



# Apfp

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## REHABILITATION AND SUSTAINABLE USE OF PEATLAND FORESTS IN SOUTHEAST ASIA



### APFP COMPLETION REPORT

Supported by:



Executing Agency:



National Executing Agencies:



Regional Project Executing Agency:





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# 1. Introduction

## 1.1 Background

The project entitled “Rehabilitation and Sustainable Use of Peatland Forests in Southeast Asia” also known as ASEAN Peatland Forests Project (APFP) was designed through a very extensive consultation process involving over 70 meetings with more than 1,200 stakeholders in four countries, namely Indonesia, Malaysia, Philippines and Viet Nam, which are eventually the participating countries to the Project. In addition, four regional project preparation working group meetings were organised between September 2005 and March 2008. The project design had also benefited from a series of national and regional planning and consultation meetings held over a five year period from 2003-2008 to develop the ASEAN Peatland Management Strategy (APMS) 2006-2020 which was endorsed by the ten ASEAN governments in November 2006 and is a key guide for the project formulation. The APMS was developed based on ASEAN Peatland Management Initiative (APMI) which was adopted at the 20<sup>th</sup> Meeting of the ASEAN Senior Officials on the Environment-Haze Technical Task Force (ASOEN-HTTF) in Manila in February 2003.

Fourteen key strategies have been used in the design of the project namely:

- i. Coordinated multi-country approach
- ii. Involvement of countries not eligible for GEF support
- iii. Employing a multi-stakeholder and multi-level approach
- iv. Promoting integrated rather than sectoral management approaches
- v. Support the first five years of implementation of the ASEAN Peatland Management Strategy 2006-2020 and associated National Action Plans
- vi. Demonstrating on-the-ground implementation
- vii. Facilitating active participation of the private sector
- viii. Addressing poverty and community livelihood and resource access issues
- ix. Establishing innovative financial mechanisms
- x. Reduce peatland fires and transboundary haze
- xi. Secure benefits for biodiversity and climate change
- xii. Utilising existing institutional mechanisms as far as possible for project management
- xiii. Ensuring appropriate linkages are made to other interventions and cooperation frameworks
- xiv. Draw on experience and lessons learned from previous interventions

The GEF intervention has been securing the global environment benefits related to the reduction in the rate of peatland degradation – the improvement of ecosystem services related to biodiversity, carbon storage and climate regulation. It also helps to support the implementation of the APMS and the NAPs, further contributing to the sustainability of peatland management initiatives. The GEF intervention allows for a coordinated multi-country approach towards addressing the common root causes of peatland degradation in the region and a multi-stakeholder, multi-level approach to integrated peatland management, involving several sectors. It also ensures that lessons learned from demonstration and pilot testing is up-scaled to national, provincial and local land management activities as well as regional activities and training programs to ensure that the benefits from integrated peatland management incorporated into a wider framework, including policies and plans that relate to forests and other land-related resources.

Without GEF support, co-funding and other leveraged assistance it is clear that the degradation of peatlands in the region will continue - the rate of loss of peatlands in some countries may lead to a complete disappearance of intact, functioning peatlands within a matter of decades. Specifically, a range of major problems affecting peatlands are likely to continue including: i. Loss of globally important peat swamp biodiversity: The large-scale clearance and over-exploitation of peat swamp forests have severely affected the biodiversity of peatlands in the region. More than 30% of the total habitat has been destroyed and a further 40% degraded. In some parts of the region there are almost no intact peat swamp forests remaining. In Indonesia, the degradation of peat has had serious impacts on the population of e.g. the Sumatran Tiger (*Panthera tigris sumatrae*), honey bear (*Helarctos malayanus*) and declines in economically valuable tree species such as Ramin (*Gonystylus bancanus*). ii. Increased greenhouse gas emissions and loss of carbon stores: The carbon storage and sequestration functions of peatlands are now being lost due to human intervention. Activities related to land conversion, drainage and fires release stored carbon to the atmosphere. Drainage releases 50-100 t C/ha/yr and fire may release 500-1000 t C/ha/fire. About 10 million ha of peat swamp forests in SE Asia has been deforested and drained for agriculture. Annual carbon emission in SE Asia by drainage and fires is estimated at 2,000 million tonnes of CO<sub>2</sub>, or around 8% of annual global CO<sub>2</sub> emissions. Other impacts include: Peatland hydrology will continue to be disrupted; further degradation of already damaged peatland areas will take place; peatland fires and associated smoke haze will remain constant or increase; the livelihood of communities living in peatland areas will not improve or will decline; institutional capacity for peatland management will not improve and planning and management of peatlands will still be on an ad-hoc or sectoral basis. This will lead to increased levels of GHG emission and enhanced loss of globally significant peatland biodiversity and more unsustainable land and forest management practices. The negative impacts on the health and livelihoods of local communities of peatland degradation and fires will increase. The main global environmental impacts are expected to be enhanced emissions of GHG and loss of endemic, threatened and important peatland biodiversity.

## 1.2 Project Goal and Objectives

The overall goal was derived from the goal of the ASEAN Peatland Management Strategy (2006-2020) while the immediate objective was in line with the anticipated project outcomes.

**OVERALL PROJECT GOAL:** To promote the sustainable management of peatlands in Southeast Asia to sustain local livelihoods to reduce poverty, reduce risk of fire and associated haze and contribute to global environmental management, particularly biodiversity conservation and climate change mitigation.

**IMMEDIATE OBJECTIVE:** To demonstrate, implement and upscale integrated management of peatlands in Southeast Asia through mainstreaming and improved governance, strengthened capacity and increased awareness, enhanced multi-stakeholder partnerships, and innovative approaches to maintain and rehabilitate identified critical peatland sites.

The Project consists of five components – a Regional and four Country Components: Indonesia, Malaysia, Philippines and Viet Nam.

(a) The **Regional Component** builds a strong regional framework for partnership, information sharing and capacity building; and provides guidelines for best management practices.

- (b) The **Indonesia Component** implements actions on integrated peatland management at the site level in Riau and West Kalimantan Provinces (where peat fires are a recurrent threat).
- (c) The **Malaysia Component** focuses on sustainable use and rehabilitation of degraded peatlands, particularly in the State of Selangor through capacity building, fire prevention and control, private sector partnership and demonstration of best management practices.
- (d) The **Philippines Component** highlights the involvement of key national and local government agencies, non-government organizations and the local communities in awareness raising, capacity building and improving multi-stakeholder cooperation for sustainable peatland management.
- (e) The **Viet Nam Component** promotes the integrated management of peatlands through capacity building and improved inter-sectoral management.

### 1.3 Project Outcomes and Outputs

The Project has five outcomes which contribute towards the achievement of the immediate objective:

#### **Outcome 1: Capacity and the institutional framework for sustainable peatland management in Southeast Asia strengthened**

OUTPUT 1.1 Inter-sectoral policy and planning frameworks for integrated peatland management strengthened at regional, national and local levels.

OUTPUT 1.2 Capacity for peatland management strengthened through training and awareness programmes to support the upscaling of good peatland management practices

OUTPUT 1.3 Innovative financial mechanisms to support sustainable peatland management

#### **Outcome 2: Reduced rate of degradation of peatlands in South East Asia**

OUTPUT 2.1 Status and trends of peatland degradation in South East Asia determined

OUTPUT 2.2 Rate of degradation of peatlands by fire reduced

OUTPUT 2.3 Conservation measures for peatland biodiversity enhanced at identified critical sites

OUTPUT 2.4 Guidelines for integrated peatland management developed and promoted for peatland areas in the region

#### **Outcome 3: Integrated management and rehabilitation of peatlands initiated at targeted peatlands**

OUTPUT 3.1 Sustainable management options for peatlands showcased through demonstration projects

OUTPUT 3.2 Maintenance and rehabilitation activities implemented in identified critical peatland sites (pilot sites) implemented

OUTPUT 3.3 Integrated management planning for identified critical sites developed and adopted

#### **Outcome 4: Local communities and the private sector actively contributing to sustainable peatland management**

OUTPUT 4.1 Integrated sustainable peatland management implemented in partnership with the private sector through joint activities at identified critical sites

OUTPUT 4.2 Local communities empowered for sustainable peatland management through poverty alleviation, alternative livelihoods and micro-financing

**Outcome 5: Project effectively managed**

OUTPUT 5.1 Project governance, management and coordination mechanisms at country levels established

OUTPUT 5.2 Project governance mechanism overseen and guided and effectively coordinated, monitored and evaluated

**1.4 Project Structure Diagram**

The project has been managed and implemented primarily using the existing ASEAN arrangements (as well as national institutional mechanisms i.e. the implementation structure for the APMI/ APMS) to avoid duplication and minimise project management and overhead costs. The key executing agency to lead the project components are listed in Table 1.

Table 1: Key Executing Agencies of the Project

<b>Project Executing Agency</b>	<b>ASEAN Secretariat</b>
<b>Country Component</b>	<b>National Project Executing Agency</b>
Indonesia	Ministry of Environment
Malaysia	Forestry Department Peninsular Malaysia
Philippines	Biodiversity Management Bureau – Department of Environment and Natural Resource (BMB-DENR)
Viet Nam	Viet Nam Environment Administration
Regional Project Executing Agency	Global Environment Centre

The execution of the Project comprises two components – Project Management and Project Implementation. The main institutions involved in Project Management are the Committee under Conference of Parties (COP) to the ASEAN Agreement on Transboundary Haze Pollution (AATHP), IFAD, the Project Steering Committee (PSC), the National Project Implementation Committee (NPIC, i.e. the PSC at the country level) and the Local Project Implementation Committee (LPIC, i.e. the PSC at the local/ site level). The main agencies/ committees involved in Project Implementation are the ASEAN Secretariat, the National Coordinators, the Regional Project Executing Agency (RPEA, i.e. the Global Environment Centre, GEC), the National Project Executing Agencies (NPEA) and where appropriate, the Local Project Executing Agency (LPEA) (Figure 1).

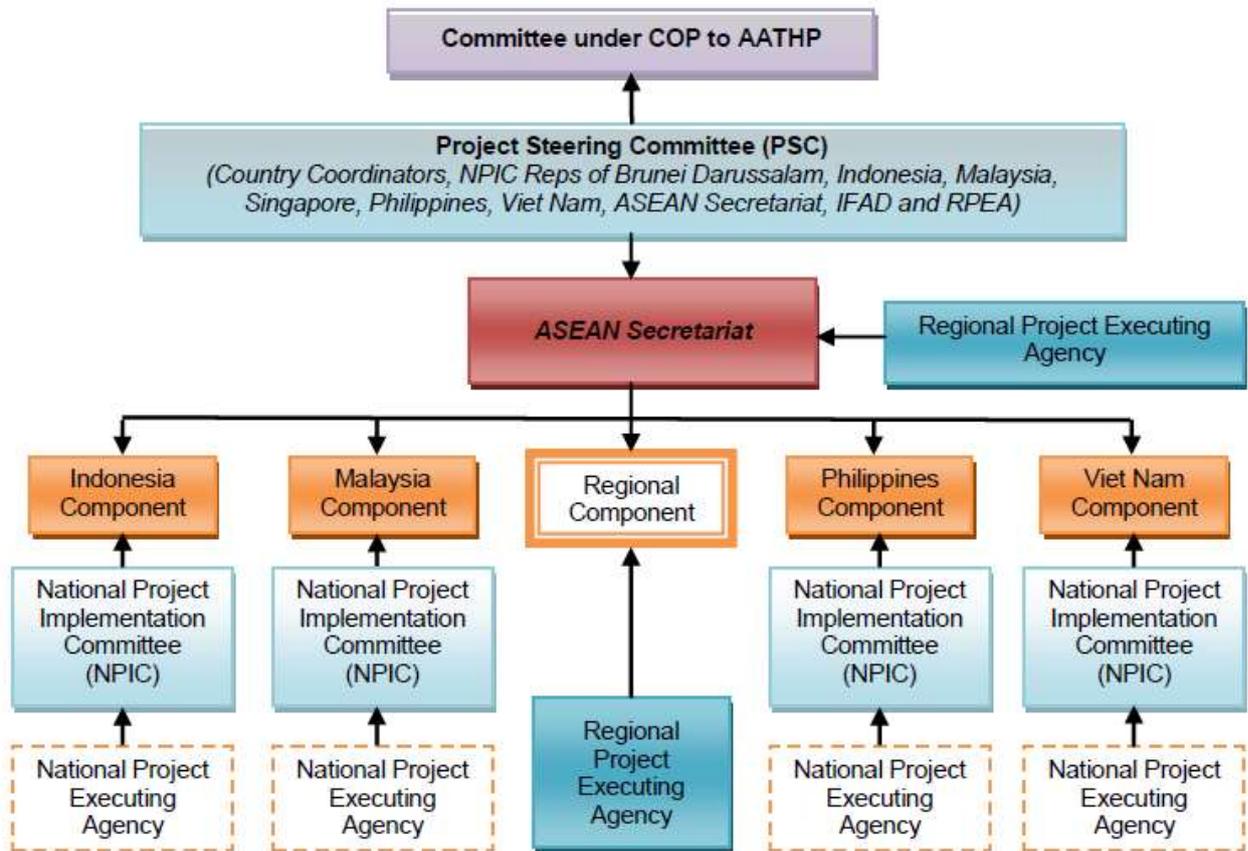


Figure 1: Overall Governance Structure for Project Management and Implementation

### 1.5 Project Allocation and Co-financing

The project value of USD 4,299,164 was granted to the participating countries through respective Global Environment Facility (GEF) – Country Allocation and addition a Regional Component to ASEAN Secretariat and Regional Project Executing Agency (Table 2). The Grant Agreement of the Project was signed between International Fund for Agricultural Development (IFAD) as the Implementing Agency of GEF and the ASEAN Secretariat on 24 February 2009 and declared of effectiveness on 28 July 2009.

Table 2: GEF resources and co-financing to the Project

Project Component	GEF Financing	Co-financing	Date of Sub-Agreement Signing
I. Indonesia	1,200,000	3,655,000	18 August 2009
II. Malaysia	880,000	1,380,457	15 April 2010
III. Philippines	262,000	370,000	17 September 2009
IV. Viet Nam	230,000	335,000	16 July 2009
V. Regional (RPEA with ASEC)	1,727,164	1,812,750	20 April 2010
<b>Sub-Total</b>		<b>7,553,207</b>	
Government of Singapore	-	1,800,000	
Government of Brunei Darussalam	-	409,000	
IFAD		445,250	
<b>TOTAL</b>	<b>4,299,164</b>	<b>10,207,457</b>	

There are five project components of the Project, namely i) capacity building for sustainable peatland management, ii) reduction of peatland degradation, iii) integrated management and rehabilitation of Peatlands, iv) multi-stakeholder partnerships, and v) project management (see Table 3). The fund was from GEF global resources for the Land Degradation Focal Area (USD 2 million) and national RAF resources through Biodiversity and Climate Change Focal Areas (the remaining USD 2.299 million).

Table 3: Project financing, per Component and Financing Sources (USD, \$)

Project Components	GEF Financing		Co-financing		Total (\$)
	(\$)	%	(\$)	%	
1. Capacity building for sustainable peatland management	1 586 957	48.65%	1 675 020	51.35%	3 261 977
2. Reduction of peatland degradation	914 757	20.18%	3 617 600	79.82%	4 532 357
3. Integrated management and rehabilitation of peatlands	713 795	18.84%	3 075 432	81.16%	3 789 227
4. Multi- stakeholder partnerships	653 655	40.46%	961 905	59.54%	1 615 560
5. Project management	430 000	32.89%	877 500	67.11%	1 307 500
<b>Total project costs</b>	<b>4 299 164</b>	<b>29.64%</b>	<b>10 207 457</b>	<b>70.36%</b>	<b>14 506 621</b>

The total indicative co-financing for the full project grant amounts to USD 10,207,457, the breakdown as in Table 4 below.

## 2. Summary of Key Project Achievements

This is the Completion Report for the ASEAN Peatland Forests Project which consists of five components – a Regional Component and four country components, namely Indonesia, Malaysia, Philippines and Viet Nam. The Components began their implementation of the project activities in different time but there were meant to have completed all the project activities by 30 June 2014 with remaining project management and administration until end of the Project in December 2014. The activities i.e. Terminal Evaluation Review (TER) was held in September - October 2014 and the Project Closure Event was conducted in November 2014 in Riau Province, Sumatra.

### 2.1 Regional Component

The Project has supported the promotion and implementation of the ASEAN Peatland Management Strategy (APMS) and also the National Action Plans for Peatlands (NAPs) of each participating country. The implementation progress of APFP has been reported periodically at key level ASEAN meetings and well received by the top officials who strongly supported the APMS. The APMS was reviewed after five years of implementation and an updated APMS was endorsed by the 9<sup>th</sup> Meeting of the Conference of the Parties (COP) to the ASEAN Agreement on Transboundary Haze Pollution (AATHP) in September 2013, in Indonesia. The revised APMS was printed and disseminated. ASEAN Task Force on Peatlands is in the process of being established to oversee the future implementation of the APMS.

The project has made a big step towards introducing sustainable peatland management to be incorporated in provincial and district level plans and policies in the four participating countries. The National Action Plan (NAP) of Indonesia has been revised and endorsed in 2012. Policies related to peatlands have been strengthened in Indonesia. Meanwhile, in Malaysia, the NAP was adopted by the cabinet in 2011, translated and circulated. National-level meeting on the implementation and monitoring of NAP was held in December 2013. The implementation plan for NAP in 11<sup>th</sup> Malaysian Plan is being finalized. The National Wetlands Policy is currently being revised under the National Biodiversity Strategic Action Plan (NBSAP) exercise conducted by Ministry of Natural Resources and Environment. The NAP of Philippines was approved by the government and was integrated into the Updated National Wetlands Action Plan of the Philippines as well as included into the Philippine Development Plan for 2011-2016. The NAP of Vietnam has been prepared and is in the process of being approved. The NAP of Brunei Darussalam is being finalised. The NAP of Thailand is to be submitted to Cabinet for final approval.

Various regional workshops, training sessions and study visits have been organised to strengthen the capacity of government agencies and communities in managing peatland forests.

Publications which included Development of Financing and Incentive Options, Peatlands and Climate Change and Enhancing Sustainability of Forestry Practices on Peatlands were published and disseminated widely to peatland stakeholders. Awareness materials included leaflet, poster, video were produced and disseminated widely to public. Media coverage was strengthened to raise the profile of peatland and numerous articles were published in the local media.

In order to support the long term financing for the APMS, the ASEAN Programme on Sustainable Management of Peatland Ecosystems 2014-2020 (APSMPE) was conceptualised and presented to and endorsed by an ASEAN Ministerial level meeting in September 2013. Several meetings have been held with AMS and potential partners to develop the APSMPE which has now developed into a US\$250 million programme. AMS have committed \$150 million in principle while the European Union has committed Euro 20 million and GIZ Euro 4.5 million.

Peat fires are the main cause of peatland degradation in Southeast Asia, especially in Indonesia and Malaysia. The development of a Peatland Fire Prediction and Warning System which is based on the Fire Danger Rating System (FDRS) was initiated under the project in 2010 and good progress was made through a series of meetings in 2012 and 2013. The MSC meeting on 8th May 2012 agreed to elevate the discussions on the FDRS to the level of the Heads of Government of the ASEAN region through discussion at the ASEAN Summit.

Both Malaysia and Indonesia have made significant progress in the enhancement of the system. Malaysian Meteorological Department (MMD) has strengthened the effectiveness of the system for the Southeast Asian region and Malaysia with better data and improved dissemination through a range of tools including overlays of the peatland maps onto the FDRS indices and codes, and onto the Google Earth as well as created up-to three day forecast of the indices and codes for both ASEAN and Malaysia. ASEAN Specialised Meteorological Center in Singapore has been supporting hotspot monitoring within the region by providing information on hotspot, regional haze maps and other weather data. Inter-agency collaboration amongst the AMS continued to be strengthened through this initiative.

Indonesia formed a national working group to work on the refinement of the FDRS. There has been provincial FDRS indices and codes developed by the National Agency for Meteorology, Climatology and Geophysics (Badan Meteorologi, Klimatologi and Geofisika/BMKG). The use of the FDRS has been highlighted in various platforms, including the local government and community groups in pilot sites of all the participating countries.

Several studies such as carbon emissions from agriculture farming on peatland in West Kalimantan, carbon emission from degraded peatland in Central Kalimantan and Riau, carbon storage of Caimpugan peatland in Agusan Marsh, carbon storage and emissions in the Raja Musa pilot site were completed. These studies have reinforced the role of peatland as important ecosystems for carbon storage in the region. Input continued to be provided to IPCC and FAO for global methodologies and programs related to peatlands and climate change based on project results.

A network of demonstration sites for peatland best management practice was established with 13 sites in four countries in order to share the best management practices as well as to promote integrated and sustainable management.

Guidelines for integrated management of peatlands have been developed. Several actions have been taken at the pilot sites to promote integrated management through multi-stakeholder collaboration and consultation. These efforts have contributed to development of an Integrated Management Plan for NSPSF in Malaysia for 2014-2023. Land-use planning and zoning for peatland areas in Philippines was carried out. The initiation of the establishment of a critical habitat in peatlands of Leyte Sab-a Basin is included in the draft Municipal Ordinance on the protection of the peatland in the region. While, peatland of Agusan del Sur is included to the Comprehensive Land Use Plan of the Municipality of San Francisco for endorsement to the Sangguniang Bayan.

Project team members have been active in participating and providing inputs in the Roundtable on Sustainable Palm Oil (RSPO) and RSPO Peatland Working Group (PLWG). Four technical documents focusing on oil palm plantations on peat have been developed by the RSPO-PLWG with the support of project team members. The guidelines on Best Management Practices (BMP) for oil palm cultivation on peat adopted in 2012 by RSPO. Key elements of the BMP Guidelines have been incorporated into the revised RSPO Principles and Criteria for sustainable palm oil in April 2013 and National Interpretations in Malaysia and Indonesia in 2014.

The project management team has been working continuously with representatives from four participating countries and other ASEAN Member States (on Regional activities) to ensure that project activities proceed effectively and efficiently. There was close coordination between the ASEAN Secretariat (ASEC) and the Regional Project Executing Agency (RPEA) in ensuring timely meetings to address management issues. Project management meetings have been organized every 6 months since the start of the project and Project Steering Committee (PSC) Meetings have been held every year in all participating countries with attendance of all AMS.

The progress on the project has been briefed on an annual basis to meetings of senior officials and three Ministerial-level bodies which are Conference of Parties of the ASEAN Agreement on Transboundary Haze Pollution (AATHP); Mekong Region and Southern ASEAN Sub-regional Ministerial Steering Committees on Transboundary Haze Pollution (MSC). This has enabled project results and guidance to be incorporated into regional and national planning frameworks.

Relevant inputs were provided to Meetings of Senior Officials and Ministers at ASEAN and sub-regional level on project implementation progress. Technical coordination and management of country and regional components, including technical expert input, and monitoring system of country components and projects was provided.

A closing meeting was held in Pekanbaru, Riau, Indonesia on 10 November 2014 to share the lessons learnt from the APFP and SEApeat projects in Indonesia, Malaysia, Myanmar, Philippines, Thailand and Viet Nam as well as the Regional Component. The meeting was attended by representatives from all ASEAN Member States except for Brunei Darussalam who were unable to come. Countries shared their experiences and lessons learnt, as well as expectations for future peatland conservation work in their countries. The meeting was followed by an APSMPE workshop on the 11 November, a final PSC meeting for APFP on 12 November and a field visit to several project sites of APFP Indonesia Component in Pelintung, Guntung, Mumugo and Sepahat villages on 13-14 November 2014. Inputs from the workshop were taken into consideration during a Joint Planning and Design Team meeting held in Philippines in mid-December 2014 for future funding from the European Union..

## 2.2 Indonesia Component

The Indonesia Component which is led by the Ministry of Environment, the National Project Executing Agency (NPEA) started its project implementation in October 2010. National Project Implementation Committee (NPIC) and Local Project Implementation Committee have been meeting up periodically every year to discuss on planning of Annual Work Plan and Budget (AWPB).

