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USAID INDONESIA FORESTRY AND CLIMATE SUPPORT PROJECT (USAID IFACS) ENVIRONMENTAL MITIGATION AND MONITORING PLAN

MAY 2011

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SUPPORT PROJECT
(USAID IFACS)
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DISCLAIMER

The author's views expressed in this publication do not necessarily reflect the views of the United States Agency for International Development or the United States Government.

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ACRONYMS AND ABBREVIATIONS

AMCHAM	American Chamber of Commerce
BMP	Best Management Practice
CC	Climate Change
CD	Community Development Specialist
CE	Categorical Exclusion
CO	Communication and Outreach Specialist
CoP	Chief of Party
DCA	Developmental Credit Authority
ECA	Environmental Compliance Advisor
EIA	Environmental Impact Assessment
EMMP	Environmental Mitigation and Monitoring Plan
ETD	Environmental Threshold Decision
FBCC	Forest, Biodiversity, and Climate Change Advisor
FMU	Forest Management Unit
FOREST	Forest Resource Sustainability Program
FP	Field Partner
FTF	Forest Trade and Finance Advisor
FY	Fiscal Year
GHG	Greenhouse Gas
GIS	Geographic Information System
GO	Grants Officer
GOI	Government of Indonesia
HCVF	High Conservation Value Forest
IBG	Institution Building and Governance Advisor
IEE	Initial Environmental Examination
IFC	International Finance Corporation
LEDS	Low Emissions Development Strategy
M&E	Monitoring and Evaluation

NDw/C	Negative Determination with Conditions
NGO	Nongovernmental Organization
OpM	Operations Manager
PMP	Performance Monitoring Plan
PES	Payment for Environmental Services
RM	Regional Manager
ROI	Return on Investment
SPS	Spatial Planning Specialist
T	Training Specialist
TA	Technical Assistance
TC	Technical Coordinator
TS	Technical Specialist
USAID	United States Agency for International Development
USAID IFACS	USAID Indonesia Forestry and Climate Support Project
USFS	United States Forest Service
USG	United States Government
V&A	Vulnerability and Adaptation

INTRODUCTION

This Environmental Mitigation and Monitoring Plan (EMMP) is submitted for the USAID Indonesia Forestry and Climate Support Project (USAID IFACS), Task Order AID-497-TO-11-00002, under the Prosperity, Livelihoods, and Conserving Ecosystems Indefinite Quantity Contract, Contract EPP-1-00-06-0008. It was developed subsequent to the first year Work Plan (for Fiscal Year 2011) and in conjunction with the Performance Monitoring Plan. This EMMP provides a framework within which USAID IFACS will address environmental mitigation and monitoring as the project evolves over time.

This EMMP builds upon the Indonesia Forest Resource Sustainability Program (FOREST) Initial Environmental Examination (IEE) and Environmental Threshold Decision (ETD), and defines in practical terms how USAID IFACS will implement the conditions of the IEE in order to mitigate and monitor environmental impacts. Given the structure and content of the IEE/ETD, it is worth noting the following impacts on the development of this EMMP:

- The IEE/ETD was developed at the “program level,” which is broader than the USAID IFACS Project. As the first three components of FOREST, as defined in the IEE, correlate to the three program components of USAID IFACS (the fourth component of USAID IFACS is focused on coordination and management), they were the focus of this EMMP.
- While the IEE/ETD included both (i) Categorical Exclusion (CE) and (ii) Negative Determination with Conditions (NDw/C), the “conditions” were not tied to USAID IFACS components. Instead, the IEE/ETD includes a long list of sectors (termed “activities” in the IEE/ETD) that were subject to the NDw/C. As a result, the development of the EMMP first analyzed all USAID IFACS activities to determine which should be subject to a CE or an NDw/C (see the table in Section 3). In keeping with USAID guidance on the development of EMMPs, only those activities assessed to receive an NDw/C were included in the subsequent EMMP tables.
- The FOREST IEE/ETD (Annex 1) included a list of “activities that cannot be supported.” Given the scope of USAID IFACS, two of activities on this list may cause problems for implementation, and as such are flagged below:
 - Industrial-level plant production or processing (this does not include community or regional greenhouses aimed at restoring areas after fires); and
 - Cutting of trees over 20cm in diameter at breast height, especially tropical trees, except as needed to control disease or maintain forest health.

Section 1.0 of this EMMP provides an overview of the USAID IFACS Project, including the environmental compliance-related contractual requirements, and defines environmental mitigation and monitoring. Section 2.0 presents the general roles and responsibilities of USAID IFACS staff for ensuring environmental compliance. Section 3.0 presents all the project activities and the determinations assumed in the development of this EMMP. Section 4.0 analyzes all project activities associated with conditions, and sections 5.0 and 6.0 describe the potential environmental impacts and define mitigation measures and monitoring requirements. As noted in the USAID IFACS contract, the EMMP must be updated annually. Future updates of the EMMP will be conducted concurrently with the Annual Work Plans and PMPs. This coordination will ensure that environmental mitigation and monitoring are actively considered and integrated as the direction of USAID IFACS evolves and specific activities begin to take shape.

1.0 OVERVIEW OF USAID IFACS AND THE EMMP

1.1 USAID IFACS PROJECT OVERVIEW

The purpose of USAID Indonesia Forestry and Climate Support Project (USAID IFACS) is to support USAID Indonesia's Country Program Strategy 2009–2014, Objective 2, Sustainable Management of Natural Resources, Intermediate Result 1, Improved Management of Forest Ecosystems. USAID IFACS seeks to reduce the threats of deforestation and climate change, and help the Government of Indonesia (GOI) conserve the country's tropical forests, wildlife, and ecosystem processes (including carbon sequestration).

The Overall Results required by the end of the IFACS project are:

- A 50 percent reduction in the rate of forest degradation and loss from conversion, illegal extraction, over-harvesting, and fires for at least six million hectares of tropical forest located within targeted landscapes from the baseline;
- The improved management of at least 3.5 million hectares of selected High Conservation Value Forest (HCVF) tropical forest in targeted landscapes, including 1.7 million hectares of priority orangutan habitat;
- Changes in land use practices and improved forestry management within targeted landscapes result in a 50 percent reduction in greenhouse gas (GHG) emissions based upon agreed upon calculations;
- At least half of local professional government staff directly involved in management of targeted landscapes receive substantial training in a landscape-level approach to spatial planning and sustainable economic development;
- At least a 20 percent increase in financial resources for forest management, increased transparency, and access to information strengthening capacity of government, civil society, and the private sector for conservation and sustainable management of forest resources, biodiversity, and ecosystem services at targeted landscapes; and
- Low carbon growth development strategies piloted at the local level in at least eight districts located within targeted landscapes.

USAID IFACS includes four components. Each component and its associated objectives are described below.

