstration activities.
- **FRIS and INCAS** are being developed through the joint efforts of the Partnership Office and the Ministry of Forestry. The KFCP remote sensing and Geographic Information System (GIS) GHG emissions monitoring process must be linked to FRIS/INCAS conceptually and eventually technically.

KFCP Groups

- **KFCP Task Group** (**TG**) will prepare terms of reference for and appraise the results of work undertaken during the demonstration activity. The group will advise the Steering Committee and the Partnership Office. The KFCP TG will be co-chaired by a representative of the provincial government and a member of the PO. Other members of the TG are the KFCP Coordinator, a MoF representative, a Ministry of Environment representative, a National Planning Board representative, a Kapuas District representative, and the three implementing partners.
- The **KFCP Field Management Team (FMT)**, led by the **KFCP Coordinator,** reports to the managing contractor's **Facility Manager** in Jakarta**.** An **M&E Specialist** in Jakarta supports KFCP and other IAFCP activities. The MC's KFCP Field Management Team should be staffed and resourced to perform the functions and tasks described in Text Box 4.1.
- The two **Forest and Climate Specialists** in the Partnership Office provide technical oversight and supervision of the KFCP field team, including facilitation of communication with the technical panel and research partners. The PO staff guide implementation by issuing directives through the Facility Manager to the KFCP Coordinator.
- **Government Partners** include the Provincial Governor, the Kapuas District Head and the Planning Boards (Bappeda) and sectoral agencies at province and district levels, organised within **Coordinating Teams** and supported by **Secretariats**. These bodies have been established at the province level but not yet at in Kapuas District. The project should also engage members of the provincial and district parliaments.
- **Implementing Partners** will be sub-contracted by the MC. This group includes CARE, Wetlands International Indonesia (WII), and Borneo Orangutan Survival (BOS) during the preparatory phase. These partners are expected to serve during the implementation phase. **CARE** is responsible for the village engagement process, including socialisation, the baseline survey, alternative livelihoods, and socioeconomic monitoring. **WII** will design and construct dams, train communities in dam construction, and monitor hydrology. **BOS** will lead reforestation efforts, monitor key GHG emissions variables on the ground, dam small canals, and organise community monitoring of illegal logging and burning.
- **Supporting Partners** will be contracted to perform specific functions, such as **Kemitraan** to analyse governance aspects of REDD including corruption, conflict, and the design of payment mechanisms. Kemitraan will also facilitate government liaison and provide feedback from non-government stakeholder groups.
- **Research Partners** have been or will be contracted under ICFI or the Facility to both support and learn from KFCP demonstration activities as members of an informal network. These include the International Centre for Forestry Research (**CIFOR**), Australia National University (**ANU**), World Agroforestry Centre (**ICRAF**) the **Directorate General for Forestry Research** in the MoF, Palanka Raya University (**UNPAR**), the Indonesian Institute of Sciences (**LIPI**), and **Gadja Mada University**. Others may be added over the course of KFCP.
- **Local NGO Partners** who work with the KFCP communities or have an interest in some aspect of REDD, such as land rights. These groups will be managed by the implementing partners or will be given grants.
- **Donor Partners** who are implementing related activities in Central Kalimantan. The Government of the Netherlands is currently the primary partner though their support of the EMRP Master Planning process and possibly CKPP2. Other donors could add financial support to KFCP or may directly implement related projects.

4.2 COMMUNICATION AND EXTERNAL RELATIONSHIPS

Communications Strategy

The KFCP is designed as a learning activity, producing information and capturing knowledge from that information to be communicated to a number of distinct audiences, some of whom will be engaged in an ongoing dialogue with the KFCP staff. Communicating effectively will require the development of a **Communications Strategy** that will define: **Who are the KFCP audiences; what are their information needs; and what is the best method/media for communicating with them?** Some audiences, such as the Department of Climate Change and working groups of the Technical Panel will require specific types of technical information, often according to a prescribed schedule. Other groups, such as people in target villages, local government officials, and the general public in Central Kalimantan, will need information related to their role in REDD, which will evolve over the life of the KFCP. Messages will have a variety of purposes including socializing REDD, changing behaviours related to land use and fire, informing science and policy, and building government and community support for REDD. A Knowledge, Attitudes and Practices (KAP) Survey of target villages at the beginning of implementation will provide a baseline against which to measure the effectiveness of behaviour change communication and will ensure that gender elements are mainstreamed. It is envisioned that some form of web-based communication system will be set up for internal communication while external communication to some audiences may be facilitated by either a dedicated web site or using a site that may be established to support ICFI.

A consultant will be engaged early in Year 1 to develop the Communications Strategy that will address public outreach, a proactive media approach, and a branding strategy. The strategy will include Guidelines for Internal and External KFCP Communications that complies with AusAID policy and addresses who can communicate to the various audiences on specific topics, including communications with the news media and civil society. The KFCP must develop and maintain strong working relationships with the following groups and develop communication mechanisms that are both effective and efficient. See Figure 5, which depicts communications flows.

4.2.1 Central Kalimantan Provincial Government and Kapuas District

On 8 April 2008, the Provincial Secretary issued an instruction establishing a KFCP coordinating team and supporting secretariat to 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. This will be the official point of coordination for KFCP Coordinator, although direct coordination with key agencies, such as the Planning Board and the Forestry Department, will be required on a regular basis. The Coordinator, or one of his/her staff, will have to meet regularly with the Governor and the District Leader to keep them informed of progress and seek their guidance on important policy, coordination, or capacity building issues. The KFCP will have to coordinate its work with the government programs and initiatives described below.

The Governor of Central Kalimantan has provided strong support for REDD to be included in a post-2012 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 responsible for the implementation of INPRES 2/2007, GoI's program for rehabilitating the EMRP area.

The Provincial Government is currently developing a framework on sustainable peatland 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.

The Provincial Government is also preparing a **Special Task Force for REDD** at the provincial level that will undertake the tasks listed below. The KFCP will have to coordinate closely with this REDD Task Force, especially in terms of building REDD capacity and developing a communications strategy.

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

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

Because of the importance of the Kapuas District government and its technical agencies to the technical and political success of the KFCP, the Partnership Office proposes that the District Leader (*Bupati*) establish a district-level KFCP coordination team and Secretariat.

4.2.2 IAFCP and National Government

The IAFCP PO, the Facility Manager, and the KFCP Coordinator will work together to develop protocols for communications between the field and the Steering Committee, KFCP Coordinating Committee, the Ministry of Forestry, and other GoI agencies that may become actively involved as payment mechanisms and REDD monitoring protocols are developed and GoI's REDD institutions evolve. In most cases, the PO staff will serve as the gatekeeper for this dialogue. The Facility Manager may not need to be involved in technical communication on a regular basis but the Facility M&E Specialist should be.

4.2.3 Australian Government

The PO will be responsible for managing information flow between the KFCP, AusAID/Canberra, and the Department of Climate Change (DCC). AusAID and DCC should be able to communicate its information needs rapidly to the KFCP Coordinator and receive a timely response.

4.2.4 Research Partners

The KFCP has two categories of research partners: 1) members of Technical Panel Working Groups who are engaged in developing solutions to specific scientific questions related to REDD; and 2) members of the wider network of cooperating research organisations. The amount of scientific and technical information requested from the KFCP or provided by the research partners could quickly overwhelm the Coordinator and his/her small staff. The PO and the Facility M&E Specialist will have to develop a mechanism to screen requests and in-coming information, providing the Coordinator with a synopsis of messages and identifying what actions are required from the field. This process should be relatively straightforward for the Working Groups, but could be more challenging for the wider research network. The PO may have to establish communications ground rules, which could include a web portal where information requests and documents, such as plans and scientific papers, can be posted (see Figure 5 for indicative information flows).

4.2.5 FRIS and INCAS

The KFCP GIS/Remote Sensing Specialist and Facility M&E Specialist must develop a good working relationship with the FRIS/INCAS development team at national level. The FRIS/INCAS Specialist in the PO will serve as the primary point of contact and gatekeeper for this dialogue.

4.2.6 Donor Partners

Assuming that the Netherlands government funds implementation of proposed activities under the EMRP Master Plan and funds a second phase of Central Kalimantan Peatlands Project, close coordination will be required between the KFCP and these two projects to ensure that field activities, policy, and capacity building are complimentary and not duplicative. The Coordinator will have to work closely with counterparts on the teams implementing the Dutch-funded projects, which may include joint planning exercises.

Figure 5 is a diagram of communications flows within the KFCP and with outside partners. The top row is immediate users or consumers of the information—KFCP's clients. These would be primarily technical staff within the agencies represented on the Steering Committee, who in turn disseminate

information upwards and outwards within their agencies as well as to various target audiences such as those in the UNFCCC.

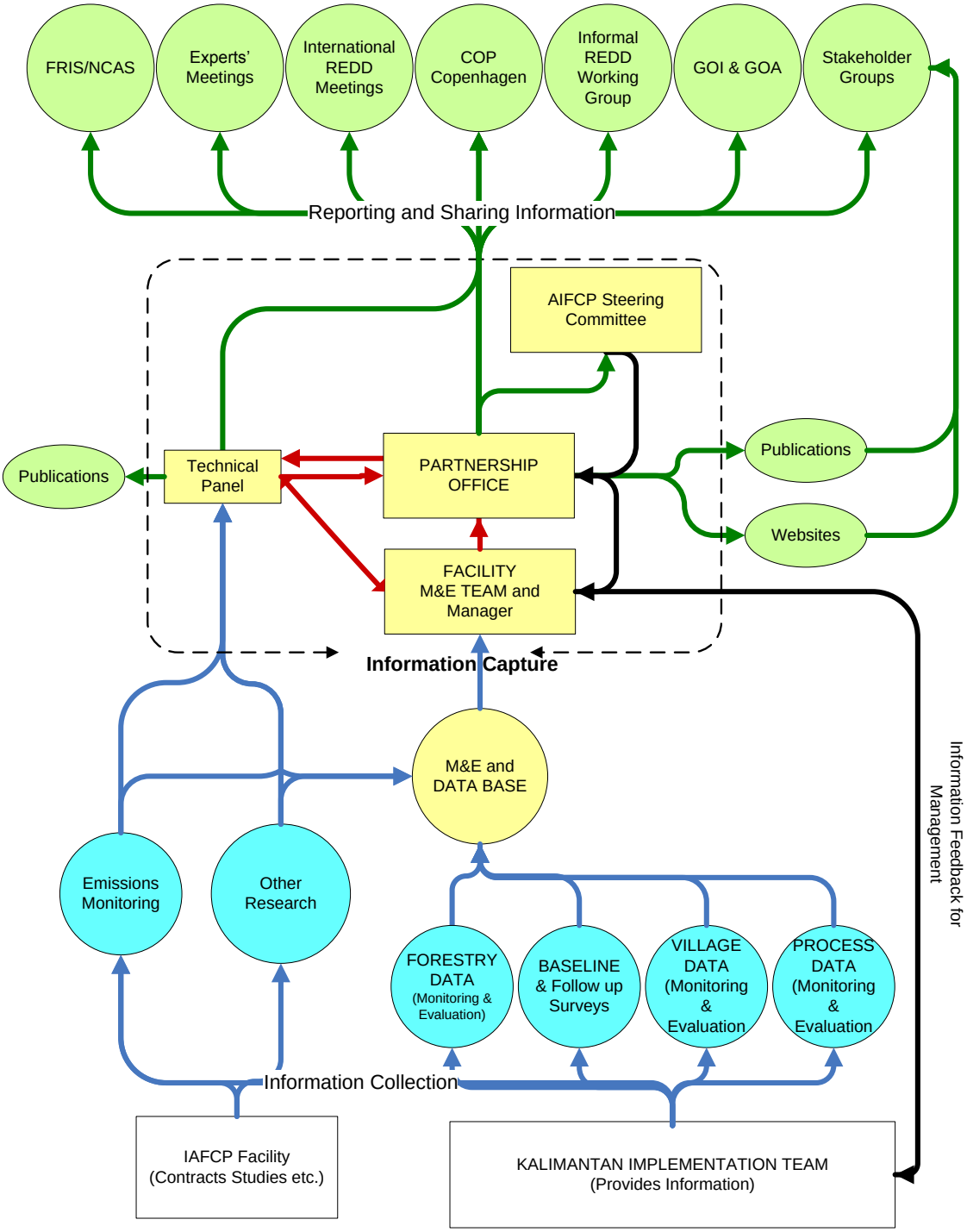
Some information will go through the Technical Panel (TP) to: (1) evaluate and possibly revise information before it goes to the client agencies; and (2) disseminate information through other channels such as scholarly publications and technical meetings (including UNFCCC meetings) after clearance by client agencies. The TP also serves an evaluative function, to guide design and implementation; assess results; and provide advice to the PO based on those assessments. The diagram indicates a feedback loop linking the TP, PO, and M&E, which will be a critical mechanism for learning and knowledge capture.

Some information will flow through the database and then up through the Facility and the PO before reaching the TP and other users, although members of the TP will be directly engaged in emissions monitoring and will get results directly. Similarly, social experts will be involved in and get results from village-based interventions. The database should focus on indicators for management and certain well-defined REDD outcomes. It must be recognised that the database cannot capture all the information that must be communicated about the KFCP and REDD.

4.2.7 UNFCCC

As one of the first large scale REDD demonstration activities, the KFCP will provide important lessons to inform UNFCCC negotiations. It will also generate useful experience that can be drawn upon by other demonstration activities, both in Indonesia and abroad. Disseminating these lessons will be an important activity. Drawing on the KFCP's experience to inform UNFCCC negotiations will be guided by DCC, which represents the Government of Australia in that forum, together with the Government of Indonesia's negotiating team. The KFCP offers an example of close collaboration between Annex I and G77 countries, as well practical examples of how to approach complex issues that must be addressed in negotiations. Both of these aspects can be drawn upon to help build international confidence in REDD. It will also be important to ensure that the KFCP contributes to the technical debates that accompany the UNFCCC process. Participation in side events, preparation of technical papers, promotional brochures and public presentations all offer ways of achieving this goal. The IAFCP Partnership Office, working with DCC and its GoI partners, should seek to identify such opportunities.

FIGURE 5. COMMUNICATION FLOW WITHIN THE KFCP AND OUTSIDE PARTNERS



5.0 COMPLIANCE WITH POLICIES ON CROSS-CUTTING ISSUES

5.1 GENDER AND SOCIAL EQUITY

In rural areas of Central Kalimantan, it is expected that traditional gender roles are maintained, with women responsible for household tasks, child rearing, harvesting crops and natural foods, and fishing. Ngaju Dayak society is stratified according to traditional practice, with an underclass that has limited access to land. Males hold customary land tenure while females, even in single-headed households, are not recognised as landowners. Men earn cash by harvesting forest products and latex from their rubber gardens and control family finances. Land clearing and the use of fire has traditionally been a male task amongst Ngaju Dayak. Rubber tapping is shared among men and women and women are typically responsible for rubber seedling nursery management.

Men enjoy greater social mobility, which can result in a disproportionate number of female-headed households, particularly in more remote villages. Women tend to have less say than men in the public affairs of their communities and play less of a public role in decision-making. Females marry young—often around the age of 14 – and the fertility rate is relatively high. Women carry a significant burden of labour inside and outside the home and tend to be engaged in labour-intensive, but less economically attractive activities than men.

Gender roles must be considered carefully in the design of KFCP livelihood interventions. It is not advisable to engage women in activities like fire fighting and peatland restoration because of their heavy work load and child rearing responsibilities. Interventions should enable women to reduce demands on their labour through the introduction of tools and technology to increase productivity and improve bargaining power through facilitating the establishment of more equitable value chains.

Limited access and engagement of women in the management of peatland will have to be considered when designing payment mechanisms. A separate funding stream may be required to support women controlled and managed activities. To address the poor health situation effectively, more investment is needed to target women. The World Bank-funded Kecamatan Development Program developed effective mechanisms for targeting women and meeting their needs in remote areas of Indonesia. The KFCP implementation team should review these mechanisms when designing livelihood interventions.

Guidelines for Achieving Gender and Social Equity within the KFCP

- Disaggregate baseline and monitoring data by sex and social class.
- Conduct sociological analysis to determine relative power of men and women as well as social groups.
- Engage a gender specialist to assist with survey design as well as design of livelihood alternatives and payment mechanisms.
- Design livelihood alternatives to meet the needs of women and socially marginalised groups to ensure that they receive equitable benefits. Taking into consideration time/availability of women and limited land access for the socially marginalised.
- Conduct a gender analysis of the impact of the degradation of environment on men and women and the how changes to land use patterns will affect different gender roles e.g., access to fuel, dependence on natural resources.
- Identify any barriers to women or vulnerable groups engaging in project and identify strategies to overcome them.
- Ensure equal opportunity hiring practices within the KFCP.
- Provide gender training to field management and implementing partner staff.
- Ensure that village facilitators live in their assigned village full time to understand nuances of gender roles and social status.
- Hold village meetings when everyone can attend and hold separate meetings for men and women.

- Screen KFCP interventions and payment mechanism options to ensure that they do not exacerbate sex and class-based disparities through male/elite capture of benefits.
- Follow AusAID gender guidelines and examples of successful gender programming in Indonesia, such as the World Bank-funded Kecamatan Development Program (KDP).