The Component has strengthened capacity of human resources and institutions working on peatland management in the countries through training and capacity building programmes, workshops and dissemination of awareness materials. The Component has translated the APMS into national language and integrated into National Strategy on Sustainable Peatland

Management in Indonesia. There was “National Workshop on National Strategy for Sustainable Peatland Management and National Action Plans for Peatland (NAPs)” conducted which involved relevant key stakeholders for peatland management in the country. Among others, including Ministry of Environment, Ministry of Agriculture, Ministry of Forestry, Ministry of Home Affairs, Bappenas, private sectors and other supporting stakeholders such as universities and NGOs. The NAPs was approved in 2010 and reviewed in 2012. The Revised NAPs was disseminated within the country and to the interest groups in 2013. National Strategy/NAPs socialisation sessions were conducted in various provinces with peatland, included Nangroe Aceh Darusalam and South Sumatra.

Awareness materials such as leaflets, booklets, training modules and video were distributed in various relevant events which include “Training on Sustainable Peatland Management” in Aceh and South Sumatra, “Leadership Training Practices on the Application of Fire Danger Rating System (FDRS) and Fire Control for Community” in Riau, Central Kalimantan and West Kalimantan Provinces and Bengkalis, Dumai, Rokan Hilir Districts.

As on innovative finance mechanisms for the peatland management, the profit gained from the cash crops produced from pilot and/demonstration sites in Riau will be used as operational cost for the community groups. Study on incentive was undertaken and climate finance option is being considered for Kampar Peninsular peatland in Riau. There have been co-financing resources for peatland related activities in the country, of which, support from Government of Norway, Government of Australia, Government of United State of America, and Government of Germany, as well as national allocation on prevention and control of peat fires and haze.

Degradation of peatlands in the country is being minimised with development of useful maps by the Department of Agriculture, Department of Forestry and Department of Environment with technical support from relevant institutions and agencies as co-financing to the Component. A Peatland Map for Sumatra and Kalimantan was published by the Ministry of Agriculture and a Peatland Hydrological Unit Map was developed by the Ministry of Environment. A Priority Site Map and a Rehabilitation Sites Map for Central Kalimantan have been developed. A Priority Site Map for rehabilitation in West Kalimantan has also been produced.

A National Working Group on FDRS on peatland has been established and actively contributed to the development of FDRS on peatland. Map of Fire Prone Area of Harapan Jaya, Indragilir Hilir District, Riau Province was produced by community fire brigade which then overlaid onto the FDRS. Capacity building programmes on peat fire control was conducted in Dumai and Rokan Hilir in order to up-skill community’s capability in responding to peat fire occurrences. The project provided 9 units of FDRS signboards for Dumai, Bengkalis, Rokan Hilir, Kubu Raya and Pontianak, and 16 units of water pumps for Indragilir Hilir, Dumai, Bengkalis and Rokan Hilir in Riau Province. The Component also supported the extension of pineapples farms to support livelihood of the community fire brigade in Mumugo, Sepahat, Tanjung Leban, Pelintung and Guntung.

There has been Private Partnership Programme to engage multi-stakeholder to address rehabilitation and sustainable management of targeted peatlands in Riau and West Kalimantan. Private Partnership Programme on strengthening communities on peatlands fire prevention between APFP was established with PT. Sinarmas Forestry in Bengkalis. The company provided micro finance office (Koperasi), monitoring hot spots screen display, 4 units android mobile for receiving hot spots and FDRS information, and construction of 4 canal blocks.

The Master Plan for Sustainable Peatland in West Kalimantan has been launched by the Governor of West Kalimantan Province in the 7<sup>th</sup> Project Management Meeting (PMM7) and the 4<sup>th</sup> Project Steering Committee (PSC4) meeting in Pontianak, West Kalimantan. Peer learning on agricultural best management practices (BMPs) on peatlands was organised for farmers in Central Kalimantan. Capacity building programmes for increasing skill of community fire brigades on fire control through leadership training and practices were organised for community fire brigades in Central Kalimantan and West Kalimantan.

Demonstration plots of degraded peatlands in Harapan Jaya were rehabilitated by planting rubber trees and integrated with pineapples. There were canal blocks and shallow wells constructed at pilot sites in Mumugo, Sepahat, Tanjung Leban, Pelintung and Guntung as fire preventive and control measure in the peatland area. Pilot site of pineapples farm in Bantayan Village was established. Demonstration site in Nung peat swamp forest in West Kalimantan has been established. Communities around Nung Peat Swamp Forest were trained on value added of fish products through trainings. In Rasau Jaya, West Kalimantan, the communities has increased their income by beekeeping to produce better quality and quantity of honey through cultivation of Tembesu (*Fagraea fragrans*) and corn (*Zea mays*) in buffer zone of Sentarum National Park. Local governments of Riau, West Kalimantan, South Sumatra and Aceh were supported peat augers to undertake peatland inventory. Water pumps were provided to fire brigade community in Rasau Jaya, food processors and pasta machines were provided to community groups around Nung Peat Swamp Forest. Partnership with the Wetlands International Indonesia and Financial Services Authority was initiated through a Workshop on Sustainability Investment in Peatland Plantations in June 2014.

### 2.3 Malaysia Component

Capacity and institutional framework developed for sustainable peatland management. The NAPs is a milestone document of the country which was completed and adopted by the Malaysian Cabinet in May 2011, with execution being delegated to relevant agencies. Implementation of certain activities mentioned in the NAP started long before APFP start-up. Peatland issues are incorporated into various national policies in Malaysia. Under the National Forestry Policy, forested areas in Malaysia require management plans, and these include the main peatland forested areas such as the North Selangor Peat Swamp Forest (NSPSF) (Selangor), the South-East Pahang Peat Swamp Forest (Pahang), the Klias Forest Reserve (Sabah) and the Logan Bunut National Park (Sarawak); all of which already have a specific management plan. To increase institutional capacity and strength in peatland and fire management issues, capacity-building training sessions were conducted. In terms of awareness-raising, several types of materials were produced through the project in both English and Malay, with support from corporate social responsibility partners. The Virtual Peatland Education Centre (outdoor classroom) was established at Raja Musa Forest Reserve (RMFR). Pilot site rehabilitation and fire prevention activities have received substantial financial support from both the Selangor State Government and corporate social responsibility partners (facilitated by GEC). Co-funding support for Malaysia (2010-2014) totalled about US\$8 million which is more than the required amount under the Grant Sub-Agreement.

The project facilitated the generation of geographic spatial information map for peatland areas in the country, which subsequently contributed to the documentation on the status and trends in peatlands in Southeast Asia. A peatland profile for Malaysia was finalised by Universiti Putra Malaysia in June 2014. An assessment of above-ground carbon stock changes in the pilot site at Bestari Jaya, Selangor have been conducted by the Forest Research Institute Malaysia and

report printed. Through the project, the fire risk map was made available for the NSPSF while the Department of Environment has produced a fire-prone map for Malaysia with the support from MMD, which also hosts the forest fire information system developed by the Malaysian Remote Sensing Agency to provide information/ updates on fire- and/or haze-related situations in the country. Standard Operating Procedures for fire prevention formulated by the Department of Environment's programme in peatland areas are available and adopted by local authorities. A fire danger rating system (FDRS) was developed and successfully implemented at the pilot sites and subsequently expanded throughout Malaysia. Ground-truthing by the Department of Environment and other government agencies is now based on FDRS maps. Guidelines on best management practices for agriculture on peat have been developed by the Malaysian Agriculture Research and Development Institute. At the pilot site, the activity involves educating local communities on the importance of maintaining high water table and awareness of zero burning during planting. The MMD has facilitated real-time monitoring for the pilot site by installing an automated weather station in the nearby Ladang Tennamaram at NSPSF. Drainage control measures have been established at the pilot site as well as in other fire-prone peatland areas throughout Malaysia such as in Pekan (Pahang), Miri (Sarawak) and at the Kuala Langat South Peat Swamp Forest (KLSPSF) (Selangor) using cofinding.

This component facilitated the planting of 80,000 trees, an exercise involving thousands of individuals including students, general public, members of the local community and private sector. This high participation has indirectly resulted in far greater knowledge about the project, and raised awareness of the importance of the peatlands and the need to protect them. Rehabilitation activities were undertaken at degraded peat areas in the RMFR and KLSPSF. A manual on peat swamp rehabilitation in Malaysia has been published by Forest Research Institute Malaysia. Three sites in Malaysia were designated as demonstration sites for having management plans and best management practices in place i.e. the South-East Pahang and Klias Peat Swamp Forests and the Loagan Bunut National Park. The integrated management plan for the NSPSF expired in 2010 and a revision was conducted in 2014. A scientific expedition was conducted to the NSPSF by the Malaysian Nature Society in order to supplement the needed biodiversity and environmental data to the review of Integrated Management Plan for NSPSF 2014-2023.

Private-sector support for buffer zone management in Selangor was initiated through fire prevention and suppression activities, including canal blocking. Implementation of a strategy for buffer zone management with the private sector was initiated in 2012. Fire prevention and suppression activities were carried out with the neighbouring developers (especially PKPS) through canal blocking and construction of clay bund to prevent drainage of water from the RMFR. Community livelihood and peatland management activities were initiated at the RMFR. Guidelines for community participation were developed and a community-based organization called Sahabat Hutan Gambut ("Friends of Peatland Forests") was established in August 2012. A seedling buy-back system was introduced to support ongoing forest rehabilitation programme. Community-based peatland ecotourism was mooted as part of livelihood option for the community.

The project is managed by the Forestry Department Peninsular Malaysia as the appointed National Project Execution Agency. As it is the project's expenditures, record keeping and the overall internal controls for financial management is done according to the procedures of a Trust Fund. Akaun Amanah Pengurusan Hutan Tanah Gambut (or Peatland Trust Management Account) is governed by the Trust Fund Committee established at the Forestry Department Peninsular Malaysia and audited yearly by Auditor General.

## 2.4 Philippines Component

The project has been successful in achieving the desired outputs and in most cases even going above and beyond the set targets. Major achievements include the creation and operationalisation of the peatland working groups at the national and local levels by virtue of DENR Special Order 2010-203. The National Project Implementation Committee (NPIC), with 11 members, had a total of three (3) meetings; the National Inter-Agency Working Group, also known as the National Project Steering Committee, with 19 members, had a total of thirteen (13) meetings; while the two local Technical Working Groups, Agusan (20 members) and Leyte (15 members), had a total of 11 and 12 meetings respectively.

Capacity building activities for national and local peatland managers were conducted through a series of seminars and trainings, which included attendance of 14 Philippine representatives from concerned national agencies, local government units, representatives of pilot sites, and academe in a five (5)-day international study tour conducted in Malaysia (North Selangor Peat Swamp Forest and Klias Peat Forest Reserve) held on 3-7 October 2011. The tour provided the venue for the participants to share their experiences and knowledge on peatland conservation and management. It was also to expose the participants to observe first-hand the initiatives Malaysia has taken to manage their peatland forests. Four other regional trainings/technical workshops were attended by 14 representatives from the Philippines that enabled them to enhance the implementation of the project in the country. A total of 15 trainings/ workshops were also conducted at the national and local setting that allowed the participative development of plans and actions needed to be undertaken for the successful implementation of the project.

Given that there is a dearth of information and knowledge on peatlands in the country at the start of the project, information and education campaign was successfully implemented that raised the awareness on peatlands at the national and local levels. IEC materials that were produced and distributed include (a) "Juan Meets the Least Famous Forest" comics, (b) Peatland brochures in three languages (English, Bisaya, and Waray), (c) Tarpaulins/Posters in Bisaya and Waray, and (d) three video documentaries on protecting and saving Philippine peatlands. A pictorial handbook of the Flora of Agusan Peatlands is currently being finalized by the National Museum for printing and distribution.

Meetings with the concerned Local Government Units (LGUs) with jurisdiction over peatlands were conducted to discuss potential sources of innovative funding (i.e. municipal budget allocation) to support peatland conservation initiatives. "Buying Living Tree System" as one of the innovative micro financing schemes learned from Central Kalimantan, Indonesia was replicated at pilot sites of Philippines. The scheme is being managed by Bureau of Fire Protection - DILG currently being implemented in Agusan Marsh and Leyte Sab-a Basin under the SEApeat Project. LGUs in Agusan Marsh and Leyte Sab-a Basin has committed to provide funds and to continue rehabilitation and pilot demonstration site initiatives. The Municipality of Sta. Fe, Leyte has put up counterpart funding amounting to PhP 800,000.00 (c. USD 18,000) for the canal blocking and flood control in Barangay San Isidro.

Demonstration projects for sustainable use of peatlands and rehabilitation were implemented in two pilot sites, Caimpugan Peatland in Agusan del Sur Province and the Leyte Sab-a Basin in Leyte Province. Two types of farming method, raised-bed and floating garden, were demonstrated in eight barangays (four barangays for each type) covering a total of 10 hectares in Agusan Marsh. A third method, Sorjan farming, was demonstrated in four barangays within the Leyte Sab-a basin covering a total of four (4) hectares, one hectare for each barangay.

Rehabilitation of degraded peatlands were also initiated in the two pilot sites with 10 hectares planted with indigenous tree species found in the area and are known to survive in perennially water logged areas such as Lanipao tree (*Terminalia copelandii*), Bangkal (*Nauclea orientalis*), Mambog (*Mitragyna diversifolia*), Potat (*Barringtonia acutangula*) and Tiga tree (*Tristanopsis micrantha*) within Agusan Marsh (5 hectares each in barangays Caimpugan and Maharlika) and four (4) hectares in Leyte Sab-a.

Local government units that have jurisdiction over the peatland areas in the pilot sites have also incorporated in their comprehensive land-use plans the zoning of the peatlands as protection and conservation zones. A total of 14 other potential peatland sites throughout the country were also surveyed and assessed. Ten (10) sites (6 in Mindanao, 3 in Luzon, and 1 in Samar) were positive for presence of peatlands.

## 2.5 Viet Nam Component

The ASEAN Peatland Forests Project (APFP) activities in Vietnam were initiated in 2009 and completed in 2013. The National Action Plans for Peatlands (NAP) has been developed and is awaiting approval by the government.

Have conducted surveys for collecting and analysing data of peatland resources in Vietnam and especially the U Minh peatland areas of the Mekong Delta, and developed technical guidance for project activities of the Vietnam Component, in cooperation with both UMTNP and U Minh Ha National Park (UMHNP) and consultants to carry out project activities in pilot site. Based on project activity, a land use planning in peatlands was analysed and showed the discrepancies between land use planning in local authorities and trends of conservation and sustainable use of peatland resources.

A handbook for conservation and sustainable use of peatlands in U Minh Thuong was published and disseminated to stakeholders and local agencies in peatlands. Capacity of park's staff has been improved through many workshops on role of peatlands and sustainable management of peatlands.

For assessment to close the gaps in inventory of peatlands in Vietnam; main activities have been carried out to collect data of peatlands in Vietnam, particularly in the Mekong Delta. A semi-detailed peatlands map of the Mekong Delta (scale 1:250,000) was completed. Map of pealand distribution of UMTNP and UMHNP was completed and the result has been useful for water management to minimize the degradation of peatlands.

A plan of integrated management of water and fire was done and has been applied in U Minh Thuong National Park. There has no any fire in peatland located in U Minh Thuong National Park from 2009 to 2014. This is one of respected results of APFP project activity in pilot site of UMTNP. Technical method of water and fire management that has been applied effectively in UMTNP has been transferred to UMHNP (Ca Mau Province). A plan of conservation and rehabilitation of ecosystems and biodiversity conservation in peatlands of UMTNP has been implemented at provincial level.

To support the preparation of a proposal for sustainable livelihood projects with local communities at UMTNP, a survey to evaluate the present development of socio-economy and livelihood of the local community in the buffer zone of U Minh Thuong National Park was carried out. UMTNP also conducted a quick survey to collect data to evaluate the livelihood of local

communities in buffer zone. From the results of the surveys and understanding of current status of local community livelihoods, suitable types of livelihoods were chosen to support the development of livelihood towards the protection of peatland resources with the participation of the community in the park buffer zone.

Approximately 2,000 households who are living within the buffer zone of UMTNP participated in the awareness and capacity building programmes. 100 households of the community group were supported and trained on the methods of sustainable agro-forestry production. A sustainable community livelihood project at UMTNP has been developed and implemented. 51 households were selected through competition have been supported by the peatland project to participate in the livelihood development project. Based on the result of evaluation of livelihood development activities, more than 85 % households get more income from this activity.

Viet Nam Environment Agency (VEA), the National Project Executing Agency in collaboration with the National Expert developed a proposal for U Minh Thuong National Park becoming ASEAN Heritage Park (AHP). The UMTNP was also designated as a Ramsar Site in 2015.

### **Progress against Targets**

The overall project progress against targets on Logical Framework is in Appendix 1.



APPENDIX 1: OVERALL PROJECT PROGRESS AGAINST TARGETS ON LOGICAL FRAMEWORK

Outcomes and Outputs	Objectively Verifiable Indicators			Means of Verification	Progress to date/detail						Critical Assumptions	Progress to date (Revised Aug 2014)	Progress % vs target	Remarks	
	Indicators	Baseline	Target		Indonesia	Malaysia	Philippines	Viet Nam	Singapore & Brunei	Regional					
<b>OVERALL PROJECT OUTCOME 1: Capacity and institutional framework for sustainable peatland management in South East Asia strengthened.</b>															
<b>OUTPUT 1.1 Inter-sectoral policy and planning frameworks for integrated peatland management strengthened at regional, national and local levels</b>	ASEAN Peatland Management Strategy	Not updated	Reviewed and revised in Y4	Report to AATHP on APMS progress	APMS has been translated into Bahasa Indonesia and has been integrated into National Strategy on Sustainable Peatland Management in Indonesia	Meeting in Paya Indah Wetlands, Selangor (19 Sept) 2012 to review APMS					APMS Review meeting in COP AATHP in 24th Sept and 6th Nov. 2012 results presented to 9th COP of AATHP in 2013	ASEAN Secretariat and member countries continue to support APMS	APMS Review initiated in July 2012 with meetings in September and November 2012 and July 2013 and revisions adopted in September 2013 at COP 9 of AATHP. Revised APMS was printed and disseminated.	100	
	Regional Action Plan on Peatland Management	Not developed as a separate plan	Countries commit to implementation of RAP in Y1	Project Progress Report							Discussed in the APMS meeting	Willingness of governments at national and local levels to continue to participate	APMS revised in 2013 september. ASEAN programme on sustainable management on peatland ecosystems 2014-2020 developed between september 2013-August 2014	100	
	National Action Plans on Peatland Management adopted	National action plans yet to be adopted	National Action Plans for 4 participating countries adopted and implementation initiated by Y1 and revised by Y4	Report to AATHP on APMS progress	NAP approved in 2010. Review completed in 2012 and Revised NAP disseminated in 2013.	National Action Plan for Peatlands (NAPP) has been finalized and adopted by Malaysian Cabinet in May 2011. It has been translated to National Language and disseminated to various government agencies for its implementation. The progress of implementation is being monitored by MNRE and reported to the National Peatland Working Committee on half-yearly basis. Status on the NAPP implementation was reviewed in November 2013 lead by MNRE. Implementation plan for RM11 of the NAPP finalised.	Philippines NAP was integrated in the Updated National Wetlands Action Plan of the Philippines which was included in the Philippine Development Plan for 2011-2016	NAP finalised. Awaiting cabinet approval	NAP Brunei is being finalised	Support provided to countries to prepare NAPs	Willingness of governments to adopt new policies on peatland management	NAP for Indonesia, Malaysia, Philippines and Vietnam finalised. Implementation initiated in Indonesia, Malaysia and the Philippines. NAP of Viet Nam submitted for approval. NAP Brunei is being finalised	100		
	Inclusion of peatland in sectoral policies in Indonesia and Viet Nam	Limited information inclusion	Peatland included in other policy frameworks in Indonesia and Viet Nam by Y3	Project Progress Report	Inpres No. 10 Year 2011, Inventory of GHG/ Perpres NO.71 Year 2011, Perpres NO.61 Year 2011, Permentan No.14 Year 2009, Presidential Decree on the Reduction of Emission from Deforestation and Degradation of Forest and Peatlands was formulated in 2013 (Decree No. 62/2013) and is awaiting final approval.			Plans were developed to support the management of peatland at U Minh Peatland Region. Such as 5 year action plan for nature conservation of UMTNP and UMHNP and buffer zone, plan of water management at UMTNP, site management plan for sustainable use and rehabilitation of UMTNP, plan of sustainable livelihoods development for communities in the buffer zone.				Peatland issues included in a range of policy frameworks for Indonesia sectoral plans were developed for U Minh Peatland Region for sustainable management and livelihood development	100		
	Malaysian wetland policy	Policy not revised	Revised policy incorporating peatlands adopted in Y3	Policy review papers		Wetland Policy is currently being revised under the National Biodiversity Strategic Action Plan (NBSAP) exercise conducted by MNRE .						Revision of Malaysia wetland policy is being finalised .	70	Finalisation of policy delayed due to integration into process to update National Biodiversity Strategy and Action Plan	
	Incorporation of peatland management into policies and plans related to forest and land-related resources to mainstream peatlands into the appropriate ministries	Limited	Peatland issues addressed in Msia (National Forestry Council), Presidential Decree in Indonesia	Project Progress report		Initial progress to incorporate peat into national policies in Indonesia. Presidential decree being finalised/RPP Gambut	Peatland issues are incorporate in various national policies in Malaysia. Under National Forestry Policy, forested areas in Malaysia requires management plans, and the main peatland forested areas eg. NSPSF (Selangor), SEPPSF (Pahang), Klias FR (Sabah) and Loagan Bunut NP (Sarawak) already have management plans. For areas outside forest reserve the management of peatland areas are captured under the respective local plans.	Philippines NAP on Peatlands has been incorporated into the Updated National Wetland Action Plan which is now part of the current Philippines Development Plan. Municipal Ordinance entitled "An Ordinance for the Protection of the Unique Stunted Peat Swamp Forest within the Municipal Jurisdiction of Talacogon, Agusan del Sur and Providing Funds Thereof" was approved and signed by Municipal Council in May 2014. Municipal Ordinance for Establishing Local Conservation Area, Initiating the Establishment of Leyte Sab-a Peatlands as Critical Habitat was drafted.			Integrated Peatland Planning Guideline prepared	Good progress to incorporate peat into national policies in Malaysia and Indonesia. Presidential decree being finalised/RPP Gambut in Indonesia. Peatlands incorporated into Philippines development plan and IMP guideline prepared. Peatlands incorporated into local plans of U Minh Peatland Region in Vietnam	100		