1.1.1 Component 1: Land and Forest Resource Governance

Objective: *Strengthen natural resource governance capacity in target district governments through improvements in multi-stakeholder spatial and development planning that enhance forest management and conservation and support mitigation of, and adaptation to, climate change. Strengthen capacity for enforcement of laws related to forests and biodiversity.*

1.1.2 Component 2: Improved Management and Conservation of Forest Resources and Conservation of Forest Resources in a Changing Climate

Objective: *To reduce threats that both currently directly degrade Indonesian forests and that indirectly contribute to this degradation. Determine the vulnerability of forests to climate change and assist communities adapt and respond to such change.*

1.1.3 Component 3: Private Sector, Local Enterprise, and Market Linkages

Objective: *To improve private sector investment strategies and environmental management practices in extractive natural resources industries to reduce deforestation/degradation and related climate change and biodiversity impacts. Support private sector commitment to sustainable development within the paradigm of Profit, People, and Planet as a key component of a Low Emissions Development Strategy (LEDS) in target districts, using investment incentives, access to information and knowledge (best management practices [BMPs]), technology, and market linkages. Facilitate the adoption of low carbon/high-value livelihood options that increase incomes at the community level.*

1.1.4 Component 4: Project Coordination and Management

Objective: *To report on USAID IFACS performance and finances, and coordinate work planning and monitoring across USAID/Indonesia's portfolio of forest-related activities. Identify potential synergies and coordinate activities to the extent possible. Support outreach to GOI counterparts and other organizations working on sustainable forest management and conservation and climate change aspects of forests.*

USAID IFACS addresses a number of cross-cutting issues, which include:

- Spatial analysis and planning to impact land allocation and land use decisions that have the greatest effect on forest integrity—including collaboration with US Government (USG) agencies such as the US Forest Service (USFS), as well as GOI, donor, and nongovernmental organization (NGO) partners;
- Use of BMPs to implement sustainable forest management practices, conserve HCVF forests and their biodiversity, and mitigate impacts of climate changes and wild fires;
- Community engagement, particularly toward building community capacity to manage forest resources effectively and sustainably;
- Development and implementation of LEDS;
- Gender and social inclusion;
- Capacity building through use of formal and informal training and multi-stakeholder fora;
- Sustainability and replication, including specific actions to ensure active replication beyond target sites, especially to build low carbon economies;
- Development of a communication strategy through the use of social marketing techniques to change perceptions, attitudes, and norms in each target landscape;
- Economic incentives;
- Avoidance of deforestation and forest degradation;
- New environmental market financing mechanisms;
- Creation and strengthening of multi-stakeholder fora, multi-village associations, community forestry management committees, and existing institutions at the district, community, and civil society levels; and
- Improvements in policy and law.

The Work Plan for Fiscal Year (FY) 2011, submitted to USAID in March 2011, describes the overall implementation strategy for USAID IFACS and details the implementation approach and planned activities for the four components and cross-cutting activities described above. All activities required in the contract are included, although some will not commence until FY 2012. The Work Plan also notes that an integrated work plan will be developed for each target district after their selection.

1.2 USAID IFACS ENVIRONMENTAL COMPLIANCE-RELATED CONTRACT REQUIREMENTS

The structure and content of this EMMP are based on the requirements stipulated in the USAID IFACS contract, and further documented in the Indonesia Forest Resource Sustainability Program (FOREST) Initial Environmental Examination (IEE)/Environmental Threshold Decision (ETD). For ease in review/use, the most pertinent sections of the USAID IFACS contract are included below (sections C.4, F.2.4, F.2.5, and H.3).

C.4 Prohibition on the Use of Contract Funds

Except as specifically authorized in Special Provisions (Section I, XVI), consistent with U.S. law, the Contractor ***is prohibited from using any funds under this Contract, directly or indirectly, to support industrial-scale logging or other industrial-scale resource extraction or sector reform that would promote these activities.*** The restriction on the use of Contract applies specifically to industrial-scale logging in natural tropical forests; it does not apply to tree plantations or forestry activities intended to benefit local communities.

Under this Contract, the phrase “supporting or promoting industrial-scale logging” refers to activities intended to subsidize or favor the progression or expansion of industrial-scale logging, directly and indirectly. The “support or promotion” of an activity refers to the subsidization of operations such that the cost of implementing forestry activities is mitigated. This would include covering required costs of forestry operations such as environmental impact assessment (EIA) or related costs or the cost of implementing required mitigation actions under an EIA. Development or training in best forest management practices, tools, or other similar initiatives, such as sector reform, does not constitute support or promotion of industrial-scale logging. Land planning programs that assist with sound planning of forest conservation and forest concessions do not promote or support industrial-scale logging *unless the intent of the assistance is specifically to substantially increase the covered area of industrial-scale forest concessions.* The purpose of land use planning, land tenure reform, conservation initiatives and other similar policy initiatives is to support and promote forest conservation and is not considered to promote or support industrial-scale logging. Likewise, timber tracking to identify, prevent and combat illegal logging and information outreach regarding the US Lacey Act and Indonesian laws which USAID determines address a similar purpose are not considered to promote or support industrial-scale logging. Any question concerning the application of this restriction must be directed to the USAID Contracting Officer prior to the commitment or expenditure of any Contract funds. In this situation, only those activities or expenditures specifically authorized by the USAID Contracting Officer shall be considered allowable costs under this Contract.

F.2.4 Performance Monitoring Plan (PMP) and Indicators

The Contractor will explain how it will measure impact in the targeted areas, including specifying draft indicators and component targets. Innovative approaches and creative technologies to monitor and track the project progress and achievements are encouraged. The PMP will include both USAID Standard Foreign Assistance indicators as well as any customized indicators necessary to adequately track progress and impact of activities. *The PMP will incorporate indicators for environmental monitoring as needed for*

compliance with Reg. 216. Initial results targets specified in Section C will be reviewed annually. The PMP will be in English, but the Executive Summary and Indicator Targets will also be translated into Bahasa Indonesia. Baseline data required for the PMP shall be collected during the first 80 days following Task Order Award.

F.2.5 Environmental Mitigation and Monitoring Plan

The Contractor shall prepare an environmental mitigation and monitoring plan (EMMP) describing how the Contractor will, in specific terms, implement all IEE conditions that apply to proposed project activities within the scope of the award. The EMMP shall include monitoring the implementation of the conditions and their effectiveness. The EMMP shall be integrated into the Performance Management Plan, the initial Work Plan, and subsequent Annual Work Plans, with any necessary adjustments to activity implementation in order to minimize adverse impacts to the environment. The EMMP will be in English and translated into Bahasa Indonesia.

H.3 Environmental Compliance

The Foreign Assistance Act of 1961, as amended, Section 117 requires that the impact of USAID's activities on the environment be considered and that USAID include environmental sustainability as a central consideration in designing and carrying out its development programs. This mandate is codified in Federal Regulations (22 CFR 216) and in USAID's Automated Directives System (ADS) Parts 201.5.10g and 204 (<http://www.usaid.gov/policy/ads/200/>), which, in part, require that the potential environmental impacts of USAID-financed activities are identified prior to a final decision to proceed and that appropriate environmental safeguards are adopted for all activities. The Contractor's environmental compliance obligations under these regulations and procedures are specified in the following paragraphs.

An environmental review of the Indonesia Forest and Climate Support Project (IFACS) was undertaken and an Initial Environmental Examination (IEE) was prepared by the Mission on January 5, 2010, and the Threshold Decision was issued by the Bureau Environmental Officer on January 13, 2010. The determinations of the IEE and Threshold Decision for IFACS are:

- A Categorical Exclusion pursuant to 22 CFR 216.2(c) (2) (i), has been approved for all education, technical assistance, and training programs for IFACS, except to the extent such programs include activities directly affecting the environment. Categorical Exclusions were also approved for: all targeted and controlled research (22 CFR 216.2(c)(2)(iii)); analyses, studies, academic or research workshops and meetings (22 CFR 216.2(c)(2)(ii)); document and information transfer (22 CFR 216.2(c)(2)(vi)), studies and development planning capacity building activities (22 CFR 216.2(c)(2)(xiv)), except to the extent such programs include activities directly affecting the environment; and for all activities which involve the application of design criteria or standards developed and approved by A.I.D.
- A Negative Determination with Conditions, pursuant to 22 CFR 216.3 (a)(3)(iii) has been approved for activities including small-scale fieldwork, land/forest rehabilitation, agro forestry, agriculture, livestock and fisheries, micro-enterprise and micro-finance, eco-tourism, fire management, non-environmental policy, market linkages, small scale energy, small scale infrastructure or building, non-timber forest product harvesting and rehabilitation, water resource management, park rehabilitation, identification, and promotion and implementation of Best Management Practices (BMP) that are determined to have direct or indirect impact on the natural and physical environment. The conditions specified in draft Sector Specific Guidelines for Asia and the Near East should be followed for all activities. The following website provides these guidelines:
http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines.htm

In addition, all activities that warrant a Negative Determination with Conditions, must meet the following conditions:

- An Environmental Mitigation and Monitoring Plan (EMMP) must be developed and approved by the MEO prior to commencement of activities, and monitoring and mitigation activities must be incorporated into Annual Work Plans and Performance Management Plans.
- The EMMP shall be updated annually in consultation with the TOCOTR.
- Quarterly and Annual Performance Reports will include a section dealing with Environmental Compliance that provides details on indicators, mitigation efficacy, and unintended environmental consequences of activities.