5.2 ANTI-CORRUPTION

Indonesia has made significant progress in reducing corruption in public life but misuse of authority remains a serious problem according to a recent survey by the Corruption Eradication Commission (KPK), a trusted national-level institution appointed by Parliament. The Governor of Central Kalimantan has agreed to institute a provincial-level corruption prevention body, but it may not yet be fully functional. The province also has an ombudsman, but it is unclear if this institution is functional. KFCP supporting partner Kemitraan recently signed a Memorandum of Understanding with the governor to work on improving governance, which will include issues related to REDD.

REDD payment mechanisms must be designed to minimise the risk of outright corruption as well as the rent seeking or elite capture of REDD benefits. For instance, there is a danger that government officials not directly contributing to REDD could use their authority to hamper implementation as a bargaining ploy to obtain a share of the benefits stream. Village elites could also divert REDD payments if payment mechanisms are not designed to safeguard against this.

Guidelines for Minimizing Corruption Potential

- Design payment mechanisms to ensure that payments are made to those who have lost livelihood assets and those who have contributed to emission reductions through either direct action or necessary supporting functions (i.e., specific government agencies).
- Ensure transparency and equal access to information regarding payment mechanisms.
- Use government anti-corruption institutions to provide oversight of REDD payments.
- Ensure that dispute resolution mechanisms are available and fair.
- Encourage civil society oversight and community consultation.
- Eliminate potential conflicts of interest by separating responsibility for calculating and assigning carbon credits from authority for making payments.
- Develop a system of third party audits wherever funds change hands.
- Consider using *Bank Rakyat Indonesia* (BRI) for distributing payments to community groups and individuals. BRI is a government-owned bank that has branches in every sub-district and has experience making small payments to large numbers of people. Privately run credit unions are also a possible conduit for payments.

5.3 ENVIRONMENTAL PROTECTION

The explicit purpose of the KFCP is to protect the global climate by reducing GHG emissions with a co-benefit of restoring and conserving a fragile ecosystem that also provides hydrological, and biodiversity services, while providing livelihood resources for local communities.

In line with other physical development works in Indonesia, AusAID understands that the canal blocking structures and tree planting will be subject to both Government of Indonesian and Commonwealth of Australia, environmental clearances and related permitting/ licensing provisions. In Indonesia, projects that are likely to have significant environmental and social impacts are required to undergo an environmental and social impact assessment (including public health), known as the AMDAL study, as obligated by the Environmental Act No. 23 year 1997 on Environmental Management. To comply with AusAID's policy on environmental management, the KFCP needs to consider potential environmental impacts when designing and implementing its development activities. In order to meet the policy and legal obligations under the *Environment Protection and Biodiversity Conservation Act 1999* (EPBC Act), all activities likely to have social and physical environmental impacts need to be properly assessed and managed. These safeguards impose standards through a case-by-case technical examination of likely environmental effects, based on boundaries

defined by Australia's comprehensive set of laws, regulations and standards. In the case of the KFCP, and based on the 'environmental markers' as described by AusAID, environmental expertise was included on both the KFCP Framework Design and the KFCP Design Team. The KFCP is designed to have a positive impact on the social and physical environment as the environmental co-benefits include improved biodiversity, improved watershed management as a direct result of the interventions such as canal blocking and a positive impact on improving livelihood with both men and women involved in the project activities and the development of clear and fair payment mechanisms. As part of the early implementation phase of the KFCP, social impacts are being assessed to ensure interventions (canal blocking, fire management and tree planting) are designed to have a positive impacts on the immediate environment (reduced GHG emissions, increased biodiversity and improved livelihoods, improved water quality in the downstream part of the project area and district) and that the interventions comply with Indonesian laws and regulations.

Guidelines for Environmental Management

The following outlines the broad guidelines for protecting both the social and physical environment resulting from KFCP interventions and activities:

- Screen livelihood alternatives prior to adoption to ensure that they will not adversely affect the natural environment, for example introducing a cropping system that requires the application of high levels of pesticides or introducing a non-native fish species that could escape into local waters;
- Livelihoods should be assessed for long term sustainability, so as not to disadvantage the communities once start up funds are exhausted;
- Peat Swamp Forests are not exploited to support dam construction, nursery development and production;
- Materials introduced into the site for dam construction are procured through the Indonesian legal processes and with minimal impact on the social and physical environment from which they are obtained;
- Follow AusAID procedures for environmental protection as outlined in AusAID Environmental Management Guidelines; and
- Compliance with all Indonesian environmental laws and regulations.

5.4 CHILD PROTECTION

Managing contractor and implementing partner staff will not be in direct contact with children other than village facilitators who will live in villages for extended periods. There will also be the possibility that children will be involved by their parents in tree planting and dam construction that is funded by the KFCP. Finally, livelihood alternatives introduced by implementing partners could inadvertently harm the welfare of children.

Guidelines for Child Protection

- The KFCP Coordinator and implementing partners will develop guidelines for interaction with children, particularly applicable to field workers who spend extended periods living in villages;
- Guidelines will also be developed for the use of children in project interventions;
- Livelihood alternatives will be screened to ensure that they do not adversely affect children, such as causing women to be over-worked, distracting them from child care; and
- Design payment mechanisms so that children also benefit, perhaps by using some of the funds to improve education and health care.

6.0 RISK MANAGEMENT AND SUSTAINABILITY

The KFCP is designed as a demonstration activity to develop sustainable approaches to reducing GHG emissions from peat swamp forests that will be widely adopted and scaled up in Indonesia. Achieving sustainability will require managing risk related to each of the four components and KFCP management, as listed below (see Risk Matrix in Attachment 11). Development benefits and co-benefits must be sustainable and REDD-related learning must be institutionalised in order to be sustained. Adoption of REDD as part of a post-2012 agreement on climate change make the sustainability if KFCP activities much more likely.

KFCP Risks by Component

Component 1: Reduction of GHG Emissions

- Interventions are not effective in achieving expected levels of emissions reductions.
- Land disputes or uncertainty over land classification interferes with implementation.
- Community does not support/engage, due to failure to address social and economic needs of communities as part of a REDD system.
- Communities and/or implementation partners have insufficient capacity to undertake rehabilitation interventions at the required scale.
- Climate becomes drier and/or increasingly variable, making fire risk management more difficult.

Component 2: Measuring and Monitoring GHG Emissions

- GHG monitoring protocols are not scientifically accepted.
- GHG monitoring is too expensive to sustain without external support.

Component 3: Developing REDD Payment Mechanisms

- UNFCCC meetings make limited progress on, or provide little support for, the inclusion of REDD in a post-2012 framework to address climate change.
- Parts of Block E are designated as a protected area, raising questions about additionality.
- Failure to accept proposed payment mechanisms by communities and various levels of government.
- Carbon prices are too low to maintain incentives or carbon prices become too high, causing a land grab in peatlands.

Component 4: Developing Readiness and Capacity of Local Government

- Inconsistent or conflicting policies and/or lack of coordination among levels of government.

KFCP Management

- Inability to meet $100 million funding target through raising additional funds. Human and financial resources at the field level prove to be insufficient to implement the KFCP as designed, particularly in terms of coordinating the activities of implementing, research, and supporting partners.
- Lack of capacity to implement interventions at a large scale to international standards. KFCP's diverse activities cannot be comprehensively integrated, leading to failures in communication, knowledge capture, and achievement of some intended results.

7.0 MONITORING, EVALUATION, AND KNOWLEDGE CAPTURE

7.1 MONITORING AND EVALUATION STANDARDS AND CRITERIA FOR THE KFCP[17]

The IAFCP Managing Contractor is expected to meet international standards of monitoring and evaluation[18] and provide an M&E Specialist under the Facility with suitable expertise to reflect these standards, including demonstrated practical experience in M&E theory and practice and post-graduate training in research or evaluation methodology.

The KFCP will need to be responsive to GoA and GoI requests for info and lessons learned to support negotiating positions on REDD in the UNFCCC. GoA and GoI will endeavour to give as much notice as possible on what is required as developments in the UNFCCC progress through the IAFCP PO. This may include updates/info on topics such as engagement with local communities, methodologies for GHG measurement and monitoring, approaches to payment mechanisms, dealing with leakage, additionality, permanence, etc.

The M&E Specialist together with the KFCP Coordinator and the Partnership Office (PO) will develop a comprehensive Monitoring and Evaluation Plan for the KFCP within three months of inception. This Plan must be able to be operationalised—that is, be a fully elaborated plan with fully designed methods and tools for comprehensive monitoring and evaluation activities, including evaluative research, sound management of spatial and non-spatial data, and coordinated data sharing with relevant government agencies and implementing partners. The M&E Plan should only focus on important aspects of the initiative implementation and achievements, rather than a complex system that measures all aspects in detail. What constitutes important can be negotiated with the PO, but it will, at a minimum, comprise objective and verifiable indicators of intermediate results and outputs, including measurement or estimation of the following:

- Interventions to avoid or reduce peatland degradation, such as re-wetting and re-greening;
- Fire risk reduction;
- GHG emissions levels (REL and reductions);
- Governance indicators appropriate for payment mechanisms;
- Distribution of incentives and other benefits; and
- Social, economic, and environmental impacts.

The M&E Specialist should ensure that gender disaggregated data are available from activities to impact level.

The MC is given a degree of flexibility for the content and format of the Plan but should consider the following key aspects at a minimum:

1. **An Evaluability Assessment** (EA) of the initiative conducted with full stakeholder participation, including relevant government agencies, implementing and supporting partners, and members of affected communities. An EA includes, at a minimum

    a. Consultation with stakeholders to confirm a shared interpretation of the expected long-term and ***end of initiative*** outcomes—the M&E system will focus strongly on measuring performance against outcomes that are expected to be achieved by the end of the initiative, and progress toward outcomes that are expected to be sustained beyond the life of the initiative;

17 Adapted from, "Suggested Design/RFT/Contract Monitoring and Evaluation Section," courtesy of Susan Dawson, AusAID M&E Help Desk.

18 For example, the Joint Committee Standards (international professional practice standards), the DAC Quality standards for evaluation.

b. A review of the program logic and description of the extent to which it can be evaluated, including clarity of expression of end-of-initiative outcomes in the documentation. For significant project logic problems solutions should be identified;
c. A comprehensive examination of proposed/potential data sources (including partner systems) to ensure that data is of sufficient quality; is collected and analysed as expected; and will be available within the required reporting cycles;
d. An assessment of the capacity of the implementation team and partners to participate in the design and/or conduct of M&E activities;
e. A review of the budget/resources available for M&E activities;
f. Identification of reporting requirements for key partners (This includes progress reporting, Quality at Implementation Reporting, and Annual Program Performance Reporting. There should be a clear recognition of how the M&E plan is expected to provide evidence for reporting against the IAFCP Performance Assessment Framework.);
g. Key evaluation questions of interest to all key stakeholders identified;
h. A review of crosscutting policy areas that will need to be included in the M&E plan such as gender equality, partnerships and anti-corruption; and
i. Clear identification of issues and/or constraints that will affect the design of the M&E Plan.

2. **Clearly stated outcomes** at the whole-of-initiative and component levels with suitable outcome indicators (this may include additional intermediate outcomes not previously articulated in the design document). For higher-level outcomes, ensure that the Facility Program Performance Framework needs are met, and information delivered in time for Quality at Implementation reporting.

3. Inclusion of relevant outcomes from AusAID **Cross-cutting themes** should be considered:

    a. Gender: At a minimum, all relevant data should be sex disaggregated. Where partner systems do not allow reporting in this way, and where feasible, identify approaches to enable partners to report using sex-disaggregated data. This data should be used to analyse and report on program results. Evaluation studies should include analysis of the situation for women, seek to identify barriers to gender equality, and integrate this analysis into program components and M&E processes as soon as possible. Integrate identified gender equality objectives and targets into the monitoring and evaluation system.
    b. Partnerships and anti-corruption should be reflected in the M&E Framework.

4. All indicators will be supported by a **sound methodology**, and means of verification should be fully designed. Means of verification are not reports, but actual methods required to collect the primary data. Secondary data sources are also to be used where appropriate. All tools required to collect data must be designed and included in the annexes of the M&E Plan (for practical reasons a small number of tools may not be able to be developed during the development of the initial M&E Plan). The development of sound methodology requires the expertise of the M&E Specialist.

5. Where **special evaluation studies** are to be conducted, the full design should be described in the M&E Plan with a description of the methods for data collection and analysis elaborated and tools developed. From time to time, the Partnership Office on the advice of technical advisors may request additional evaluation studies.

6. The **achievement and *quality* of outputs or deliverables** must be addressed. A number of output (initiative deliverables) indicators are required to be reported on routinely. This could include the development of a "Fact Sheet" where key project outputs are reported against in a concise form that allows efficient monitoring and reporting of the project by the Partnership Office (this is in addition to routine reporting requirements). Quality dimensions of key outputs (project deliverables) should be considered in ***all*** cases.

7. Identification of how the findings of the monitoring and evaluation activities will be **disseminated and utilised**. This does not refer to a reporting frequency table, but rather to what

mechanisms are in place that will ensure that findings are disseminated to all relevant stakeholders and that findings are likely to be responded to or utilised. One measure of the quality of the M&E system will be the extent to which it has informed initiative decision-making and implementation. (For further elaboration, see the section on "Knowledge Capture" under Component 2.)

8. A full **implementation schedule** should be included that shows when all key M&E activities will be carried out, and when information will be available to decision makers and reporting requirements.

9. Identification of M&E activity **responsibilities** (that are matched to individuals' capacities and resources to meet them) should be included in this plan. Individuals responsible for carrying out these activities should be identified, not only the institution.

10. There should be a **complete costing (budget)** of the M&E plan for both personnel requirements and the costs of conducting monitoring and evaluation activities.

7.2 PERFORMANCE ASSESSMENT FRAMEWORK

The KFCP will be included as part of the Facility Performance Assessment Framework (PAF), which will also address the Managing Contractor's performance and higher-level outcomes of the Facility. The Facility PAF will be developed by the Facility M&E Specialist in consultation with partners and stakeholders very early in FY 10. The M&E Framework is contained in Attachment 9.

7.3 KNOWLEDGE CAPTURE

Knowledge Capture Strategy

The KFCP is designed to gather information from multiple sources including remote sensing, field and household surveys, scientific studies, performance and results monitoring, and informal field observation. Protocols will be developed during the early implementation phase for managing these streams of information and storing it appropriately in the GIS and associated database. The Facility M&E Specialist will supervise the acquisition, processing, and delivery of this information, while members of the Technical Panel will evaluate results of scientific studies and technical monitoring such as of GHG emissions. The PO will manage the overall process of selecting, assessing, and disseminating "lessons learned" and other knowledge-based results to relevant target groups. See Figure 4.2 for information flow among the various core and affiliated KFCP partners.

Two major objectives of the knowledge capture strategy are to inform the development of a national REDD mechanism in Indonesia, and to disseminate lessons to inform REDD negotiations in the UNFCCC. The former will be guided by key partners in the Government of Indonesia, while the latter will be guided by DCC, which represents the Government of Australia in this forum, and the GoI's REDD negotiating team. It will therefore be important to ensure that the knowledge capture strategy addresses the needs of these important stakeholders.

8.0 ESTIMATED BUDGET AND STRATEGY FOR SCALING UP DEMONSTRATION ACTIVITIES

8.1 BUDGETING APPROACH AND ASSUMPTIONS

A summary budget, covering the early implementation phase and FY 10 through 12 of KFCP implementation is in Attachment 8. The KFCP has a total budget of AUD 30 million, with an additional AUD 1.4 million for GHG estimation and monitoring funded from the AUD 10 million package of the IAFCP.

8.2 SCALING UP AND MANAGING CONTRIBUTIONS FROM OTHER PARTIES

Australia has committed to AUD 30 million over four years to support the KFCP, and aims to raise an additional AUD 70 million through contributions in cash or in kind from public and private organisations. The additional contributions would enable completion of the interventions required to rehabilitate and stabilise the entire area of degraded peatland and protect remaining forest across the whole peat dome; support readiness in Central Kalimantan; and help sustain emissions reductions well beyond the period of the demonstration activity.

The total cost of initial on-site interventions is estimated to be AUD 60 million, of which 50% is covered by the Australian contribution. With additional funds, the KFCP would complete the rehabilitation of the peat dome in Block A – NW as outlined in Component 1. The additional AUD 40m is required to support readiness activities in Central Kalimantan and the realisation of further emissions reductions, such as through protecting remaining forest cover in Block E; and supporting reduced deforestation in other management units as outlined in the Master Plan developed in support of Inpres 2/2007.

As an alternative to direct financial contributions, activities funded by other donors in parallel to the KFCP could contribute to the attainment of the project goal and help to capture additional social development and environmental co-benefits.

Contributions from official donors, private sector companies and NGOs are being sought. Engagement of such partners would be on the understanding that the KFCP is a demonstration activity aimed at the compliance market for certified emissions reductions, so that emissions reductions generated by contributions from the private sector and NGOs would not be eligible for certification as voluntary carbon credits.

8.3 PRACTICAL ACTION PLAN FOR ENGAGING OTHER FUNDING PARTNERS

Government of Australia should actively seek additional financial contributions, with potential funding partners to be identified with assistance from the Partnership Office. Ministerial engagement in this effort would be highly beneficial, as high-level political contacts are important in securing commitment for jointly funding activities through respective donors' country programmes.