APPENDIX 1: OVERALL PROJECT PROGRESS AGAINST TARGETS ON LOGICAL FRAMEWORK

Outcomes and Outputs	Objectively Verifiable Indicators			Means of Verification	Progress to date/detail						Critical Assumptions	Progress to date (Revised Aug 2014)	Progress % vs target	Remarks	
	Indicators	Baseline	Target		Indonesia	Malaysia	Phillipines	Viet Nam	Singapore & Brunei	Regional					
<p><b>OUTPUT 1.2 Capacity for peatland management strengthened through training and awareness programmes to support the upscaling of good peatland management practices</b></p>	No. of govt agencies with trained personnel on peatland management	Limited	60% of related agencies with at least 4 staff with training on peatlands by Y4	Training Needs Analysis Report/ Project Progress Report	MoA, MoE, Universities, MoF, and local agencies in Sumatra, Kalimantan, and Papua, more than 250 persons attended trainings and workshops	Total of 135 participants from about 40 government agencies, public sector, research institutions and NGOs were trained in peatland management.	more than 240 staff oriented/trained on peatland assessment and management including peat fire management and agriculture on peatland	more than 150 persons from government agencies and local communities trained on peatland management	representatives from Brunei and Singapore attended at least 6 workshops	more than 775 people from 10 ASEAN Countries were trained/participated in workshops/TOT	Trained personnel remain in the region/ country to assist in achieving targets	Training undertaken in 5 countries - 900 people trained from 10 countries	100		
	Regularity of meetings of peatland working groups in participating countries	Limited	At least one meeting per year of working groups in each country (E.g. PSC, NPSC, State/local working group)	Minutes of meetings	NPIC meetings - 23 Jan 2013, 14 Feb 2014; National meeting of LPICs - 29-30 Jan 2013; LPIC Riau - 30 Jan 2014; LPIC Central Kalimantan - 13 Feb 2014	National/ State Steering Committee on Peatlands and National/ State Working Committee established and meetings were conducted as planned. NPSC - 5 meetings (Aug & Oct 2010, 11 Oct 2011, 29 Oct 2012, 4 Dec 2013), NPWG - 4 meeting (5-8 Sept 2012, 27-29 June 2013, 1-2 Oct 2013, 14-15 April 2014), SPSC - 2 meetings (7 July & 3 Nov 2011), SPWG - 3 meetings (7 July & 12 August 2011, 29 Aug 2012, Jun 2013) and NPEA - 12 times a year or as needed. Participated as Malaysian Delegation to the 13 <sup>th</sup> & 14th Meeting of TWG and MSC on Transboundary Haze Pollution in Brunei (7-9 May 2012) & Bali (30 - 31 Oct 2012) respectively.	NPIC- 2 meetings NTWG- 9 Leyte TWG- 10 Agusan TWG- 8  NPIC- twice a year NTWG & LTWG- 4 times a year or as needed	Draft program of cooperation between the two peatlands of UMHNP and UMTNP. Two meetings on sharing of management's experience per year.	Participated in all TWG, MSC, AATH P COM and COP meetings	Reported on progress to the 13th, 14th, 15th and 16th meeting of TWG and MSC on Transboundary Haze Pollution in Brunei (7-9 May 2012) Bali (Oct 2012) Kuala Lumpur (July 2013) and Brunei (April 2014); 8th COM/COP AATHP in Thailand (Sept 2012). Establishment of Regional Peatland Working Group was approved by the COP-9.	Willingness of agencies to share information for better management	more than one meeting per year organised in participating countries and at regional level	100	more than one meeting per year was held in the participating countries and at regional level	
	Awareness materials produced and disseminated in the region	To be determined at project start-up	At least 15 separate materials in 4 languages by Y3	Evaluation of awareness materials by the target audience	Leaflets in Indonesian and English, Video, Poster, Peat Profile translated into Bahasa Indonesia, Training Module translated into bahasa Indonesia	Project's awareness materials produced (bilingual) - pamphlet (1,000 copies), poster (1,000 copies), CD (500 copies) and calenders (1000 copies). In addition 500 caps, 200 t-shirts and 200 backpacks had been produced. These materials have been disseminated to the public and stakeholders during the workshops, seminar, training courses, public talks, scientific expedition, IMP and SAPP stakeholders consultation.	National Action Plan (English) - 1,000 copies 2 video documentation Care for Our Peatlands (English) - 1,000 flyers Care for Our Peatlands (Bisaya Version) - 150 flyers Care for Our Peatlands (Waray Version) - 200 flyers Tarpaulins on What is Peat patterned after Rajah Musa's	4 awareness materials have been drafted in Vietnamese and English		11 awareness materials in English (TOT training Modules; Peat Profile; BD Toolkit; Fire management & Control; Project Brochure; Peatland Distribution Map; BMP Video; Introduction & Completion video; IMP Poster; Peatland and climate change; Plantation Workshop Publication)		35 awareness materials produced in 5 languages	100	more materials were produced compared to planned materials to support enhancement of knowledge on peatland management in the region	
	Media coverage on sustainable peatland management	Limited	Sustainable peatland management acknowledged as important issue by national and local media through print and electronic media by Y2	Project Progress report/ Inception report	on going compilation of articles in newspaper	8 articles: 7 press articles (WWD 2011 & 2012) & 1 Documentary; NTV7 (Sahabat Hutan Gambut; 9 Oct 2012), 2 interviews by radio station, Website: www.aseanpeat.net; facebook@sahabathutangambut Malaysia APFP Special Report published.	Samar Daily Express and PIA Press release: Leyte Sab-a Basin Peat Forest Rehab Underway, December 14, 2011 Radio Plugging in local radio station (Radyo Bombo) by Leyte Sab-a PS; December 2010	There is one video of peatlands management in UMTNP, articles published on newspaper in July 2014		17 articles: 3- magazines (Malaysian Naturalist, Int. Peat Society, ABD 2013 and Environmental Conservation Feb 2014 ); 13 - press articles (local papers); 2 - proceedings/abstracts; 2 Radio Interviews; input to documentary for History Channel (Haze Hell over Asia) shown in 2012 and 2013; TV documentary in Malaysia in October 2012		Significant media coverage of peatland issues stimulated by project	100		
	Virtual Peatland Education Centre in North Selangor	To be determined at project start-up	Centre established and being used by external groups by Y4	Education & Management Centre		Virtual (outdoor classroom) centre established at Raja Musa Forest Reserve ( compartment 100 - Parit 6 ). Launched 26 Feb 2011 during WWD celebration. Regular education and awareness activities at the centre. Second centre established in Comp 73 in 2013.							Virtual centre established and operating and second centre under establishment	100	
	Capacity building activities using project materials	None	At least 15 separate activities by third parties in 4 countries using project training and awareness materials	Annual report		TOT Modules translated into Indonesian language for training in Dec 2011 ( 28 participants from various agencies). Training on sustainable peatland management in South Sumatra (11-13 Mar 2014, 50 participants, training in Central Kalimantan (13-14 Mar 2013, 30 participants), Training in Jambi (9-10 Apr 2013, 40 participants), training in North Sumatra (21-22 Nov 2013, 50 participants), Training in Riau (22 participants), workshop on FDRS application in Riau (2-3 Dec 2013, 30 MPA members)	4 capacity building trainings conducted - TOT on peat assessment & management (3-6 Oct 2011), FDRS Interpretation (12-13 Oct 2011), FDRS and Forest Fires (19-21 Sept 2012), FDRS Regional Workshop (28 Oct-1 Nov 2013) and Rehabilitation Techniques on the Degraded Peatland areas (4-6 Feb 2014).	Lectures and presentations for government agencies, local government units, and member of civil society Leyte - 5 lectures/ presentations Agusan - 9 lectures/ presentations Community assemblies and dialogues to increase the level of awareness of peatlands in the communities Leyte - 6 community assemblies/ dialogues Agusan - 7 community assemblies/ dialogues  Study tour for 15 participants from different agencies  Training/Seminar on Sustainable Use of Peatlands through the Prevention and Suppression of Wildland Fires conducted by the Bureau of Fire Protection April 2010 - 40 firefighters from Region 12 and ARMM October 2011 - 30 firefighters from Caraga Region	There were four meetings/ trainings on ecosystem and biodiversity management in peatlands including management of the buffer zone.	TOT Modules developed by project used by third parties in Cambodia, Indonesia, Lao PDR, Malaysia, Myanmar		Large number of capacity building activities undertaken by project and others using project training materials	100		
	Lessons learned from other nat/ local sites documented to upscale learnings to a wider network	Limited				Visit to Raja Musa FR (2011: 15 person), BMP Palangkaraya, Kalimantan Tengah (Nov 2011: 3 persons) /Peer Learning Programme on BMP to Thailand (Apr 2012: 6 persons)/ Technical visit to SEPPSF, Pahang (Jul 2012: 20 persons)/ Study tour to Klias Peatland Centre of Excellence, Sabah (Sept 2012: 20 persons)/Study Tour On "Best Management Practice" To UMTNP, Viet Nam (3-6 Dec 2012: 8 persons) Study Tour to Riau, Sumatera (27-30 Mar 2013: 13 persons)/ Peer Learning Programme to Banjarmasin, Kalimantan, Indonesia (17-20 Jun 2013: 4 persons)/Study tour to Loagan Bunut NP, Sarawak (27 Jun 2013: 25 persons); Peat/BRIS soil correlation visit, Rantau Abang, Terengganu (1 Oct 2013:30 persons); Peat soil correlation visit, Muar, Johor (14 April 2014: 40 persons). Total persons involved: 184	Significant participation from Philippines in tech visits to Malaysia ( RMFR and Klias), Thailand; Indonesia. Many lessons learned documented and transferred to Philippines including interpretation material, fire control, livelihoods etc)	Visit on Peer learning on BMP in Thailand (2 persons), visit on BMP Palangkaraya, Central Kalimantan (1 person), TOT in Malaysia (2 persons)		Demo site network established. Regional programme/peer learning programme operating actively to promote BMP network (BMP Palangkaraya:32 pax; BMP Thailand -50 pax; IMP pahang 47 pax; Peer learning south Kalimantan)	Local communities willing and motivated to participate	significant transfer of experience between countries and sites.	100		

APPENDIX 1: OVERALL PROJECT PROGRESS AGAINST TARGETS ON LOGICAL FRAMEWORK

Outcomes and Outputs	Objectively Verifiable Indicators			Means of Verification	Progress to date/detail						Critical Assumptions	Progress to date (Revised Aug 2014)	Progress % vs target	Remarks
	Indicators	Baseline	Target		Indonesia	Malaysia	Philippines	Viet Nam	Singapore & Brunei	Regional				
OUTPUT 1.3 Innovative financial mechanisms to support sustainable peatland management and rehabilitation established	Concept paper on options for sustainable resource mobilisation completed by year 2 and presented at ASEAN meeting	Not existing	Established by Y1 and receiving contributions from governments and donors by Y3	Project Progress Reports	Indonesia submitted portfolio of US\$115 million of projects for inclusion in APSMPE and committed significant government finance for selected projects	Malaysia submitted portfolio of \$80 million of projects for inclusion in APSMPE and committed significant government finance for selected projects	Philippines submitted portfolio of US\$4.5 million of projects for inclusion in APSMPE and committed significant government finance for selected projects	Vietnam still in process to develop portfolio of projects for SMPE	Brunei and Singapore submitted portfolio of US\$4 million of projects for inclusion in APSMPE and committed significant government finance for selected projects	Combined portfolio of projects for APSMPE of US\$240 million compiled. Commitment to support APSMPE received from ASEAN member states as well as EU (\$30 million) and GIZ (\$5million) and potential support from private sector secured	Stakeholders willing to contribute to multi donor fund	Review of options for financing of sustainable management of peatlands published in 2013. ASEAN ministers agreed to establishment of a new ASEAN peatland programme in september 2013. Combined portfolio of projects for APSMPE of US\$240 million compiled. Commitment to support APSMPE received from ASEAN member states as well as EU (\$30 million) and GIZ (\$5million) secured.	100	
	Innovative finance mechanisms for peatland management	Not established	At least two Innovative finance mechanisms established in participating countries by Y4	Project Progress Reports	Study on incentives undertaken. climate finance options being considered for Kampar peninsula in Riau. Profit gained from the crops produced at pilot/demo sites to be used as operational cost of the community groups in Riau	Seedling buy-back system for pilot site established.	BLTS scheme established in Philippines	Green Contract scheme established for UMHNP and UMTNP		Financing and Incentive Option report published in 2013. Climate finance options being developed for sites in Indonesia and Malaysia	Governments are willing to introduce innovative mechanisms	Climate finance options being considered in Malaysia and Indonesia. Incentives for local communities established in Vietnam (green contract), Philippines (BLTS) and Malaysia (Seedling buy back)	100	Existing innovative finance mechanisms were shared at trainings/ peer learning sessions and they were replicated in other countries in order to improve community livelihoods. Innovative models established in four countries
	Levels of funds and resources available for peatland management	Limited	Significant increase in allocation by participating countries of funds for peatland management by Y4	Annual review of government resource allocations	Major increase in financing for peatland work in Indonesia including from Norway, Australia, USA, Germany as well as from national Government.	Pilot site rehabilitation and fire prevention activities getting substantial financial support from the National Government and Selangor State Government annual budget. CSR support has been contributed by HSBC Bank Bhd, Bridgestone Tyres (M) Bhd and Sime Darby Foundation.	Significant funds allocated by international donors ( US, Korea, Australia) and national (DENR, Social Welfare Department, Interior department and local governments to support Peatland management	Significant funds allocated by international donors and provincial governments to support work at UMTNP		Increase funding for work on peatlands at a regional level - including from European union, Norway, Germany, Japan, Korea. AMS agree to funding of \$130 million for peatlands 2014-2020		Significant increase in funding for peatlands in most countries and at the regional level; AATHP adopted establishment of a new Peatland programme with US\$130 million budget in Sept 2013.	100	
<b>OVERALL PROJECT Outcome 2: Reduced rate of degradation of peatlands in South East Asia</b>														
OUTPUT 2.1 Status and trends of peatland degradation in South East Asia determined	Status and trends of peatlands in the SEA region	Limited information available	Status and trends of peatlands in the region documented by Y2 and updated by Y4	Technical reports	Information compiled on significant peatland areas. Maps of peatland hydrological units prepared.	National Forest Inventory 5 (or NF15) data has been processed and intergrated with spatial data on peatlands distribution from the Agriculture Department. FDPM collaborated with the Faculty of Forestry UPM to prepare the assessment and complete the peatland profile study. Profile of peatlands in Peninsular Malaysia prepared.	Assessments undertaken in various parts of the philippines and new peatland areas have been documented.	Assessment completed on peatlands outside of protected areas		Regional compilation of information from national inventories and assessments.		Compilation of national assessments undertaken	90	Extent of peatlands in countries documented but information on trends not available for all countries
	National peatland status reports	Unavailable	Available in at least two countries by Y2	Project Progress Report	Peatland map developed by (MoA) year 2011 and MOE in 2013.	FDPM in collaboration with Faculty of Forestry UPM has prepared the digitized spatial maps for Malaysia peatlands (peatlands profile) .	Assessments undertaken in various parts of the philippines and new peatland areas have been documented.	Inventory report of peatland status in Vietnam published at the end of 2012. Maps of peatland areas in U Minh Region have been developed		Regional map developed based on country studies	Access to data on peat areas, status and trends made available by cooperating agencies	peatland status reports finalised in Vietnam and Malaysia and assessments in other countries underway	100	
	Studies on carbon storage in peatland	Limited	Studies on carbon storage underway in 2 countries by Y4	Project Progress Report	Studies undertaken on carbon emission from agriculture on peatland in West Kalimantan and carbon emission from degraded peatland in Central Kalimantan	Assessment of above ground carbon stock changes in the pilot site at Bestari Jaya, Selangor have been prepared by Forest Research Institute Malaysia (FRIM) . Further study on impact of water management on emissions was carried out with support of Winrock through USAID-LEAF programme in 2013-14	Carbon Storage of Caimpugan Peatland in Agusan Marsh, Philippines and its role in greenhouse gas mitigation by Dr. Van Leeah Alibo of Caraga State University	Initial study in peatland of UMHNP		Carbon storage studies at project sites in Indonesia and Malaysia underway		studies of carbon storage underway in 4 countries	100	Studies of carbon storage undertaken in four countries rather than 2
	Studies on impact of climate change on peatlands and adaptation options	None	Studies initiated in at least 2 countries by Y4 ( decided to adjust strategy and focus on studies of carbon storage and emission )	Articles and publications published							Report on peatlands and climate change (including adaptation issue ) was published and disseminated at regional level in 2013		Progress at regional level but not specific country studies	70

APPENDIX 1: OVERALL PROJECT PROGRESS AGAINST TARGETS ON LOGICAL FRAMEWORK

Outcomes and Outputs	Objectively Verifiable Indicators			Means of Verification	Progress to date/detail						Critical Assumptions	Progress to date (Revised Aug 2014)	Progress % vs target	Remarks
	Indicators	Baseline	Target		Indonesia	Malaysia	Phillipines	Viet Nam	Singapore & Brunei	Regional				
OUTPUT 2.2 Rate of degradation of peatlands by fire reduced	Average no. of fires in pilot areas	To be determined at project start-up	Number of fires reduced by 10% in pilot areas by Y4	Fire Hotspot maps ; Project progress report	Indonesia will do the analysis, for Riau has been completed to be updated	In total about 2,000 ha affected by fire in RMFR from 2009 - 2014. Jul-Sept 2012 saw about 400 ha of the FR burned down during the dry spell despite all preventive action taken. In 2013 fire at RMFR affected 600ha and in early 2014 another 1,500 ha effected due to severe drought.	No fire in pilot sites during project period	No fire in pilot sites during project period		Tech support and guidance provided for fire prevention and control	Trained personnel are not transferred prematurely; No extreme El Niño event or environment disruption that could induce peat fires	No major fires in 2010-mid 2012. Fires in project sites in mid 2012 at start of el-nino related drought as well as in 2013 and 2014 droughts significant - but in malaysia smaller area burnt compared to 2009 and last el nino year in 2006. No fires in project sites in Viet nam and Philippines. some fires in Pilot areas in Indonesia but extent less than earlier.	100	
	Regional map of fire prone peatlands	No maps available	Maps of fire prone peatlands being made available by Y3	Map of fire prone peatland areas	Maps of Indonesian peatlands made available. Maps of fire-prone peatlands developed in selected Provinces	Fire risk map available for NSPSF. DOE has produced fire prone map for Malaysia. MMD hosts the Forest Fire Information System (FORFIS) developed by Malaysian Remote Sensing Agency to provide information/ update on any fire and/or haze related situation in Malaysia.	No fires in project areas	No fires in project sites. Maps of U minh Peatland Region were developed.		Awaiting data. Regional map to be developed	No extreme El Niño event or environment disruption that could induce peat fires	Maps of fire prone peatlands made available at country level. Not fully integrated at regional level	80	Not yet consolidated to regional maps
	Extent of peatland fire prevention measures being practiced - zero burning & controlled burning	To be determined at project start-up	Local governments adopting fire prevention schemes for peatlands increased by 30% by Y3	Project Progress Report	significant work to encourage better fire prevention and control measures by local government and communities in Riau and West Kalimantan, FDRS system promoted	Zero burning is standard practice for all palm oil plantations in Malaysia. Control burning is adopted for other types of open burning and enforced by both federal and local government authorities. Lead agency for monitoring and reporting is DOE. SOP for fire prevention programme in targeted fire prone peatland areas available since 2009. Significant improvement in fire prevention measures in RMFR starting 2012.	Training provided to fire fighters in peatland fire prevention and control	Report of integrated fire and water management in peatlands of UMTNP. There has not been any fire in peatlands since project implementation.		Manual on peatland fire control reprinted and disseminated. FDRS promoted to country and province level in fire prone areas; Fire prevention measures built into BMP manuals for plantations; regional FDRS workshop organised		improvement in fire prevention in Malaysia, Philippines, Vietnam, and Indonesia; more widespread use of fire prevention through good water management	100	
	Peatland fire prediction and warning system/ development and usage of FDRS in peatland fire	Not existing	System established by Y2 and operating in 2 countries by Y4. FDRS to be actively used by 2 countries by Y4.	Progress report	National working group on FDRS was formed and several meetings held.	Fire Danger Rating System (FDRS) has been developed, tested and verified by Malaysia Meteorology Department (MMD) for the State of Selangor. The system has been expanded for Peninsular Malaysia and other ASEAN countries, and updated to incorporate Google Earth technology. The current FDRS system was enhanced by the introduction of the new software from the Canadian Forest Services.		FDRS being used at UMTNP		System under development since 2010 and operating in 2012. Lead by MMD, Malaysia; system upgraded in 2013 and regional FDRS workshop held in Oct 2013 to support use by countries	Continued willingness of local governments to address issue of peat fires	System established in 2011 and operating in Indonesia and Malaysia in 2012. promoted through AATHP. System strengthened and promoted in 2013-2014	100	
	Number of fire prone peatlands with drainage control measures	Limited	Recognition by 10% of local authorities of the need to address drainage by Y2 and 20% by Y5	Progress report	Peatland hydrological unit area prepared by Ministry of Environment	Drainage control measures established at the pilot site as well as in another 15 fire prone peatland areas throughout Malaysia. Example include Kuala Langat, Pekan, Miri, Bachok, Kuantan, Penor, Pekan, Mersing, Kota Tinggi, Muar, Batu Pahat, Pontian, Klang, Sepang, Klias, etc.	NA	New method of integrated fire and water management in peatlands of UMTNP		Technical support and guidance on restoration of hydrology of sites.		Significant improvement water management in fire prone peatlands in Malaysia, Indonesia and VietNam by 2013	100	
	Ground-truthing of information collected from hotspot maps	No ground-truthing being done	Ground-truthing of information from hotspot maps at pilot sites		Ground -truthing by Local Institution	Ground truthing by DOE and other government agencies previously were based on hotspot maps, whereas nowday it is based on FDRS maps. At the pilot site the activity involves mobilizing local communities. Real-time monitoring for the pilot site is facilitated by installation of automated weather station at the nearby Ladang Tennamaram in Feb 2012 by MMD. Peatwatch system currently being developed by UPM for APFP.	NA			Discussed at workshops and to be promoted. Proactive monitoring and reporting by relevant agencies is crucial. Hotspots now incorporated into FDRS system Ground truthing of hotspot information being undertaken at pilot sites in Indonesia and Malaysia		Discussed at workshops and to be promoted. Proactive monitoring and reporting by relevant agencies is crucial. Hotspots now incorporated into FDRS system Ground truthing of hotspot information being undertaken at pilot sites in Indonesia and Malaysia	100	