If the Contractor plans any activities outside the scope of the approved Regulation 216 environmental documentation, or finds that activities are having unexpected significant adverse environmental impacts, it shall prepare an amendment to the documentation for USAID review and approval. No such activities shall be undertaken prior to receiving written USAID approval of environmental documentation amendments.

The Contractor must comply with host country environmental regulations unless otherwise directed in writing by USAID. In case of conflict between host country and USAID regulations, the latter shall govern.

1.3 ENVIRONMENTAL MITIGATION AND MONITORING PLAN

The goals and processes for environmental mitigation and monitoring have been clearly defined by USAID. This document, including all definitions, builds directly upon USAID's most up-to-date guidance on the development and implementation of EMMPs.¹

Environmental mitigation, defined as *the implementation of measures designed to reduce the undesirable effects of a proposed action on the environment*, is central to the environmental compliance process, and is essential to achieving environmentally sound activity design and implementation.

Mitigation can reduce impacts in three ways:

1. Prevention and control measures,² which fully or partially prevent an impact/reduce a risk by:
 - Changing means or technique;
 - Changing the site; or
 - Specifying operating practices;
2. Compensatory measures, which offset adverse impacts in one area with improvements elsewhere; and
3. Remediation measures, which repair or restore the environment after damage is done.

Prevention of impacts by changes to activity design, site, or technique is the most reliable approach to mitigation.

¹ Recent guidance documents include: "Environmental Procedures Training Manual," "Introduction to Environmental Mitigation and Monitoring Plans," and "Environmental Guidelines for Small-Scale Activities in Asia."

² Prevention of impacts by changes to activity design, site, or technique is the most reliable approach to mitigation; as such, this EMMP gives preference to prevention and control measures.

Environmental monitoring is defined as:

- *The systematic measurement of key environmental indicators over time, within a particular geographic area; and*
- *The systematic evaluation of the implementation of mitigation measures.*

Environmental monitoring is a necessary complement to mitigation, and should be a normal part of monitoring project results.

This EMMP defines environmental mitigation and monitoring for the USAID IFACS Project, and builds directly on the FOREST IEE and ETD.

In terms of mitigation, this plan defines

- What and Why:
 - What are the significant impacts that need to be mitigated?
 - For each significant impact, what are the proposed mitigation measures?
- Who:
 - Who carries out mitigation measures? Who manages or verifies?
- When:
 - At what stage in the project cycle is each measure implemented?
 - Is there adaptive mitigation?
- With what resources:
 - What is the budget? Who pays?

In terms of monitoring, this plan defines

- What:
 - What are the indicators?
- Why:
 - Why each indicator—what is the purpose of each indicator?
- When and How:
 - When and how will indicators be measured? How will the information be analyzed?
- Who:
 - Who monitors? Who analyzes? Who reports? Who receives the information?
- With what resources:
 - What is the budget? Who pays?

Mitigation and monitoring are a critical part of environmentally sound design and implementation. Mitigation minimizes adverse environmental impacts. Monitoring assesses whether the mitigation measures are sufficient and effective.

To be effective, mitigation and monitoring must be:

- **Realistic:** Mitigation and monitoring must be achievable within time, resources, and capabilities.
- **Targeted:** Mitigation measures and indicators must correspond to impacts.
- **Funded:** Funding for mitigation and monitoring must be adequate over the life of the activity.
- **Considered Early:** Preventive mitigation is usually cheapest and most effective form of mitigation, but prevention must be built in at the design stage.

2.0 ROLES AND RESPONSIBILITIES

USAID IFACS proposes the following personnel to meet USAID environmental compliance requirements:

1. Chief of Party (CoP)
2. Senior Technical Advisor (STA/M)
3. Grants Officer (GO)
4. Operations Manager (OpM)
5. Regional Managers (Aceh, West Kalimantan, Central Kalimantan, Jayapura, and Timika) (RMs)
6. Technical Specialists (TSs):
 - Forest, Biodiversity, and Climate Change Advisor (FBCC)
 - Forest Trade and Finance Advisor (FTF)
 - Institution Building and Governance Advisor (IBG)
 - Spatial Planning Specialist (SPS)
 - Geographic Information System (GIS) Specialist
 - Monitoring and Evaluation (M&E) Specialist
 - Communication and Outreach Specialist (CO)
 - Community Development Specialist (CD)
 - Training Specialist (T)
7. Field Partners (FPs) have not yet been selected.
 - CHIEF OF PARTY

The CoP has ultimate responsibility for ensuring that the USAID IFACS Project EMMP is implemented appropriately and in a timely fashion.

- SENIOR TECHNICAL ADVISOR

The STA/M, based in the home office, provides technical assistance to the project. The STA/M is responsible for developing the EMMP in coordination with project staff, and for implementation oversight, including the development and delivery of environmental compliance training for USAID IFACS staff. The STA/M will provide additional guidance and analytical or design input on an as-needed basis.

- MONITORING AND EVALUATION SPECIALIST

The M&E Specialist oversees the implementation of the EMMP, in coordination with the STA/M and GO. The M&E Specialist leads efforts to assure implementation and monitors efforts, and is responsible for training staff. Based upon the data received from the FTF, RMs, and FBCC, the M&E Specialist

produces quarterly environmental monitoring reports in concordance with USAID's reporting schedule. The STA/M and GO assist the M&E Specialist in preparing and reviewing these reports,.

- GRANTS OFFICER

The GO screens grant and subcontractor activities using the Environmental Review Forms; prepares the Environmental Review Reports in consultation with the TSS, RM, and M&E Specialist; and monitors environmental compliance of grantees.

- OPERATIONS MANAGER

The OpM ensures that appropriate legal clauses are inserted into subcontracts and grants, and reviews contractual compliance.

- REGIONAL MANAGERS

The RMs are responsible for ensuring environmental mitigation and monitoring in the field, in coordination with the TSs and FPs. Simple checklists and forms (provided by the M&E Specialist) are used to collect data. The completed paperwork is then forwarded onto the M&E Specialist and GO for review on a quarterly basis.

- TECHNICAL SPECIALISTS

The TSs are responsible for supporting environmental mitigation and monitoring in the field, in coordination with the RMs and FPs.

- FIELD PARTNERS

The FPs will be comprised of farmers, traders, professional organizations, agribusiness companies, and subcontractors. Grants and subcontracts awarded through USAID IFACS will include EMMP tasks in their scopes of work. Technical assistance to the FP will be provided by the GO, TSs, and RMs.