In addition, the Partnership Office should continue to engage with other donors in Indonesia on a regular basis to explore possibilities for joint funding, contributions in kind and to ensure good coordination of activities. Materials prepared to explain what additional contributions would be used for would assist these efforts.

The Partnership Office should also continue to discuss financial support from the Government of Indonesia, through a contribution from the Reforestation Fund (Dana Rebosasi) or the Gerhan Fund. An approach to the Government of Indonesia at the ministerial level, to seek support in securing the engagement of other donors in the KFCP, could also be considered.

In the longer term, an increased focus should be placed on engaging funding partners from within the private sector. A strategy for achieving this should include the clear description of the 'products and services' that the KFCP could offer and a marketing strategy to identify and appeal to prospective partners. Efforts to sell the KFCP to private partners should also be linked to the KFCP communications strategy. It will also be important to ensure that private sector involvement in the KFCP does not result in an greatly increased management burden in the partnership office.

ATTACHMENTS

ATTACHMENT 1. LIVELIHOODS, SOCIAL ECONOMIC DEVELOPMENT, GENDER EQUITY AND PEATLAND USE IN THE KFCP AREA

1. BACKGROUND

The recent century has witnessed dramatic changes and transformations in the KFCP target areas. Formerly a remote, sparsely populated peat landscape, the south central part of Borneo is now vulnerable to a rapid conversion to estate and cash crops.

The Ngaju Dayak people are the most prominent indigenous group and the most dominant ethnic group. Besides Christianity and Islam, Keharingan or Dayak religions and world views are the most commonly adhered to beliefs. This group has been relatively well studied. They are part of an immigration wave, most likely from China, which entered these areas via the rivers, moving northwards. While evidence exists that migrants have moved far inland prior to European colonisation, most of those living in the area depended upon forest gathering, swidden agriculture and collecting of non forest timber products for trade albeit at a relatively limited scale. There is ample evidence that trade relations have been in existence at least since the first centuries AD[19].

The first major change occurred in the early 20th century when demand for rubber started to increase[20]. The first major rubber price boom in the years 1909 -1912 trigged a widespread increase in the crop throughout Kalimantan.[1] After 1920, Dayak farmers began to plant rubber in former shifting-cultivation fields. In addition, considerable areas of forest around villages were cleared and planted with rubber. The village of Katujung was established in 1930, and is a good example of the settlements that emerged when rubber cultivation started to become the most prominent source of livelihoods.

The second major change was the exploitation of the forests of Kalimantan for timber. The impact has been significant. The introduction of timber concessions in 1970's and 80's meant that access to land became restricted and communities were often alienated from their ancestral land. These concessions were driven by the agricultural law reform which was initiated in 1960. Most of the forest land managed through Adat law, with the forestry law of 1967, was converted to forestry land and given out as concessions. This process had not involved the actual land managers. The lack of engagement laid the foundation for later conflicts over land and forest resources. This was followed by a transmigrations program that was initially small scale, and focussed mostly on tidal swamps areas[21]. However in 1994, the Indonesian government launched an effort to convert 1.4 million ha of peat swamps into rice paddy fields. This ill-fated attempt led to the degradation of peatland ecosystems and significant greenhouse gas emissions from fire outbreaks and oxidation. Livelihood assets, such as traditional fishpond and rubber gardens, were also lost.

Decentralisation in 1999 led to the end of massive transmigration schemes and initiated widespread illegal logging. This caused conflict over forest resources between district and central government and saw a rapid increase in illegal logging which provided income and employment to many in illegal saw mills, logging operations and led to claims over ancestral lands being asserted. Customary leaders often acted as brokers and were selling off timber.

The Mega Rice Project was terminated in 1999. In 2003, the Indonesian government compensated those who had lost livelihood assets due to the digging of channels. The compensation was perceived as modest and has created different perspectives on land ownership. These differences continue to

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19 K. MacKinnon, G. Hatta, H Halim & A Mangalik, 1996. The Ecology of Kalimantan. Singapore: Periplus.

20 Harold Brookfield, Lesley Potter, and Yvonne Byron, 1995. In place of the forest, United Nations University Press: Tokyo/New York/Paris.

21 E Frankenbeg, D. Mckee & D Thomas, 2004., Health Consequences of forest fires in Indonesia, California Centre of Population Research, University of California. On line Working Paper series 36p.

cause conflict between forestry, communities, district government and central government. Communities claim up to 3-10 km from river banks as their own. The MoF is using Presidential Instruction 2 as a guiding document which implies that all land within the ex Mega Rice area is forestry land, whilst the local government continues to claim large parts for palm oil development.

2. LIVELIHOODS, RESOURCES AND OUTCOMES

Livelihoods are diverse, compromised of 'off farm' and 'on farm' activities. The CARE livelihood monitoring data is based on repeated monitoring and analysis using MONQI-L software, which was developed by the Wageningen University and Research Centre. The data sets go back as far as 2002 for the Block A area, but does however require further analysis.

Mantangai/Block A

For the Mantangai regions, 124 households were monitored since 2006 and over 80 since 2002. The overall incomes were around 700,000 IDR in early 2006 and increased over 2007 to about 900,000 by early 2008. On average household earning has been around 825,000 IDR/month over the period. This rapid increase seems to be caused by increased income from rubber and more importantly, increased income from non agricultural sources. If viewed from a longer term perspective, the improvement is more remarkable even if inflation is taken into account. The same survey tool showed average incomes of around 500,000 IDR per household, per month for 2004, which is an increase of over 80% over a 4 year period (inflation has been around 10% annually). This indicates a rapid increase in income and recovery from the impact of the environmental destruction caused by the ex PLG. Incomes generated in Block A/KFCP are at present similar to the Sebangau area and slightly below the block E villages.

It is worrying however, that the drivers of these improvements are based on improved rubber prices which ended in late 2008, and improved employment outside the agricultural sector as well within agriculture (mostly saw mills and land clearing). In most cases, these activities have had significant impact on the environment. A recent increased effort to control illegal logging has reversed this trend. It is important to note also that despite being frequently referred to, fisheries are a relatively marginal activity.

Rubber cultivation has seen significant changes over the recent decade. It is moving away from the traditional jungle rubber systems[22]. This has occurred via the introduction of new clones which perform well on peat soils. Analysis of rubber on peat underlines this trend as most of the rubber (over 90%) was not in production yet and had been planted in recent years. Weeding is increasingly mechanised and herbicides are widely used (gly-phosphate based ones such as Round Up). These systems often include a mix of crops like pineapple which are sold in the urban centres. Food crops are planted after clearing which explains why 54% of food crops are planted on peat but productivity is low (less than 1 MT Rice equivalent/ha).

The opening and cultivation of peatlands initially follows a similar pattern to swidden systems, in which land is opened with food crops for the first year and rubber intercropped. New crops like pineapple are been planted, which are better suited to the sub humid conditions that exist in the degraded landscape. Pineapples have a low labour need, can be planted on waterway embankments and are relatively easy to handle. Farmers mentioned that costs are low so despite low productivity, profits are still attractive. Most of the pineapples are sold to traders.

Timpah/Block E

Incomes are higher than in Mantangai, around 905,000 IDR per month (see Annex 2). Rubber is of less importance (around 100,000) as is agriculture in general. Fisheries are more important as well as work outside agriculture, mostly gold panning, mining and other forms of employment. The general wealth status is better and the reliance on natural resources is less. 'Off farm' employment and cash

[22] Eric Penot, 2007. From shifting cultivation to Sustainable Jungle Rubber., p 577-599 in: M Crains, Voices of the forest; integrating indigenous knowledge in sustainable upland farming. RFF Pres: Washington.

crops generate the majority of the income which is underlined by limited importance of food production (less than 10% is own produced, the remainder is bought on the market). Land access and use is low, total rubber owned is around 6 ha while land access is 1.9 ha, so most land is left to fallow. Rubber cultivation here is traditional and of smaller scale. Most of the land is still forested and trees are relatively old. Around 32% of the rubber is planted on peatland but acreage wise it is less than what is planted in Mantangai where households depend more on rubber. Interestingly for Block E, incomes were higher when monitoring started in 2006 and have been relatively stable since, which given inflation means a decline in bargaining power. In particular, 'off farm' income shows little improvement, mostly due to increased efforts towards combating illegal logging and gold mining.

Impacts on peatlands

The rapid modernisation trend in rubber cultivation, combined with increased planting in peatlands, has been identified as a serious threat to carbon stock stored in peatlands. The clearing of land requires the use of fire. Recent research shows that during extreme dry years, the pace of land clearing increases, which leads to climate regulated fire emissions[23]. This in itself could be a threat to rubber gardens.

The prioritisation of threats indicates that fire is the most important. Fire is an important element of most livelihood strategies. The impact of agricultural technology development on REDD has to be better understood. Improving technology leads to increased returns to land, which will cause increased opportunity costs, which will enhance payment demands, and is fuelling the use of fire to claim land. Agricultural development tends to lead to more inequity and resource control by the elite, mostly former nobility, often with significant spiritual roles in villages. These dynamics are not well understood but are a potential threat and should receive more attention. It is important to understand that:

- Besides rubber, most other interventions initiated by NGOs have shown low returns or failure. This is confirmed by field work and data analysis. Without undertaking additional activities, it will be difficult to make micro credit work. On its own, credit investment would not be effective as in the end people are likely to have accumulated debt and without additional income. This could result in a renewed reliance on land clearing and logging.
- Whilst in West Kalimantan credit unions have been very successful, in the KFCP area, this seems not to be the case. This implies that more needs to be invested into encouraging community groups to start saving together.
- PNPM activities seem mostly to have focused on infrastructure (constructing village roads etc), others however, are mentioned as not successful.

Other Livelihood Impacts: Health and Other Basic Human Services

The data is limited, and comprises of government data and the CKPP village assessment (for two villages Katunjung and Lawang Kajang). The picture emerging is that the health, water, sanitation, and education situation is poor.

Education

The MONQI data set shows a break down for every household by gender and education level. The data shows that women are less well educated than men, which differs from the average Indonesian picture. While as many men as women have a relatively low level of education, men are more likely to have had a higher education. This is common given the Ngayu Dayak are patrilineal. For comparable areas in most of the outer island similar trends occur. However, it underwrites the need to pay more attention to gender inequity than is happening under current programs.

[23] G. R. van der Werf, J. Dempewolf, S. N. Trigg, J. T. Randerson, P. S. Kasibhatla, L. Giglio, D. Murdiyarso, W. Peters, D. C. Morton, G. J. Collatz, A. J. Dolman, and R. S. DeFries Climate regulation of fire emissions and deforestation in equatorial Asia. p20350–20355 ! PNAS ! December 23, 2008 ! vol. 105 ! no. 51

Health

Key human health issues are mainly related to haze and relatively poor sanitation practices in the area. This is underlined by the CKPP REL 37% of all children underweight (national 27,5%) while the MDG target is 18%. The underweight percentage acts as indicator of the overall child welfare and household wealth. This therefore provides a strong indicator of the overall welfare situation, which is poor and alarming based on international set standards.

Major driving factors behind poor health have been identified as

- Acute respiratory infections (especially during haze period)—detailed research has shown a strong impact between haze exposure and human health. In acute respiratory infections during periods of low rainfall and about the same time as hotspot densities are increasing.[24]
- Poor water quality and sanitation practices, river water remain the main source of water and it is contaminated.
- Cultural practices such as early age marriage cause significant risk to women during pregnancy, leading to relatively high maternal mortality rates and low birth weights.

In general, basic human services data is scarce and more information needs to be gathered to underbuild and draw better conclusions. A note has to be made on the use of mercury for gold panning. This will have devastating health impacts if no action is taken.

3. GENDER, LIVELIHOODS AND PEATLANDS

One of the key challenges is gender in relation to peatland development. Land clearing and the use of fire has traditionally been a male task amongst Ngaju Dayak. The role of the women has changed as rubber tapping is something that is a shared task of men and women. Women tend to be responsible for key tasks such as nursery management but lack access and control over financial resources. Customary tenure over land is male focussed and females, even single headed households cannot ascertain control over their land.

The burden women are carrying is significant. Fertility is relatively high and women tend to be engaged in more labour intensive, but less economically attractive activities. This requires a better balance in the design of livelihood interventions. It is not advisable to engage women in activities like fire fighting and peatland restoration for the reasons mentioned above. This should enable women to reduce demands on their labour through the introduction of tools and technology to increase productivity and improve bargaining power through facilitating the establishment of more equitable value chains.

Limited access and engagement of women in the management of peatland will have to be considered as part of the payment mechanism. To effectively address the poor health situation, more investment is needed to target women. Gender mainstreaming in REDD will most likely need to generate a separate funding stream for women controlled and managed activities. These should be located in areas close to the house such as nurseries.

4. CONCLUDING REMARKS

The present socio-economic development situation is below average and remaining alarming, but the area is not dramatically poor as compared to some parts of Eastern Indonesia, pockets urban Jawa or Central Javanese sharecropper where monthly incomes are averaging between 350,000-600,000 IDR/hh. Incomes are around or slightly above the Indonesian poverty line (which is below the World Bank one dollar a day based a family of five) but non-income related poverty is more problematic as health facilities and access to drinking water is limited. Cultural practices such as under age marriage are aggravating the current situation. The area is relatively poor when non-income related poverty is taken into account.

[24] D. Soekarjo & J Kieft, 2008, The impact of peat fires on Human health; towards better understanding on how are ENSO, fire outbreak and key health impacts are linked. CARE: Unpublished paper.

Peatland restoration and livelihood development could be and should be integrated through REDD. Livelihoods development is at the cost of the environment. Peatland restoration will demand labour and resources. It will be important that these opportunities will:

- Provide value chain improvement for Rattan, Jelutung and NTFPs. This is relative cheap and if done well, will be effective, and directly linked to resources.
- Develop livelihood opportunities through peatland restoration work. Deforestation and channel blocking work as well as their maintenance could provide employment and skills in other industries other than agriculture (construction). A payment scheme should be related to this. This is the Yogya approach. The advantage for the project is that synergies are relatively easy to establish through nursery development etc. Both women and men could tap into this.
- If longer term REDD funding is secured, a first step to develop trust to manage funding would be to initiate saving and loan groups together, and create a sustainable mechanism to develop livelihoods based on the standards. Micro finance has to build on this social capital and combined with improved learning on what livelihood options work that do not depend on opening peatlands. When groups begin to function well, then REDD funding can be introduced..
- Through the livelihood standards, better screening of activities is proposed to improve quality of work.

The picture is mixed, people seem to have coped well with large scale environmental disasters and have rapidly embraced ‘off farm’ employment and new technologies. However on the other hand the population remains living based on age old traditions and gender division. REDD could provide and has to provide an alternative if forests are to remain in the area.

ATTACHMENT 2. VILLAGE ENGAGEMENT PROCESS

The following table was developed at a KFCP workshop in January 2009 through a consultative process among the implementing partners and other KFCP stakeholders. The process is depicted in Figures 2.1 and 2.2.