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Outcomes and Outputs	Objectively Verifiable Indicators			Means of Verification	Progress to date/detail						Critical Assumptions	Progress to date (Revised Aug 2014)	Progress % vs target	Remarks
	Indicators	Baseline	Target		Indonesia	Malaysia	Phillipines	Viet Nam	Singapore & Brunei	Regional				
OUTPUT 2.3 Conservation measures for peatland biodiversity enhanced at identified critical sites	No. of peatland areas identified regionally for conservation	Limited information of priority peatlands for conservation	List of peatlands important for biodiversity compiled in 3 countries by year 3	Database of peatland areas for conservation; Project Progress Reports	Sebangau NP ; Berbak NP ; Giam Siak Kecil (biosphere reserve) & Zamrud	2 peatland sites in Sarawak is already identified for biodiversity conservation and gazetted as National Parks i.e. Maludam NP & Loagan Bunut NP. Maludam NP has been identified as potential candidate for AHP.	Caimpugan Peatland (now part of proposed Agusan Marsh Wildlife Sanctuary Expansion).	UMTNP designated as ASEAN Heritage Park		Guidance provided to countries and dashsets on important sites compiled at regional level	Government willing to designate peatlands as protected area	List of seelcted peatlands of significance for biodiversity prepared in 4 countries	100	
	Level of protection of peatland conservation areas	Limited	Priority sites for establishment of conservation areas on peatland agreed in at least 3 countries by Y4	Assessment reports	Protection status of some areas enhanced. Moratorium imposed on licenses for further development to peatlands introduced in 2011 and extended in 2013.	In Selangor, peatswamp forest areas eg. NSPSF & KLSPSF are protected because of the 25 years moratorium on logging activities and these areas has been classified as ESA 1 under the National Physical Plan/State Structure Plan . Proposed conversion of Kuala langat South Forest Reserve for oil palm halted. additional forest reserves established in pahang to protect peatlands.	Peatland areas in Agusan basin protected under local ordinances; Leyte Sab-A basin identified as critical habitat for protection.	UMTNP designated as ASEAN Heritage Park		Tech support and guidance provided		Significant progress made in enhancing the protection of important peatland sites in three countries in the region	100	
OUTPUT 2.4 Guidelines for integrated peatland management developed and promoted for peatland areas in the region	Guidelines for integrated management of peatlands	Limited guidelines available	Guidelines developed, promoted and being applied by all countries by Y4	Project Progress Report	Permentan No.14/ 2009 Ministry decree on Plantation development on Peatland, Kepmen LH on development of EIA in Wetland	BMP guidelines for palm oil plantation on peat have been developed by both MPOB (2011) and RSPO (2012). BMP guidelines for agricultural practices on peat has been developed by MOA and MARDI. FDPM collaborated with FRIM to document the BMPs from the demonstration sites i.e. KLSPSF, SEPPSF, Loagan Bunut NP and Klias FR. Review of IMP (2014-2023) for NSPSF was finalised	Guidelines for protection of peatlands by local government prepared	Integrated management fo peatlands included in management plans for 2 national parks		Integrated Peatland Planning Guideline prepared.	Willingness of stakeholders to accept guidelines and use them	workshop organised in July 2012 to share regional experinece in integrated planning. Guidelines developed and disseminated. Integrated management of peatlands undertaken in 4 countries	100	
	Local guide book for planners and developers for peatlands	None	Local guide book developed and disseminated to all countries by Y4	Progress Report; Awareness materials				Guideline for local planners prepared and disseminated	Guidelines of integrated fire and water management in peatlands of UMTNP		Ideas proposed are workable on the ground		Activity initiated in 2012; Guideline prepared and disseminated in 2013	80
<b>OVERALL PROJECT Outcome 3: Integrated management and rehabilitation demonstrated and implemented at targeted peatlands</b>														
OUTPUT 3.1 Sustainable management options for peatlands showcased through demonstration projects	Regional network of pilot and demonstration sites	No network	Regional network established by Y3 and promoted in the region for study tour	Awareness materials						Directory of sites prepared	Expertise available to carry out the work in the demo sites	Network established	100	
	No of sites designated as demonstration sites for BMP	Limited demo sites for peatland management	At least 10 sites in 3 countries designated by Y4	Progress Reports; Materials	5 sites Rasau Jaya and Danau Sentarum, West Kalimantan; Harapan Jaya and Mumogo, Riau, Sabangau, Central Kalimantan	4 sites in Malaysia - North Selangor Peat Swamp Forest, Southeast Pahang Peat Swamp Forest (SEPPSF), Klias Peat Swamp Forest and Logan Bunut NP	2 sites campaign , Mindanao and Leyte Sab-a basin, Leyte.	2 sites U Minh Thoug and U Minh Ha National Parks		information on sites compiled (PA: BMP: HCVF: )	Access to pilot and demo sites are not limited	13 sites in 4 countries	100	more demonstration sites were designated in the region compared to target
OUTPUT 3.2 Maintenance and rehabilitation activities implemented in identified critical peatland sites (pilot sites) implemented	Rehabilitation activities at demonstration sites and in degraded peat areas	None	Rehabilitation successfully carried out in 500 ha in project sites by Y4;	Progress Reports; Tech report on rehabilitation activities	Indonesia rehabilitation initiated -20ha	Planting an area of 120 ha in Compt. 99 & 100 Raja Musa FR. Treatment was also carried out in the area that was planted in 2011 in Compt 55 of Kuala Langat Selatan FR. It comprise an area of 70 ha. From 2008-2012, 850 units of small and medium sized blocks in drainage canals were constructed by SFD leading to rehabilitation of 300ha. Two concrete check dams were also installed at Parit 4 & Parit 7 of RMFR; Three canal block install near Comp 73 in 2012-2013 leading to rehabilitaion of about 100ha.	50 ha - Agusan Pilot Site and in Leyte Sab-a.	40 ha UMTNP		Technical guidance on rehabilitation techniques provided to several countries.		more than 700 ha rehabilitated in Indonesia, Malaysia, Philippines and Vietnam	100	exceeded target by more than 200ha of peatland were rehabilitated under the project
	Guidelines on peatland rehabilitation	Available guidelines limited to specific sites	Guidelines developed being widely used for rehabilitation and restoration of degraded peatlands Y3	Progress report		Manual on peatland rehabilitation developed by FRIM and FDPM and training undertaken.	Guidance provided for use under Buying living Trees programme	Draft of guidelines developed for rehabilitation and restoration of peatlands in UMTNP		Guidelines for maintenance and rehabilitation of PSF developed in 2011/2012 and printed/distributed.		Guidelines finalised in partnership with RSPO and promoted in 2012-2014	100	
OUTPUT 3.3 Integrated Management Planning for identified critical sites developed and adopted	Management Plan at UMTNP	None	Management plan for UMTNP revised by Y3	Viet Nam Progress Reports								management plan finalised	100	
	Integrated Management Strategies at NSPSF and buffer zone	Outdated	Revised Management strategy for NSPSF adopted by Y3 Management Plan for Raja Musa Forest Reserve adopted by Y4	Malaysia Progress Report		Revised IMP including buffer zone management, rehabilitaion plan and fire management plans was finalised in 2014.						IMP including buffer zone management, rehabilitaion plan and fire management plans for North Selangor peat Swamp Forest was finalised in 2014.	100	
	Land use planning at demonstration sites in The Philippines	Limited	Land use planning on peatland adopted for development projects by local governments by Y3	Phillipine progress report			local ordinance approved in 2013 and implementation promoted. Guideline prepared and disseminated. Ordinance developed and approved in other local govts					local ordinance developed and approved and guidelines prepared	100	
	Stakeholder involvement in peatland management in Indonesia	Limited Stakeholder involvement in peatland management	Key stakeholders actively engaged and involved in peatland management in Riau and West Kalimantan by Y2	Indonesia Progress Reports		Multiple stakeholders involved in development and promotion of masterplan for peatlands in Riau and West Kalimantan						Multiple stakeholders involved in development and promotion of peatland management in Indonesia	100	

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Outcomes and Outputs	Objectively Verifiable Indicators			Means of Verification	Progress to date/detail						Critical Assumptions	Progress to date (Revised Aug 2014)	Progress % vs target	Remarks	
	Indicators	Baseline	Target		Indonesia	Malaysia	Phillipines	Viet Nam	Singapore & Brunei	Regional					
	District action plan on peatland in West Kalimantan	No stakeholder involvement in peatland management	Action plan adopted by District government by Y2	Provincial regulation on peatland management	Masterplan for peatlands in west Kalimantan developed								Masterplan for peatlands in west Kalimantan developed	100	
	Multistakeholder Kampar Pen. Peatland Masterplan	No masterplan & stakeholder participation in peatland management	Stakeholders in Kampar peninsular actively participating in the masterplan development by Y2	Indonesia progress report	Master plan for peatlands in Riau developed with co finance. Status of Masterplan for Kampar to be verified								Master plan for peatlands in Riau developed with co finance. Masterplan for Kampar is on going	60	Status to be verified
	Siak Peatland Biosphere Reserve	Biosphere reserve approved but not operational before project start	Biosphere Reserve established and being managed with stakeholder involvement by Y4	Indonesia progress report	Siak Biosphere reserve established prior to project start with co-finance. Project effort focusing on selected local community involvement.								Siak Biosphere reserve established prior to project start with co-finance. Project effort focusing on local community involvement	100	
<b>OVERALL PROJECT Outcome 4: Local communities and the private sector actively contributing to sustainable peatland management</b>															
<b>OUTPUT 4.1 Integrated sustainable peatland management implemented in partnership with the private sector through joint activities at identified critical sites</b>	Regional guidelines for peatland plantation practices	Limited guidelines available	Guidelines developed by Y2 and adopted by the private sector by Y4	Report on Guidelines							Guidelines developed in 2011 with Oil Palm Plantations in partnership with RSPO and published in July - October 2012: Workshop organised on Forestry and forest plantations in June 2012. Guidelines incorporated to RSPO Principles and Criteria for sustainable oil palm in April 2013 and promoted further for implementation. Guidelines incorporated into National Interpretations in Indonesia and Malaysia in 2014	Private sector has commitment to follow guidelines	Guidelines developed in 2011 with OPP in partnership with RSPO and published in July - October 2012: Workshop organised on Forestry and forest plantations in June 2012. Guidelines incorporated to RSPO Principles and Criteria for sustainable oil palm in April 2013 and promoted further for implementation	100	
	Level of forest protection in Rokan Peninsula	Limited protection outside concession area	Logging company supporting forest management in buffer zone of concession by Y3	Indonesia Progress Report/ Awareness materials	Collaboration with private sector plantation and forest management companies to enhance protection of adjacent areas.								Collaboration with private sector plantation and forest management companies to enhance protection of adjacent areas.	90	
	Plantation sector support for peatland management in Riau province	Limited	Plantation sector actively contributing to peatland management, and rehabilitation activities by Y4	Awareness material: Report by provincial government	Discussions with APRIL and APP in Semenanjung Kampar/Teluk Meranti; workshop with oil palm plantation companies and provincial government in Riau in October 2013; continuing cooperation in 2013-2014						Initial consultation with APRIL, APP ; several consultations in Malaysia, Indonesia and Singapore to encourage oil palm companies to support peatland fire prevention in 2013. Company representatives participated in meetings to develop ASEAN peatland programme.		More active support for peatland conservation by Forest and Oil palm plantations in Riau compared to prior to the project	100	
	Private sector support for buffer zone management in Selangor Malaysia	Limited and on an ad hoc basis	Peatland protection and rehabilitation incorporated into planning of private property development by Y3; Msia-2,000ha	Assessment reports; Socio-economic surveys	Partnership established with PKPS, KDEB, FELDA and Sime Darby plantations to support buffer zone protection and rehabilitation.						Strategy for buffer zone management being developed in 2012/14. Partnership established with Sime darby plantations to support buffer zone protection and rehabilitation.		Private sector in buffer zone of Raja Musa Forest Reserve more actively supporting conservation of forest reserve and sustainable use of peatlands.	100	
<b>OUTPUT 4.2 Local communities empowered for sustainable peatland management through poverty alleviation, alternative livelihoods and micro-financing</b>	Guidelines for community involvement	None	Guidelines being used by groups in three countries by Y4	Project Progress Reports	Guidelines for community participation developed and a CBO organisation called "Sahabat Hutan Gambut or Friends of North Selangor Peatland Forest" has been established on the 10 August 2012 as a result.						Guidance provided to countries on good practices for community engagement and BMPs compiled.	Communities and other local stakeholders willing to participate	best management practices in community involvement being applied in project sites in 4 countries	100	
	Community Forest Management in Kapuas Hulu District, W. Kalimantan	None	Community Forest Management Plan developed and being implemented by Y3	Project Progress Reports	Study done. Implementation initiated verify status								Community forest management initiated in Kapuas Hulu	60	Status to be verified
	Community livelihood and peatland management activities	None in pilot sites	Community livelihood activities in at least 3 pilot sites by Y3	Progress reports	Community livelihood activities supported in four sites in Riau, West and Central Kalimantan provinces.	Initiated and currently undergoing pilot testing at RMFR; 2 main activities chosen i.e. community "seedling buy-back system" to support on-going forest rehabilitation programme and support for community peatland eco-tourism eg. homestay & visit to peatland areas and related activities, including conducting awareness programmes with schools (Peatland Forest Ranger).	initiated and pilot test. PH to provide technical report on Sustainable Agriculture Mgmt	51 Households supported under green contract.			Documentary of BMP by community initiated		Community engagement enhanced at pilot sites in Indonesia, Malaysia, Philippines and Vietnam and associated livelihoods enhanced	100	
	Integrated sustainable peatland farming system in Rasau Jaya, W. Kalimantan	One community group identified for demo project	Local community in Rasau Jaya implementing integrated sustainable peatland farming by Y2 and further develop into demonstration site by Y4	Integrated peatland farming plan documented	Study completed, implementation started in 2012. significant progress								Demonstration plots for sustainable peatland farming in Rasau Jaya established.	100	

## **GEF 2751 – Rehabilitation and Sustainable Use of Peatland Forests in South East Asia (ASEAN Peatland Forests Project, APFP)**

### **ANNEX 1: COMPLETION REPORT (REGIONAL)**

#### **Regional Project Executing Agency: Global Environment Centre**

##### **1. Summary**

###### Capacity building

The Project has supported the promotion and implementation of the ASEAN Peatland Management Strategy (APMS) and also the National Action Plans (NAPs) of each participating country. The implementation progress of APFP has been reported periodically at key level ASEAN meetings and well received by the top officials who strongly supported the APMS. The APMS was reviewed after five years of implementation and an updated APMS was endorsed by the 9<sup>th</sup> Meeting of the Conference of the Parties (COP) to the ASEAN Agreement on Transboundary Haze Pollution (AATHP) in September 2013, in Indonesia. The revised APMS was printed and disseminated. An ASEAN Peatland Task Force is in the process of being established to oversee the future implementation of the APMS.

The project has made a big step towards introducing sustainable peatland management to be incorporated in provincial and district level plans and policies in the four participating countries. The National Action Plan (NAP) of Indonesia has been revised and endorsed in 2012. Policies related to peatlands have been strengthened in Indonesia. Meanwhile, in Malaysia, the NAP was adopted by the cabinet in 2011, translated and circulated. National-level meeting on the implementation and monitoring of NAP was held in December 2013. The implementation plan for NAP implementation in 11<sup>th</sup> Malaysian Plan (2006-2020) is being finalized. The National Wetlands Policy is currently being revised under the National Biodiversity Strategic Action Plan (NBSAP) exercise conducted by Ministry of Natural Resources and Environment. The NAP of Philippines was approved by the government and was integrated into the Updated National Wetlands Action Plan of the Philippines as well as included into the Philippine Development Plan for 2011-2016. The NAP of Vietnam has been prepared and is in the process of being approved. The NAP of Brunei Darussalam is being finalised. The NAP of Thailand is to be submitted to Cabinet for final approval.

Various regional workshops, training sessions and study visits have been organised to strengthen the capacity of government agencies and communities in managing peatland forests. Publications which included Development of Financing and Incentive Options, Peatlands and Climate Change and Enhancing Sustainability of Forestry Practices on Peatlands were published and disseminated widely to peatland stakeholders. Awareness materials included leaflet, poster, video were produced and disseminated widely to public. Media coverage was strengthened to raise the profile of peatland and numerous articles were published in the local media.

In order to support the long term financing for the APMS, the ASEAN programme on sustainable management of peatland Ecosystems 2014-2020 (APSMPE) was conceptualised and presented to and endorsed by an ASEAN Ministerial level meeting in September 2013. Several meetings have been held with AMS and potential partners to develop the APSMPE which has

now developed into a US\$250 million programme. AMS have committed \$150 million in principle while the European Union has committed Euro 20 million and GIZ Euro 4.5 million.

### Reduction in peatland degradation

Peat fires are the main cause of peatland degradation in Southeast Asia, especially in Indonesia and Malaysia. The development of a Peatland Fire Prediction and Warning System which is based on the Fire Danger Rating System (FDRS) was initiated under the project in 2010 and good progress was made through a series of meetings in 2012 and 2013. The MSC meeting on 8th May 2012 agreed to elevate the discussions on the FDRS to the level of the Heads of Government of the ASEAN region through discussion at the ASEAN Summit.

Both Malaysia and Indonesia have made significant progress in the enhancement of the system. Malaysian Meteorological Department (MMD) has strengthened the effectiveness of the system for the Southeast Asian region and Malaysia with better data and improved dissemination through a range of tools including overlays of the peatland maps onto the FDRS indices and codes, and onto the Google Earth as well as created up-to three day forecast of the indices and codes for both ASEAN and Malaysia. Inter-agency collaboration amongst the AMS continued to be strengthened through this initiative.

Indonesia formed a national working group to work on the refinement of the FDRS. There has been provincial FDRS indices and codes developed by the National Agency for Meteorology, Climatology and Geophysics (Badan Meteorologi, Klimatologi and Geofisika/BMKG). The use of the FDRS has been highlighted in various platforms, including the local government and community groups in pilot sites of all the participating countries.

Several studies such as carbon emissions from agriculture farming on peatland in West Kalimantan, carbon emission from degraded peatland in Central Kalimantan and Riau, carbon storage of Caimpugan peatland in Agusan Marsh, carbon storage and emissions in the Raja Musa pilot site were completed. These studies have reinforced the role of peatland as important ecosystems for carbon storage in the region. Input continued to be provided to IPCC and FAO for global methodologies and programs related to peatlands and climate change based on project results.

### Promoting integrated management

A network of demonstration sites for peatland Best management practice was established with 13 sites in four countries. Guidelines for integrated management of peatlands have been developed. Several actions have been taken at the pilot sites to promote integrated management through multi-stakeholder collaboration and consultation. These efforts have contributed to development of an Integrated Management Plan for NSPSF in Malaysia for 2014-2023. Land-use planning and zoning for peatland areas in Philippines was carried out. The initiation of the establishment of a critical habitat in Peatlands of Leyte Sab-a Basin is included in the draft Municipal Ordinance on the protection of the peatland in the region. While, peatland of Agusan del Sur is included to the Comprehensive Land Use Plan of the Municipality of San Francisco for endorsement to the Sangguniang Bayan.

### Enhancing engagement of the private sector

Project team members have been active in participating and providing inputs in the Roundtable on Sustainable Palm Oil (RSPO) and RSPO Peatland Working Group (PLWG). Four technical documents focusing on oil palm plantations on peat have been developed by the RSPO-PLWG with the support of project team members. The guidelines on Best Management Practices (BMP) for oil palm cultivation on peat adopted in 2012 by RSPO. Key elements of the BMP

Guidelines have been incorporated into the revised RSPO Principles and Criteria for sustainable palm oil in April 2013 and National Interpretations in Malaysia and Indonesia in 2014.

### Project management

The project management team has been working continuously with representatives from four participating countries and other ASEAN Member States (on Regional activities) to ensure that project activities proceed effectively and efficiently. There was close coordination between the ASEAN Secretariat (ASEC) and the Regional Project Executing Agency (RPEA) in ensuring timely meetings to address management issues. Project management meetings and Project Steering Committee (PSC) Meeting have been organized every 6 months since the start of the project and annual PSC's has been held in all AMS. The progress on the project has been briefed on an annual basis to meetings of senior officials and three Ministerial level bodies (Conference of Parties of the ASEAN Agreement on Transboundary Haze Pollution (AATHP); Mekong Region and Southern ASEAN Sub-regional Ministerial Steering Committees on Transboundary Haze Pollution (MSC). This has enable project results and guidance to be incorporated into regional and national planning frameworks.

Relevant inputs were provided to Meetings of Senior Officials and Ministers at ASEAN and sub-regional level on project implementation progress. Technical coordination and management of country and regional components, including technical expert input, and monitoring system of country components and projects was provided.

## 2. Brief Component Description

**The Component Sub-Objective:** To demonstrate, implement and upscale sustainable management and rehabilitation of peatlands in the Southeast Asian region through a regional framework for partnership, information sharing and capacity building; and providing guidelines for best management practices.

The Regional Component has five Sub-outcomes:

Project Outcome 1: Capacity building and institutional framework for sustainable peatland management in South East Asia strengthened

**COMPONENT SUB-OUTCOME 1:** Capacity for implementation of APMS enhanced through the development of National Action Plans (NAPs) for Peatlands

Project Outcome 2: Reduced rate of degradation of peatlands in SE Asia

**COMPONENT SUB-OUTCOME 2:** Protection and sustainable management of peatland enhanced

Project Outcome 3: Integrated management and rehabilitation initiated at targeted peatlands

**COMPONENT SUB-OUTCOME 3:** Best management practices from demonstration sites compiled and disseminated to upscale knowledge base

Project Outcome 4: Local communities and the private sector actively contributing to sustainable peatland management

**COMPONENT SUB-OUTCOME 4:** Plantation sector actively contributing to peatland management

**Project Outcome 5:** Project effectively managed and technically guided

**COMPONENT SUB-OUTCOME 5:** Project management

3. Project Achievements against the Logical Framework Achievements of the project implementation (November 2009 – December 2014) versus targets in Component Logical Framework Matrix

Outcomes and Outputs	Logical Target	Framework	Progress up to December 2014	Overall Achievement (%)	Remarks
<b>COMPONENT SUB-OUTCOME 1: Capacity for implementation of APMS enhanced through the development of National Action Plans (NAPs) for Peatlands</b>					
<b>Output 1.1: Coordinated implementation of the APMS and NAPs supported</b>					
1.1.1 Promote the implementation of the APMS and share experience among ASEAN members (including annual meeting)	Annual meetings to review implementation of APMS		<ul style="list-style-type: none"> <li>- Annual meetings to review implementation of APMS were held back-to-back with Project Management Meetings/ Project Steering Committee Meetings. Activities are implemented according to country priorities.</li> <li>- APMS reviewed in three meetings in 2012-2013.</li> <li>- APMS review presented to Committee (COM) of ASEAN Agreement on Transboundary haze pollution (AATHP) in September 2013.</li> <li>- Revisions to APMS were adopted by COM and supported by COP.</li> <li>- Revised APMS was printed and distributed by the ASEC to AMS.</li> </ul>	100	Progress reviewed annually for four years
1.1.2 Provide technical support and capacity building to ASEAN members to assess peatlands and finalise NAPs	NAPs for 4 participating countries finalized and being implemented by Y4		<ul style="list-style-type: none"> <li>- NAPs for Indonesia, Malaysia, Philippines, and Viet Nam finalized. NAPs for Indonesia, Malaysia and Philippines implemented. NAP for Indonesia revised after initial implementation and promoted. NAPs for Brunei Darussalam and Thailand were prepared and are awaiting approval.</li> </ul>	100	NAPS for four participating countries finalized and two extra countries developed

Outcomes and Outputs	Logical Target	Framework Target	Progress up to December 2014	Overall Achievement (%)	Remarks
<b>Output 1.2: Regional programme for capacity building and raising awareness implemented</b>					
1.2.1 Facilitate and support TOT training and exchange programmes for the region including study tours and regional workshops	At least 3 agencies per participating countries will have at least 2 staff trained on integrated peatland management by Y4 At least 15 government agencies staff at pilot site with increased awareness by Y4		TOT Training modules and awareness materials were disseminated to participating countries, stakeholders and libraries.. All countries have organised a series of workshops to train relevant staff and create awareness. - More than 800 people from ten ASEAN Countries have trained or participated in workshops and training under the project	100	More than 800 people from 10 countries trained
1.2.2 Develop outreach activities and awareness materials as well as information sharing mechanisms to build capacity for peatland management.	More information on SEA peatland made available on Peat Portal 10 materials made available in local languages by Y4		- Significant information on peatlands in the region were made available on ASEANpeat web - 11 awareness materials were developed in English (TOT training Modules; Peat Profile; BD Toolkit; Fire management & Control; Project Brochure; Peatland Distribution Map; BMP Video; Introduction & Completion video; IMP Poster; Peatland and climate change; Plantation Workshop Publication and newsletters) - More than 20 materials were developed or adapted for use in local languages.	100	Information and materials developed exceed targets
1.2.3 Develop and implement a communication strategy on raising awareness of peatland management including linkage with appropriate regional and international media and communication groups.	Communication Strategy developed, adopted and being implemented by end of Y1, details to be decided at project start-up		- A Communication Plan was developed, circulated and being implemented - 19 articles: 5- magazines (Malaysian Naturalist, Int. Peat Society, ABD 2013, Environmental Conservation Feb 2014 and Pustaka Akar Coffee Table Book 2014); 13 - press articles (local papers); 2 - proceedings/abstracts; 2 Radio Interviews; input to documentary for History	100	Communication plan developed, adopted and being implemented