3.0 SUMMARY ENVIRONMENTAL REVIEW OF USAID IFACS ACTIVITIES

While the IEE/ETD included both (i) Categorical Exclusion (CE) and (ii) Negative Determination with Conditions (NDw/C), the “conditions” were not tied to USAID IFACS components. Instead the IEE/ETD includes a long list of sectors (termed “activities”) that were subject to the NDw/C. As a result, the development of the EMMP first required a review of all USAID IFACS activities to determine whether an activity should be subject to a CE or an NDw/C. The results of this review are included in Table 1. In keeping with USAID guidance on the development of EMMPs, subsequent sections of this EMMP focus only on those activities assessed to receive an NDw/C.

Table 1. Review of USAID IFACS activities to determine those that were subject to NDw/C

ACTIVITY	SUB-ACTIVITY	IEE/ETD ³ (CE OR NDw/C)	REFERENCE
COMPONENT 1: LAND AND FOREST RESOURCE GOVERNANCE			
1.1. Conduct analyses required to inform spatial planning and land use decisions			
	1.1.1–1.1.7. Conduct activities re spatial plan policies, perverse consequences, ecological appropriateness, Forest Management Units (FMUs), climate change (CC) Vulnerability and Adaptation assessments (V&As), strategic environmental assessments, etc.	CE	216.2(c)(2)(iii)
	1.1.8. Identify low carbon options for development for target landscapes	CE	216.2(c)(2)(xiv)
	1.1.9. Analyze costs and benefits of various LEDS options in target landscapes	CE	216.2(c)(2)(xiv)
1.2. Facilitate government institutional coordination and policymaking			
	1.2.1. Provide technical assistance (TA) for budget planning to incorporate allocation for land use and forest resource governance to be scheduled for Musrenbangda for FY12	CE	216.2(c)(2)(iii)
	1.2.2–1.2.5. Incorporate LEDS into REDD Task Force activities, encourage transparent spatial planning, incorporate CC adaptation and mitigation on spatial planning, and assist Musrenbangda budget planning re land use and forest governance	CE	216.2(c)(2)(i)
1.3. Train government officials, NGOs, and community members in relevant aspects of spatial planning, landscape approaches, carbon finance, and CC mitigation and adaptation			
	Work plan activities 1.3.1–1.3.7	CE	216.2(c)(2)(i)
1.4. Enhance investigative and forensic capabilities of law enforcement			
	1.4.1–1.4.5. Support USFS and Department of Justice (forensic methodologies, community involvement in wildlife crime enforcement)	CE	216.2(c)(2)(i)
1.5. Facilitate implementation of spatial and land use plans through technical and financial assistance, monitoring, and information access			
	1.5.1. Provide TA to ensure concordance between existing spatial plans and district development plans	CE	216.2(c)(2)(i) 216.2(c)(2)(xiv)
	1.5.2. Assist development of these plans through TA, training, GIS support, and multi-stakeholder participation	NDw/C	216.3(a)(2)(iii)
	1.5.3. Assist implementation of these plans through TA and provision of inputs, such as equipment or supplies	NDw/C	216.3 (a)(2)(iii)
	1.5.4. Provide TA to assist districts' BAPPEDA to identify budget and resources needed to implement spatial plan	NDw/C	216.3 (a)(2)(iii)

³ CE = Categorical Exclusion, NDw/C = Negative Determination with Conditions

ACTIVITY	SUB-ACTIVITY	IEE/ETD ³ (CE OR NDw/C)	REFERENCE
	1.5.5. Provide TA to support districts' BAPPEDA monitoring system	CE	216.2(c)(2)(xiv)
COMPONENT 2 : IMPROVED MANAGEMENT AND CONSERVATION OF FOREST RESOURCES IN A CHANGING CLIMATE			
2.1. Build local awareness, capacity, and support for a landscape approach to forest conservation management and climate change in target landscapes			
	2.1.1–2.1.11 and 2.1.13. Site selection, baseline surveys, CC V&A, training (CC, FMUs, Social and Environmental Assessments, behavioral change communications, landscape scale conservation, and development of local collaborative management structures for protected areas and their buffer zones)	CE	216.2(c)(2)(xiv)
	2.1.12. Institutionalize training in the landscape approach to forest management and climate change mitigation through local partnerships	CE	216.2(c)(2)(xii)
2.2. Increase private sector understanding and compliance with the US Lacey Act and support Indonesia's "legality standard" for its timber exports			
	2.2.1. Disseminate information regarding the US Lacey Act and GOI legality standard	CE	216.2(c)(2)(v)
	2.2.2. Promote market mechanisms that comply with US Lacey Act and GOI legality standard	NDw/C	216.3(a)(2)(iii)
	2.2.3. Provide TA to private sector to increase compliance with US Lacey Act and GOI legality standard	NDw/C	216.3(a)(2)(iii)
2.3. Increase adoption of BMPs in forest management by all major stakeholders			
	2.3.1–2.3.11. Modify existing BMPs and assist implementation of BMPs in selected concessions and villages	NDw/C	216.3(a)(2)(iii)
2.4. Implement a landscape approach to forest management in IFACS landscapes			
	2.4.1. Identify both areas of HCVF and high threats throughout the 8 landscapes and map areas of high priority for conservation interventions in 8 landscapes	NDw/C	216.3(a)(2)(iii)
	2.4.2. Work with government spatial planners to accommodate areas of high priority for conservation in their plans	NDw/C	216.3(a)(2)(iii)
	2.4.3. Develop, through established collaborative management structures, action plans to conserve priority areas in 8 landscapes (with USFS in lead, will include a pilot study by USFS to improve local decision making and spatial planning at one selected USAID IFACS site)	NDw/C	216.3(a)(2)(iii)

ACTIVITY	SUB-ACTIVITY	IEE/ETD ³ (CE OR NDw/C)	REFERENCE
	2.4.4. Increase fire prevention and management capacity in target landscapes	NDw/C	216.3(a)(2)(iii)
	2.4.5. Increase adaptation to climate change in target landscapes. This involves forest management, livelihoods, and development/spatial planning. <ul style="list-style-type: none"> • Establish plots with local partners by USFS Northern Research Station (in lead) to measure, monitor, and report carbon from peat lands and associated ecosystems • Contribute to the proposed USFS (in lead) sponsored Indonesian CC Center (training trainers and developing Indonesian training plan and curriculum adapted from University of California, Davis International Seminar on Natural Resources and CC) • Modify and conduct training in use of the Agricultural and Land Use National GHG inventory software (ALU) by USFS staff, to include increasing capacity for modeling CC (training in modeling) by USFS staff at USAID IFACS site 	NDw/C	216.3(a)(2)(iii)
	2.4.6. Increase reforestation in degraded lands and in “critical ecosystems” in target landscape	NDw/C	216.3(a)(2)(iii)
	2.4.7. Increase capacity of government, private sector, and communities to prevent illegal harvesting or conversion in target landscape	CE	216.2(c)(2)(xiv)
COMPONENT 3: PRIVATE SECTOR, LOCAL ENTERPRISE, AND MARKET LINKAGES			
3.1. Engage private sector at landscape sites			
	3.1.1. Develop partnerships at sites as appropriate with Roundtable on Sustainable Palm Oil (RSPO), mining and timber associations	CE	216.2(c)(2)(xiv)
	3.1.2. Conduct due diligence on potential corporate partners	CE	216.2(c)(2)(iii) 216.2(c)(2)(xiv)
	3.1.3. Obtain specific corporate commitments re BMPs, implementation of BMPs (including compliance with standards of legality and sustainability, tracking systems for supply chains, development of linkages to markets, analysis of local products that have export potential, and assistance with product improvement)	NDw/C	216.3(a)(2)(iii)
3.2. Implement Low Carbon Development Plans			
	3.2.1. Increase access to funding for LEDS through Developmental Credit Authorities (DCAs)/other funding mechanisms	NDw/C	216.3(a)(2)(iii)
	3.2.2. Conduct initial assessment of needs, opportunities, and constraints related to LEDS in each	CE	216.2(c)(2)(xiv)