TABLE 2-1. STEPS FOR VILLAGE ENGAGEMENT

Activity	Time	Who is involved
1) The process should start in close consultation with district governments focusing on reaching agreement on implementation, especially that village plans will be considered legal village development documents, thus activities not funded under the KFCP could then either be funded through the government budget or through other support.	1 month	District government, KFCP coordinator
2) Prepare material and team members for public consultation regarding Master Plan with focus on REDD and the KFCP. This includes developing materials and short visits to test materials.	1 month	NGOs, Universities, local government and research agencies
3) Public consultations to introduce REDD and the KFCP (within context of MP) to the target communities. This includes explaining the meaning of REDD, changes expected under the KFCP and REDD, and mechanisms, and benefits of the KFCP and REDD. **Note:** ***Use local languages in public consultations.***	2–3 months to reach 50-100% of the population in all the villages	NGOs, local government, formal and informal village leaders
4) Power analysis and a village organisational assessment to better understand who has resources and how they are managed (as this has not been done, focussing on all villages).	1 month	NGO (Kemitraan), households, household members, village leadership, customary/religious leaders and village government
5) Conduct a village *Baseline* in the 16 settlements (desa, dusun dan dukuh). This activity includes setting methodology, reviewing secondary data, collecting primary data, and feeding back results to the villages. This process will be based upon results generated through CKPP.	2 months	NGOs, universities, local government, research groups
6) Provide TOT (Training of Trainers) in gender biased community facilitation /planning/MUSRENBANGDES for community leaders (formal and informal) on Community Planning. The training includes **Note:** ***Allocate 3 days for each settlement.***	2 Weeks (3 days per settlement)	NGOs, local government
7) Conduct community planning exercise focusing on REDD mainstreaming. This involves: **a) Village Vision Mapping, strategies, priorities, and village scenarios within the framework of a peat restoration strategies** **b) Assess where conflict/issues with regards**	1.5– 3months	Participants of the TOT, village members, NGOs, ICRAF, Kemitraan, and local government

Activity	Time	Who is involved
to land use and asset loses may occur if peat restoration strategy is implemented **c) Land tenure analysis to identity land issues and efforts to solve them** **d) Develop village plan and budget as part of the village 5 year development plan (RPJM-Desa)**		
8) Enhance local capacity to implement *Musyawarah Perencanaan Pembangunan Desa (MUSRENBANG Desa)* – village planning public consultation process in equitable and gender biased fashion to ensure that everyone has access to community decision making to generate widespread consensus on how to integrate REDD zoning and activities in village planning	(MUSRENBANG Desa are held in January (Hamlet) and February (Village)	Village members, NGOs, local government
9) Strengthening village institutions that will be involved in implementing the village plan: **a) Form or strengthen existing village/social institutions to implement the village plans that relate to REDD and the KFCP program** **b) When appropriate, develop a village institution responsible for managing REDD benefit/payment mechanisms and to oversee its implementation either through village budgets or payments to households.** **Notes:** **I)*Village level institutions for REDD benefits require agreement on REDD mechanisms at higher levels as well as consensus on adjusted spatial planning.*** **ii)*Develop REDD benefits mechanisms will require full village participation and agreement.***	2 months	TOT participants, university, government and NGOs.
10) Implement KFCP Activities at village level based on the agreed upon planning documents). This includes: **a) Canal Blocking** **b) Forest Restoration** **c) Fire management** **d) Livelihoods development**	During length of project – note that canal blocking and restoration activities cannot take place during dry season.	Community members and groups, Universities, Local Government and Line Departments, NGOs
11) Participatory monitoring and evaluation to: **a) Learn together** **b) Gain feedback on activities' process and results** **c) Provide input to village planning and Musrenbang (activities 6 in truncated form and 7)**	Iterative	Community members and groups, Universities, Local Government and Research organisations

Suggestions for the Implementation Schedule:

1. The KFCP will provide support to implement Inpres (Presidential instruction) 2/2007 on the rehabilitation of the ex Mega Rice project as it is further elaborated in the Master Plan EMRP

2. Adopt the following principles:
    a. *Community-based* planning and evaluation

b. Bring land tenure and land use together
c. Integrate the village budget sources into one overall budget (while noting recording the source)
d. Include capacity building for community and government
e. Promote learning together
f. Community are integral participants in planning, implementation, and receiving benefits from activities

3. Support Community and Government

TABLES 2-2 AND 2-3. IMPLEMENTATION SCHEDULE

Group 1(The 5 villages of CKPP that already have Village Plans)

Time	Activity
June– July 2009	**Community consultations and introduction of the KFCP to communities**
August–September 2009	**1. ToT on Community Planning** **2. *Review* existing village plans and integrate KFCP activities into the plans**
October 2009 –	**1. Re-identify and strengthen village institutions and groups connected with KFCP activities** **2. Implement activities**
January 2010	**MUSRENBANG Desa**
Depends on agreed-upon schedule	**Monitoring and evaluation activities depending on schedule agreed upon by village**

Group 2 (Settlements not yet facilitated by CKPP)

Time	Activity
June – August 2009	**Introduction and community consultation of the KFCP, including trust building and materials development**
September 2009	**ToT on Village Planning**
October 2009 – January 2010	**Village analysis, assessment, visioning, and planning)**
January 2010	**MUSRENBANG Desa**
February – March 2010	**Identify and strengthen village institutions and groups for KFCP activities**
April 2010 –	**Implement KFCP activities**
Dependent on agreed-upon schedule	**Participatory monitoring and evaluation for mutual learning**

FIGURE 2-1. PROPOSED KFCP VILLAGE PROCESS

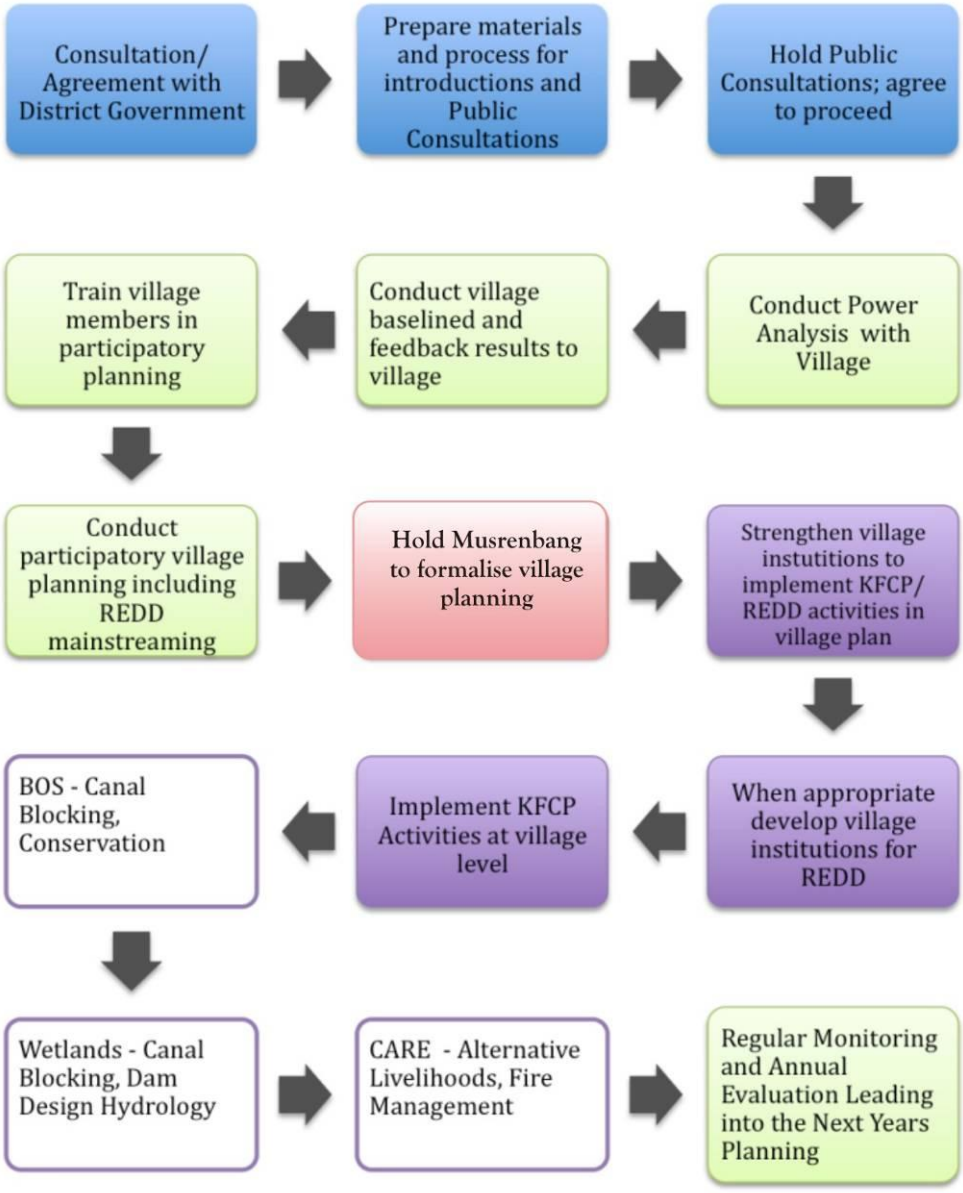
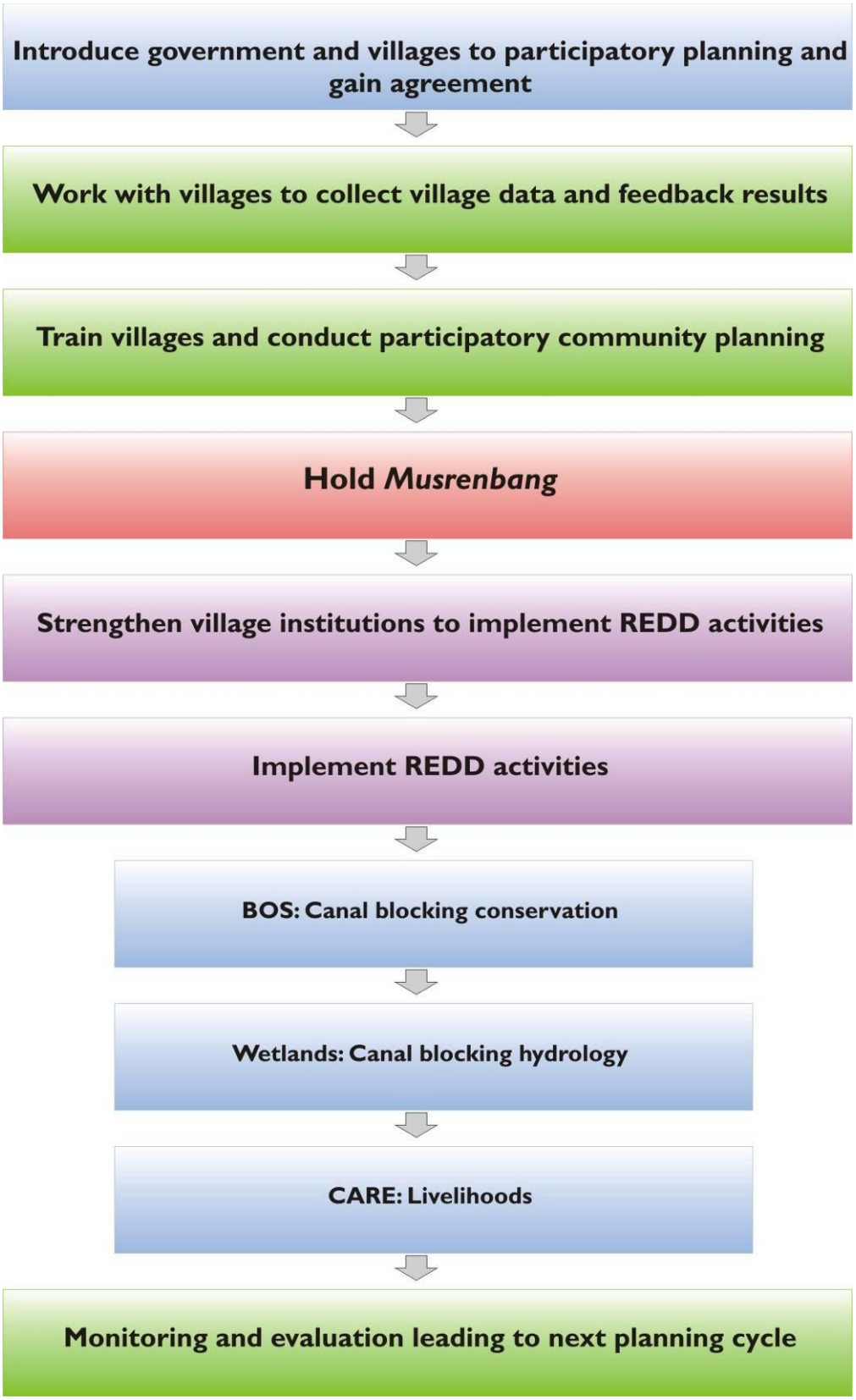


FIGURE 2-2. CONDENSED VILLAGE PROCESS FLOW CHART



Principles for Village Process:

- Village Consent – see Master Plan and INPRES 2:
  - Tell community this is a demonstration project;
- The village plan is the basis and coordination mechanisms for all village activities and needs to be respected as such;
- Environmental sound, all proposed plans should not negatively impact on the quality of peatland resources and should reduce threat to them based on fair and equitable compensation;
- Community are integral participants in planning, implementation, and receiving benefits from activities:
  - Community owned, community participation implies that communities lead and take responsibility for the process
  - Inclusive, community development efforts should provide equal access to all those residing within the boundaries of the village;
- Gender sensitive, interventions proposed lead to enhanced control of women and men over their lives;
- Activities sequences to build partnership, collaboration, and commitment;
- Bring land tenure and land use together;
- This is an active partnership from govt, community and NGOs/donors:
  - Include/corporate local NGO, CBOs, local govt. in planning efforts
- Include capacity building for community and government;
- Community based planning and evaluation;
- Integrate the village budget sources into one overall budget (while noting recording the source); and
- Promote learning together.

INTERNATIONAL FOREST CARBON INITIATIVE

ATTACHMENT 3. IFCI FACT SHEET

The case for action

Global deforestation of about 13 million hectares per year results in approximately 20 per cent of global greenhouse gas emissions.

Momentum has been building for increased international action on reducing emissions from deforestation and forest degradation in developing countries (REDD). At the United Nations Framework Convention on Climate Change (UNFCCC) negotiations in Bali in December 2007, countries agreed to work toward including REDD in a post-2012 global climate change agreement.

REDD is one of the most cost-effective opportunities for reducing emissions in the short-term. While financing from developed countries will play a role, ultimately carbon markets are the only mechanism capable of mobilising investment on the scale needed to support and provide incentives for REDD.

The international community agreed in Bali that action must be taken now on REDD and to establish the necessary systems and financial mechanisms to ensure long term emission reductions. The International Forest Carbon Initiative is Australia's contribution to this global effort.

International Forest Carbon Initiative

Australia's $200 million International Forest Carbon Initiative is a key part of Australia's international leadership on REDD. The Initiative supports international efforts on REDD through the UNFCCC. It is jointly administered by the Australian Department of Climate Change and AusAID.

The Initiative aims to demonstrate that REDD can be part of an equitable and effective post-2012 global climate change agreement. A central element of the Initiative is taking practical action on REDD through collaborative Forest Carbon Partnerships with Indonesia and Papua New Guinea. These partnerships demonstrate how the technical and policy hurdles to REDD might be addressed and provide lessons learned for input to REDD negotiations under the UNFCCC.

Through the International Forest Carbon Initiative, Australia is:

Increasing international forest carbon monitoring and accounting capacity.

By demonstrating that forests can be monitored effectively through advanced remote sensing, Australia will show that there can be certainty in measuring emission reductions from REDD activities. Activities include:

- directly assisting developing countries, in particular Indonesia and Papua New Guinea, to develop their own national forest carbon accounting systems; and
- partnering with a consortium led by the Clinton Climate Initiative to use Australia's National Carbon Accounting System as a platform for a global forest carbon monitoring system.

Undertaking practical demonstration activities to show how REDD can be included in a post 2012 global climate change agreement.

This includes:

- trialling a range of approaches, particularly in Indonesia and Papua New Guinea, to demonstrate how investment in REDD can achieve emission reductions while providing forest-dependent communities with livelihoods and promoting sustainable resource management; and
- assisting with the development of necessary underpinnings for sustainable forest management, governance, law enforcement and regulatory frameworks in these countries.

Supporting international efforts to develop market-based approaches to REDD.

Australia is playing a key role in international climate change forums and in working with other countries to promote the development of market-based approaches to REDD, including by:

- taking a lead role in the negotiations under the UNFCCC and the Kyoto Protocol on how incentives for REDD can be built into a post-2012 global climate change agreement; and
- supporting the World Bank in the further development and implementation of its Forest Carbon Partnership Facility and Forest Investment Program.

Activities to Date

Indonesia-Australia Forest Carbon Partnership

The Prime Minister of Australia and the President of Indonesia announced the Indonesia - Australia Forest Carbon Partnership on 13 June 2008. The Partnership builds on and formalises existing long-term practical cooperation between Indonesia and Australia on REDD. It incorporates $30 million for the Kalimantan Forests and Climate Partnership and a $10 million bilateral package of support for Indonesia on forests and climate. The Partnership is operating in three key areas: strategic policy dialogue on climate change; increasing Indonesia's carbon accounting capacity; and identifying and implementing incentive-based REDD demonstration activities.

Roadmap for Access to International Carbon Markets

In June 2008, the Prime Minister of Australia and the President of Indonesia agreed to develop the Roadmap for Access to International Carbon Markets (the Roadmap). Indonesia and Australia agreed the Roadmap at the Australia-Indonesia Ministerial Forum in November 2008. The Roadmap is a multi-phased strategy that is assisting Indonesia develop the necessary technical, system and financial pre-requisites for participation in future international carbon markets for REDD.

Kalimantan Forests and Climate Partnership

Australia has committed $30 million to establish the Kalimantan Forests and Climate Partnership. This Partnership is the first, large-scale REDD demonstration activity of its kind in Indonesia. It aims to demonstrate a credible, equitable and effective approach to REDD, including from the degradation of peatlands, that can inform a post-2012 climate change agreement. The Partnership is trialling an innovative, market-oriented approach to financing and implementing measures for REDD. The initial focus is on an area of more than 100,000 hectares of degraded and forested peatland in Central Kalimantan, Indonesia.

Second REDD demonstration activity

In November 2008, Australia and Indonesia agreed to develop a second REDD demonstration activity under the Indonesia-Australia Forest Carbon Partnership. The second demonstration activity will differ from the Kalimantan Forests and Climate Partnership in its location and forest type to test different aspects of REDD.

Bilateral package of support to Indonesia on forests and climate

Australia is providing $10 million to support Indonesia's forest and climate policy development. This is being used to help Indonesia develop its national Forest Resource Information System and National Carbon Accounting System for Indonesia, to support the development of a national policy framework and strategies for REDD, and to better monitor, manage and prevent large scale forest fires in Indonesia.

Papua New Guinea-Australia Forest Carbon Partnership

The Prime Ministers of Australia and Papua New Guinea established the Papua New Guinea-Australia Forest Carbon Partnership on 6 March 2008 to cooperate on REDD, and assist Papua New Guinea to participate in future international carbon markets. Australia has committed up to $3 million in initial funding which includes technical, scientific and analytical support for whole of government policy development and the design of Papua New Guinea's carbon monitoring and accounting systems.