Outcomes and Outputs	Logical Target	Progress up to December 2014	Overall Achievement (%)	Remarks
		<p>Channel (Haze Hell over Asia) shown in 2012 and 2013; TV documentary in Malaysia in October 2012</p> <ul style="list-style-type: none"> <li>- Key news was shared through an e-group</li> </ul> <p>List of main Publications:-</p> <ul style="list-style-type: none"> <li>- Enhancing Sustainability of Forestry Practices on Peatlands</li> <li>- Peatlands in Southeast Asia Map</li> <li>- Fire Management in Peatlands and Peatland Forest</li> <li>- Integrated Tropical Peatland Management in Southeast Asia (Poster)</li> <li>- Training Modules for Peatland Assessment and Management</li> </ul>		
<b>Output 1.3: Sustaining resource mobilisation mechanisms for peatland management and rehabilitation in the region established</b>				
<p>1.3.1 Explore multi-donor trust funds, 'polluter-pay and user-pay' schemes, tax incentives, PES and other options to help generate sustainable resources to support the implementation APMS activities.</p>	<p>Concept paper on options for sustainable resource mobilisation completed by Y2 and presented at ASEAN level meeting</p>	<ul style="list-style-type: none"> <li>- Report of Incentive option report was published and circulated to ASEAN member States and relevant institutes and presented at APFP meetings.</li> <li>- <b>a) Development of the ASEAN Programme on sustainable management of Peatland Ecosystems 2014-2020</b></li> <li>- Development of ASEAN Programme on Sustainable Management of Peatland Ecosystems 2014-2020) was endorsed by</li> </ul>	100	<p>Report on incentive options for peatland management completed and presented to ASEAN meeting -US\$250 million ASEAN Peatland program endorsed</p>

Outcomes and Outputs	Logical Framework Target	Progress up to December 2014	Overall Achievement (%)	Remarks
	<p>At least 1 innovative finance mechanisms tested in Philippines and Viet Nam by Y2 and in Indonesia and Malaysia by Y4</p>	<p>Ministers at AATHP COP in September 2013. Regional Preparatory meetings were organized in September and December 2013 and April 2014.</p> <ul style="list-style-type: none"> <li>- Indicative support of Euro 20 million for implementation of the programme was confirmed by European Union in April 2014</li> <li>- Technical support was provided to the Ministry of the Environment Indonesia in March 2014 to secure US\$5 million from GEF for an initial project to support the programme.</li> <li>- Consultations were organized in selected countries to develop national priorities for inclusion in the ASEAN programme.</li> <li>- <b>a) Development of Peatland Carbon project</b></li> <li>- Training on peatland hydrology was organized by GEC/LEAF in December 2013 in conjunction with Selangor Forestry Department.</li> <li>- A "Tentative assessment of carbon loss from the peat stock for the North Selangor Peat Swamp Forest" was prepared. A draft report on "Rapid assessment of potential of North Selangor Peat Rewetting project" was produced in June 2014.</li> <li>- "Buying Living Tree Scheme" from <b>Kalimantan was replicated in the</b></li> </ul>		<p>5 innovative finance mechanism pilots tested in four countries</p>



Outcomes and Outputs	Logical Target	Framework	Progress up to December 2014	Overall Achievement (%)	Remarks
project.			<p>Technical support was given in preparation and compilation of Semi-annual progress reports by each component and preparation of the overall annual PIR.</p> <p>Monitoring of the progress against the annual and overall targets was done through formal meetings every six months with follow-up in-between.</p> <p>Closing and Knowledge Meeting was held in Pekanbaru, Indonesia in November 2014</p>		
<b>COMPONENT SUB-OUTCOME 2: Protection and sustainable management of peatland enhanced</b>					
<b>Output 2.1: Mechanisms for effective regional prediction and monitoring of peat fires strengthened</b>					
2.1.1 Collate and refine documentation on peatlands in the region with high risk for fire and integrate with hotspot monitoring and fire danger rating systems to develop a real-time warning system for peat fires.	Integrate maps and peatland maps to develop a regional map of peatlands with high fire risk		<ul style="list-style-type: none"> <li>- Regional compilation of information from national inventories and assessments.</li> <li>- FDRS map for the region is available from Malaysian Meteorological Department (MMD) which has overlain the peatlands map on google earth to enhance the information dissemination in Malaysia and in the Southeast Asian region. A three day forecast of FDRS is also available on the website.</li> <li>- Indonesian Agency for Meteorology, Climatology and Geophysics (BMKG Indonesia) has overlaid peatland map on the FDRS indices and codes to support preventive actions to be undertaken by the relevant agencies against the peat fire occurrences</li> </ul>	100	<p>Real time warning system for peatland fires developed, with overlays of hotspots, peatland maps and FDRS</p> <p>System tested in Year 2 and operating in 2 countries in Y4</p>
2.1.2 Operation of regional peat fire warning and monitoring system and link to pilot site and country	To be determined at project start-up		<ul style="list-style-type: none"> <li>- The frequency of peatland fires has been reduced at most of the pilot sites despite extreme</li> </ul>	100	FDRS system operated to support fire

Outcomes and Outputs	Logical Target	Progress up to December 2014	Overall Achievement (%)	Remarks
verification and implementation.	Ground-truthing of information from hotspot maps at 2 pilot sites undertaken between site level agency and community group	<p>drought conditions in 2013 and 2014.</p> <ul style="list-style-type: none"> <li>- FDRS system has been accepted by ASEAN ministers as a key tool for prevention and control of peatland fires; greater emphasis is now placed on prediction, warning and prevention compared to fire suppression and control.</li> <li>- Relevant agencies are continuously carrying out ground truthing according to the hotspot maps produced by ASMC</li> <li>- Local government of Riau Province of Indonesia and Selangor State of Malaysia have engaged local communities in fire prevention and control measures.</li> </ul>		prevention and control measures at pilot sites and country level
<b>Output 2.2: Regional priorities for peatland biodiversity conservation identified</b>				
2.2.1 Compile, analyse and monitor data from each ASEAN country on extent, status and changes in peatlands.	Status and trends of peatlands in the region documented by Y2 and updated by Y4	<ul style="list-style-type: none"> <li>- Initial status and trends of peatlands in the region have been documented and compiled</li> <li>- Maps and satellite images have been compiled in Indonesia, Malaysia, Philippines and Vietnam</li> </ul>	100	Maps and Status reports prepared for participating countries
	Maps and satellite images available from 4 participating countries			

Outcomes and Outputs	Logical Target	Progress up to December 2014	Overall Achievement (%)	Remarks
2.2.2 Promote the establishment of a network of protected peatlands through awareness and outreach to various stakeholders, including guidelines for biodiversity conservation.	List of important peatlands for biodiversity compiled in 4 countries by Y3	- Collation of information of peatlands of importance for biodiversity has been undertaken in APFP countries. Initial network established e.g. Southeast Asia Peat Network, Facebook (Peatlands in Southeast Asia group) - Philippines had found other new peat areas and detailed information of the site to be submitted to SEA Peat Network – Peat Site Database	100	List of peatland sites four biodiversity in four countries compiled
	Permanent ASEAN level working group formed	- Important peatland site such as UMTNP was declared as ASEAN Heritage Park and lessons learnt from UMTNP is being replicated in UMHNP. - A working group – ASEAN Task Force on Peatlands is being established based on the current institutional arrangements of the APFP and SEApeat projects as well as official mechanism of APMS		ASEAN task force established to oversee work
<b>Output 2.3 Regional collaboration on peatland carbon storage and climate vulnerability in the region stimulated</b>				
2.3.1 Assess the vulnerability of peatlands to climate change and develop guidance on adaptation options.	Report on peatland vulnerability and adaptation options by Y3	- "Peatlands and Climate Change" was printed and distributed in 2013 and 2014. - Studies on carbon storage being initiated in Indonesia and Malaysia	100	Peatland vulnerability and adaptation options assessed and incorporated in to publication by Y3
2.3.2 Assess the role of peatlands in carbon storage and sequestration and the impact of land use changes and management options to reduce emissions.	Report on impact of climate change on peatlands completed by Y3			

Outcomes and Outputs	Logical Framework Target	Progress up to December 2014	Overall Achievement (%)	Remarks
2.3.3 Develop guidance for peatland management related to climate change funding mechanisms including Climate Adaptation Funds, REDD mechanisms and Voluntary Carbon Funds.	Proposals for funding for peatland management related to climate change developed in 2 countries in SEA  Guidance note for funding for peatland management related to climate change for 3 more countries in SEA	<ul style="list-style-type: none"> <li>- Report on financing and incentive options published and circulated.</li> <li>- Preliminary assessment of carbon finance options at two sites</li> <li>- A report on feasibility carbon study on North Selangor Peat swamp forest with support from LEAF was prepared</li> <li>- Assessments were also undertaken in Indonesia, Philippines and Viet Nam</li> <li>- Guidance on climate financing was included in Financing &amp; Incentive Options book.</li> </ul>	100	Carbon finance explored in two countries  Guidance provided to all participating countries
<b>Output 2.4: Guidelines for integrated management of peatlands developed and promoted</b>				
2.4.1 Collate develop and disseminate guidelines/ best practice for integrated planning for sustainable peatland management including buffer zone and catchment protection – eg for planners, local government.	Guidelines developed, promoted and being applied by at least 4 countries by Y4	<ul style="list-style-type: none"> <li>- A regional workshop on Integrated management of peatlands was held in 2012.</li> <li>- Regional experiences were collated and analysed</li> <li>- A guideline for Integrated Management Planning of Peatlands was prepared and published.</li> </ul>	100	A guideline for Integrated Management Planning of Peatlands prepared and promoted in region
2.4.2 Develop general guidelines/modules/ information materials for community livelihood and sustainable peatlands management for adaptation/ dissemination at country level.	Guidelines developed, translated and disseminated for use at country level by Y4	<ul style="list-style-type: none"> <li>- Modules on best management practice developed and disseminated through BMP workshop in Central Kalimantan, June 2011</li> <li>- Modules on community livelihood options developed and disseminated through peer learning workshop in Thailand in May 2012.</li> <li>- Peer learning workshop was organized in South Kalimantan, May 2013</li> </ul>	100	Modules developed and workshops and exchanges organised

Outcomes and Outputs	Logical Target	Framework	Progress up to December 2014	Overall Achievement (%)	Remarks
			- Training materials on best management practice on oil palm on peat were developed in 2014.		
<b>COMPONENT SUB-OUTCOME 3: Best management practices from demonstration sites compiled and disseminated to upscale learnings</b>					
<b>Output 3.1 A regional network of demonstration sites and sharing experience</b>					
3.1.1 Establish and compile and disseminate information on regional network of demonstration sites.	Regional network established by Y2 and promoted in the region for study tour		- Pilot and demonstration sites have been identified and promoted through technical visits and peer-to-peer learning. - Study tour/ peer learning programmes were organised in 2011, 2012 and 2013	100	Regional network of sites established
3.1.2 Organise meetings/ exchanges and promote upscaling of demonstration site experience.	At least 10 sites in 3 countries designated as demonstration site by Y4		- Total of 13 selected sites has been designated as BMP/demo sites (4 sites in Malaysia - North Selangor Peat Swamp Forest, Southeast Pahang Peat Swamp Forest (SEPPSF), Klias Peat Swamp Forest and Loagan Bunut NP; 5 sites in Indonesia: Rasau Jaya and Danau Sentarum, West Kalimantan; Harapan Jaya and Sepahat, Riau, Sebangau, Central Kalimantan; 2 sites in Philippines: Caimpugan, Mindanao and Leyte Sab-a basin, Leyte; 2 sites in Viet Nam - U Minh Thuong National Park and U Minh Ha National Park)	100	13 demonstration sites designated in four countries
<b>COMPONENT SUB-OUTCOME 4: Plantation sector actively contributing to peatland management</b>					
<b>Output 4.1: Guidelines for responsible management of existing oil palm and forest plantation on peatland developed and tested</b>					

ANNEX 1: REGIONAL COMPONENT COMPLETION REPORT

Outcomes and Outputs	Logical Framework Target	Progress up to December 2014	Overall Achievement (%)	Remarks
<p>4.1.1 Provide input to consultation with the plantation sector in partnership with RSPO, national plantation associations and other organizations and promote sound plantation management on peatlands.</p>	<p>Active participation at RSPO consultation meetings esp. on sound plantation management on peatlands through the PLWG</p>	<ul style="list-style-type: none"> <li>- "Guidelines on Best Management practices (BMPs) were developed in 2011 in partnership with Oil Palm Plantations under the framework of RSPO and published in July - October 2012</li> <li>- Guidelines were incorporated to RSPO Principles and Criteria for sustainable oil palm adopted in April 2013 and promoted further for implementation. Guidelines were incorporated into National Interpretations in Indonesia and Malaysia in 2014</li> <li>- A Workshop organised on Forestry and forest plantations in June 2012 and proceedings published.</li> <li>- Initial consultation with APRIL, Sinar Mas, Wilmar, KLK, Sime Darby and Tabung Haji plantations in 2013-2014 in Malaysia, Indonesia and Singapore to encourage oil palm companies to support peatland fire prevention. Company representatives participated in meetings to develop ASEAN peatland programme.</li> <li>- Strategy for NSPSF buffer zone management was developed in 2014 with input from several oil palm plantations. Partnership was established with Sime Darby plantations to support buffer zone protection and rehabilitation.</li> </ul>	<p>100</p>	<p>Active participation in more than 20 RSPO meetings</p>
<p>4.1.2 Develop guidelines for responsible management of existing oil palm and forest plantation on peatlands to recognise examples of good practice.</p>	<p>Awareness materials on sound plantation management on peatlands developed and distributed</p>			<p>Awareness materials developed and disseminated</p>
<p>4.1.3 Collaborate with selected plantation companies, RSPO, national associations to test, demonstrate and promote these guidelines.</p>	<p>Guidelines developed by Y2</p>		<p>100</p>	<p>BMP guidelines developed and adopted</p> <p>Guidelines made mandatory by RSPO for all plantations on peat. Guidelines utilized by many companies</p>

Outcomes and Outputs	Logical Target	Framework	Progress up to December 2014	Overall Achievement (%)	Remarks
<b>Outcome 5 Project effectively managed and technically guided</b>					
<b>OUTPUT 5.1 Project governance, management and coordination mechanisms at country levels established</b>			<ul style="list-style-type: none"> <li>- National project Implementation Committees and where relevant local project implementation committees established in each country</li> <li>- NPEA were operational in each country and actively implementing the project</li> <li>- Regular input and review by the RPEA of country components</li> <li>- Countries are preparing for the Terminal Evaluation in September –October 2014.</li> </ul>	100	Country components implemented smoothly with effective NPICs
<b>OUTPUT 5.2 Project governance mechanism overseen and guided and effectively coordinated, monitored and evaluated</b>			<ul style="list-style-type: none"> <li>- A detailed project procedures manual was developed to guide project implementation.</li> <li>- Semi-Annual Progress Reports from each component and annual PIRs have been submitted to IFAD on schedule for the entire project period</li> <li>- Regional Project Management Meetings (PMMs) were organised every six months and PSC meetings organized annually</li> <li>- Input was provided to each component in preparing financial statements and annual audit reports</li> </ul>	100%	Regional project management process operated smoothly with 10 Project management meetings and 2 special meetings, 6 PSC meetings. All reporting on schedule

### Summary of Key Achievements

- ASEAN Member States (AMS) with support of the project have made significant progress in implementing the ASEAN Peatland Management Strategy 2006-2020 (APMS) including developing and implementing National Action Plans on peatlands, reviewing and updating the APMS in 2013 and establishing an ASEAN task Force on Peatlands.
- AMS have established in 2013 an ASEAN Programme on Sustainable Management of Peatland Ecosystems 2014-2020 (APSMPE) to support the future implementation of the APMS through a US\$250 million programme of activities implemented by a coalition of multiple partners.
- The governments of AMS have allocated in principle US\$100 million to support the APSMPE; The European Union has committed Euro 20 million for implementation of the APSMPE 2014-2020.
- TOT Training modules and more than 10 information and awareness materials were disseminated to participating countries, stakeholders
- A series of workshops organized to train more than 800 people from ten ASEAN Countries
- The level of awareness, understanding and capacity to address peatland management issues have been significantly enhanced in all the AMS as well as among key stakeholder groups.
- A regional peat fire prediction, warning and monitoring system has been established – based on Fire Danger rating and Hotspot monitoring combined with maps of peatland locations. This system is used at the national and site level for prevention measures.
- A guideline for Integrated Management Planning of Peatlands was prepared based on experience in the region.
- Modules on community livelihood and sustainable peatland management have been developed and capacity enhanced through peer to peer learning for communities from six countries
- Total of 13 selected sites have been designated as BMP/demo sites for peatland management in four countries.
- Five innovative finance options have been demonstrated in four countries.
- "Guidelines on Best Management practices (BMPs) for oil palm plantations on peat and maintenance and restoration of natural vegetation associated with plantations were developed in partnership with oil palm plantations and adopted under the framework of RSPO and made mandatory in the revised RSPO Principles and Criteria for sustainable oil palm adopted in April 2013.
- Partnership between private sector plantation companies and ASEAN Secretariat and member states was enhanced
- The project coordination and reporting was run smoothly and all deadlines met.

**4. Financial Report 2010 – 2014**  
**a. Summary table of expenditure of GEF Resources (regional and management component)**

Table 4a. Summary of financial report based on outcomes for Regional Component

Expenditure category	Overall budget	Cumulative expenditure of previous reporting period—31 Dec 2013	Current Period expenditure*—1 Jan'2014 to 30 June 2014	Cumulative expenditure to date	Balance available for future periods
I Capacity Building	USD 925,000.00	USD 878,951.69	USD 183,738.52	USD 1,062,690.21	USD (137,690.21)
II Reduction in peatland degradation	USD 325,000.00	USD 144,152.30	USD 25,003.35	USD 169,155.65	USD 155,844.35
III Management and rehabilitation	USD 55,000.00	USD 23,364.35	USD 2,226.00	USD 25,590.35	USD 29,409.64
IV Partnerships	USD 76,514.00	USD 51,099.32	USD 3,175.00	USD 54,274.32	USD 22,239.48
V Project Management	USD 345,650.00	USD 370,496.05	USD 46,465.93	USD 416,961.98	USD (71,311.98)
<b>Total</b>	<b>USD1,727,164.00</b>	<b>USD 1,468,063.71</b>	<b>USD 260,608.80</b>	<b>USD 1,728,672.51</b>	<b>USD (1,508.51)</b>

**Comment on expenditure**

Expenditure in general has been in line with the budget, but there has been over-expenditure on project management due to the extension of the project by 12 months and on capacity building due to the decision to simplify administration by transferring the cost for core personnel to this budget line. As a result there has been under-expenditure on other budget lines.

## b. Co-funding

Table 5a. Summary table for co-funding for Regional Component

Title of Project	Rehabilitation and Sustainable Use of Peatland Forests in South East Asia					
Name of Project party:	RPEA					
Target of Co-funding as in project document	USD460,200					
	Actual co-funding received.					
Source/ type of Co-financing ( cash)	Jan-Dec 2010	Jan-Dec 2011	Jan-Dec 2012	Jan-Dec 2013	Jan-Jun 2014	TOTAL
European Union		359,703.74	427,567.00	542,415.00	224,520.00	<b>1,554,205.74</b>
RSPO		40,000.00	10,000.00	5,000.00	15,000.00	<b>70,000.00</b>
USAID-LEAF				15,000.00		<b>15,000.00</b>
GEC		20,000	20,000	20,000	20,000	<b>80,000</b>
<b>TOTAL</b>		<b>419,703.74</b>	<b>457,567</b>	<b>582,415.00</b>	<b>259,520</b>	<b>1,719,205.74</b>

In addition to cofunding in Cash – co-funding in kind was contributed to the regional component as follows:

Cofunder	Type	Predicted cofunding	Estimated actual	Remarks
Government of Singapore	Government	1,800,000	1,300,000	Support from ASMC and Singapore government to Haze monitoring and reporting and regional meetings
Government of Brunei	Government	409,000	200,000	Support for participation from Brunei in regional meetings and hosting of ASEAN meetings related to peatlands, fire and haze
Contribution of AMCs to Regional Component *	Government	666,000	1,200,000	Cost of government participation in related ASEAN meetings including hosting of meetings and also contribution of Malaysia to operation of the FDRS

Private sector and other contributors to regional component	Private sector and others	485,000	400,000	Cost of participation of private sector and other stakeholder participation in project meetings and workshops as well as contributing to development of guidelines and plans,
ASEC	Intergovernmental organization	201,550	300,000	Personnel and travel costs for project coordination and management, organisation of related ASEAN meetings and activities.
<b>Total</b>		<b>3,557,550</b>	<b>3,400,000</b>	
<b>Combined in cash and in-kind co-funding</b>		<b>4,017,750</b>	<b>5,119,205</b>	

## 5. Lessons learned

The main lessons learned through the implementation of the regional component include:

- a. *The combination of the APMS and NAPs and working through the ASEAN and national government mechanisms has helped to enhance the awareness and understanding of peatlands and mainstream peatland issues into government planning processes.*

The profile of Peatlands has been raised gradually and gained the attention of policy makers through the adoption of National Action Plans (NAP) for peatlands and a series of ongoing awareness programmes. The project has achieved great impact in the inter-sectoral policy and planning framework for integrated peatland management especially in the case of Indonesia and Philippines. For example in the Philippines: National action plan on Peatlands has been incorporated into the revised national wetland strategy and then incorporated into the approved national development plan. In Indonesia the Ministry of the environment has been reviewing and updating the National Action Plan on peatlands as well as advancing a ministerial decision (Kepmen LH) on development of EIA in Wetlands incorporating peatland management issues. A specific Presidential regulation on peatlands has been developed in Indonesia and is in the final approval process. These are important steps in ensuring the sustainable management of peatlands and including biodiversity, land degradation and climate change considerations. Stimulating a good policy and framework in peatland management is an effective approach in combating the land degradation and biodiversity loss in peatland forests. The Strong linkage between the project and the ASEAN regional mechanisms related to peatland management (APMI/APMS) and the ASEAN Agreement on Transboundary Haze Pollution (AATHP) have strengthened the governance of the project and also helped the project mainstream peatland management issues into national and regional frameworks.

- b. *Capacity building for peatland management in the region has stimulated forward thinking in peatland management amongst peatland stakeholders.*

Capacity building has supported the up-scaling of best peatland management practices which later also help in decreasing the rate of land degradation and loss of biodiversity in the region. The recognition of the importance of integrated

management of peatlands by the peatland stakeholders has helped to reduce peatland forest degradation while maintaining the health of the peatland ecosystem. The BMP manuals have been adopted by RSPO and incorporated into the revised RSPO Principles & Criteria 2013 are a key tool to change practices of oil palm companies on peatland. Many of the large companies cultivating oil palm on peatland have agreed in mid-2014 to stop any further development of oil palm on peat.

- c. *The peatland fire prediction and warning system has helped change the focus for fire control to fire prevention.*

The development of the Peatland Fire Prediction and Warning System based on the Fire Danger Rating System (FDRS) that has been initiated by the project is now being recognized as a breakthrough and paradigm shift in the ASEAN Member States (AMS) where effort should not be focused on firefighting but peat fire prevention. The AMS acknowledged the role of the FDRS in combating the peat fires that causes transboundary haze and affects millions of lives. A reduced peat fire rate will play a significant role to decrease CO<sub>2</sub> emissions and also mitigate climate change.

- d. *Community engagement is essential for ensuring sustainable management of peatlands.*

Community engagement in peatland management and promoting sustainable livelihood has been proven to be an effective way to make changes on the ground. This approach strengthens the support of the local community in conserving the peatland forest, which is rich in biodiversity, and in encouraging sustainable management of degraded peatlands. This will reduce the stress of land conversion in the intact peatlands by making good use of the degraded peatlands and further reduce the CO<sub>2</sub> emission from unmanaged peatlands.

- e. *The engagement of private sector in particular the plantation industry has supported a more effective and integrated approach to fire prevention and peatland management.*

Documentation of best management practices and development of the best management practices (BMP) guidelines for both cultivation of oil palm and development of forest plantations on peat (in Indonesia and Malaysia) including conservation of high conservation value areas within and adjacent to plantations. Involvement of the project in developing the BMP guidelines with plantation companies under the RSPO is helping to change the “business as usual” practices and promote responsible management in the plantation sector. Also, ongoing dialogues and discussion with the forest plantation companies on peat has stimulated their interest to manage their plantations on peat through BMP to ensure the sustainability of their business. The BMP Guidelines have been incorporated to the 2013 RSPO Principles & Criteria which are mandatory certification requirements. The incorporation of peatland issues into these criteria has prompted some companies to announce bans on further plantation development in peatland areas as well as enhance management of existing plantations on peat. Organising regular dialogues with private sector plantation owners on promotion of best management practices and also fire prevention and control on peatlands in and around their plantations has also been effective. Representatives from plantation companies were also invited for the first time to participate in ASEAN meetings on peatlands and are considered important partners in development of the ASEAN Peatland programme (2014-2020). Partnership with the Roundtable on Sustainable Palm oil has enhanced access and partnership with the plantation sector which is very strategic in peatland management and has led to significant changes in on the ground practices and the rate of development of new plantations in peatland areas.