ACTIVITY	SUB-ACTIVITY	IEE/ETD ³ (CE OR NDw/C)	REFERENCE
	target district)
	3.2.3. Identify financial and technical needs to implement LEDS throughout each target landscape	CE	216.2(c)(2)(xiv))
	3.2.4. Conduct analytical studies to remove market and technological barriers. Market access for products from coastal and inland communities must be analyzed. Introduction of a simple ice-making facility may help fishermen in coastal area to preserve fishery products a bit longer for shipment to better market. For inland agricultural products, TA in proper post-harvest handling and improved drying technology could improve marketability of semi-processed products.	CE and NDw/C; study is CE, TA is NDw/C	216.2(c)(2)(iii) 216.3(a)(2)(iii)
	3.2.5. Make recommendation on removal of market barriers and introduction of appropriate technology required to overcome technological barriers	NDw/C	216.3(a)(2)(iii)
	3.2.6. Identify and promote economic alternatives to oil palm in all 3 landscapes	NDw/C	216.3(a)(2)(iii)
	3.2.7. Socialize/communicate agro- and non-agro products as alternative to oil palm to stakeholders	NDw/C	216.3(a)(2)(iii)
	3.2.8. Facilitate TA and financing for off-grid clean energy (renewable)	NDw/C	216.3(a)(2)(iii)
	3.2.9. Regional teams/consultants to conduct survey on potential sources and sites for renewable energy project/s	NDw/C	216.3(a)(2)(iii)
	3.2.10. Based on feasibility study, regional teams/ consultants assist to prepare business/project proposal detailing investment and working capital requirements and return on investment (ROI) analysis	NDw/C	216.3(a)(2)(iii)
	3.2.11. Project proposal/s are presented to potential investors/creditors	NDw/C	216.3(a)(2)(iii)
	3.2.12. Provide TA to local governments to implement LEDS (see CP1)	NDw/C	216.3(a)(2)(iii)
	3.2.13. Conduct initial assessment of needs, opportunities, and constraints related to LEDS in each target district	NDw/C	216.3(a)(2)(iii)

ACTIVITY	SUB-ACTIVITY	IEE/ETD ³ (CE OR NDw/C)	REFERENCE
	3.2.14. Identify financial and technical needs to implement LEDS throughout each target landscape	NDw/C	216.3(a)(2)(iii)
	3.2.15. Facilitate LEDS implementation in 3 phases	NDw/C	216.3(a)(2)(iii)
3.3. Develop private community partnerships for forest management that generate income opportunities for local communities			
	3.3.1. Increase production of high value agricultural crops	NDw/C	216.3(a)(2)(3)
	3.3.2. Independent agronomists to conduct comprehensive analysis on compatibility of soil, seeds/seedling, fertilizers, and farming methods	CE	216.2(c)(2)(iii)
	3.3.3. Consultant agronomists to collaborate with leading farmers to develop improved organic agricultural practices in demonstration plots	NDw/C	216.3(a)(2)(iii)
	3.3.4. Group or individual farmers to adopt new methods on their own farms	NDw/C	216.3(a)(2)(iii)
	3.3.5. Regional teams/consultants to conduct analysis of value chains at site level and develop action plans	Analysis is CE; action plan is NDw/C	216.2(c)(2)(iii) 216.3(a)(2)(iii)
	3.3.6–3.3.8. Remove inefficiencies in value chains, improve processing or marketing enterprises, and diversify income opportunities	NDw/C	216.3(a)(2)(iii)
	3.3.9. Enhance business skills in local communities. T will identify and revise accordingly training packages developed by previous small and medium enterprise development programs, i.e., Business Edge and PEAC Toolkits	CE	216.2(c)(2)(i)
	3.3.10. Improve financial access through micro-credit and develop opportunities for gender development (i.e., Grameen)	NDw/C	216.3(a)(2)(iii)
	3.3.11–3.3.13. Identify GOI-supported micro-credit schemes, and conduct training for microfinance	CE	216.2(c)(2)(i) 216.2(c)(2)(xiv)
	3.3.14. Provide for sustainable livelihoods to local communities (particularly in agriculture and agro-forestry)	NDw/C	216.3(a)(2)(iii)

ACTIVITY	SUB-ACTIVITY	IEE/ETD ³ (CE OR NDw/C)	REFERENCE
3.4. Develop and implement sustainable financing mechanisms (e.g., carbon financing) at target landscape sites to support spatial plan			
	3.4.1. Investigate options for use of sustainable financing mechanisms (e.g., carbon finance, other forms of payment for environmental services [PES] and trust funds) for both local communities and private sector companies	CE	216.2(c)(2)(iii)
	3.4.2. Facilitate implementation of sustainable financing mechanisms (e.g., carbon finance)	NDw/C	216.3(a)(2)(iii)
	3.4.3. Support implementation of spatial plans	NDw/C	216.3(a)(2)(iii)
3.5. Increase application of investment screening tools based on environmental criteria as a Best Management Practice by banks and other financial institutions to assess investment risk, company performance, and project viability			
	3.5.1. Increase application of investment screening tools to assess investment risk, company performance, and project viability with respect to impacts on forests, biodiversity, forest services, and forest-related GHG emissions	NDw/C	216.3(a)(2)(iii)
	3.5.2. Workshop sponsored by USAID IFACS, DNPI, IFC/ WBG, Banks' Associations, BKPM, and AMCHAM to garner support from investment community on adoption of sustainable screening tools	CE	216.2(c)(2)(i) 216.2(c)(2)(xiv))
	3.5.3. Assist banks/financial institutions to incorporate deforestation risks into concessionaire's loans based on screening tool provided by USAID	NDw/C	216.3(a)(2)(iii)

4.0 POTENTIAL ENVIRONMENTAL IMPACTS/ISSUES & MITIGATION RESPONSES

USAID IFACS was designed to improve forest management by addressing the threats of deforestation and climate change. The project orientation internalizes a number of approaches and practices that can help prevent adverse environmental impacts (including active community participation/engagement and the strategic use of geospatial technologies). Nonetheless, like all development activities, USAID IFACS has the potential to result in adverse environmental impacts. In this section of the EMMP we describe the potential negative environmental impacts associated with each activity assigned a NDw/C (in Section 3), identify other issues that warrant special attention in the design and implementation of the activity, and discuss mitigation measures.

4.1 COMPONENT 1: LAND AND FOREST RESOURCE GOVERNANCE

Activity 1.5. Facilitate Implementation of Spatial and Land Use Plan through Technical and Financial Assistance

Potential Major Environmental Impacts: Spatial planning involves trade-offs in land use and management, which may have known or unintended negative environmental impacts. This includes the zonation of tropical forest for conversion, use practices that are not compatible with high conservation value areas, and potential environmental degradation of lands and water bodies from industrial pollution. As a result, potential negative environmental impacts include forest conversion and degradation, loss of biodiversity, pollution, soil erosion, and reductions in water quality and/or abundance.

Mitigation:

1. Work with local government to incorporate consideration of these potential impacts into the zonation and permitting process. –
2. Help establish a transparent process to annually review spatial plans and establish a feedback mechanism to agencies that regulate implementation of spatial plans.