Partnership with the Clinton Climate Initiative on carbon monitoring

Australia's strategic partnership with the Clinton Climate Initiative is seeing Australia's National Carbon Accounting System adopted as a platform for rolling out a global forest carbon monitoring system. This provides 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.

World Bank's Forest Carbon Partnership Facility

Australia has provided $11.7 million to the World Bank's Forest Carbon Partnership Facility, which assists developing countries in their efforts to reduce emissions from deforestation and forest degradation. This Facility aims to build confidence in REDD investments by establishing early links between key rainforest countries and potential financiers, so that emissions reductions achieved by large-scale demonstration activities may be certified and the associated credits sold. Australia's investment in this Facility complements its bilateral action in Indonesia and Papua New Guinea, and its global action on forest carbon measurement.

World Bank's Forest Investment Program

Australia is contributing $10 million to the World Bank's Forest Investment Program, which will complement the Forest Carbon Partnership Facility by scaling-up activities aimed at reducing emissions from deforestation and forest degradation in developing countries. This Program is part of the broader Climate Investment Funds managed by the World Bank.

Asia Pacific Forestry Skills and Capacity Building Program

This $15.8 million Program assists countries in the Asia-Pacific region to increase their capacity to manage forests sustainably to reduce deforestation and forest degradation. Funding of $2.3 million under the first phase of the Program is supporting projects in Indonesia and Papua New Guinea, and other regional countries such as Vietnam and Fiji, in areas such as reduced impact logging, forest certification, restoration of degraded forests and research.

Research partnership on REDD

A research partnership of up to $3 million with the Centre for International Forestry Research (CIFOR) based in Indonesia will help meet the need for further global research on policy and technical issues associated with REDD, and will collect and disseminate lessons learned to inform the design and implementation of REDD activities.

Development of concept models for demonstration activities

Up to $1.5 million is being contributed to support international non-government organisations to develop concept models for REDD demonstration activities. International non-government organisations have practical on the ground experience, particularly in providing alternative livelihoods to local communities, which can help build global expertise in implementing demonstration activities.

For more information refer to: www.climatechange.gov.au, or email ifci@climatechange.gov.au

ATTACHMENT 4. SYNOPSIS OF PEAT RESTORATION STRATEGY

PEATLAND STRATEGIC REHABILITATION PLAN FOR BLOCK A (NORTH-WEST) KFCP PROJECT AREA, CENTRAL KALIMANTAN

Introduction

A strategic plan for hydrologic and forest rehabilitation of the KFCP area known as Block -North West was undertaken based on two fundamental actions – the infilling and blocking of canals and the assisted regeneration and maintenance of the peat swamp forest. Peat swamp forest (PSF) rehabilitation involves reviving important ecological services of degraded peat swamp forest in areas where the hydrology has been greatly altered by canal construction and there has been ignificant loss of peat and forest biodiversity.

The selected area – the Mantangai peat dome – covers approximately 120,000 ha with roughly half of this area forested, while the other half, known as Block A North West, consists of degraded peatland which has been almost deforested, that has been affected by drainage resulting from the former Mega Rice Project and the associated deforestation and fires that ensued. Interventions in the area to reduce greenhouse gas emissions will need to be focused on (a) the conservation of existing forests and intact peatland and (b) the rehabilitation of degraded peatland areas to ensure the forests higher in the peat dome in the long term are not further degraded. The main strategies for PSF rehabilitation include fire prevention, hydrological rehabilitation and forest rehabilitation.

Information and hydrological models developed during the EMRP Master Plan project combined with new information collected through fieldwork was used to develop the strategic peatland rehabilitation plan for Block A NW.

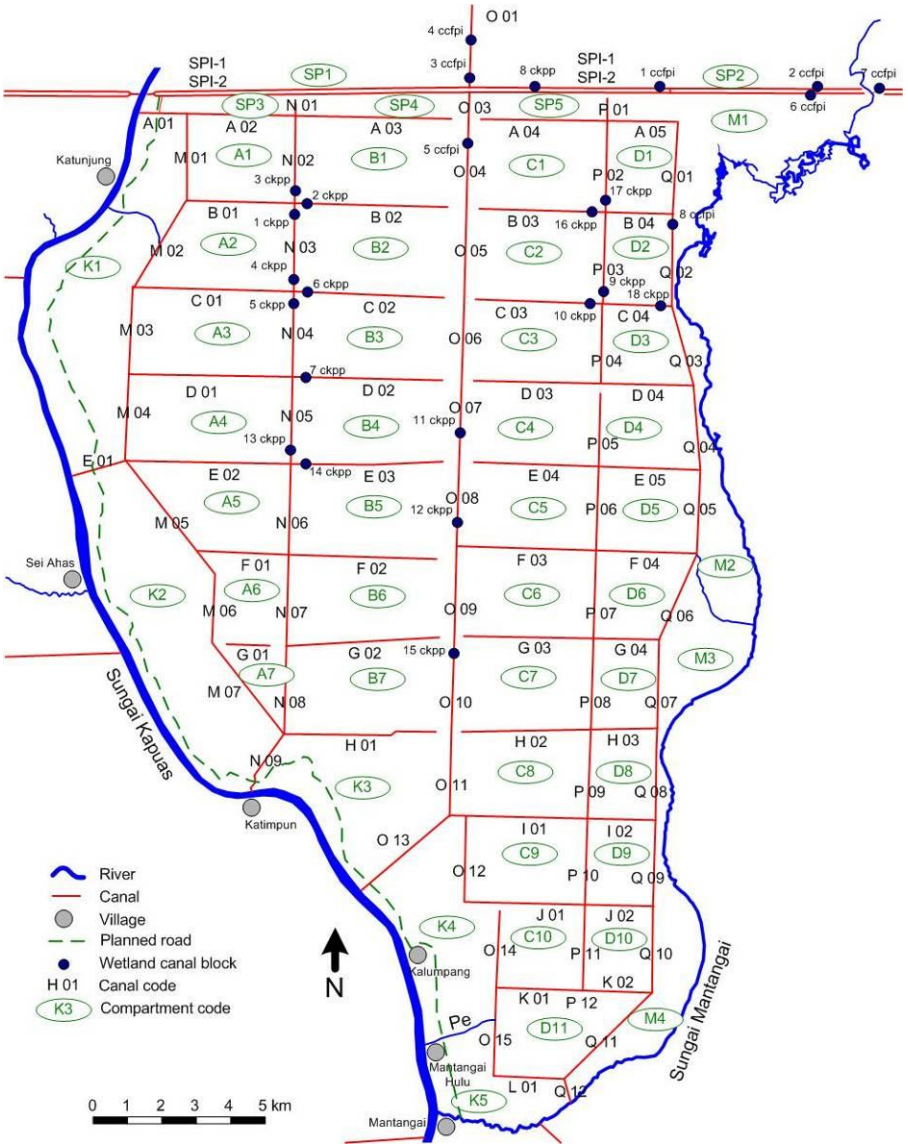
Methodologies

Peatland Rehabilitation Strategy: A review of the existing conditions in the area including the canal network, hydrology, existing canal blocking and land cover were undertaken. Concepts for undertaking further studies, pilots and monitoring are also presented

The figure provides a layout of existing dams in Block A NW with canal codes and compartment codes as adopted by the KFCP. The canal codes A to L refer to the original Department of Public Works nomenclature. A number of the secondary canals are not connected to the main N-S primary canal.

Hydrological Rehabilitation: The plan for hydrological rehabilitation was completed through a refinement of the Digital Elevation Model (DEM) produced for the area (Vernimmen), combined with hydrological modelling (van der Vat), field surveys to assess the current status of canals and dams (Haag, Ichsan) and further development of concepts, approaches and logistical aspects for canal blocking (Hooijer, Haag).

Forest Rehabilitation: Fieldwork was carried out over a 3 week period during which time all the compartments of Block A NW were observed from all sides, and supplemented by detailed plot measurements of seedling, saplings, poles and large trees. A summary of the data is provided in the main Strategy Report, along with a photographic summary of the main Land Use Land Cover types encountered. This information has been collated and analysed to produce a forest rehabilitation strategy.



Hydrological Rehabilitation

Hydrological modelling has been used to estimate likely peak flows and define potential locations and the number of locations for canal blocking. Many dams, more than 350 are required to minimise head differences to the proposed 0.20 cm within the 300 km of canals found in the area. Although four designs are presented, a mixture of structures is required to establish a cost-effective canal blocking system for the block. A key issue that will influence the approach to be taken is the possibility and appropriateness of mobilising heavy equipment (excavators and bulldozers), which is a prerequisite for the construction of compacted peat 'hard' dams. Box dams of the sort that are constructed at present in Block A NW are seen to require a high amount of financial resources as well as labour. They are also time consuming to construct. Canal blocking, depending on the exact mix of structures constructed as part of the dam system, is likely to exceed AUD 8 million. The logistics of dam construction within the space of a few years suggests that a significant number of 'soft' dams such as the pallisade design will need to be constructed. Further, the key decision to be made is whether to primarily build labour intensive box dams or compacted peat dams using heavy equipment. If three years are allowed for dam construction, the KFCP would require between 15- 25 teams operational for three years, which would require employment of between 1,000-1,500 persons each year.

Forest Rehabilitation

The rehabilitation planting program in Block A NW should take a succession-based approach involving:

- Areas that are severely degraded and currently without (much) tree cover, pioneer species with a broad ecological tolerance should be utilised first. Climax species and species of mature/mixed PSF that often require shade or at least sheltered conditions should be planted at a later stage; and
- Areas where a tree cover still exits but where additional planting is required (e.g. to add diversity or fill gaps), PSF species other than pioneer species may be considered from the on set, but not in the most exposed locations.

An area of approx. 27,500 ha will require complete replanting using the principle that the key to a successful program is to replant with species adjusted to the present circumstances, and so to assist the development of forest cover along a line of succession.

Areas converted to village gardens should not be targeted for PSF rehabilitation. In Block A North West along the Kapuas and Mantangai rivers where local communities have established themselves, and where village gardens have been established on mineral soils and shallow peat. These areas comprise compartments K01, K02, K03 and K04 along the Kapuas and M02, M03 and M04 along the Mantangai River, Four compartments in the far south near the confluence of the Kapuas and Mantangai Rivers that have also largely been converted to village gardens; these are compartments C10, C11, D09 and D10.

The total cost of a 3-year PSF rehabilitation program is AUD 1,112 (Rp. 8.9 million) per hectare, using a planting density of 3 by 3 metres. This includes the sourcing of the planting material, site preparation, labour, transportation costs, planting, immediate tending, maintenance and monitoring in years two and three, and replacement planting and management. The expected cost of rehabilitating an area of 27,500 hectares will be about AUD 30.0 million.

ATTACHMENT 5. PAYMENT MECHANISMS DISCUSSION PAPER

The KFCP design framework provides general background on payment mechanisms while flagging a range of issues for further analysis. This attachment aims to complement the design framework and section 3.2.4 of the KFCP detailed design by identifying practical issues and options for distribution of payments for emissions reductions activities under the KFCP and highlighting areas where further analysis or consultation is required (*key questions are highlighted in italics*).

1. POLICY AND INSTITUTIONAL ISSUES RELEVANT TO THE ESTABLISHMENT OF A KFCP PAYMENT MECHANISM

Legal and regulatory framework. It will be important for KFCP's payment mechanism to evolve consistently with GoI's emerging policy framework on payment mechanisms and meet any relevant legal requirements. Indonesia's ministerial regulations on REDD to date set out overarching requirements for demonstration activities (No. 68/2008) and more detailed implementation procedures for REDD activities (No. 30/2009). Further requirements for payment mechanisms (including revenue and distribution arrangements) will be set out in separate regulations. Section 1 of this paper outlines some issues that may need to be addressed on an interim, project-specific basis while further regulations are being developed. Clarifying the application of these areas to the KFCP will require substantive dialogue with the Government of Indonesia.

REDD 'concession' model. Indonesia's regulations on REDD identify management areas for REDD activities, including forest concessions and forest management units (FMUs). The identification of concessions suggests that the model of logging concessions could be adapted for the purposes of REDD (e.g. as a 'REDD concession'). Despite difficulties in the effective implementation of logging concessions, the concession model is widely used and well understood inside and outside of government, and fits well with the MOF's regulatory and institutional arrangements for forest management.

Identifying and selecting potential REDD proponents. The regulation on REDD demonstration activities identifies a 'proponent' or 'initiator' as a land owner or the holder of a licence to use the forest in some way (e.g. logging, planting, extraction of non-timber forest products, use or provision of environmental services; Art 1(6)). In a demonstration activity such as the KFCP, the proponent would be a rights-holder who may or may not play an active role in forest management (as is commonly the case with logging concessions). Proponents could be private companies, community-based organisations (in community forests), NGOs or state-owned enterprises. As discussed in section 3.2.4, a tiered approach to selection of proponents at national and district levels could be adopted.

Revenue sharing between different levels of government. Different levels of government (national, provincial and district) will play a role in achieving emissions reductions under the KFCP. Such roles could include policy changes (e.g. enforcement of restrictions on use of fire) or the establishment of institutional prerequisites for the operation of REDD activities (e.g. a national carbon accounting system). The 2009 regulation for REDD activities envisages that part of government revenue will be set aside for management of the national registry and/or the national reference emission level (Art 21), but the rate for this levy (and its application to demonstration activities such as the KFCP) as well as arrangements for any subnational levies are yet to be determined. Government revenues from REDD could be redistributed among different levels through existing fiscal balancing mechanisms (although these need to be carefully reviewed and additional safeguards may be required), or paid by the proponent directly to each level of government.

2. OUTLINE OF POSSIBLE KFCP PAYMENT MECHANISM MODEL

International funding structure

An international structure for REDD financing is still to be agreed as part of the UNFCCC process on REDD. As a demonstration activity, it is useful for the KFCP to explore how payment mechanisms could function under a future international REDD mechanism. While the KFCP will not be able to model all elements of a future REDD mechanism, it may be able to provide useful lessons for Indonesia and the international community, particularly on payments at the local level. This could include payments made for initial activities and performance (building of dams, fire prevention) and possible longer term payments to mimic market based payments for emissions reductions.

Establishment of a trust fund. The IAFCP (along with any other donors who may wish to contribute) is the principal investor in the KFCP. As outlined in section 3.2.4 of the detailed design, the establishment of an independently governed trust fund to hold international payments from Australia and other donors for the KFCP would provide a strong signal to governments and communities that funds are available for REDD. An independent trust fund would provide transparency by separating the source of payments from day-to-day project administration and management of the KFCP, and will also serve to mimic arrangements under a possible future market-based REDD mechanism.

- *What elements of a trust fund governance structure would help support efficient and transparent disbursement of funds?*

Distribution of payments to proponents and other participants

Direct or mediated payments. There are a number of possible arrangements a country may put in place for distributing REDD payments. For example, payments to proponents and others involved in achieving emissions reductions could be distributed either (1) via the national government, (2) directly from an international funding partner. These processes could require payments to be made through an independent trust fund.

Arrangements for REDD payment distribution are still to be agreed at international and national levels. Indonesia is currently preparing regulations on financial revenue sharing for REDD which will provide further guidance on this process in Indonesia. As a demonstration activity, the KFCP will trial approaches to payment distribution, to contribute lessons to this process. Where possible, approaches will be aligned with national and international policies and arrangements as they are agreed.

The Indonesia Forest Climate Alliance's analysis suggests that transactions should go as directly as possible to actors whose behaviour can reduce deforestation. For the KFCP, a possible option is to use an independent trust fund to pay a portion of the payments to proponents, and a further amount would distributed to sub-contractors, service providers and other stakeholders, either directly from the trust fund or via the proponent. Members of local communities could play multiple roles, including as proponents (or partners or shareholders of proponents) or as providers of environmental services.

Targeting of individuals and communities. Within the KFCP demonstration activity area a competitive or consultative process could identify particular individuals or communities that could play a role in emissions reductions. Payments to individuals may promote more precise matching of benefits and opportunity costs and reduce risks of elite capture, but payments to communities may reduce transactions costs. In practice a mix of these payments may be appropriate.

Cash vs in-kind payments. While payments to proponents would presumably be principally in the form of cash, payments to other actors may be in kind (for example through provision of community infrastructure or basic services), particularly where it would otherwise be difficult to target individual payees with any precision. Making some payments in kind may also help to distribute payments to a wider constituency that may not be involved in direct provision of environmental services but could help to build popular support for REDD and reduce risks of rent-seeking. The viability and form of cash payments may depend on the availability of suitable financial services and local institutions.

- *What types of in-kind payments would be appropriate?*
- *Would it be possible to use existing programs and institutions (such as the National Program for People's Empowerment (PNPM)) to deliver payments?*

Negotiating payment agreements with service providers. Given potentially significant power and information imbalances between parties, it will be essential for negotiations to be preceded by substantial awareness-raising and consultation. Negotiations should then be conducted in a way that is sensitive to local cultural contexts and ensures adequate participation, taking account particularly of issues of gender and vulnerability. Lessons from negotiating agreements under payments for environmental services (PES) activities should be incorporated into the KFCP negotiation process.

Basis and frequency of payment

Phased approach to payments. As discussed in section 3.2.4, a phased approach to payments combining input-, performance- and outcome-based payments may be appropriate. In the longer term, payments to proponents could be made at regular intervals (e.g. annually) following verification of emissions reductions relative to an agreed reference emission level, but in the short term payments may need to be made more frequently for input and performance payments.