*f. Innovative approaches to peatland management and partnership engagement have strengthened stakeholder involvement and enhanced sustainability.*

The project has developed a number of innovations which can be scaled up these include:

- i. Support for development of best management practice guidelines for cultivation of oil palm on peatlands and maintenance of natural vegetation associated with oil palm on peat. This is being scaled up by adoption of the guidelines by the Roundtable on Sustainable Palm Oil (RSPO) and inclusion of the guidelines in the principles and criteria for sustainable palm oil adopted in 2013 – which is mandatory for all RSPO members.
- ii. Model of community based peatland protection (Friends of North Selangor peat forest) in Malaysia which is now recognised by the government as a suitable model to scale up to other peatland areas.
- iii. Development of Buy a Living tree Scheme in the Philippines which was launched by the President of the Philippines and enables resources from national social welfare funding to support the community based forest rehabilitation.
- iv. Green Contract system in Vietnam for villagers living in the buffer zone of U Minh Thuong National Park, a newly designated ASEAN Heritage Park, to develop sustainable livelihood and rehabilitate forests. The scheme has been scaled up in nearby U Minh Ha National Park
- v. Best management practices for agriculture/agroforestry on peat – e.g. Sorjan farming system in Indonesia which is being promoted and scaled up in Indonesia and other countries.
- vi. Community based fire prevention and control groups (MPA) in Indonesia which are being scaled up with government and private sector support.
- vii. Private sector support (through CSR programmes) for peatland protection and rehabilitation which has been showcased in Malaysia has potential for scaling up in the region.

## 6. Conclusions

- a. The Regional Component if the APFP met and exceeded most of the targets set at the start of the project period.
- b. The awareness and understanding of peatlands in the ASEAN region has significantly increased over the 8 years of the formulation and implementation of the APFP with governments, private sector, Civil society and Communities in the ASSEAN region paying greater attention to peatlands.
- c. The awareness and support at the global level for action on ASEAN peatlands has significantly increased.
- d. Significant progress has been made in the implementation of APMS and NAPs – but significant challenges remain and more work is needed to scale up and sustain peatland management efforts.
- e. Governments must work in partnership with the private sector, Civil society, local community and local government to ensure sustainable peatland management.
- f. The establishment of the ASEAN Programme on Sustainable management of Peatland Ecosystems (APSMPE) by ASEAN Member States in 2013 has created a significant opportunity for partnership and Collaborative action by a broad range of stakeholders to solve remaining challenges for peatland management in ASEAN.

## 7. Recommendations

- a. The ASEAN Programme on Sustainable management of Peatland Ecosystems (APSMPE) should be further developed and supported to enable multi-stakeholder partnership for sustainable peatland management
- b. The scale of resources allocated by governments, Private sector and the international community to support sustainable management of peatlands in the ASEAN Region should be significantly enhanced to support measures to meet the targets set under the APSMPE.
- c. The level of engagement of the private sector, Civil society, communities and research institutions in peatland management should be enhanced.
- d. Significant incentives and disincentives should be introduced to eradicate land clearing through fire and encourage a new paradigm of peatland stewardship.
- e. The governance and land allocation and tenure systems needs to be reformed especially in fire prone peatland areas of peatland
- f. Sustainable peatland management should be further mainstreamed into economic and social sectors.
- g. New sustainable use options for peatlands should be developed especially for undrained or rewetted peatland areas.
- h. Further enhance the capacity and activities related to the ASEAN mechanisms for peatlands including the APMS and NAPs and the ASEAN Task Force on Peatlands.

**Annex 1: List of Publications (books, leaflets, videos, etc.)**

<b>Date Produced</b>	<b>Description/ Name</b>	<b>Type of Publication (book, video etc)</b>	<b>Quantity Produced</b>	<b>Language</b>
2010	Addressing Peatland Degradation in South East Asia: The ASEAN Peatland Forests Project (APFP)	Brochure	1000	English
2011	Peatlands in Southeast Asia- A Profile	Booklet	800	English
2011	Peat Matters (Video)	Video	softcopy	English
2011	Peatlands: Do you care?	Booklet	2000	English
2011	Manual for the Control of Fire in Peatlands and Peatland Forest (reprint)	Book (A5)	1000	English
2011	Training Module on Peatland Assessment and Management	Book	800	English
2011	Integrated Tropical Peatland Management in Southeast Asia	Poster	200	English
2012	Workshop on Enhancing Sustainability of Forestry Practices on Peatlands (WESFPP)	Programme Booklet	200	English
2012	Peatland Publications CD	CD	500	English
2012	RSPO Manual on Best Management Practices (BMPs) for Existing Oil Palm Cultivation on Peat	Book (A5)	Printed by RSPO 1000	English
2013	RSPO Manual on Best Management Practices (BMPs) for Management and Rehabilitation of Natural Vegetation	Book (A5)	Printed by RSPO 1000	English

**ANNEX 1: REGIONAL COMPONENT COMPLETION REPORT**

	Associated with Oil Palm Cultivation on Peat			
2013	Peatlands in Southeast Asia	Poster	4000	English
2013	Our Precious Peatlands	Postcards	3000	English
2013	Notebook- Best Management Practice Sites in Southeast Asia (200 pgs)	Notebook	1000	English
2013	Development of Financing and Incentive Options For Sustainable Management of Peatland Forests in Southeast Asia	Book	800	English
2013	Peatlands and Climate Change in Southeast Asia	Booklet	1,700	English
2014	ASEAN Peatland Management Strategy 2006-2020 (revised)	Booklet	500 (printed by ASEC)	English
2014	Enhancing Sustainability of Forestry Practice on Peatland	Book	500	English
2014	Guidelines on integrated management of Peatlands	Book	Soft copy and limited hard copy	English
2014	Best Management Practices in Peatland in SEA (Video)	Video	Softcopy	English
2014	Asean Peatland News 2013	Newsletter	Softcopy	English
2014	Asean Peatland News June 2014	Newsletter	Softcopy	English

## Annex 2: List of agencies/main stakeholders involved in the component implementation

Name of organisation	Location	Role in project	Contact person	Contact email or phone
Ministry of Natural Resources and Environment	Putrajaya	Focal Point	Danial Lee Abdullah	danial@nre.gov.my
Malaysian Meteorological Department	Petaling Jaya	FDRS	Tan Huvi Vein/ Kang Thean Shong/ Jailan B. Simon	jailan@met.gov.my
National Environment Agency, Singapore	Singapore	Hotspots monitoring system	Seow Hui Ching	SEOW_Hui_Ching@NEA.gov.sg
Ministry of Environment, Indonesia	Jakarta, Indonesia	National Coordinator of APFP-IND	Hermono Sigit	hermono_sigit@yahoo.com
Bogor Agricultural University (IPB)	Bogor, Indonesia	National Expert of APFP-IND	Dr. Lailan Syaufina	syaufinalailan@gmail.com
Forestry Department of Peninsula Malaysia (FDPM)	Kuala Lumpur, Malaysia	National Coordinator of APFP-MY	Hamdan bin Napiah	hamdan@forestry.gov.my
Malaysian Nature Society	Kuala Lumpur, Malaysia	National Expert of APFP-MY	Balu Perumal	hod.conservation@mns.org.my
Dept. of Environment & Natural Resources (DENR)	Quezon City, Philippines	National Coordinator of APFP-PHI	Armida Andres	nenengandres@yahoo.com.au
Vietnam Environment Administration, MONRE	Hanoi, Vietnam	National Coordinator of APFP-VN	Ms. Nguyen Thi Thanh Tram	thanhtram62@gmail.com
Institute for Environment and Natural Resources National University	HCM City, Vietnam	National Expert for APFP-VN	Dr. Le Phat Quoi	quoilp@gmail.com
Ministry of Development	Brunei Darussalam	Senior Representative to AATHP, Permanent Secretary	Tn. Haji Muhammad Lutfi Bin Abdullah	jastre.brunei@yahoo.com
Ministry of Environment	Cambodia	Senior Representative to AATHP,	Dr. Srey Sunleang	kampongspeu@yahoo.com

**ANNEX 1: REGIONAL COMPONENT COMPLETION REPORT**

<b>Name of organisation</b>	<b>Location</b>	<b>Role in project</b>	<b>Contact person</b>	<b>Contact email or phone</b>
		Director, Department of Wetlands and Coastal Zones		
Ministry of Environment	Indonesia	Senior Representative to AATHP, Deputy Environmental Degradation Control and Climate Change	Mr. Arief Yuwono	ay.yuwono@gmail.com
Ministry of Natural Resources and Environment	Lao PDR	Senior Representative to AATHP, Secretary General Joint Committee	Mrs. Monemany Nhoybouakong	mone_many@yahoo.com
Ministry of Natural Resources and the Environment	Malaysia	Senior Representative to AATHP, Director General Department of Environment	Ms. Halimah Haji Hassan	
Ministry of Environmental Conservation and Forestry	Myanmar	Senior Representative to AATHP, Director	U Hla Maung Thein	env.myan@mptmail.net.mm
Department of Environment and Natural Resources	Philippines	Senior Representative to AATHP, Undersecretary	Mr. Demetrio L. Ignacio	
Ministry of the Environment and Water Resources	Singapore	Senior Representative to AATHP, Director- General for Environmental Protection, National Environment Agency	Mr. Koh Kim Hock	KOH_Kim_Hock@nea.gov.sg
Ministry of Natural Resources and Environment	Thailand	Senior Representative to AATHP, Permanent Secretary	Mr. Chote Trachu	
Ministry of Agriculture and Rural Development	Vietnam	Senior Representative to AATHP, Director, Forest Protection Department, Vietnam Forestry Administration	Dr. Nguyen Huu Dzung	huudzung@gmail.com
Roundtable on Sustainable Palm Oil		GHG Manager	Ms. Melissa Chin	

**Annex 3: Photographic summary**



Training of Trainers for Peat Assessment and Management, February 2011



BMPs for Sustainable Peatland Management, Central Kalimantan, Indonesia, June 2011



Peer Learning Workshop for Communities Living on Peatlands, Nakhon Si Thammarat, Thailand, May 2012



Workshop on Integrated Management Planning, Pahang, Malaysia, June 2012



APMS Review, Bangkok, August 2012



Workshop on Enhancing Sustainability of Forestry Practices on Peatlands; Bogor, Indonesia; June 2012.

ANNEX 1: REGIONAL COMPONENT COMPLETION REPORT



GIS training; Ho Chi Minh City, Viet Nam; August 2012



Peer learning session in Kalimantan, Indonesia; June 2013



Mid term review, Malaysia; October 2012



Visit to a weather station in Malaysia, MTR, October 2012



Terminal Evaluation Mission team with Malaysian Forestry staff, September 2014



TER team at a nursery in Malaysia.



Discussion with community in Viet Nam



TER visit to Philippines project site.



Kick off meeting in Jakarta, Indonesia



Inspecting fire fighting equipment in Riau, Indonesia



Closing and Knowledge Workshop; Pekanbaru, Indonesia; 10-14 November 2014.



Field visit to project site in Pelintung-Guntung, Riau.

## COMPLETION REPORT (INDONESIA)

### National Project Executing Agency: Ministry of Environment

#### 1. Summary

This is the Completion Report for the Indonesia Component prepared by the Ministry of Environment, Republic of Indonesia as the NPEA (National Project Executing Agency). It reports on the activities carried out by the ASEAN Peatland Forests Project Indonesia Component during the period of October 2010 to June 2014.

**COMPONENT SUB-OUTCOME 1:** Capacity of human resources and institutions related to peatland management in Indonesia strengthened.

For Output 1.1, LPIC and NPIC meeting for planning project implementation in 2014 has been conducted. National Workshop on National Strategy for Sustainable Peatland Management as NAP for Indonesia peatland has been conducted which involved relevant key stakeholders for peatland management in Indonesia including: Ministry of Environment, Ministry of Agriculture, Ministry of Forestry, Ministry of Home Affairs, Bappenas, private sectors and other supporting stakeholders such as Universities and NGOs. National Strategic/NAPs socialisation in Nangroe Aceh Darusalam and South Sumatra Provinces has been conducted. As Output 1.2, dissemination of awareness materials in the form of leaflets, publications, video, modules in various relevant events, i.e. in Training on Sustainable Peatland Management in Aceh, South Sumatra in the Leadership Training Practices on the application of FDRS and fire control for community in Riau, Central Kalimantan and West Kalimantan provinces and Bengkalis, Dumai, Rokan Hilir Districts. For Output 1.3, Demo site for funding options has been initiated. For Output 1.4, technical support for the effectiveness of project implementation has been regularly conducted for the period of 2010 to June 2014. The NPEA has also preceded Monitoring and Evaluation meeting for Indonesia component. A finalisation meeting with National Steering Committees (NPIC) was held in August 2014 and a National Closing Workshop was held in December 2014.

**COMPONENT SUB-OUTCOME 2:** The degradation of peatlands in Indonesia minimized.

For Output 2.1, Peatland map for Sumatera and Kalimantan has been published as well as for that of peatland hydrological unit map. Priority site map for Central Kalimantan has been developed and a rehabilitation site in Central Kalimantan has been established. Priority map for rehabilitation in West Kalimantan has been produced, rehabilitation site has been indicated and demonstration plot of rehabilitation sites initiated. As Output 2.2, Working Group on FDRS on peatland has been established and actively contributed to the development of FDRS on peatland. Pilot site for fire prevention activities in Riau has been established. Mapping of fire prone area overlaid by community fire brigade has been produced. For Output 2.3, demo site for peat swamp forest protection has been established. Capacity building for increasing skill of community fire brigades on fire control in Dumai and Rokan Hilir. The project provided 9 units of FDRS sign boards for Dumai, Bengkalis, Rokan Hilir, Kubu Raya and Pontianak as well as provided 16 units fire pumps for Riau Province. The Component expanded the pineapples farms to support livelihoods of the community fire brigade in Pelintung and Guntung. Private Partnership Programme on strengthening communities on peatlands fire prevention between APFP was established with PT. Sinarmas Forestry. The company provided micro finance office

(Koperasi), monitoring hot spots screen display, 4 units android mobile for receiving hot spots and FDRS information, constructed canal blocks in 4 locations. For output 2.4, Indonesia component has actively contributed to the regional workshop on Enhancing Sustainable Forestry Plantation Practices as co-organizer.

**COMPONENT SUB-OUTCOME 3:** Key stakeholders working together to address rehabilitation and sustainable management of targeted peatlands in Riau and West Kalimantan.

For Output 3.3, Capacity building programme for increasing skill of community fire brigades on fire control by leadership training and hands-on practices organized for community in Bengkalis. Extended pineapples demonstration plots in Sepahat. As Output 3.4, Master plan for sustainable peatland in West Kalimantan has been launched by the Governor of West Kalimantan Province in 7th PMM and 4th PSC meeting in Pontianak in West Kalimantan. Peer learning on agriculture BMPs on peatlands was organised for farmers in Central Kalimantan. For Output 3.6, Pilot site for incentive options in Central Kalimantan has been initiated. Capacity building programmes for increasing skill of community fire brigades on fire control by leadership training and practices on fire control were organized for community fire brigade in Central Kalimantan and West Kalimantan. Technical and coordination meeting for dry season facing preparation has been conducted in Riau.

**COMPONENT SUB-OUTCOME 4:** Sustainable peatland management related to biodiversity and climate change in selected peatlands benefiting local stakeholders.

*For Output 4.1*, Demonstration plots of rehabilitate degraded peatlands in Harapan Jaya by planting rubber trees integrated with pineapples, constructing canal blocks and shallow wells. Canal blocks and shallow wells were constructed at pilot sites in Sepahat, Tanjung Leban, Pelintung and Guntung. *As Output 4.2*, Pilot sites of pineapples in Bantayan Village, pilot sites of canal blocking and shallow wells in Mumugo, Rokan Hilir. *Output 4.3*, Demo site in Nung peat swamp forest in West Kalimantan has been established. Increase revenue for communities around Nung Peat Swamp Forest by value added of fish through training on diversification of fish products. The Minister of Environment has been supporting the APFP activities to strengthen community fire brigade on fire prevention. *For Output 4.4*, pilot site in Rasau Jaya West Kalimantan has been established. Communities' income increased due to better quality and quantity of honey production through cultivation of Tembesu (*Fagraea fragrans*) and corn (*Zea mays*) in buffer zone of Sentarum National Park. Local government was supported to do peatland inventory by providing peat augers to Riau, West Kalimantan, South Sumatra and Aceh. Water pumps were provided to fire brigade community in Rasau Jaya, and food processors and pasta machines were provided to community groups around Nung Peat Swamp Forest. Partnership with the Wetlands International Indonesia and Financial Services Authority was initiated since Workshop on Sustainability Investment in Peatland Plantations.

**COMPONENT SUB-OUTCOME 5:** Project Management.

The NPEA has organized the monitoring and evaluation of the implementation of APFP; incorporation with the LPIC in implementation of all the activities; management meeting with other components and participated actively in all regional activities.

## 2. Brief Component Description

Peat swamp forests under natural conditions are very resistant to fire due to naturally high water tables. They are only vulnerable to above and below ground fires when water levels fall, which commonly caused by excessive drainage or severe droughts. Since 1997-1998 there have been

regular peat fires in the region whenever there is a dry period of more than 2-3 weeks. These fires were intensified during the El Nino year of 2002 and 2005 and have been reported to have released the stored carbon in peat to atmosphere and blanketing the region with dense clouds of smoke. Further damage caused by these fires was losses of production (crop yields, fishing efforts and industrial), airline and airport, health and so on. Hence the mind-settings of the decision makers in regards to management of peatlands should begin to prioritize utilization in sustainable manner, conservation, rehabilitation and measures to improve management of peatlands.

Based on series of discussion and stakeholders meeting at national, provincial and district levels, it is concluded that the most critical issue in peatland management in Indonesia is the policy and institutional aspects. Inadequate coordination and consensus among related stakeholders is potential to lead to conflict in management of peatland, particularly at the field level management. On the other hand, decision makers, executives and public have poor understanding on peat swamp forest characteristics, which are unique and fragile, and it has consequently accelerate peatland mismanagement and degradation. Therefore, to strengthen capacity for sustainable peatland management should be the first priority objective to be achieved.

Fire is also considered as an important issue of Indonesia. Peatland fires are the most difficult fire to suppress and its effects could be suffered by not only local people, but also to inhabitants of neighbouring countries. Peatlands fire also entails environmental set back in respect to carbon sequestration and transboundary haze pollution. The other important issues in peatlands management in Indonesia are related to water management and community's involvement in its management. Inappropriate development of canals and lack of addressing alternative income generating activities underlay the selection of the abovementioned issues as priorities.

Concerning peatland management issue, tackling of fires problem is the utmost important. As fires is related to the regional environmental issue, the transboundary haze pollution. Moreover, water management will also be addressed as important issue in the country component. For the community-based issue, involvement of local communities in peatland management and generating income for the communities should be placed as key activities.

Component Sub-Objective: To demonstrate, implement and upscale sustainable management and rehabilitation of peatlands in Indonesia through a national framework for partnership, information sharing and capacity building; and providing guidelines for best management practices.

The Indonesia Component has five outcomes:

COMPONENT SUB-OUTCOME 1: Capacity of human resources and institutions related to peatland management in Indonesia strengthened

COMPONENT SUB-OUTCOME 2: The degradation of peatlands in Indonesia minimized

COMPONENT SUB-OUTCOME 3: Key stakeholders working together to address rehabilitation and sustainable management of targeted peatlands in Riau and West Kalimantan

COMPONENT SUB-OUTCOME 4: Sustainable peatland management related to biodiversity and climate change in selected peatlands benefiting local stakeholders

COMPONENT SUB-OUTCOME 5: Project management

**3. Project Achievements against the Logical Framework**  
**Achievements of the project implementation (October 2010 – December 2014) versus targets in Component Logical Framework Matrix**

OUTPUT	LOGICAL FRAMEWORK TARGETS	PROGRESS	ACHIEVEMENTS (%)	REMARKS
OUTPUT 1.1 – Implementation of National Action Plan on Peatlands periodically reviewed and policies related to peatlands enhanced	<ul style="list-style-type: none"> <li>▪ 8 workshops on NAP implementation convened</li> <li>▪ Review on need for integrated policies on peatlands prepared</li> </ul>	<ul style="list-style-type: none"> <li>▪ Review on NAP by relevant stakeholders and revision of NAP agreed in 2012.</li> <li>▪ One National Workshop on NAP was conducted in Bogor (national level), eight at provincial level - Riau, South Sumatra, Jambi, North Sumatra, Aceh, West Kalimantan, Central Kalimantan (Province level), Bengkulu (district level)</li> <li>▪ The President Instruction No. 10/2011 and renewed by No. 06/2013 on Moratorium of New Permit and Finalization of Management for Primary Forest and Peatland</li> <li>▪ Ministry Environment Regulation No.05/2012 on Environment Impact Assessment mandatory activities has been established including requirements for peatlands.</li> <li>▪ Government Regulation no. 71/2014 on Peatland Ecosystem Protection and Management (PP Gambut)</li> </ul>	100 %	
OUTPUT 1.2 Awareness of integrated peatlands management in Indonesia peatlands enhanced	<ul style="list-style-type: none"> <li>▪ 1,000 posters produced and distributed</li> <li>▪ 10,000 leaflets produced and distributed</li> <li>▪ 1,000 VCDs produced and distributed</li> </ul>	<ul style="list-style-type: none"> <li>▪ 1000 posters produced and distributed</li> <li>▪ 7000 leaflets produced and distributed</li> <li>▪ 900 VCDs produced and distributed</li> <li>▪ 850 training modules produced and distributed</li> <li>▪ 500 trained personnel</li> <li>▪ 11 training programmes</li> </ul>	100 %	The number of training programmes and personnel trained was significantly more than the original target. Fund was

	<p>distributed 1,000 training modules produced and distributed</p> <ul style="list-style-type: none"> <li>▪ 200 trained personnel</li> <li>▪ 8 training programmes</li> </ul>		<p>reallocated to support national policy in change paradigm from peat land fire control to fire prevention through sustainable peatland management</p>
<p>OUTPUT 1.3 Sustaining financing mechanism to support peatland management established</p>	<ul style="list-style-type: none"> <li>• Report on options of funding mechanism for peatland management formulated             <ul style="list-style-type: none"> <li>▪ Trust fund for peatland management established</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Study conducted, entitled Study on the Increase of Sustainable Management Funding options for community provided</li> <li>▪ Workshop on Sustainability of Investment in Peatland Plantations was organised in June 2014 in partnership with Wetlands International Indonesia and the Indonesian Financial Services Authority on and attended by 100 participants</li> <li>▪ Significant additional resources were allocated for work on peatlands from National government funding mechanisms and through a range of donors and partners.</li> </ul>	<p>100 %</p>
<p>OUTPUT 1.4 Component activities technically supported and guided</p>	<ul style="list-style-type: none"> <li>▪ SAPR Reports</li> </ul>	<ul style="list-style-type: none"> <li>▪ NPIC Meeting organised annually</li> <li>▪ LPIC Meeting organised annually</li> <li>▪ NPEA and NE Meeting on Monitoring and Evaluation</li> <li>▪ Financial Audit undertaken annually</li> </ul>	<p>100 %</p> <p>SAPRs all completed on schedule. NPIC, LPIC closing meeting, terminal workshop and</p>