4.2 COMPONENT 2: IMPROVED MANAGEMENT AND CONSERVATION OF FOREST RESOURCES IN A CHANGING CLIMATE

Activity 2.2. Increase Private Sector Understanding and Compliance with Lacey Act and Support Indonesia’s “Legality Standard” for its Timber Exports

Potential Major Environmental Impacts:

The Lacey Act (16 U.S.C 3371 *et seq.*) as amended makes it unlawful to import, export, transport, sell, receive, acquire, or purchase in interstate or foreign commerce any plant, with some limited exceptions,

taken or traded in violation of the laws of the United States, a US state, or a foreign country. Increasing the capacity for traders to comply with the act may increase market size, which could lead to leakage (illegal harvesting for local demand, while legal logs are exported). This may result in overharvesting, increased forest degradation and/or conversion, loss of biodiversity, and increased greenhouse gas emissions.

Mitigation: Assist companies to learn about the Lacey Act and comply with its requirements by incorporating traceability and adequate due diligence into their systems to ensure legal sourcing of material. Work with agencies enforcing forestry laws and regulations to prevent leakage in illegal demand to other areas.

Activity 2.3. Increase Adoption of BMPs in Forest Management by All Major Stakeholders

Potential Major Environmental Impacts:

Poor modification, and or incorrect application of BMPs may result in negative environmental impacts, such as over-harvesting, soil erosion, pollution, hydrological disturbances, loss of biodiversity.

Mitigation:

- Compare modification of BMPs to USAID Sector Specific Guidelines for Asia per IEE and threshold decisions.
- Monitor implementation of BMPs to appropriate guideline or USAID Sector Specific Guidelines for Asia per IEE and threshold decisions.
- Provide additional training in BMPs if implementation is deficient.
- Identify and implement local incentives for proper implementation of BMPs tied into local agreements for performance.
- Assist concessionaires and communities in the development of effective, low-cost BMP (and M&E) plans, and their implementation.

Activity 2.4. Implement a Landscape Approach to Forest Management in USAID IFACS Landscapes

Potential Major Environmental Impacts:

A landscape approach involves trade-offs in land use and management, which may have known or unintended negative environmental impacts. Planned fire training involves the use of fire breaks, which involves clearing forest to avoid the spread of fires. Landscape decisions may not be based on informed decision-making, but instead driven by vested interests. Negative environmental impacts include forest conversion and degradation, loss of biodiversity, pollution, soil erosion, and reductions in water quality and/or abundance.

Mitigation: Review landscape management activities prior to implementation. Mitigation activities will likely include reforestation, choosing native species appropriate to current ecosystem conditions, inspecting seedlings for disease/pests prior to planting, monitoring environmental changes, avoiding large blocks of monoculture, leaving natural vegetation in special areas, staggering ages of different

planted areas, make it easy to transport timber without eroding soil, including firebreaks and access to fire equipment as needed, closing off degraded marginal slopes, using integrated pest management, and following USAID guidelines if applying agrochemicals.

Provide training and information necessary for informed decision-making.\

Facilitate public participation and inputs into official landscape management decisions.

4.3 COMPONENT 3: PRIVATE SECTOR, LOCAL ENTERPRISE, AND MARKET LINKAGES

Activity 3.1. Engage Private Sector at Landscape Sites

Potential Major Environmental Impacts:

Improper use of BMPs by private sector or the absence of BMPs may result in negative environmental impacts, including conversion of HCVF forest, increased soil erosion, decreased water quality and or abundance, pollution, etc. Rehabilitation in landscapes using non-native plant species may lead to invasive species displacing native species, thus reducing biodiversity, as well as degradation of soils and disruption of normal hydrological functions (see Activity 2.3). Increased engagement of private sector may lead to increased access to government decision-makers, and lobbying for unsustainable expansion.

Mitigation:

- Due diligence in selection of private sector partners.
- Signing agreements with private sector partners that clearly lay out roles and responsibilities.
- Monitoring compliance with agreement.
- Technical assistance, support, and interaction based on compliance and progress on agreement.

Activity 3.2. Implement Low Carbon Development Plans (LEDS)

Potential Major Environmental Impacts:

LEDS activities may reduce emissions but also may have negative environmental effects. For example, Paoli *et al.* 2010 argue that in Indonesia inherent trade-offs among ecosystems in emission reduction potential, opportunity cost of foregone development, and biodiversity values will require a regulatory framework to balance emission reduction interventions with biodiversity co-benefit targets. They discuss how such a regulatory framework might function, and caution that pursuing emission reduction strategies without such a framework may undermine, not enhance, long-term prospects for biodiversity conservation in the tropics in general.

Intensification of agricultural practices can result in use of inorganic fertilizers and other practices that increase pollutants and are inimical to good soil conservation. They can also result in successful livelihoods that may attract a higher density of people to live in restricted areas with consequent higher pressure on natural resources in that area, resulting in overharvesting, increased degradation and forest conversion.

Use of micro-hydro and other alternative and sustainable energy sources can have an adverse impact on the environment. For example, micro-hydro schemes can disrupt both stream flows and distribution patterns of native fish and other aquatic fauna.

Mitigation:

- Work to balance emission reduction interventions with biodiversity co-benefit targets in Low Emission Development Strategies and activities.
- Ensure that agricultural practices do not degrade soil conditions or impact normal hydrological functions.
- Ensure that alternative energy sources, such as micro-hydro schemes, do not adversely impact stream /river ecology.

Activity 3.3. Develop Private Community Partnerships for Forest Management that Generate Income Opportunities for Local Communities

Potential Major Environmental Impacts:

USAID IFACS plans to engage in the following types of activities: SME and light industry, agroforestry, community forestry, and agricultural, including food processing. Potential major environmental impacts include increased air, soil, and water pollution; erosion; deforestation; forest degradation and fragmentation, eutrophication of water systems; salt water intrusion into water bodies; reduced habitat for threatened species; reduced environmental services due to degradation of ecosystems; and spread of disease.

Mitigation:

Promote best management practices per sector found at:

Agriculture and Irrigation

<http://www.encapafrica.org/egssaa/agriculture.pdf>

Construction

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/construction_ane.pdf

Ecotourism

<http://www.encapafrica.org/egssaa/ecotourism.pdf>

Energy Sources for Development

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/energy_ane.pdf

Fisheries and Aquaculture

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/fisheries_ane.pdf

Forestry: Including Forest Management, Plantations, and Agroforestry

<http://www.encapafrica.org/egssaa/forestry.pdf>

Humanitarian Response Programs and the Environment

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/humanitarian_ane.pdf

Integrated Pest Management

<http://www.encapafrica.org/egssaa/ipm.pdf>

Livestock

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/livestock_ane.pdf

Solid Waste

<http://www.encapafrica.org/egssaa/solidwaste.pdf>

Water Supply and Sanitation

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/water_ane.pdf

Medium and Small-scale enterprises guidelines:

Introduction – MSEs & the Environment

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/mse_introduction.pdf

Mechanisms for MSEs to Control Environmental Impact

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/mse_controlmechanisms.pdf

Institutionalizing Environmental Capacity

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/mse_institutionalizing.pdf

Sub-Sector Specific Clean Production Briefings

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/mse_sectorbriefings.pdf

Brick & Tile Production

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/bricktile.pdf

Food Processing

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/foodprocessing.pdf

Leather Processing

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/leather.pdf

Metal Finishing

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/metalfinishing.pdf

Small-Scale Mining

<http://www.encapafrika.org/egssaa/mining.pdf>

Wet Textile Operations

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/wettextile.pdf

Wood Processing and Furniture Making

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/woodandfurniture.pdf

MSE Annexes

http://www.usaid.gov/our_work/environment/compliance/ane/ane_guidelines/mse_annexes.pdf

USAID IFACS will provide technical assistance, informational material, and training to implement best environmental management practices.