Given the likely high degree of poverty of communities involved in the KFCP and their vulnerability to other income fluctuations, it would be important for payments to communities to be made predictably on a more frequent basis, particularly for inputs such as labour provided for canal blocking. In the initial stages it may also be necessary to provide flexible upfront payments to support startup costs of personnel and capital. In general there should be a strong preference for results-based payments to proponents to ensure that the link between payments and genuine emissions reductions is maintained.

Pricing. It will be important that the KFCP endeavours to ensure fair pricing of REDD payments. This will help to ensure equity and promote confidence in REDD. Pricing arrangements should be investigated as part of the development of a KFCP payment mechanism. Future payments for emission reductions should also aim to outweigh opportunity costs, while acknowledging the KFCP is a demonstration activity and is not currently generating credits under an international REDD mechanism.

Managing payment-related risks. Arrangements for dealing with possible risks of non-performance or leakage of REDD projects under a future international REDD mechanism are still to be resolved in international negotiations on REDD. While these risks will be important considerations for future REDD projects, there are limitations to how much the KFCP can address these issues as a demonstration activity.

In general, payment agreements for the KFCP should aim to manage standard payment-related risks (such as for non-delivery of general tasks e.g. dam building). The KFCP could also consider managing broader risks (such as not meeting emissions reductions goals) through strategies such as project risk buffers or risk pooling across several demonstration activities.

- *What arrangements should be made to manage payment-related risks under the KFCP?*

Duration of payments. Given that the KFCP is intended to be a demonstration activity in anticipation of a future compliance market, it will be important to ensure that payment schedules take into account the availability and duration and different funding sources. KFCP's implementation timeframe is already agreed at four years (2008-09 to 2011-12). A desirable outcome would be for the KFCP demonstration activity to transition to a REDD project under a future international REDD mechanism after 2012, but these longer terms arrangements are not currently known, and will depend on developments in UNFCCC negotiations on REDD and agreement between KFCP partners and proponents. With this in mind, disbursements from the trust fund could extend at least several years further than 2012 in order to encourage sufficient long-term commitment. The overall timeframe for output-based payments from all sources (or 'project crediting period') would need to be determined by the level of future market funding as well as any national or international standards that are

developed (Indonesia's regulations set a maximum duration of five years for demonstration activities and 30 years for longer-term REDD activities).

- *What approach to duration of payments would ensure best use of KFCP's resources while taking into account uncertainties about the timing and duration of market-based funding sources?*

Accountability mechanisms

KFCP accountability mechanisms will be critically important to track both achievement of results and payment of benefits, as outlined in the table below:

Type of activity	Form of KFCP accountability mechanism	
	Accountability for results	Accountability for payment
Emissions reductions	Proponent's internal accounting Independent Appraiser Institution (remote sensing / ground-truthing etc)	Trust fund's internal accounting Trust fund audit
Input and performance activities	Proponent's internal accounting Independent verification? (may require mix of methodologies)	Internal accounting of trust fund / proponent Audit of trust fund and proponent

- *Could social accountability initiatives used in other sectors (e.g., health and education funding) be adapted to ensure transparency of KFCP funding distribution?*

Readiness assistance for establishment of payment mechanisms

Targeted assistance may need to be provided to government, communities and other service providers to support the establishment of the payment mechanisms and the necessary systems and process to ensure that the mechanisms operate effectively (see also section 3.2.5 of the detailed design).

General questions about the proposed model

- *Is the proposed model sufficiently aligned with Indonesian government systems?*
- *Could elements of the proposed model be harmonised with other demonstration activities?*
- *Does the model help ensure that the KFCP promotes co-benefits such as poverty reduction as well as reducing emissions?*

ATTACHMENT 6. GHG EMISSIONS REL AND MONITORING

PART OF ATTACHMENT 5 OF THE KFCP FRAMEWORK DESIGN DOCUMENT (OCTOBER 2008)

Emissions Accounting and Monitoring

In preparing for REDD there is a need to:

1. Decide on definitions;
2. Decide on REL characteristics;
3. Determine suitable accounting and monitoring data and ascertain access to necessary data;
4. Decide on a system for national REL setting; and
5. 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:

1. Clear understanding of responsibilities — who does what and when;
2. Regular and timely reporting of accurate and precise data;
3. Access to data between different groups inside the ministry, government and stakeholders;
4. Using the data to have improved decision making; and
5. 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 REL[25]

A REL is a projection of emissions from deforestation and degradation against which reductions in emissions can be measured. The REL 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 REL only if it is particularly important in the context of a market for trading in emissions.

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 REL

Logically the time period, termed the reference period, chosen for historic REL projection has a critical influence on the result. Rates of deforestation change over time due to a range of factors,

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

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 REL will also have a strong influence. Depending on which REL is chosen there are substantial differences in the potential pool of carbon credits.

Modelled REL

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 REL.

A REL for the KFCP demonstration activity

There is not yet any internationally agreed guidance on developing REDD RELs. The process for this will be subject to negotiation among Parties. Whichever approach is negotiated, a credible REL 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 REL 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 RELs 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 REL

REDD demonstration activities require a credible reduction in emissions from deforestation and degradation to be measured against the REL 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 REL. 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 REL 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 REL 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 REL 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:

1. Review existing models relevant to peat systems, especially those which model emissions and stocks, rather than just stocks;
2. 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;
3. Review of existing allometric equations relevant to Indonesian tree species;
4. Development of carbon stock estimates for all the Permanent Sample Plot and Temporary Sample Plot data;
5. Review and analysis of all national scale spatial datasets;
6. Estimation of carbon stocks through destructive sampling and assessment of changes in total soil C under differing land uses;
7. Demonstration of how to apply same standards at all the different levels - national, project, scientific levels;
8. Analysis of non-CO^2 emissions from peatlands using chambers ;
9. Analysis of combustion efficiency of peat under differing conditions, including non-CO^2; and
10. 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 [26]

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:

1. Spatial distribution of peat soils;
2. Properties and depth of peat ;
3. Spatial extent and nature of wildfires and management burns;
4. Combustion of peat and associated emission factors for individual GHGs; and
5. 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:

[26] 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.

1. 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;
2. 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
3. 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:

1. 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;
2. 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;
3. 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;
4. 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
5. 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:

1. Peat Hydrology:

- The efficacy of canal blocking and planning the restoration of peatlands 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;

2. 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.

ATTACHMENT 7. FIRE MANAGEMENT ANALYSIS

TOWARDS AN INCENTIVE BASED FIRE MANAGEMENT STRATEGY FOR THE KFCP

Summary

Fire is a key risk to the peat dome encompassing the KFCP target area. Research has made explicit links between land clearing, drainage, and rainfall variance as causing a non linear fire and emission response. This urges the need for better and more efficient fire control strategies as current efforts have proven insufficient. In addition, fires play an important role in livelihoods, as it is a tool to manage biomass and soil fertility.

A strategy should focus on high risk weather periods and high risk areas. As opposed to current practice, fire control and suppressions have to be prioritised and should be benefit driven based on clear weather-based indicators. The idea is that this would trigger a response and if a community performs well, a performance-based payment would result. Furthermore, peat restoration strategies should address land tenure issues and conflict over peatlands as a first step to control fire, improve water management, and restore the peatland ecosystems.

Background

Before the start of the ex-Mega Rice Project, fires were relatively rare[27] in the KFCP project area. The Mega Rice Project led to the development of a grid of waterways that had a main east-west channel (meant as the primary inflow) and a series of smaller channels. The area was nearly completely cleared of vegetation. The channels started to act as a major cause of drainage and the disappearance of the natural vegetation led to a landscape of scrubs, sedges and ferns which on top of the drained peat, significantly enhance vulnerability to fire. The rapid increase in vulnerability these changes caused led to the dramatic fire events of 1997, 2002, 2004 and 2006. Some estimate that these fires have caused greenhouse gas emissions[28] and peat subsidence.[29]

While estimates tend to differ widely, peat fires are generally identified as Indonesia's most significant source of greenhouse gas emissions. Present estimates of CO emissions from drained peatlands are calculated to be between 355 and 874 Mt.[30] For REDD programs on degraded peatlands, fires are the most serious threat as they pose the most significant risk to carbon stocks stored in peatlands as well as to carbon sequestration of aboveground biomass.

As such, without an effective strategy that leads to a significant reduction in fires, REDD/avoided deforestation of peat related emissions will be difficult. Unfortunately current strategies have not proven to be efficient. Claims of increased efficiency since the provincial government embarked on new fire risk management policy have to be questioned, as the last two years have been extremely wet. Fires are the largest source of emissions and are a key cause of environmental degradation. For REDD to be successful, fire risks[31] have to be prioritised.

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27 Historic evidence suggest that fires have been present historically but were relative rare upon 20 years ago in peat lands (see G. Hope,, U. Chokkalingam & S. Anwar, 2005 The stratigraphy and fire history of the Kutai Peatlands, Kalimantan, Indonesia. Quaternary Research 64 (2005) 407 – 417

28 S. E. Page, Florian Siegert, J.O. Rieley, H-D. V. Boehm, A. Jayak & S. Limink, 2002. The amount of carbon released from peat and forest fires in Indonesia during 1997. Letters to nature NATURE | VOL 420 | 7 NOVEMBER 2002

29 J. Jaenicke, J.O. Rieley, C. Mott, P. Kimman, F. Siegert, 2008. Determination of the amount of carbon stored in Indonesian peatlands. Geoderma 147 (2008) 151–158

30 **Hooijer, A., Silvius, M., Wösten, H. and Page, S**. 2006. PEAT-CO2, Assessment of CO2 emissions from drained peatlands in SE Asia. Delft Hydraulics report Q3943 (2006)

31 Risk is defined as Risk = (Hazard * vulnerability)/Capacity

What makes the area so vulnerable to fire?

Most research indicates that the incidence of peatland fires is strongly influenced by temporary rainfall anomalies, while spatially reduced forest cover and increased access have proven to be linked to the spread of fires. Most recent research shows that these two are mutually reinforcing which leads to a non linear response.[32] Nonlinearity of response indicates that sustained burning in areas with high fuel loads (including peatlands and forests) increased with drought severity. This is aggravated by increased land-clearing activities during prolonged periods of drought. It has to be acknowledged that communities and other stakeholders gain from fire use in forest frontier areas in which the KFCP is located because forest areas have been opened up and the coinciding large-scale projects/investments create new dimensions with regard to tenure and dramatically change livelihood patterns.

As such, four key factors determine fire risk:

1. A rainfall anomaly influenced by changes in the El Niño Southern Oscillation activity;
2. Increased availability of fuel due to falling water tables during an El Niño period which leads to abundant availability of dried vegetation and peat;
3. Increased access leads to increased opportunity for land clearing as land becomes easily accessible and biomass easier to process. Land clearing is used as a tool to secure control and some form of land tenure. Unclear boundaries and resource alienation by government has undermined previous functional land management systems and led to a need to secure rights over claims; and
4. A changed landscape demand more careful use of fire. Fire is an important tool in agriculture in Kalimantan. However, environmental circumstances have changed dramatically.[33]

ENSO: The ENSO influences rainfall through either weakening (El Niño) or strengthen (La Niña) the western trade winds. This causes a regular period of prolonged drought, a period of extreme wet weather and a dramatically changed environment (from moist lowland peat rainforest to degraded peatlands composed of vegetation which is susceptible to drought). Furthermore, evidence exists that the frequency of extreme weather events caused by the ENSO might lead to increased levels and greater impacts of greenhouse gas emissions and climate change.[34] Thus enhancing the risk of fire, droughts and flooding to which local communities and carbon stocks.

Increased access: Recent work in the target areas has indicated that the hotspot density could be predicted based on the subsurface sea temperatures in the Central Pacific.[35] The results underline that the ENSO-induced drought events trigger fire outbreaks under current environmental conditions in the areas, but that the risk is significantly lower if the natural environment is not disturbed. Most recent spontaneous fire outbreaks have emphasized that the majority are caused by deliberate ignition and that during a dry period, fire use increases. In other words, people tend to use more fire during a dry period than during a wet period.

This has lead to fire patterns which are closely linked to access roads and waterways. An in-depth assessment on fire occurrence in the area showed that hotspot intensity was linked to distance to the village and road access. This explained about 70% of differences in hotspot density. Soil types did not prove to be significantly related to hotspot density.[36] The results underline that fire incidence is

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[32] van der Werf, G. R., J. Dempewolf, S. N. Trigg, J. T. Randerson, P. S. Kasibhatla, L. Gigliof, D. Murdiyarso, W. Peters, D. C. Morton, G. J. Collatz, A. J. Dolman, and R. S. DeFries Climate regulation of fire emissions and deforestation in equatorial Asia. p20350–20355 ! PNAS ! December 23, 2008 vol. 105 no. 51.

[33] See for a review of indigenous systems; K. MacKinnon, G. Hatta, H Halim & A Mangalik, 1996. The Ecology of Kalimantan. Singapore: Periplus.

[34] Hansen, J., Sato, M., Ruedy, R., Lo,K., Lea, D.W., and Medina-Elizade, M. 2006. Global temperature change. Proceeding of National Academy of Science 103: 14288-14293

[35] Kieft, J. 2007. Climate-Informed Incentive Systems to Fight Fire and Poverty in Central Kalimantan. Presented during the IRI-Columbia University supported site event UNFCC COP 13 Bali

[36] N Surati Jaya, R Boer, Samsuri, and Fathurakhman, 2008, Development of a wildfire vulnerability index in Central Kalimantan. IRI/IPB/CARE: unpublished paper.

spatially defined and located in the vicinity of human settlement in areas where access has been improved.

Fire accelerated the process of opening land. In other areas in Indonesia this has lead to resource exploitation and land grabbing which caused increased fire exposure due to increased human activity leading to wild fires and the use of fire as a tool. Fire has been a key tool for local communities to rapidly gain control over land and access to new livelihood assets. Work in East Kalimantan[37] underlines the resource user's use of fire to enhance its economic productivity. In the case of the project area fires, it has enabled the opening of large tracts of lands which can then be planted with rubber. This allows communities to claim access and customary tenure over the land and demand compensation from projects. The community's response is stimulated by past experiences of marginalisation and resource alienation while it also strengthens control over the resource. In the most dominant culture of the KFCP the Dayak Ngayu[38], tree planting secures individual tenure rights.

Fuel availability: Drainage and replacement of rainforests by scrubs and ferns have created an environment that, when it is dry, is extremely vulnerable to fire. WWF monitoring data showed that the ground water table fell to below 2 metres during the 2006 El Nino even though the area was under improved water management. Land managers have not developed skills and knowledge to manage fires under these circumstances. Traditionally, the environment would remain moist and the probability of fires inflicting damage on surrounding vegetation was small.

Fire use in agriculture: Local communities who had developed knowledge of fire management in a moist environment, now have to face an environment consisting of ferns and scrub over forests on drained peatlands. Local livelihood systems were built around a culture of using fire for land clearing using low intensity fires. These fires, on surrounding mineral soils in particular, such as on the levees and in heat forest areas lead to an increase in P (Phosphate availability)[39]. Furthermore for smallholders, fire remains the cheapest and easiest way to process biomass.

Fire and forest dependant livelihoods require prolonged period of temporarily residence in forests. As tenure is uncertain and the state has been unable to effectively gain full control over land use, incentives have been generated to claim land. In particular this is the case for Central Kalimantan, where forest use planning and spatial planning issues are not resolved. This has been fuelling the degradation of peatland areas and areas along the roads in the northern part of the dome as fire is used as a key land clearing tool to support the significant expansion of rubber.

Experiences with fire management in Central Kalimantan

Since 1997/98, national and sub national level programs have been initiated to cope with fires in Central Kalimantan. These programs have been implemented by NGOs (CARE SIAP and PEAT projects, CIMTROP, Wetlands International[40]), bilateral donors (European Commission; South and Central Kalimantan Production Forest Management Project and USAID amongst others). Furthermore the government has initiated significant efforts and political commitment to fight fires. The establishment of an Early Warning Centre (PIL = Pusat Informasi Lingkungan) and investment in community brigades as well as heavy equipment underlines these commitments. As Indonesian disaster response mechanisms are getting revamped, it is likely that the new Disaster Management Agency will have branches at district and provincial levels and will play a more significant role in the future.

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37 Chokkalingam, U., I. Kurniawan, and Y. Ruchiat, 2005. Fire, livelihoods, and environmental change in the Middle Mahakam peatlands, East Kalimantan. *Ecology and Society* **10**(1): 26. [online] URL: http://www.ecologyandsociety.org/vol10/iss1/art26/

38 J.A. Weinstock, 1979, Land Tenure practices of the Swidden cultivators of Borneo. Unpublished paper

39 Ketterings QM, Van Noordwijk M, Bigham JM., 2002. Soil phosphorous availability after slash and burn fires of different intensity in rubber agroforests in Sumatra. Agriculture, ecosystems and Environment 92: 37-48

40 W C Adinugroho, I. N. N. Suryadiputra, B. H. Saharjo & L Siboro, 2005. Manual for the control of fire in Peatlands and Peatland Forests. Bogor: Wetlands International

The 2006 fire episode underlines that most of these initiatives have had limited impact. Key reasons are:

- That the scope and nature of fires during El Nino years is different. The exponential spread of fires, the remoteness and excessive availability of fuel makes approaches tested on mineral soils difficult to apply. Furthermore early warning is based on hotspots and fire danger rating, both allow for limited response time; and
- Most fire initiatives assume that communities and stakeholders have an interest in controlling fire and are willing to invest in fire management. More recent reviews of fire management activities and trends in land use suggest that some gain from fire. For example:
  - increased access and removal of the vegetation allows for the poor to harvest non forest timber products and fell logs; and
  - for land owners it enables them to clear large tracts of land.