<p>OUTPUT 2.1 Priority peatlands for conservation and rehabilitation identified</p>	<ul style="list-style-type: none"> <li>• Availability of database on degraded peatland area in Sumatera and Kalimantan <ul style="list-style-type: none"> <li>▪ Updated peat atlases for Sumatera and Kalimantan</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Database/ mapping of degraded peatland area in Sumatera and Kalimantan available with hardcopy</li> <li>▪ Peatland hydrological Unit map was prepared by MoE</li> <li>▪ Mapping of Rehabilitation priority sites in West Kalimantan, Central Kalimantan and Riau</li> <li>▪ Mapping of Oil Palm on Peatland in South Sumatra provided by Wetland International Indonesia</li> </ul>	<p>100 %</p>	<p>financial audit were completed</p>
<p>OUTPUT2.2 Prevention and warning measures for peatland fire enhanced</p>	<ul style="list-style-type: none"> <li>• Reduction in Percentage of hotspot on peatland</li> <li>• Increase in percentage of zero burning implementation on peatland for commercial purposes in target areas</li> <li>• 250 trained personnel for peat fire control</li> <li>• 500 training modules</li> <li>• Peatland fire prediction and warning system operational</li> </ul>	<ul style="list-style-type: none"> <li>▪ Study on peat fire prone areas in Sumatera and Kalimantan conducted, Study on hotspot distribution as indicator of peatland fire in Riau</li> <li>▪ Locations of community fire brigades in Riau (together with detailed information e.g. no. of member, fire-fighting equipment, etc.) were identified and overlaid onto the Fire Prone Area Map.</li> <li>▪ Input provided to work by regional component to develop peatland fire prediction and warning system through workshops in 2011, 2012 and 2013.</li> <li>▪ Workshop on FDRS on peatland conducted, Pekanbaru</li> <li>▪ National workshop for multi-stakeholders on peatland fire control conducted in Pekanbaru, Oct 2013 attended by 90 participants.</li> <li>▪ 320 personnel (local government and community) of Community fire brigades trained on FDRS implementation and</li> </ul>	<p>100 %</p>	

		<p>Leadership training and practices on fire control for community fire brigade in Bengkulu, May 2014 attended by 50 participants; Dumai, May 2014 attended by 50 participants; RokanHilir, June 2014 attended by 50 participants; Kubu Raya, August 2013 attended by 30 participants; Riau Province, December 2013 attended by 45 participants; West Kalimantan Province, June 2014 attended by 45 participants and Central Kalimantan Province, April 2014 attended by 50 participants.</p> <ul style="list-style-type: none"> <li>▪ Peer Learning for Village Officials from Bengkulu, Rokan Hilir, Dumai to Harapan Jaya Village (Indragilir Hilir) on village regulation on Open Burning Land Clearing, December 2013 attended by 35 participants.</li> <li>▪ Peatland fire system: Implementation of FDRS in the fire prone area developed by BMKG (Meteorological, Climatological and Geophysics Agency), LAPAN (National Institute of Aeronautics and Space), Ministry of Forestry and Ministry of Environment</li> <li>▪ Provided FDRS sign boards in Kubu Raya, Pontianak, Bengkulu total 7 units</li> <li>▪ Produced and distributed 500 Curriculum and Syllabus on Forest Fire Control Training provided by MoF</li> </ul>	
		<ul style="list-style-type: none"> <li>▪ Reduced hotspot in the demonstration area more than 10% based on village official information. Hotspot data series sub-district scale unstable</li> <li>▪ Demo site established based on Forum Group Discussion (FGD). Support provided</li> </ul>	100 %
<p>OUTPUT 2.3: Incidence of forest fires in Rokan Hilir and Dumai districts significantly reduced</p>	<ul style="list-style-type: none"> <li>• 10 % hotspot decreased</li> <li>• Increase controlled burning implementation by traditional farmers in targeted areas.</li> </ul>		

	<ul style="list-style-type: none"> <li>• Increase number of community fire control groups             <ul style="list-style-type: none"> <li>▪ Pilot site established</li> </ul> </li> </ul>	<p>to community fire brigade (MPA) at Mumugo village, Tanah Putih sub district, Rokan Hilir District; Pelintung and Guntung villages of Dumai City. Alternative livelihoods and support for members of the MPA groups was provided through, 9 ha of pineapple plantation (90,000 seedlings). benefiting 80 persons in 4 villages</p> <ul style="list-style-type: none"> <li>▪ Provided FDRS sign boards in Mumugo, Pelintung and Guntung total 4 units</li> <li>▪ Leadership training and practices on fire control for community fire brigade in Dumai and Rokan Hilir</li> <li>▪ Pineapple demonstration plots, canal blocking and shallow wells in Sepahat, Tanjung Leban, Pelintung, Guntung and Mumugo Villages</li> <li>▪ Produced and distributed leaflet and awareness material on zero burning provided by MoA</li> </ul>	
<p>OUTPUT 2.4 Sectoral guidelines for peatland management developed and promoted</p>	<ul style="list-style-type: none"> <li>• Availability of standard guidelines for peatland rehabilitation and sustainable management</li> <li>• Availability of regulations for peatland rehabilitation and sustainable management</li> </ul>	<ul style="list-style-type: none"> <li>▪ Input provided to work by Regional Component to compile best management practices for oil palm on peatland.</li> <li>▪ Workshop organised with Regional component to review best management practices for forestry on peatlands (including plantation forestry) and related publication produced.</li> <li>▪ Study on sectoral guidelines conducted, entitled Study on the Increase of Sustainable Management (including Study on sectoral guidelines for peatland management)</li> <li>▪ Guideline for oil palm plantation on peatland have been developed by MoA</li> <li>▪ Government Regulation Plan on</li> </ul>	<p>100 %</p>
		<p>Government Regulations on Protection and Management Peatlands Ecosystem No. 71/2014 has been approved by the President</p>	

		<p>Environmental Degradation Control in the Peatland Ecosystem has been developed under the procedures of harmonization from Ministry of Laws and Human rights;</p> <ul style="list-style-type: none"> <li>▪ Presidential Instruction on Moratorium of new permit on peatland have been developed</li> <li>▪ Criteria and indicator for sustainable peatland management have been formulated (MoE)</li> </ul>		
<p>OUTPUT 3.1 Implementation of Masterplan for sustainable peatland management in Riau province through Multi-stakeholder Partnership</p>	<ul style="list-style-type: none"> <li>• A master plan for sustainable peatland management is established and adopted</li> <li>• 10 meetings are convened to promote masterplan</li> <li>▪ Documents on sustainable peatland management disseminated</li> </ul>	<ul style="list-style-type: none"> <li>▪ Master plan for sustainable peatland management is finalised and disseminated</li> <li>▪ Eight Meetings were convened to promote masterplan, Tembilaan (3-5 Oct 2012), PKU (5-6 May 2011), Pelalawan (22 Nov 2011), Rohil (23-25 Nov 2011), PKU (22 Nov 2012), Siak, Bengkalis and Dumai</li> <li>▪ Documents on sustainable peatland management disseminated to workshop participants</li> <li>▪ Riau Province Spatial Planning established</li> </ul>	<p>100 %</p>	
<p>OUTPUT 3.2: Kampar Peninsular Sustainable Peatland Management Program established and operating</p>	<ul style="list-style-type: none"> <li>• Management for Kampar peninsular programme operating</li> </ul>	<ul style="list-style-type: none"> <li>▪ Study on masterplan in Kampar Peninsular completed by Research Center for tropical peatland Riau University</li> <li>▪ Dissemination of Master plan for Kampar Peninsular by MoF</li> <li>▪ Kampar Peninsular designated a special forestry management unit by Ministry of forestry.</li> <li>▪ Coordination between different private sector Plantation companies on Kampar peninsular undertaken</li> <li>▪ Assessment of potential for carbon project on portion of Kampar peninsular undertaken</li> </ul>	<p>100 %</p>	
<p>OUTPUT 3.3: SiakPeatland</p>	<ul style="list-style-type: none"> <li>• SPB established</li> <li>• Community livelihood</li> </ul>	<ul style="list-style-type: none"> <li>▪ Siak Peatland Biosphere established; under coordination of MoF, some activities were</li> </ul>	<p>100 %</p>	

<p>Biosphere (SPB) Reserve established</p>	<p>activities enhanced in targeted villages</p> <ul style="list-style-type: none"> <li>Community patrolling for fire prevention undertaken</li> </ul>	<p>conducted as follows: ecotourism development, fish culture, largest peat water treatment, cooperation with other stakeholders.</p> <ul style="list-style-type: none"> <li>Incentive options for community in Tanjung Leban village, Bengkalis as well as other buffer areas of SPB</li> <li>Training on Sustainable Peatland Management for local government official in Siak District, attended by 50 participants</li> <li>Provided peat auger for local government</li> </ul>		
<p>OUTPUT 3.4: District Action Plan on Peatlands in West Kalimantan implemented and support initial promotion activities for rehabilitation</p>	<ul style="list-style-type: none"> <li>District action plan adopted and implemented</li> </ul>	<ul style="list-style-type: none"> <li>Master plan West Kalimantan developed</li> <li>Exchange program to Central Kalimantan conducted; 5 person from West Kalimantan to Central Kalimantan</li> <li>Action Plan for Rasau peatland developed</li> <li>Working group established</li> <li>Sent 5 farmers from West Kalimantan to Central Kalimantan to participate in Peer Learning BMPs Agro forestry on peatlands</li> <li>Mapping of priority area for rehabilitation done</li> </ul>	<p>100 %</p>	<p>District Action plan was upgraded to Masterplan for province due to strong stakeholder interest.</p>
<p>OUTPUT 3.5 Peatland management in Central Kalimantan contributing to regional experience</p>	<ul style="list-style-type: none"> <li>Documentation of best practices in Central Kalimantan produced</li> <li>Workshops and exchange programmes conducted</li> </ul>	<ul style="list-style-type: none"> <li>Carbon emission study conducted (title: Carbon emission study on degraded peatland in Central Kalimantan under study of title: Development of sustainable peatland management in Central Kalimantan)</li> <li>Participants from 7 ASEAN countries participate in Regional Workshop on peatland BMP in Palangkaraya in 2011</li> <li>Participants from 8 ASEAN member countries (especially from community groups) attend Peer Learning Program on BMP on Peatland in South Kalimantan and Central Kalimantan in 2013.</li> </ul>	<p>100 %</p>	<p>Experiences from Central Kalimantan have significantly contributed to peatland management in other countries – eg adoption of Buy a Living Tree System (BLTS) from Central Kalimantan by</p>

		<ul style="list-style-type: none"> <li>▪ Experience from carbon study shared at Carbon emission workshop, Bogor</li> <li>▪ Rehabilitation pilot sites in Jabiren village initiated</li> <li>▪ Agro forestry Demonstration plots on peatland have been initiated in Kelampangan Village, Palangka Raya.</li> <li>▪ Peer learning program for on BMPs Agro forestry on peatland for farmers from Central Kalimantan, West Kalimantan and Riau to Central Kalimantan in 2014.</li> </ul>		Philippine government
<p>OUTPUT 3.6 Incidence of forest fires in Central Kalimantan significantly reduced</p>	<ul style="list-style-type: none"> <li>• Increase controlled burning implementation by traditional farmers</li> <li>• Increase number of community fire control group</li> </ul>	<ul style="list-style-type: none"> <li>▪ Study on incentive options conducted (title: Development of sustainable peatland management in Central Kalimantan)</li> <li>▪ 6 Community fire prevention groups (MPA) formed</li> <li>▪ Fire fighting equipment provided</li> <li>▪ Training on implementation of FDRS for community fire brigade and local government official in Central Kalimantan</li> <li>▪ Leadership training and practices on fire control for community fire brigade in Central Kalimantan</li> <li>▪ Community Empowerment on Peat Land Rehabilitation combined with Livelihood Development in Central Kalimantan done by Wetland International Indonesia</li> </ul>	100 %	
<p>OUTPUT 4.1 Plantation sector actively contributing to sustainable peatland management in Riau province.</p>	<ul style="list-style-type: none"> <li>• At least 4 plantation companies involved</li> <li>• Rehabilitation activities enhanced in and adjacent to plantations. <ul style="list-style-type: none"> <li>▪ Improved contribution of</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>▪ Study reported, entitled Plantation sector actively contributing to sustainable peatland management in Riau</li> <li>▪ More than 60 representatives from 25 plantation companies attended multi-stakeholder workshop on peatland fire control in October 2013.</li> <li>▪ Selected plantation companies operating in</li> </ul>	100 %	

<p>OUTPUT 4.2 Sustainable forest management demonstrated in Rokan Peatlands</p>	<p>private sector to peatland management and fire prevention.</p> <ul style="list-style-type: none"> <li>• Demo site for community engagement in buffer zone of forest</li> <li>▪ Study on carbon emission completed</li> </ul>	<p>Riau attended ASEAN preparatory meeting on partnership with plantation sector in December 2013 and 2014.</p> <p>Associate partner of APRIL group supported fire prevention and control in Harapan Jaya Village; rehabilitation conducted through integrated cultivation of rubber trees and pineapples, canal blocking and shallow wells in Harapan Jaya. Model for village fire prevention regulations developed. .</p> <ul style="list-style-type: none"> <li>▪ Partnership of APFP and PT. Sinarmas Forestry provided of micro finance office (Koperasi), Monitoring hot spots screen display, 4 units android mobile for receiving hot spots and FDRS information, constructed canal blocks in 4 locations for Community Fire Brigade in Sepahat and Tanjung Leban</li> <li>▪ Partnership of APFP and Diamond Raya Timber provided 5 species of tree seedlings for planting in Bantayan village within forest reserve buffer zones.</li> <li>▪ Support from plantation company (APRIL/RAPP) for the development of Community Fire Brigade in four villages on Pelalawan District near Kampar peninsular.</li> </ul>	<p>100 %</p>	
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<p>OUTPUT 4.3 Community forest management demonstrated in Nung Peat Swamp Forest, Kapuas Hulu District, West Kalimantan</p>	<ul style="list-style-type: none"> <li>• Action plan for Sustainable Nung Peat Swamp Community Forest adopted and implemented</li> <li>▪ Community livelihood activities showcased at demo site</li> </ul>	<ul style="list-style-type: none"> <li>▪ Provided pilot canal blocking and shallow wells in Mumugo</li> <li>▪ Action plan developed</li> <li>▪ Livelihood options available: farming, fishery and water treatment implemented</li> <li>▪ Ecotourism development conducted</li> <li>▪ Provided and distributed 5 sets of Food processors and pasta machines for Community groups around Nung Peat Swamp Forest, Sentarum National Park West Kalimantan</li> <li>▪ Demonstration plots of Tembesu (<i>Fagraea fragrans</i>) and corn (<i>Zea mays</i>) for nectar supply in buffer zones of Sentarum National Park, West Kalimantan to increase quality and quantity of honey bees</li> <li>▪ Training on diversification of fish product for communities around Nung Peat Swamp Forest, West Kalimantan. Attended by 36 participants to increase communities' revenue.</li> <li>▪ Produced and distributed 3000 flyers on exotic wetland ecosystem of Sentarum National Park provided by Danau Sentarum National Park management.</li> <li>▪ Produced and distributed 500 VCDs on Sentarum National Park Profile provided by Danau Sentarum National Park management</li> </ul>	<p>100 %</p>	
<p>OUTPUT 4.4 Integrated sustainable peatland farming system demonstrated in Rasau Jaya Peatlands, West Kalimantan</p>	<ul style="list-style-type: none"> <li>• Action plan for sustainable farming system on peatland in Rasau Jaya adopted and implemented</li> <li>• Demo site on sustainable farming</li> </ul>	<ul style="list-style-type: none"> <li>▪ Action plan developed</li> <li>▪ Carbon emission study conducted (title: Carbon emission study on agriculture farming on peatland in West Kalimantan)</li> <li>▪ Pilot site initiated (farming, amelioration for peatland) Pilot site established at Kuala Dua village, Kuburaya district, sized 1,500 m<sup>2</sup>,</li> </ul>	<p>100 %</p>	

	<p>established</p> <ul style="list-style-type: none"> <li>• Study on GHG emissions linked to site produced</li> </ul>	<p>zero burning agriculture farming; 1 farmer group.</p> <ul style="list-style-type: none"> <li>▪ Fire equipment for MPA provided</li> <li>▪ Provided peat auger for local government</li> <li>▪ Support water pump for community fire brigade in Kubu Raya</li> </ul>	
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**Summary of Achievements**

APFP activities were helpfull in increasing of capacity building on sustainable peatland management specially for the local community. Increasing revenue and financial independence for voluntary community fire brigade on fire control in peatland trough demonstration plots pineapple plantation.

Provide much more sustainable peatland management informations for communities trough training for example peer learning on BMPs agriculture on peatland for local farmers and others informations like leaflet, poster and videos. Integrated support for community fire brigade as a models in Sepahat and Tanjung Leban villages such as capacity building, income revenue, micro finance (koperasi), fire control equipment and prevention proven increasing active role on fire.

Peatland rehabilitation and canal blocking demonstration plots trigger the community and private sectors scalling up in their area. Strengtening cooperation on sustainable peatland management multi stake holders in the regional, central and local government, private sectors and communities.

#### 4. Financial Report 2010 – 2014

##### a. Summary table of expenditure of GEF Resources

Table 4b. Summary of financial report based on outcomes for Indonesia Component

<b>OUTCOMES</b>	<b>Overall Budget</b>	<b>Overall Expenditure to June 2014</b>	<b>Balance</b>
I. Capacity Building	USD 223,050	USD 272,363	USD (49,313)
II. Reduction in Peatland Degradation	USD 260,500	USD 270,119	USD (9,031)
III. Management and Rehabilitation	USD 296,000	USD 298,875	USD (7,303)
IV. Partnerships	USD 385,500	USD 297,095	USD 66,930
V Project Management	USD 34,950	USD 34,292	USD (582)
<b>TOTAL</b>	<b>USD 1,200,000</b>	<b>USD 1,172,774</b>	<b>USD 701</b>

#### Comment on expenditure

Changes in situation and ground conditions over time made it necessary to change some activities, e.g. capacity building, reduction in peatland degradation and management and rehabilitation. In anticipation of droughts and El Nino, additional support was provided for community fire brigades; based on stakeholder group discussions some activities needed to be changed. Therefore some funds from the Partnerships (IV) budget line was moved to sections I, II and III.

There was a balance of USD 701 from the project. However, the Government of Indonesia was utilizing the national budget to support the Closing and Knowledge Workshop and field trip on 10-14 November in Riau Province, Sumatra.

## b. Co-funding

Table 5b. Summary table for co-funding for Indonesia Component

<b>Title of Project</b>	<b>Rehabilitation and Sustainable Use of Peatland Forests in South East Asia</b>					
<b>Name of Project party:</b>	<b>Ministry of Environment</b>					
<b>Target of Co-funding as in project document</b>	<b>US\$3,655,000</b>					
<b>Source/type of Co-financing (cash)</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>TOTAL</b>	<b>Remarks</b>
<b>Ministry of Environment</b>	677,419	222,222	200,000	166,667	<b>1,266,308</b>	Development, finalisation and implementation of policies related to peatland. Developed Peatland Hydrological Unit (PHU) Map 1:250,000. In year 2014, MoE is in initial stage of working on map 1:50,000 at 3 PHU (Kubu Raya, Bengkalis and Tanjung Jabun)
<b>In Kind Co-funding</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>TOTAL</b>	<b>Remarks</b>	
<b>Ministry of Forestry</b>	No Data	2,200,000	2,700,000	4,900,000	National Budget for fire prevention and peatland rehabilitation through Manggani Agni (Forest Fire Rescue), developed training modules for peatland fire suppression. Developed Indicative Map on issuance of new permit under Indonesia-Norway initiative	
<b>Ministry of Agriculture</b>	No Data	810,000	900,000	1,710,000	Developed awareness materials and undertaken researches on suitable agricultural crops on peatlands and swamps to support concept of agro-forestry	
<b>Wetlands International</b>	38,000	40,000	40,000	118,000	Developed map on degraded peatlands overlaid with oil palm	

ANNEX 2: INDONESIA COMPONENT COMPLETION REPORT

<b>Indonesia</b>					plantations map
<b>Private Sector, Sinar Mas Forestry</b>	40,000	110,000	28,800	178,800	Support from Sinarmas Forestry to community in Sepahat and Bengkalis on infrastructure development (koperasi), equipment and training sessions for MPA
<b>TOTAL</b>	<b>78,000</b>	<b>3,160,000</b>	<b>3,668,800</b>	<b>6,906,800</b>	

**Total in cash and in-kind co-funding to APFP Indonesia Component was USD 8,173,108.**

**Comment on Co-funding**

There was some co-funding from the Ministry of Forestry on land degradation, research center, peatland and land conservation and peatland management in national parks. The Ministry of Forestry and The Ministry of Agriculture is supporting collaboration of peatland management with the Ministry of Environment, NPIC of Indonesia.

National budget was allocated through respective ministries; however the fund is not allowed to be transferred to community groups.

The total co-funding provided was more than double (224%) the original targeted co-funding.

## 5. Lessons Learned

- a. Related to project management, administration and institutional arrangement
  - Coordination among sectors on sustainable peatland management has been enhanced
  - Need to promote coordination between national and provincial level on the project implementation
  - Lack of project ownership in national as well as in provincial level has cause the project implementation did not focus enhance delayed
  - Differences between Project Procedure Manual in APFP, national procedure and local procedure, especially in financial administration has also been barrier in the implementation
  - Project management structure which was implemented is good for substantial aspect but is not support for administration including financial aspect. In addition the structure resulted in limited the person who incharge. Therefore this condition caused overload activities between domestic job responsibilities and the project activities cause the delay in project implementation
  - Project hired 1 expert which is forest fire expert with limited allocated time for the project while most activity of the project focus on sustainable peatland management (fire prevention).
  
- b. Related to technical deliveries of planned activities and results
  - Best practices on sustainable peatland management in forestry and agriculture sectors have been identified and compiled
  - Selection of partners has also been obstacle in field implementation on community level
  - Ownership status of degraded peatland for rehabilitation demonstration plots
  - Sharing experiences among the farmers in peatlands more efectives for learning
  - Canals blocking demonstration plots trigger community group and plantation private sector upscaling
  - APFP activities involving grass root communities increased their confidence level
  - Potential peatland ecotourism areas have been identified for further development.

## 5. Conclusion

- Multi stakeholders involved on sustainable peatland management
- Increasing knowledge and skill specially for local government official and communities on peatland management
- Communities understood water management on peatland minimized subsidences
- Community fire brigade confidence with their attributes (supported: pineapple farm for operational cost, skil, fire equipment, uniform, safety equipment)

## 6. Recommendations

- a. For implementation of similar projects in future
  - Characteristic peatland ecosystem inventory
  - Scalling up pilot sites of zero burning and limited controlled burning and provide incentives, water level management, capacity building for communities and land owned status
- b. For continuing or scaling-up of current project results
  - Scheme of the project at country level, i.e. Project Management Unit. A full time project manager needed to oversee and coordinate the implementation of project activities
  - More activities involving the communities
  - BMPs peer learning for farmers in local and ASEAN country
  - More constructs canal blocking on the right point
  - More demonstration plots
  - Contracts to be granted to identified experts on peatland management, hydrology management, fire management, community participation etc.

Annex 1: List of Publications (books, leaflets, videos, etc.)