Activity 3.4. Develop and Implement Sustainable Financing Mechanisms at Target Landscape Sites to Support Spatial Plan

Potential Major Environmental Impacts:

Sustainable Financing Mechanisms include CSR, PES, REDD, government funds, and revolving micro-credit. SFM may result in either direct payments to stakeholders or the establishment of development funds. Increased funds can lead to numerous and variable environmental impacts depending on the sector. In general, impacts may include over-harvesting of natural resources; increased air, soil, and water pollution; erosion; deforestation; eutrophication of water systems; reduced habitat for threatened species; and reduced environmental services due to degradation of ecosystems.

Mitigation:

Incorporate environmental performance requirements into agreements with stakeholders or recipients.

Activity 3.5. Increase application of investment screening tools based on environmental criteria as a BMP by banks and other financial institutions to assess investment risk, company performance, and project viability.

Potential Major Environmental Impacts:

Inappropriate use of screening tools can lead to increased deforestation. For example, if a bank increases the size and/or number of loans to a given business based on recommendations resulting from the faulty use of screening tools, logging capacity may be increased beyond a sustainable harvest for the business's concession(s).

Environmental screening may lead to false security and an increased number of loans resulting in overharvesting, pollution exceeding thresholds, loss of biodiversity, reductions in water quality and abundance, erosion, and increased degradation/conversion of tropical forests.

Mitigation:

Conduct training in appropriate use of non-financial (environmental) screening tools, including the need for monitoring client performance and incorporating environmental performance clauses into agreements..

Summary

Table 2 below presents the mitigation and monitoring measures proposed by USAID IFACS in response to the potential major negative environmental impacts and issues detailed in the above Section.

For grants and subcontracts disbursed under this contract, USAID IFACS will use the impact assessment tools found in the USAID/ABC Environmental Review Form to screen grant proposals. This will help ensure that funded proposals do not result in adverse environmental impacts, help develop mitigation measures as necessary, and specify monitoring and reporting for grantees and subcontractors. If activities are not currently covered under the approved IEE and ETD, the project will write an Environmental Review Report. Mitigation and monitoring requirements will be included in agreements and contracts

Table 2. Mitigation and monitoring measures proposed by USAID IFACS in response to the potential major negative environmental impacts and issues

ACTIVITY	MAJOR NEGATIVE ENVIRONMENTAL IMPACTS	MITIGATION MEASURE	MONITORING INDICATOR	MONITORING & REPORTING ACTIVITY	RESPONSIBILITY (FOR ACTIVITY & COSTS) see Chpt 2
<p>Activity 1.5. Facilitate Implementation of Spatial and Land Use Plan through Technical and Financial Assistance</p>	<p>Forest degradation</p> <p>Increased threats to endangered species and biodiversity assets</p> <p>Forest degradation</p>	<p>Work with local government to incorporate consideration of these potential impacts into the zonation and permitting process.</p> <p>Help establish a transparent process to annually review spatial plans and establish a feedback mechanism to agencies that regulate implementation of spatial plans.</p>	<p><u>PMP Indicator # OR1</u> Reduction in the rate of forest degradation and loss from conversion, illegal extraction, overharvesting and fire for at least 10 million of ha of tropical forest within targeted landscapes from baseline</p> <p><u>PMP Indicator #12</u> <u>CP1RR6</u> Number of spatial plans presented for public/stakeholder consultation and accepted by them as a result of USG assistance.</p> <p><u>PMP Indicator #13</u> <u>CP1RR7</u> Number of districts that implement spatial plans with adequate resources</p>	<p>Monitor annual Report annual</p> <p>Monitor quarterly Report quarterly</p> <p>Monitor annual Report annual</p>	<p>TSs (SPS, GIS Spec., M&E Spec., FBCC, FTF, T), RMs</p> <p>Costs to project</p>

ACTIVITY	MAJOR NEGATIVE ENVIRONMENTAL IMPACTS	MITIGATION MEASURE	MONITORING INDICATOR	MONITORING & REPORTING ACTIVITY	RESPONSIBILITY (FOR ACTIVITY & COSTS) see Chpt 2
Activity 2.2. Increase Private Sector Understanding and Compliance with Lacey Act and Support Indonesia’s “Legality Standard” for its Timber Exports	Forest degradation Increased threats to endangered species and biodiversity assets Greenhouse gas emissions Forest degradation	Assist companies to learn about the Lacey Act and comply with its requirements by incorporating traceability and adequate due diligence into their systems to ensure legal sourcing of material. Work with agencies enforcing forestry laws and regulations to prevent leakage in illegal demand to other areas.	<u>PMP Indicator # OR1</u> <i>And</i> <u>PMP Indicator #15</u> CP2RR2 Number of local community, government professional & NGO people with increased capacity to manage forest resources and adapt to the impacts of climate variability and change as a result of USG assistance <u>PMP indicator # 17</u> <u>CP2RR4</u> Percentage increase in adoption and implementation of best management practices in small holders’ livelihood and market activities as compared to baseline in	Monitor annual Report annual Monitor annual Report annual Monitor annual Report annual	TSs (FTF, FBCC, M&E Spec.), RMs Costs to project

ACTIVITY	MAJOR NEGATIVE ENVIRONMENTAL IMPACTS	MITIGATION MEASURE	MONITORING INDICATOR	MONITORING & REPORTING ACTIVITY	RESPONSIBILITY (FOR ACTIVITY & COSTS) see Chpt 2
			targeted landscapes.		

ACTIVITY	MAJOR NEGATIVE ENVIRONMENTAL IMPACTS	MITIGATION MEASURE	MONITORING INDICATOR	MONITORING & REPORTING ACTIVITY	RESPONSIBILITY (FOR ACTIVITY & COSTS) see Chpt 2
<p>2.3. Increase adoption of BMPs in forest management by all major stakeholders</p>	<p>Forest degradation</p> <p>Increased threats to endangered species and biodiversity assets</p> <p>Greenhouse gas emissions</p>	<p>Compare modification of BMPs to USAID Sector Specific Guidelines for Asia per IEE and threshold decisions.</p> <p>Monitor implementation of BMPs to appropriate guideline or USAID Sector Specific Guidelines for Asia per IEE and threshold decisions.</p> <p>Provide additional training in BMPs if implementation is deficient.</p> <p>Identify and implement local incentives for proper implementation of BMPs tied into local agreements for performance.</p> <p>Assist concessionaires and communities in the development of effective, low-cost BMP (and M&E) plans, and their implementation.</p>	<p><u>PMP Indicator # OR1</u> <i>And</i></p> <p><u>PMP Indicator #12</u> <u>CP1RR6</u></p> <p><u>PMP Indicator #13</u> <u>CP1RR7</u></p> <p><u>PMP Indicator #15</u> <u>CP2RR2</u></p> <p><u>PMP Indicator # 17</u> <u>CP2RR4</u></p>	<p>Monitor annual Report annual</p> <p>Monitor quarterly Report quarterly</p> <p>Monitor annual Report annual</p> <p>Monitor annual Report annual</p> <p>Monitor annual Report annual</p>	<p>TSs (FTF, FBCC, M&E Spec.), RMs, concessionaires, BMP working groups</p> <p>Facilitation costs to project.</p> <p>Establishment costs to stakeholders.</p> <p>Implementation costs to stakeholders</p>