  Thus, a fire management strategy and most likely a peat restoration strategy should be based on an understanding of why people use fire and what are the (economic and social) gains of fire use;
- Fire suppressions put a significant burden on communities. In so far this input has been voluntary but it costs some up to 3-5 months of labour. This makes it a heavy burden with limited returns for those who implement it. The social dynamics of fire frighting are not understood but most likely the least empowered are the most involved: and
- For a proper analysis of the impact of fire management policies, circumstances have to be taken into account. As is explained above, fire use is strongly related to the ENSO thus explaining the reduced incidence of fires during 2007/08 when fire use was criminalised by Governoral directive. The ban reduced the use of fire but most of these fires were linked to the need for clearing of agricultural land. This seems to have led however, to a significant decrease in income, and the ban also impacted on local food production. This led to protests and political pressure to change the restricted use of fire. It is crucial that a fire risk management strategy assumes fire use as an integral part of livelihood strategies and is used to increase access or enhance quality of livelihood assets (land).

A REDD based fire management strategy should acknowledge the importance of fire as source of emissions and the economic importance it has. It has to go beyond suppression and focus on improving land use planning, water management and aim to reduce incentives for land encroachment.

Towards an incentive based strategy

A key element of a fire management strategy has to be on El Nino events while reducing the long term trend of environmental degradation. Restored peatland ecosystems are rarely exposed to fire risk however restoring of peatlands even within a REDD scheme will take at least 15-20 years before fire risks are significantly reduced. The recent experiences with improved water management underline that blocking channels only, is unlikely to be sufficient. At least for the coming 5-10 years, fire risk management will have to be the priority for the KFCP. A minimum of 2-3 major fire events are to be expected during that period.

An effective fire management strategy should entail:

- A very good understanding of the following: a baseline socio-economic data of the KFCP area; baseline environmental data, including hydrological information and peat dome characteristics of the KFCP area; and REL greenhouse gas emissions from peatlands and the KFCP area as a whole, under current practices: and
- Work based on the assumption that fire remains a critical tool for smallholders as alternatives are more expensive or impractical. Nevertheless during El Nino (dry period) fire use should be banned to reduce incentives as then fire is causing most of the damage. El Nino can be predicted and a strong commitment by political decision makers to law enforcement has proven to increase opportunity costs of fire use.

The project could benefit if fire management efforts are placed within the institutional framework of the Indonesian government. This will require, that local decrees concerning fire management be consistent with higher level government policies, despite the fact that these fall short in addressing drivers. As such, community participation in fire management is of the greatest importance and communities need to be given the responsibility of managing this, taking into account the above mentioned hurdles. As such, embedment within the village government, planning, development, implementation and a monitoring system can be integrated within the socio-economic and cultural village structure. Within the KFCP framework it will be essential to further outline and assign role, responsibilities and tasks for the various agencies (forestry and the district based disaster management agency. Within the KFCP this requires coordination mechanisms between administrative levels as well as the already existing fire management structures of village fire crews, Manggala Agni fire crews and others. It is important that these are elaborated and well described. Hence, the design of an incentive system for local livelihood development embedded in local indigenous and governmental institutions and linked to higher levels of the state is of critical importance.

Strategic directions:

- Fire control and management are emphasised during El Nino years. When a dry period is anticipated fire use should be banned and access restricted. This includes:
  - The use of a weather based index (an index based on rainfall which trigger uniform payments of benefits based upon performance when a benchmark criteria is reached), as currently is used for smallholder agricultural crop insurance. This should be developed to provide policy makers and REDD projects with a clear signal to be used in adjacent communities to initiate a fire ban; and
  - A fire suppressing benefit mechanism needs to be based on a clear benchmark. The work of Van Der Werf, Surati Jaya and CARE/IRI (see footnote 6) provides guidance to set these benchmarks. Depending on vulnerability, communities can be paid based on a clear set of indicators such as hotspot density or peat subsidence in fire affected areas. The better the performance, the higher the payments. Potentially, reverse auction systems can be used to set a price per unit output delivered. However this requires additional research.

  These interventions do not require significant construction of infrastructure and are building on existing interventions by CKPP partners. However given the potential risks to the project, they should commence as soon as possible.

- Fire risk management through the prioritisation of fire risk has to be main-streamed in a peatland restoration strategy.
  - High risk areas are areas where most likely conflicts over tenure exist and areas that are easily accessible.
    - Resolving conflicts over tenure has to have priority over restricting access. If tenure is not addressed, the risk is that there will be no interest in maintaining dams or involvement in restoring peatland ecosystems: and
    - Immediately after tenure is resolved, access should be restricted through channel blocking and the institutionalisation of payment mechanism should be started.
  - Access should be better controlled and should not only entail waterways but has to include planned road infrastructure.
- The development of alternative livelihoods through REDD payments. Community facilitation should start emphasizing the need to develop alternatives after agreement is reached on a community based management plan. Reduced reliance on fire implies reduced dependency on land through:
  - Non-agricultural related livelihoods, examples are processing of non forest products; and

- Intensive agriculture on levees. Land is available but requires investment in management of soil fertility. This requires will as well better and more reliable access to markets as it implies stronger emphasis on a few key crops like rubber.

REDD benefits and payment schedules have to make the use of fire less attractive by taking away the drivers of fire use, while simultaneously stimulating during fire outbreaks more proactive suppression. This requires first of all stabilised and agreed upon tenure boundaries, while developing alternative livelihood options. This will entail direct cash payments to compensate for lost livelihood opportunities. In the mean time however this should be performance based, e.g., communities need to develop alternatives and not continuously rely on cash transfers

ATTACHMENT 8. INDICATIVE SUMMARY BUDGET

The following budget provides a summary cost figure for each of the major line items in the budget including the four components. The figures provided are an indicative and conservative estimate of the funds that will be available for the activity, which will depend on the results of tendering the IAFCP Facility. The summary budget also reflects an additional AUD 1.4 million for GHG measurements and monitoring.

	Early Imp Phase	FY 10	FY 11	FY 12	Total
Technical Assistance and Management	-	1,438,000	1,444,900	1,848,310	4,731,210
Equipment	4,000	159,700	-	-	163,700
Recurrent Costs	8,600	33,600	35,910	37,706	115,816
Travel	14,000	53,300	36,750	38,588	142,638
Communications	12,500	270,000	179,000	187,950	649,450
Early Implementation Phase	1,593,340	-	-	-	1,593,340
Component 1	-	4,600,000	6,357,000	7,171,750	18,128,750
Component 2	410,000	800,000	300,000	600,000	2,110,000
Component 3	73,000	260,000	273,000	264,600	870,600
Component 4	-	529,000	471,200	494,297	1,494,497
TOTAL	**2,115,440**	**8,143,600**	**9,097,760**	**10,643,200**	**30,000,000**
Peat and GHG Monitoring	150,000	500,000	400,000	350,000	1,400,000
GRAND TOTAL	**2,265,440**	**8,643,600**	**9,497,760**	**10,993,200**	**31,400,000**

ATTACHMENT 9. INDICATIVE PERFORMANCE ASSESSMENT FRAMEWORK

This KFCP Performance Assessment Framework (PAF) is indicative and will be finalised by the Facility M&E Specialist as part of the overall IAFCP PAF.

Objective statements	Potential Indicators	Comments on Data Collection & Performance Assessment
Goal: To inform a post-2012 global climate change agreement and enable Indonesia's meaningful 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	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 CIFOR and other research partners will play a role in tracking performance at the policy level.
Purpose: To demonstrate a credible, equitable, and effective approach to reducing greenhouse gas emissions from deforestation and forest degradation, including from degraded peatlands.	• GHG reductions • Development of processes for establishing emission RELs and measuring emission reductions • Development of payment mechanisms which provide incentives to achieve and sustain emission reductions • Social impact (and contribution to poverty reduction and gender equality) • Increased capacity to sustainably manage peatlands.	The GHG and Peat Working Group will assist with developing specific indicators regarding the GHG monitoring system. The Payment Mechanisms Working Group and research partners will assist with developing indicators regarding payment mechanisms. The Socioeconomic Baseline and Livelihoods Group will assist with developing social impact indicators.
Intermediate Result 1: Deforestation and Forest Degradation Reduced		
Outputs/Activities to build community support and capacity	• GoI approved community land use plan • International quality Socioeconomic Baseline • Knowledge of REDD demonstrably improved. • Area of burned forest reduced. • Improved livelihoods adopted. • Impacts on poverty and gender.	The Socioeconomic Baseline and Livelihoods Group will assist with designing the baseline survey and monitoring protocols. Knowledge, Attitudes, and Practices survey baseline for measuring attitude change.
Outputs/Activities to rehabilitate and restore degraded peatland and reduce emissions from deforestation and forest degradation	• Defined area of degraded peatland re-flooded • Area of degraded peatland reforested and number of trees established • Monitoring indicates GHG emission reductions from rehabilitation • Cost effectiveness of rehabilitation	Will need to report on the activities of both the KFCP and NGOs if working in an area with ongoing NGO activity

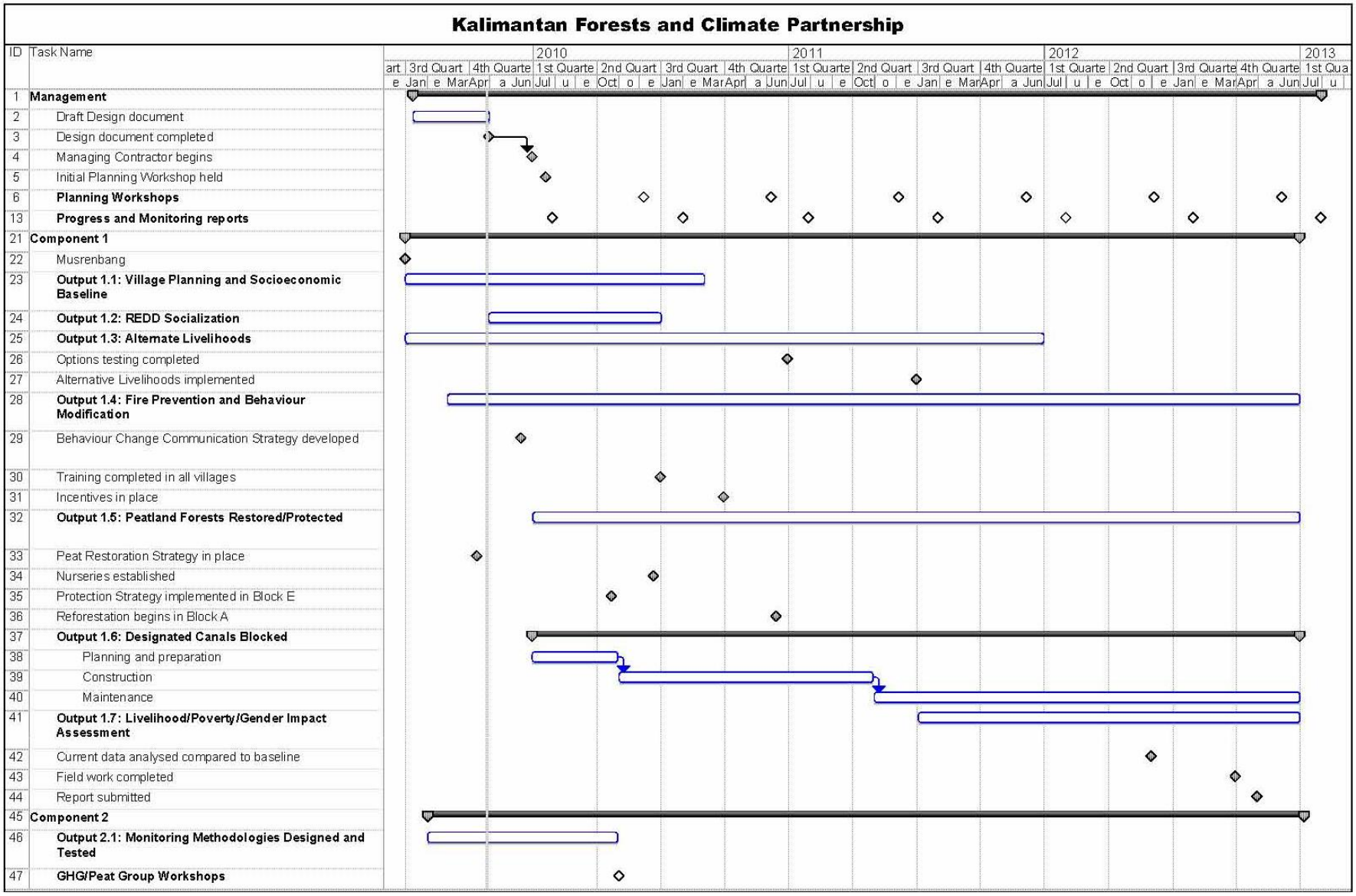
Objective statements	Potential Indicators	Comments on Data Collection & Performance Assessment
	activities in comparison to the likely value of emission reductions • Areas of forest and non-forest land planted and numbers of trees planted for economic, conservation and forest restoration purposes • Area 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).	
Intermediate Result 2: Emissions accounting and monitoring	• Useful contribution to development of the methodologies for establishing emission RELs and monitoring emission levels • Submission for peer review of: o Emission RELs and recommended REL for (i) the demonstration area and (ii) broader area of surveillance (e.g., Kapuas District); o Emission calculations for (i) and (ii); and o Calculated emission reductions in (i) and (ii).	
Intermediate Result 3: 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/gender impact, (ii) effectiveness in delivering emission reductions in the short and longer term; and (iii) the economic viability of payment mechanisms (when	

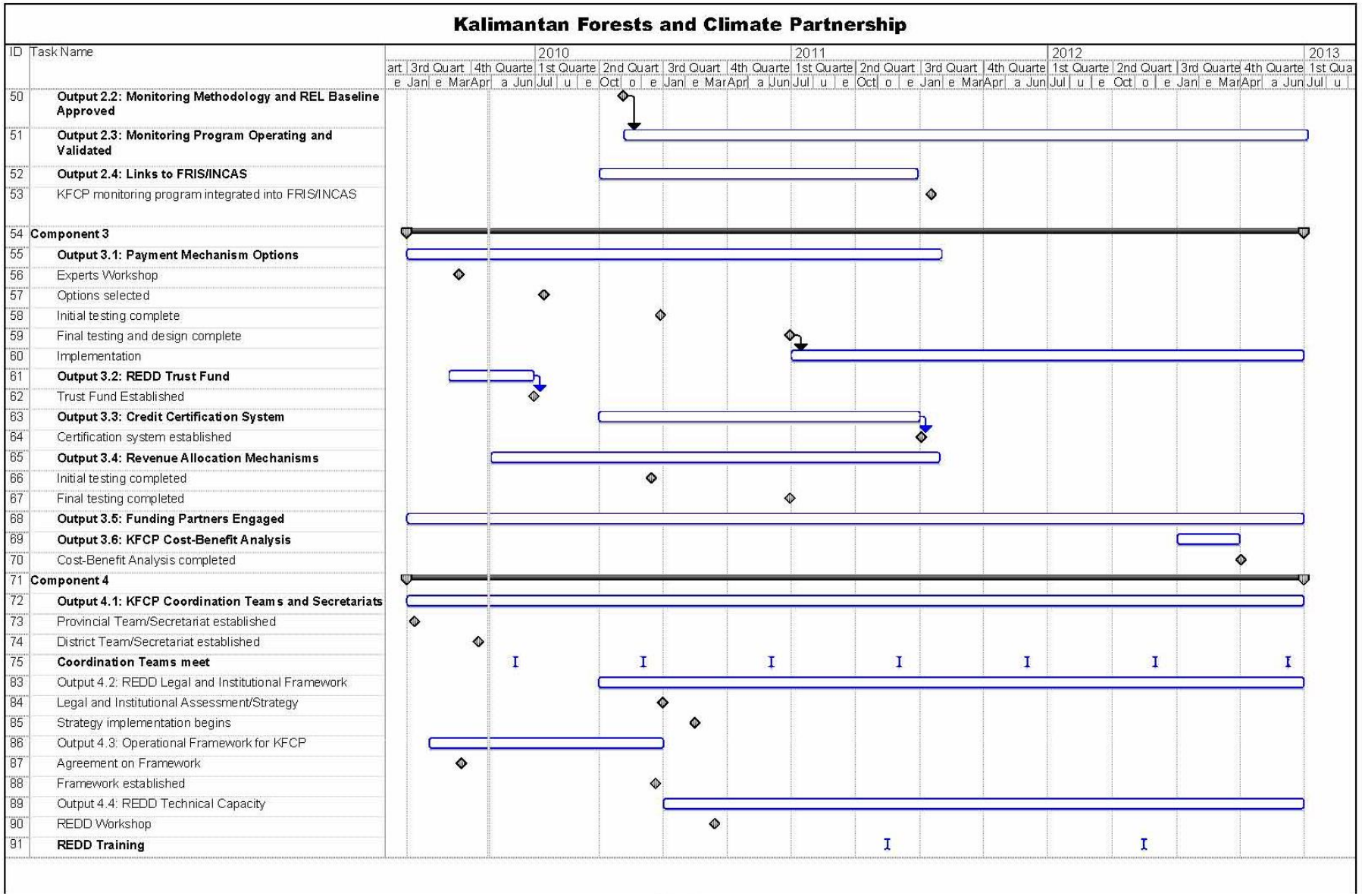
Objective statements	Potential Indicators	Comments on Data Collection & Performance Assessment
	compared to the likely value of emission reductions) and the contribution to an REDD investment climate	
Intermediate Result 4: Readiness and capacity	• Provincial and District KFCP Coordination teams and Secretariats are functioning and playing their designated role. • REDD-related legal and institutional framework at province and district levels is demonstrably improved. • FMU or other operational framework for the KFCP is established. • REDD technical capacity of local government and other stakeholders demonstrably improved.	REDD Legal and Institutional Assessment will provide a REL against which to measure change.
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 purpose (capacity building indicator) and Intermediate Result 1.
• Gender	• Participation of men and women in KFCP interventions • Allocation of benefits (from REDD demonstration activity) to men and women	Incorporated in the purpose (social impact indicator) and Intermediate Results 1 and 4.
• Anti-corruption	• Established and widely agreed processes for establishing emission RELs and measuring emission reductions • Clear and fair payment mechanisms • Transparency and accountability in all measurements and financial transactions • Strengthened REDD governance.	Incorporated in Intermediate Results 3, 4 and 5
Managing contractor performance:	• Clear rolling implementation plans developed, in consultation with other stakeholders, and circulated as appropriate • Effective support provided to the Coordination Teams. • Effective coordination of Implementation Partners • Effective knowledge capture and communication with all stakeholders.	