ACTIVITY	MAJOR NEGATIVE ENVIRONMENTAL IMPACTS	MITIGATION MEASURE	MONITORING INDICATOR	MONITORING & REPORTING ACTIVITY	RESPONSIBILITY (FOR ACTIVITY & COSTS) see Chpt 2
<p>2.4. Implement a landscape approach to forest management in USAID IFACS landscapes</p>	<p>Forest degradation</p> <p>Increased threats to endangered species and biodiversity assets</p> <p>Soil erosion</p> <p>Pollution</p>	<p>Review landscape management activities prior to implementation. Mitigation activities will likely include reforestation, choosing native species appropriate to current ecosystem conditions, inspecting seedlings for disease/pests prior to planting, monitoring environmental changes, avoiding large blocks of monoculture, leaving natural vegetation in special areas, staggering ages of different planted areas, make it easy to transport timber without eroding soil, including firebreaks and access to fire equipment as needed, closing off degraded marginal slopes, using integrated pest management, and following USAID guidelines if applying agrochemicals.</p>	<p><u>PMP Indicator # OR1</u></p> <p><i>And</i></p> <p><u>PMP Indicator #15 CP2RR2</u></p> <p><u>PMP Indicator # 17 CP2RR4</u></p>	<p>Monitor annual Report annual</p> <p>Monitor annual Report annual</p> <p>Monitor annual Report annual</p>	<p>TSs (FBCC, FTF, M&E Spec., IBG), RMs</p> <p>Reforestation costs in selected critically important corridor habitat to project. Others from GOI sources and private sector (through grants and corporate social responsibility funds).</p>

ACTIVITY	MAJOR NEGATIVE ENVIRONMENTAL IMPACTS	MITIGATION MEASURE	MONITORING INDICATOR	MONITORING & REPORTING ACTIVITY	RESPONSIBILITY (FOR ACTIVITY & COSTS) see Chpt 2
		<p>Provide training and information necessary for informed decision-making.</p> <p>\</p> <p>Facilitate public participation and inputs into official landscape management decisions.</p>			
<p>3.1. Engage private sector at landscape sites</p>	<p>Forest degradation</p> <p>Increased threats to endangered species and biodiversity assets</p> <p>Soil erosion</p> <p>Pollution</p>	<p>Due diligence in selection of private sector partners.</p> <p>Signing agreements with private sector partners that clearly lay out roles and responsibilities.</p> <p>Monitoring compliance with agreement.</p> <p>Technical assistance, support, and interaction based on compliance and progress on agreement.</p>	<p><u>Due diligence report</u></p> <p><i>And</i></p> <p><u>PMP Indicator #15 CP2RR2</u></p> <p><u>PMP Indicator # 23 CP3 RR1</u></p> <p>Number of districts where an agreement between local communities and private sector are reached, to provide incentives for conservation, adhered to and result in sustainable economic development</p>	<p>Monitor quarterly Report quarterly</p> <p>Monitor annual Report annual</p> <p>Monitor quarterly Report quarterly</p> <p>Monitor quarterly Report quarterly</p>	<p>TSs (FBCC, FTF, M&E Spec., IBG), RMs</p> <p>Facilitation costs in part to project; others to partners.</p>

ACTIVITY	MAJOR NEGATIVE ENVIRONMENTAL IMPACTS	MITIGATION MEASURE	MONITORING INDICATOR	MONITORING & REPORTING ACTIVITY	RESPONSIBILITY (FOR ACTIVITY & COSTS) see Chpt 2
			<u>PMP Indicator # 25CP3 RR3</u> Number of private sector entities that adopt BMPs and support LEDS as a result of USG assistance.		
3.2. Implement Low Carbon Development Plans (LEDS)	Forest degradation Increased threats to endangered species and biodiversity assets Soil erosion Pollution	Work to balance emission reduction interventions with biodiversity co-benefit targets in Low Emission Development Strategies and activities. Ensure that agricultural practices do not degrade soil conditions or impact normal hydrological functions. Ensure that alternative energy sources, such as micro-hydro schemes, do not adversely impact stream /river ecology	<u>PMP Indicator # OR1</u> <i>And</i> <u>PMP Indicator # OR 6</u> <u>PMP indicator # 17 CP2RR4</u> <u>PMP Indicator # 18: CP2RR5a</u> Number of hectares of rezoned concessions that maintain their forest cover in 8 landscapes. <u>CP2RR5b</u> Number of hectares of degraded areas newly used for developmental purposes	Monitor annual Report annual Monitor annual Report annual Monitor annual Report annual Monitor annual Report annual	TSs (FTF, M&E Spec.), RMs Training costs to project

ACTIVITY	MAJOR NEGATIVE ENVIRONMENTAL IMPACTS	MITIGATION MEASURE	MONITORING INDICATOR	MONITORING & REPORTING ACTIVITY	RESPONSIBILITY (FOR ACTIVITY & COSTS) see Chpt 2
Activity 3.3. Develop Private Community Partnerships for Forest Management that Generate Income Opportunities for Local Communities	Forest degradation Increased threats to endangered species and biodiversity assets Soil erosion Pollution	USAID IFACS will provide technical assistance, informational material, and training to implement best environmental management practices. Reference all USAID BMPs as listed in Section 3.3 above	<u>PMP Indicator # OR1</u> <i>And</i> <u>PMP indicator # 17 CP2RR4</u> <u>PMP Indicator # 23 CP3 RR1</u> <u>PMP Indicator # 27 CP# RR5</u> Percentage increase in adoption and implementation of best management practices in small holders' livelihood and market activities as compared to baseline in targeted landscapes	Monitor annual Report annual Monitor annual Report annual Monitor quarterly Report quarterly Monitor annual Report annual	TSs (FTF, M&E Spec.), RMs Trainings and consultant costs to project. Facilitation in part to project. Implementation costs to private sector and communities.

ACTIVITY	MAJOR NEGATIVE ENVIRONMENTAL IMPACTS	MITIGATION MEASURE	MONITORING INDICATOR	MONITORING & REPORTING ACTIVITY	RESPONSIBILITY (FOR ACTIVITY & COSTS) see Chpt 2
3.4. Develop and implement sustainable financing mechanisms at target landscape sites to support spatial plan	Forest degradation Increased threats to endangered species and biodiversity assets Soil erosion Pollution	Incorporate environmental performance requirements into agreements with stakeholders or recipients	Review Sustainable Financial Mechanism agreement <u>PMP Indicator # OR1</u> <i>And</i> <u>PMP Indicator # 23 CP3 RR1</u>	Monitor quarterly Report quarterly Monitor Annual Report annual Monitor quarterly Report quarterly	TSs (FTF, M&E Spec.), RMs Training costs to project
3.5. Increase application of investment screening tools based on environmental criteria as a Best Management Practice by banks and other financial institutions to assess investment risk, company performance, and project viability.	Forest degradation Increased threats to endangered species and biodiversity assets Soil erosion Pollution	Conduct training in appropriate use of non-financial (environmental) screening tools, including the need for monitoring client performance and incorporating environmental performance clauses into agreements	<u>PMP Indicator # OR1</u> <i>And</i> <u>PMP Indicator #15 CP2RR2</u>	Monitor Annual Report annual Monitor Annual Report annual	TSs (FTF, M&E Spec.), RMs Training costs to project.

APPENDIX A: DUE DILIGENCE GUIDELINES

USAID IFACS will conduct due diligence regarding selected partners. The due diligence investigation will be commensurate with the concerns, as indicated in the IEE document.

The due diligence investigation will include confirmation of prior receipt of donor funds or engagement, particularly with USAID.

If potential partners have not previously received USAID funding, the project will:

- Review their public information on the Internet or other publically available material;
- Hold a discussion with them regarding environment “corporate” responsibility; and
- Check if a written environment policy is in place, implemented, and if records are available.

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