Objective statements	Potential Indicators	Comments on Data Collection & Performance Assessment
	• Alignment of support to GoA and GoI policies and priorities • Effective use of technical advisors and technical advice • Effective engagement of local government and 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	

ATTACHMENT 10. PRELIMINARY IMPLEMENTATION SCHEDULE

The following preliminary implementation schedule covers all KFCP components. The schedule will be finalised in the final version of the design document after consultation with implementing partners.


Kalimantan Forests and Climate Partnership
ID
Task Name
2010
2011
2012
2013
1 Management
2 Draft Design document
3 Design document completed
4 Managing Contractor begins
5 Initial Planning Workshop held
6 Planning Workshops
13 Progress and Monitoring reports
21 Component 1
22 Musrenbang
23 Output 1.1: Village Planning and Socioeconomic Baseline
24 Output 1.2: REDD Socialization
25 Output 1.3: Alternate Livelihoods
26 Options testing completed
27 Alternative Livelihoods implemented
28 Output 1.4: Fire Prevention and Behaviour Modification
29 Behaviour Change Communication Strategy developed
30 Training completed in all villages
31 Incentives in place
32 Output 1.5: Peatland Forests Restored/Protected
33 Peat Restoration Strategy in place
34 Nurseries established
35 Protection Strategy implemented in Block E
36 Reforestation begins in Block A
37 Output 1.6: Designated Canals Blocked
38 Planning and preparation
39 Construction
40 Maintenance
41 Output 1.7: Livelihood/Poverty/Gender Impact Assessment
42 Current data analysed compared to baseline
43 Field work completed
44 Report submitted
45 Component 2
46 Output 2.1: Monitoring Methodologies Designed and Tested
47 GHG/Peat Group Workshops


Kalimantan Forests and Climate Partnership
ID
Task Name
2010
2011
2012
2013
50 Output 2.2: Monitoring Methodology and REL Baseline Approved
51 Output 2.3: Monitoring Program Operating and Validated
52 Output 2.4: Links to FRIS/INCAS
53 KFCP monitoring program integrated into FRIS/INCAS
54 Component 3
55 Output 3.1: Payment Mechanism Options
56 Experts Workshop
57 Options selected
58 Initial testing complete
59 Final testing and design complete
60 Implementation
61 Output 3.2: REDD Trust Fund
62 Trust Fund Established
63 Output 3.3: Credit Certification System
64 Certification system established
65 Output 3.4: Revenue Allocation Mechanisms
66 Initial testing completed
67 Final testing completed
68 Output 3.5: Funding Partners Engaged
69 Output 3.6: KFCP Cost-Benefit Analysis
70 Cost-Benefit Analysis completed
71 Component 4
72 Output 4.1: KFCP Coordination Teams and Secretariats
73 Provincial Team/Secretariat established
74 District Team/Secretariat established
75 Coordination Teams meet
83 Output 4.2: REDD Legal and Institutional Framework
84 Legal and Institutional Assessment/Strategy
85 Strategy implementation begins
86 Output 4.3: Operational Framework for KFCP
87 Agreement on Framework
88 Framework established
89 Output 4.4: REDD Technical Capacity
90 REDD Workshop
91 REDD Training

ATTACHMENT 11. RISK MATRIX

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 over classification (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 Block E are designated as protected area	Should the proposed demonstration area within Block E be designated as a protected area, 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.
3. 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. 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.	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 actual emission reductions and (ii) the effort required by different stakeholders to achieve these reductions.
4. Inconsistent or conflicting policies between different levels of government or lack of coordination by/with government at different levels	Reduced scope for implementing desired interventions, possibly risking the ability to reduce emission levels, and probably reducing the benefits derived from the REDD demonstration. 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.	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.
5. Lack of community support/engagement, including failure to address	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

Potential Risk	Potential Impact	Assessment			Preliminary Mitigation Strategy
		L	C	R	
the social and economic needs of communities as part of a REDD system					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.
6. Communities and/or IPs have insufficient capacity to undertake rehabilitation interventions at the required scale.	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 and IPs during the early implementation phase to gauge their interest in the proposed interventions, and the labour available, and develop interventions and/or work programs that reflect available resources or plan to augment with other resources, such as contractors.
7. Inability to meet $100 million funding target through raising up to additional $70 million in external funding	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 initial A$30 million contribution) should not be jeopardised.	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 the $100m target.
8. 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. Thoroughly study, monitor, and evaluate all interventions to capture knowledge of value regardless of outcomes.
9. 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.
10. 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.

Potential Risk	Potential Impact	Assessment			Preliminary Mitigation Strategy
		L	C	R	
11. Carbon prices are too low to maintain incentives or carbon prices become too high, causing a land grab in peatlands.	If prices are too low, communities and local government may refuse to maintain emission reduction interventions after the KFCP implementation period. If prices are too high, powerful locals and outsiders with use influence to try to gain control of peatlands to detriment of local people.	2	3	M	If prices are too low, there is little that can be done other than resorting to the voluntary market. If too high, government will have to be vigilant to ensure that a land grab does not occur.
12. GHG monitoring protocols are not scientifically accepted or are too expensive to maintain in the absence of KFCP support.	Either would prevent participation in the international REDD carbon market and the effect could extend to all peatlands.	2	4	H	System must be designed to be scientifically credible while being relatively simple to maintain.
13. Local climate becomes drier and/or increasingly variable,	Fire risk management would become more difficult, especially if variability were difficult to predict.	3	4	H	Develop fire management system tailored to the level of climatic risk seasonally and in multi-year cycles.

ATTACHMENT 12. REDUCING EMISSIONS FROM DEFORESTATION AND FOREST DEGRADATION IN DEVELOPING COUNTRIES—JOINT SUBMISSION TO THE AWG-LCA, AWG-KP AND SBSTA

INDONESIA AND AUSTRALIA

Reducing emissions from deforestation and forest degradation in developing countries

Joint submission to the AWG-LCA, AWG-KP and SBSTA

Indonesia and Australia are both strongly committed to including reducing emissions from deforestation and forest degradation in developing countries (REDD) in a post 2012 outcome on climate change under the UNFCCC. REDD is best included through a market-based mechanism, as international carbon markets offer the best means to provide financial incentives at the scale required to effectively address emissions from deforestation and forest degradation. There is certainly a need for funds in providing resources for capacity building and market readiness activities including in addressing drivers of deforestation and forest degradation.

The leaders of Australia and Indonesia have committed to work together on REDD through the Indonesia œ Australia Forest Carbon Partnership. Under the Partnership, our joint activities are designed to support the UNFCCC process on REDD policy and methodological issues, as well as Indonesia‘s national REDD framework. The Partnership operates in three key areas: strategic policy dialogue on climate change, increasing Indonesia‘s carbon accounting capacity, and identifying and implementing incentive-based demonstration activities.

The Indonesia œ Australia Forest Carbon Partnership is an example of how developed and developing country partners can work together to take ongoing, practical action on climate change. Collaborative partnerships such as this one are crucial to finding innovative solutions to the challenges posed by climate change and to successfully addressing the almost 20 percent of global emissions from REDD.

Parties concluded at the Tokyo REDD workshop (25-27 June 2008) that there is now the technical and methodological expertise to allow REDD to be included in a post 2012 outcome on climate change. The immediate challenge for Parties is to find solutions to REDD‘s policy challenges. The negotiations on methodological issues should continue concurrently in SBSTA. A priority for Poznan is to ensure that an effective process is established to progress the policy negotiations under the AWG-LCA.

Kalimantan Forests and Climate Partnership

Indonesia and Australia are demonstrating leadership in giving effect to the call in the Bali Action Plan for demonstration activities to be developed that will generate lessons learned to inform both policy and methodological issues. We are currently working together on a REDD demonstration activity in Central Kalimantan–the Kalimantan Forests and Climate Partnership (KFCP). The KFCP is the first, large-scale demonstration activity of its kind in Indonesia. It is located in the carbon rich peatland forests of Central Kalimantan. Central Kalimantan is a biodiversity rich region containing one of the world's largest areas of intact peatland forest.

The KFCP aims to demonstrate how REDD can be incorporated in a post-2012 outcome on climate change. It trials innovative, market-oriented approaches to REDD financing and REDD implementation measures. Australia and Indonesia will provide lessons learned from the KFCP into the UNFCCC negotiations on REDD. Attachment A provides some initial lessons learned from the KFCP. We have also committed to developing on a second demonstration activity that will be in a different location within Indonesia and focus on different forest and soil types.

Roadmap for Access to International Carbon Markets

When they met in June 2008, the leaders of Indonesia and Australia agreed to jointly develop the Roadmap for Access to International Carbon Markets. The Roadmap is a multi-phased strategy to support Indonesia participate in international carbon markets for REDD. The Roadmap extends cooperation beyond existing activities under the Indonesia-Australia Forest Carbon Partnership by assisting Indonesia establish the necessary technical, system and financial pre-requisites to participate in international carbon markets.

Attachment A

The Kalimantan Forests and Climate Partnership: cooperative action on REDD

This attachment provides some initial lessons learned drawn from the experience of Indonesia and Australia in working together on the Kalimantan Forests and Climate Partnership (KFCP).

Selecting a location for a demonstration activity

In order to respect national sovereignty, and ensure support for a demonstration activity, the national government of the host country must be consulted on and agree the location of demonstration activities. In addition sub-national levels of government and local communities should also be consulted. The availability of experienced partners (such as other donors, academic institutions, national and international non-government organisations and private organisations already working in the area) is an important consideration in site selection.

It is also advisable to ensure that spatial planning for the location is adequate and that forest carbon rights are enforceable. Demonstration activities are best selected based on scientific considerations, potential to generate lessons on key themes (such as methodologies, payment mechanisms, social issues) and calculations of potential emissions savings, rather than on purely political considerations. However, political considerations must also be taken into account to ensure adequate support from the host country government and stakeholders.

The KFCP will be located in degraded and partially degraded peat swamp forest in Central Kalimantan. These forests contain very high carbon stocks, mostly in below-ground biomass. The exposed peat degrades rapidly particularly where drainage has caused drying of the upper soil and makes them fire-prone. Land clearing and fires in Indonesia‘s peatlands are a major source of global greenhouse gas emissions. Thus, halting or reversing deforestation and degradation offers a large potential for emission reductions, not only in the demonstration area, but throughout the peatlands of the region.

The site for the KFCP is a single peat dome of around 100,000 hectares. Water flows outward from the dome into the surrounding rivers, so the hydrology dictates a ”whole of dome‘ (or whole-of-ecosystem) approach to managing and conserving the peat swamp forest. Similarly, ecological criteria may (or may not) favour a whole ecosystem approach to reducing emissions from deforestation and forest degradation (REDD) in other forest types. Clearly, site-specific biophysical characteristics are of key importance in designing REDD interventions.

Identification of drivers of deforestation and forest degradation

The causes of deforestation and forest degradation that need to be addressed through specific interventions or strategies in a REDD demonstration activity are often quite site-specific and cannot necessarily be predicted in sufficient detail from national-level data and models of drivers. Site-specific causes and their effects vary according to biophysical conditions, social and economic factors in the local context and beyond it, and the history of forest exploitation in and around the site. Historical averages or trends may not be a reliable guide if they are overwhelmed by rare natural or anthropogenic disturbance.

If more general drivers of deforestation and forest degradation–such as illegal logging or agricultural expansion–are of interest, then sites and approaches for REDD demonstrations could also be selected with such drivers in mind.

Addressing specific drivers

Interventions can be grouped into two categories: those that address site-specific causes through direct mitigation measures and those that address more widespread or systematic causes through policy measures. Some threats need to be tackled in both ways.

For example in the KFCP, a direct, site-specific mitigation measure is canal-blocking to restore the hydrology of a peat dome that is suffering degradation from having been drained. Coordinated action by government agencies and others can address pervasive threats, such as preventing and suppressing illegal logging. Where small canals have been dug to illegally extract timber from the peat swamp forests, the two interventions (canal-blocking and prevention of illegal logging) need to work together.

Establishing national carbon accounting and monitoring systems

National carbon accounting and monitoring systems need to account for land use change both within and outside forest estates. This means that multiple agencies and all levels of government may need to provide inputs on a whole of government basis.

National carbon accounting and monitoring systems need to build on existing expertise and systems. They also must be designed to fit and serve national circumstances whilst satisfying international rules (that are yet to be designed for REDD) and meet market requirements. There is no ”one size fits all system‘ that can be imported from one country to another: each country needs to design their own system. For example, Indonesia possesses a great deal of technical expertise in the areas of remote sensing, geographic information systems, inventory taking and modelling. National systems should be developed in such a way as to build on the expertise of host countries.

Australia‘s approach has been to provide scientific, technical and analytical support for Indonesia‘s efforts to develop their own national carbon accounting and monitoring system. Australia is offering advice and assistance to Indonesia as they develop a blueprint on what the functions and performance characteristics should be for their system.

Australia is also offering Indonesia access to sources of data and specialist capability from around the world which Australia is brokering through its partnerships with key countries (such as Japan), international bodies (including the Global Earth Observation System Of Systems) and private organisations (such as the Clinton Climate Initiative). This is the model of partnership which Australia has with countries like Indonesia and China in developing their new generation forest monitoring and carbon accounting on which excellent progress has been made.

Leakage and demonstration activities

Leakage can be addressed locally in the area immediately surrounding the REDD activity, within a larger region such as a landscape or district, and nationally. To address leakage, the KFCP will trial investing locally in sustainable livelihoods that reduce dependence on the use of canals, fire, and land clearing. At a regional level the REDD activity will be implemented within a much larger development planning area covered by national and provincial spatial plans incorporating restrictions on forest conversion. At the national level, it will be designed to fit with national policies and frameworks. The National Carbon Accounting System for Indonesia will be able to identify leakage that may occur at local, regional and national levels.

Legal rights to forest carbon

Genuine and enforceable legal rights to forest carbon are fundamental to the success of a REDD demonstration activity. Rights can be established through a variety of systems, including carbon rights, land tenure arrangements or ownership of forest resources.

The KFCP is approaching this in the context of Indonesian forestry law, which grants or recognises particular types of forest use rights to landowners, forest-dependent communities, private companies, and other entities. This approach has the advantage of building on existing, well understood systems within a recognised legal framework.

Identification of capacity-building needs

The identification of capacity-building needs is best done in close consultation with the host country, at all levels of government.

In a remote area in a developing country, such as where KFCP will be implemented, local capacity is often severely limited. Conversely, local partners with strong ties to the land, may play a key role in gaining acceptance for REDD, in applying local knowledge, and in ensuring sustainability beyond the initial stages of project development. Local organisations may be best placed to deliver the necessary capacity-building at a grassroots level, but they in turn are likely to need technical and managerial support.

Sharing of lessons learned from demonstration activities

Because REDD policy development is in its early stages internationally, the sharing of lessons learned will contribute greatly to the progress of REDD. It will be important that all countries share their experiences. Australia and Indonesia encourage other countries to also provide lessons learned from demonstration activities and REDD activities more broadly (such as capacity building efforts or analytical work) to the UNFCCC.

Learning during the design and testing of an innovative approach such as REDD is bound to be uneven and somewhat unpredictable. It is important to establish good communications from an early stage within the design team, with key partners, and with a broader set of stakeholders that will eventually be needed to support and sustain the activity.

At the beginning of a REDD activity, understanding among key stakeholders of climate change and the role forests play in the carbon cycle is likely to be limited. Therefore, pro-active education and outreach about REDD is important from an early stage of the design, leading to a communications strategy to support the REDD demonstration activity.