Date Produced	Description/ Name	Type of Publication (book, video etc)	Quantity Produced	Language
28/12/2012 08/02/2013	Strategi Nasional Pengelolaan Lahan Gambut Berkelanjutan di Indonesia	Book	450	Indonesia
2011	Strategi dan Rencana Aksi Pengelolaan Lahan Gambut Berkelanjutan di Negara – Negara Anggota ASEAN	Book	350	Indonesia
2011 & 18/11/2013	Lahan Gambut di Asia Tenggara	Profile	400	Indonesia
2011 & 18/11/2013	Peatland in Southeast Asia	Profile	200	English
08/06/2011 22/06/2012	Peatland Ecosystem Management in Indonesia	Leaflet	1,000	English
22/06/2012	Pengelolaan Ekosistem Gambut di Indonesia	Leaflet	6,000	Indonesia
16/12/2011 18/10/2013	Modul Pelatihan Penilaian dan Pengelolaan Lahan Gambut	Book	750	Indonesia
16/12/2011	Training Module on Peatland Assessment and Management	Book	100	English
11/05/2011 12/12/2011	Peatland Use in Indonesia status and Challenges	Video	550	English
31/05/2014	Best Management Practices (BMP) Riau	Video	200	English
25/05/2011	Kesatuan Hidrologi Gambut	Poster	500	Indonesia
28/12/2012 08/02/2013	Masterplan Pengelolaan Ekosistem Gambut Berkelanjutan Provinsi Riau	Book	350	Indonesia

2012	Masterplan Pengelolaan Ekosistem Gambut Berkelanjutan Provinsi Kalimantan Barat	Book	200	Indonesia
2013	Pemetaan Fungsi Lindung dan Budaya serta Areal Rehabilitasi Lahan Gambut di Kabupaten Bengkalis dan Rokan Hilir Provinsi Riau	Report	5	Indonesia
21/04/2014	Pemetaan Areal Rehabilitasi Lahan Gambut Kabupaten Kubu Raya, Provinsi Kalimantan Barat dan Usulan Penetapan Fungsi Lindung dan Fungsi Budaya Gambut KHG Prioritas (skala 1 : 50.000)	Report	5	Indonesia
2014	Inventarisasi Masyarakat Peduli Api (MPA) dan Verifikasi Lapang Kebakaran Lahan dan Hutan di Provinsi Riau Tahun 2014	Report	5	Indonesia
2013	Ayo Mencegah Kebakaran Hutan Si Pongi	Comic	20	Indonesia

Annex 2: List of Facilities developed/ supported by project/ co-funding (education displays, demonstration sites, etc.)

Location	Description/ Name	Funded by project/co-funding	Managed by
Bantayan Village, District Rokan Hilir	<ul style="list-style-type: none"> <li>• 2014 - Demplot Agroforestry di Hutan Rakyat; Jenis Tanaman: Nanas; Jumlah Bibit: 20.000; Luas: 2 Ha Koordinat : 100°58'59,4" E , 01°54'06.1" N</li> </ul>	APFP	Community Farmers Group
Mumugo Village, District Rokan Hilir	<ul style="list-style-type: none"> <li>• 2012 - Demplot Pengembangan Mata Pencaharian Alternatif Masyarakat dalam Pencegahan Kebakaran Lahan Gambut Jenis Tanaman: Nanas; Jumlah Bibit: 10.000; Luas: 1 Ha</li> <li>• 2013 - Demplot Pengembangan Mata Pencaharian Alternatif Masyarakat dalam Pencegahan Kebakaran Lahan Gambut Jenis Tanaman: Nanas; Jumlah Bibit: 20.000; Luas: 2 Ha Koordinat : 101°14'21.2" E , 01°36'52.0" N</li> <li>• 2014 - Papan Informasi Tingkat Kebakaran Hutan dan Lahan Koordinat : 101°16.230' E , 01°35.450' N</li> </ul>	APFP	Community Brigade  Fire
Pelintung Village, District Dumai	<ul style="list-style-type: none"> <li>• 2013 : - Demplot Pengembangan Mata Pencaharian Alternatif Masyarakat dalam Pencegahan Kebakaran Lahan Gambut, Jenis Tanaman: Nanas; Jumlah Bibit: 40.000; Luas: 4 Ha, Koordinat : 101°35'16.2" E , 01°36'09.1" N</li> </ul>	APFP	Community Brigade  Fire

	<ul style="list-style-type: none"> <li>• 2014           <ul style="list-style-type: none"> <li>- 2 Unit Papan Informasi Tingkat Kebakaran Hutan dan Lahan Koordinat 1 : 101°35.707' E , 01°36.304' N , Koordinat 2 : 101°35.451' E , 01°36.175' N ,</li> </ul> </li> </ul>			
Guntung Village, District Dumai	<ul style="list-style-type: none"> <li>• 2014           <ul style="list-style-type: none"> <li>- Papan Informasi Tingkat Kebakaran Hutan dan Lahan Koordinat : 101°33.420' E , 01°37.923' N</li> </ul> </li> </ul>	APFP	Community Brigade	Fire
Tanjung Leban Village, District Bengkalis	<ul style="list-style-type: none"> <li>• 2012           <ul style="list-style-type: none"> <li>- Demplot Pengembangan Mata Pencapaian Alternatif Masyarakat dalam Pencegahan Kebakaran Lahan Gambut, Jenis Tanaman: Nanas; Jumlah Bibit: 10.000; Luas: 1 Ha</li> </ul> </li> <li>• 2013           <ul style="list-style-type: none"> <li>- Demplot Pengembangan Mata Pencapaian Alternatif Masyarakat dalam Pencegahan Kebakaran Lahan Gambut, Jenis Tanaman: Nanas; Jumlah Bibit: 30.000; Luas: 3 Ha Koordinat : 101°35'16.2" E , 01°36'09.1" N</li> </ul> </li> <li>• 2014           <ul style="list-style-type: none"> <li>- Papan Informasi Tingkat Kebakaran Hutan dan Lahan Koordinat : 01°39.399' E , 101°44.470' N</li> </ul> </li> </ul>	APFP	Community Brigade	Fire
Sepahat Village, District Bengkalis	<ul style="list-style-type: none"> <li>• 2014           <ul style="list-style-type: none"> <li>- Papan Informasi Tingkat Kebakaran Hutan dan Lahan Koordinat : 101°49.077' E , N 01°35.700' N</li> <li>- Demplot Pengembangan Mata Pencapaian Alternatif Masyarakat (Lanjutan) Jenis Tanaman: Nanas; Jumlah Bibit: 30.000; Luas: 3 Ha Koordinat : 101°49'06.4" E , 01°35'41.7" N</li> </ul> </li> </ul>	APFP	Community Brigade	Fire

<p>Harapan Jaya Village, District Indragiri Hilir</p>	<ul style="list-style-type: none"> <li>• 2013 <ul style="list-style-type: none"> <li>- Demplot Rehabilitasi Lahan Gambut Terdegradasi Tabat; Ukuran: 3 x 2,5 x 2 meter, koordinat : 102°47'84.0" E , 00°27'54.2" S</li> <li>Jenis Tanaman: Karet dan Durian; Jumlah Bibit: 500 dan 400; Luas: 1,5 dan 1 Ha, koordinat : 102°46'22.8" E dan 00°26'29.5" S</li> </ul> </li> <li>• 2014 <ul style="list-style-type: none"> <li>- Pengembangan Demplot Rehabilitasi Lahan Gambut Terdegradasi</li> <li>Jenis Tanaman: Nanas 1ha, Koordinat : 102°47'10,8" E , 00°26'11.4" S</li> <li>Tabat ; 1 lokasi, koordinat : 102°46'24,1" E , 00°26'11.0" S</li> </ul> </li> </ul>	<p>APFP</p>	<p>Community Brigade</p> <p>Fire</p>
<p>Jabiren Village, District Pulang Pisau</p>	<ul style="list-style-type: none"> <li>• 2013 <ul style="list-style-type: none"> <li>- Demplot Rehabilitasi Lahan Gambut Terdegradasi</li> <li>Jenis Tanaman: Jelutung dan Gaharu; Jumlah Bibit: 4000; Luas: 4 Ha, Koordinat : 114°10'21" E , 02°29'34" S</li> </ul> </li> <li>• 2014 <ul style="list-style-type: none"> <li>- Demplot Rehabilitasi Lahan Gambut Terdegradasi</li> <li>Jenis Tanaman: Jelutung dan Gaharu; Jumlah Bibit: 2000; Luas: 2 Ha, Koordinat : 114°10'21" E , 02°29'40" S</li> </ul> </li> </ul>	<p>APFP</p>	<p>Farmers Community Groups</p>
<p>Kalapangan Village, Palangkaraya City</p>	<ul style="list-style-type: none"> <li>• 2012 <ul style="list-style-type: none"> <li>- Rehabilitasi Lahan Gambut Terdegradasi</li> <li>Jenis Tanaman: Jelutung; jumlah Bibit: 600; Luas: 1ha</li> </ul> </li> <li>• 2014 <ul style="list-style-type: none"> <li>- Demplot Agroforestry di Lahan Gambut</li> <li>Jenis Tanaman: Jelutung dan Kelengkeng; Jumlah Bibit: 680; Luas: 2 Ha</li> <li>Koordinat : 114°0'11.0" E, 02°17'10" S</li> <li>Jenis Tanaman: Jelutung dan Kelengkeng; Jumlah Bibit: 680; Luas: 2 Ha</li> <li>Koordinat : 114°00'56" E, 02°17'19" S</li> </ul> </li> </ul>	<p>APFP</p>	<p>Farmers Community Groups</p>

**Annex 3: List of agencies/main stakeholders involved in the component implementation**

<b>Name of organization</b>	<b>Location</b>	<b>Role in project</b>	<b>Contact person</b>	<b>Contact email or phone</b>
Institut Pertanian Bogor	Bogor	Resource person	Dr. Komarsa Gandasasmita	(deceased)
		Resource person	Dr. Baba Barus	+62 812 233 2231; bababarus61@gmail.com
		National Expert	Dr. Lailan Syaufina	+62 813 1102 8233; syaufina@yahoo.com
Universitas Tanjung Pura	Pontianak	Resources person/LPIC member	Dr. Gusti Anzari	+62 812 572 4433; gzansari@yahoo.com
Universitas Riau	Pekanbaru	Resources person/LPIC	Dr. Wawan	+62 812 194 45332;
Agency of Environment Province Riau	Pekanbaru	LPICSecretariat Riau	Drs. Martin	+62 811 765 929; bapedal_ker@yahoo.co.id
Agency of Environment Province West Kalimantan	Pontianak	LPICSecretariat West Kalimantan	Ir. Nurmatias Siregar, M.Si	+62 812 5888 9169;
Agency of Environment Province Central Kalimantan	Palangkaraya	LPICSecretariat Central Kalimantan	Hendrie, Skm	+62 8214 948 2656;
Community Fire Brigade	Sepahat Village	Riau	Herman	+62 8126 813 3287
Community Fire Brigade	Mumugo Village	Riau	Rasyid	+62 8136 526 5271
Community Fire Brigade	Guntung Village	Riau	Heri Yanto	+62 8137 893 3054
Community Fire Brigade	Pelintung Village	Riau	Hamzah	+62 8127 561 2729
Community Fire Brigade	Tanjung Leban Village	Riau	Herman	+62 8537 549 7491
Community Fire Brigade	Harapan Jaya Village	Riau	Eko	+62 8137 874 7824
Community Farmers	Bantayan Village	Riau	Ma'ruf	+62 8137 1257420

Group				
Handil Panenga Community FamersGroup	Jabiren Village	Head of group	Berson	+62 812 5148 7586
Kelampangan Community Farmers Group	Kalampangan Village	Beneficiaries/member	Tikno	+62 813 5283 8385
Women Group	Kereng Bangkirai Village	Head of group	-	
Kelampangan Community Farmers Group	Kalampangan Village	Beneficiaries/member	Parni	+62 812 5699 1602

**Annex 4: List of beneficiaries or beneficiary groups receiving direct support under community-based aspects of project**

<b>Name of person/community group</b>	<b>Location</b>	<b>Type of support</b>	<b>Cost of support</b>
Environment Agency of Riau Province	Mumugo Village, District Rokan Hilir; Guntung & Pelintung Village, District Dumai; Sepahat & Tanjung Leban Village, District Bengkalis; Harapan Jaya Village, District Indragiri Hilir	16 Unit fire pumps for support community fire brigade in Mumugo, Guntung & Pelintung, Sepahat & Tanjung Leban, Harapan Jaya	Rp. 95,195,000
Environment Agency of Riau Province	Pekanbaru	HP Omni 220 PC	Rp. 9,165,000
Environment Agency of West Kalimantan Province	Pontianak	HP Omni 220 PC	Rp. 9,165,000
Gabungan Kelompok Tani	Rasau Jaya	6 Unit Fire Pump for Support community fire brigade in Subdistrict Rasau Jaya	Rp. 63,940,000
Nung Community Groups	Kapuas Hulu	Food processors and pasta machine for five Community groups around Nung Peat Swamp Forest, Sentarum National Park West Kalimantan	Rp. 7,700,000
Environment Agency of Central Kalimantan Province	Palangkaraya	HP Omni 220 PC	Rp. 9,165,000
Kereng Bengkireng Village, Kalampangan Village, Jabiren Village	Palangkaraya City & District Pulang Pisau	6 Unit Fire Pump for Support community fire brigade in Kereng Bengkireng Village, Kalampangan Village, Jabiren Village	Rp. 38,000,000
Kelompok BKK (Women Group)	Kereng Bangkirai Village	Machine Punch Centrifugar Manual for Support Community Group	Rp. 19,500,000

### Annex 5: Photographic summary

#### HANDLING OVER PEAT AUGERS



#### CAPACITY BUILDINGS



ANNEX 2: INDONESIA COMPONENT COMPLETION REPORT



TRAINING ON DIVERSIFICATION OF FISH PRODUCT FOR COMMUNITY IN SENTARUM NATIONAL PARK



SUPPORT ALTERNATIVE INCOME FOR COMMUNITY GROUP IN SEBANGAU NATIONAL PARK



REHABILITATION OF DEGRADED PEATLAND



FDRS SIGN BOARDS





LEADERSHIP TRAINING AND FIRE CONTROL PRACTICE FOR COMMUNITY FIRE BRIGADES





HANDLING OVER OF FIRE PUMPS





CANAL BLOCKING



KOLABORASI DENGAN PERUSAHAAN



PEER LEARNING



**GEF 2751 – Rehabilitation and Sustainable Use of Peatland Forests in South East Asia (ASEAN Peatland Forests Project, APFP)**

**ANNEX 3: COMPLETION REPORT (MALAYSIA)**

**National Project Executing Agency: Forestry Department Peninsular Malaysia**

**1. Summary**

**Outcome 1: Capacity and institutional framework developed for sustainable peatland management**

The National Action Plan (NAP) for peatlands in Malaysia, a milestone document, was completed and adopted by the Malaysian Cabinet in January 2011, with execution being delegated to relevant agencies. Implementation of certain activities mentioned in the NAP started long before APFP start-up. Peatland issues are incorporated into various national policies in Malaysia. Under the National Forestry Policy, forested areas in Malaysia require management plans, and these include the main peatland forested areas – such as the North Selangor Peat Swamp Forest (NSPSF) (Selangor), the South-East Pahang Peat Swamp Forest (Pahang), the Klias Forest Reserve (Sabah) and the Loagan Bunut National Park (Sarawak); all of which already have a specific management plan. To increase institutional capacity and strength in peatland and fire management issues, capacity-building training sessions were conducted. In terms of awareness-raising, several types of materials were produced through the project in both English and Bahasa Melayu, with support from corporate social responsibility partners. The Virtual Peatland Education Centre (outdoor classroom) was established at Raja Musa Forest Reserve (RMFR). Pilot site rehabilitation and fire prevention activities have received substantial financial support from both the Selangor State Government and corporate social responsibility partners facilitated by Global Environment Centre (GEC). Co-funding support for Malaysia (2010-2014) totalled more than US\$7 million i.e. more than the required amount under the grant sub-agreement.

**Outcome 2: Rate of degradation of peatlands reduced in Malaysia**

The project facilitated the generation of geographic spatial information map for peatland areas in the country, which subsequently contributed to the documentation on the status and trends in peatlands in South-East Asia. A peatland profile for Malaysia was finalised by University Putra Malaysia in June 2014. An assessment of above-ground carbon stock changes in the pilot site at Bestari Jaya, Selangor have been conducted by the Forest Research Institute Malaysia (FRIM) and report printed. Through the project, the fire risk map was made available for the NSPSF while the Department of Environment (DOE) has produced a fire-prone map for Malaysia with the Malaysian Meteorological Department (MMD), which incidentally also hosts the forest fire information system developed by the Malaysian Remote Sensing Agency to provide information/ updates on fire- and/or haze-related situations in the country. Standard operating procedures for fire prevention formulated by the DOE's programme in peatland areas are available and adopted by local authorities. A Fire Danger Rating System (FDRS) for peatland areas was developed and successfully implemented at the pilot sites and subsequently expanded throughout Malaysia. Ground-truthing by the DOE and other government agencies is now based on FDRS maps. Guidelines on best management practices for agriculture on peat have been developed by the Malaysian Agriculture Research and Development Institute (MARDI). At the pilot site, the activity involves educating local communities on the importance of maintaining high water

table and awareness of zero burning during planting. The MMD has facilitated real-time monitoring of the weather data for the pilot site by installing an automated weather station in the nearby Ladang Tennamaram. Drainage control measures have been established at the pilot site as well as in other fire-prone peatland areas throughout Malaysia such as those in Pekan (Pahang), Miri (Sarawak) and at the Kuala Langat South Peat Swamp Forest (KLSPSF) (Selangor).

**Outcome 3: Integrated management and rehabilitation demonstrated and implemented at targeted peatlands**

This component facilitated the planting of 80,000 trees, an exercise involving thousands of individuals including students, general public, members of the local community members and private sector. This high participation has indirectly resulted in far greater knowledge about the project, and raised awareness of the importance of the peatlands and the need to protect them. Rehabilitation activities were undertaken at degraded peat areas in the RMFR and KLSPSF. A manual on peat swamp rehabilitation in Malaysia has been published by FRIM. Three sites in Malaysia were designated as demonstration sites for having management plans and best management practices in place i.e. the South-East Pahang, Klias Peat Swamp Forests and the Loagan Bunut National Park. The integrated management plan for the NSPSF expired in 2010 and a revision was conducted in 2014 by GEC. A scientific expedition was conducted to the NSPSF by the Malaysian Nature Society (MNS) in order to supplement the needed biodiversity and environmental data.

**Outcome 4: Local communities and the private sector actively contributing to sustainable peatland management**

Private-sector support for buffer zone management in Selangor is through fire prevention and suppression activities, including canal blocking. Implementation of a strategy for buffer zone management with the private sector at the pilot site was initiated in 2012. Fire prevention and suppression activities were carried out with the neighbouring developers especially Perbadanan Kemajuan Pertanian Selangor (PKPS) through canal blocking and construction of clay bund to prevent drainage of water from the RMFR. Community livelihood and peatland management activities were also initiated at the RMFR. Guidelines for community participation were developed and a community-based organization called Sahabat Hutan Gambut (“Friends of Peatland Forests”) was established in August 2012 as a result. A seedling buy-back system was also introduced to support ongoing forest rehabilitation programme and community-based peatland ecotourism was mooted as part of livelihood option for the community.

**Outcome 5: Project management**

The project is managed by the Forestry Department Peninsular Malaysia (FDPM) as the appointed National Project Execution Agency (NPEA). As it is the project’s expenditures, record keeping and the overall internal controls for financial management is done according to the procedures of a Trust Fund. Akaun Amanah Pengurusan Hutan Tanah Gambut (or Peatland Trust Management Account) is governed by the Trust Fund Committee established at the FDPM and audited yearly by Auditor General.

## 2. Brief Component Description

The project aims to address peatlands degradation particularly peatland fires and their associated haze, as their impacts can be detrimental to the environment, health and socio-economics in the country. Towards this, the project focuses on several aspects such as institutional strengthening, capacity building, awareness raising and demonstrating sustainable economic activities amongst stakeholders relevant to peatlands at national and local levels. The implementation of the project also contributes to the regional component and overall ASEAN Peatland Forests Project (APFP).

Pilot area of the project was established in Raja Musa Forest Reserve in the North of Selangor with demonstration sites at South East Pahang Peat Swamp Forest, Pahang, Loagan Bunut National Park, Sarawak and Klias Forest Reserve, Sabah. Activities designed mainly to form partnership among the land owner with adjacent local communities to safeguard and rehabilitate the forest.

This IFAD/ GEF Project builds on previous projects (i.e DANIDA & UNDP/GEF) carried out in the country which was aimed at a multi-stakeholder approach to address the main issues pertaining to peatland management. It adopts an integrated approach to problem solving involving government departments, the private sector, the local community and NGOs. The implementation of the Malaysia component contributes to the regional activities and is targeted at information exchange, capacity building, sharing of resources, early warning and monitoring amongst the ASEAN Member States involved in the implementing of the ASEAN Peatland Management Strategy.

### 3. Project Achievements against the Logical Framework

#### Achievements of the project implementation (November 2009 – June 2014) versus targets in Component Logical Framework Matrix

OUTPUT	LOGICAL FRAMEWORK TARGETS	PROGRESS	ACHIEVEMENTS (%)	REMARKS
1.1 Policy and planning framework for peatland management strengthened at national level	National Action Plans on Peatlands for Malaysia adopted and implementation initiated by Y1 and revised by Y4	National Action Plan on Peatlands (NAPP) was adopted by the Malaysian Cabinet in January 2011. The NAP was translated to National Language and disseminated to various government agencies. The progress of the implementation was monitored annually by the Ministry of Natural Resources and Environment (MNRE) through the reporting of the National Peatland Project Steering Committee. The NAPP which is a 10-years planning document went through its mid-term revision in 2014. The next half of NAPP implementation will fall within the next Malaysian Plan (2015-2019).	100%	Activity successfully completed.
	Review and strengthen peatland management issues in National Wetland Policy document by Y4	A targeted workshop was held in September 2011 to discuss and agree how peatland issues could be strengthened in the national wetland policy. Further review and strengthening of peatland management issues in the National Wetland Policy have been conducted as part of on-going stakeholder consultation under the National Biodiversity Strategic Action Plan (NBSAP) led by MNRE (2013-15). The national consultation on NBSAP also looks at other wetland habitats and related	100%	Activity successfully conducted.

	<p>issues - not just restricted to peat swamp forest alone.</p>		<p>The project has produced more awareness materials than planned with the support from NGOs and private sector.</p>
	<p>Amongst the project awareness materials produced include pamphlets (1,000 copies), poster (1,000 copies), CD (500 copies) and calenders (1000 copies). In addition 500 caps, 200 t-shirts and 200 backpacks had been produced. These materials have been disseminated to the public and stakeholders during the workshops, seminar, training courses, public talks and scientific expedition.</p>	<p>100%</p>	<p>More training sessions were conducted during the project period to enhance the stakeholder's capacity in peatland management and understanding.</p>
<p><b>Output 1.2: Capacity sustainable peatland management in Selangor State strengthened to support the up-scaling of good peatland management practices.</b></p>	<p>Awareness materials on fire prevention and peatland management for stakeholders and the public. 3,000 leaflets, posters and booklets (each).</p>	<p>Three training sessions on peatland &amp; fire management; 150 people trained</p>	<p>Five capacity building trainings conducted :                      i. TOT on peat assessment &amp; management (3-6 Oct 2011); ii. FDRS Interpretation (12-13 Oct 2011); iii. FDRS and Forest Fires Workshop (19-21 Sept 2012); iv. Awareness workshop with local community at Homestay Sg. Sireh organized by Selangor FD and SHGSU (1-3 October 2013); v. Regional FDRS workshop (28 Oct. – 1 Nov. 2013).                       Total of 275 participants from 40 government agencies, public sector, research institutions and NGOs including 10 ASEAN Countries were involved.</p>
	<p>Multi-stakeholder committee in Selangor State set up</p>	<p>100%</p>	<p>The governance structure for</p>

	<p>involving stakeholders and meeting twice a year</p> <p>relevant meeting</p>	<p>Committee established and meetings were conducted as planned. NPSC - 6 meetings (Aug &amp; Oct 2010, 11 Oct 2011, 29 Oct 2012, 6 Dec. 2013 and 18 Dec 2014), NPWG - 5 meeting (5-8 Sept 2012, 27-29 June 2013, 1-2 Oct. 2013, 14-16 April and 19-20 Nov 2014), SPSC - 2 meetings (7 July &amp; 3 Nov 2011), SPWG - 3 meetings (7 July &amp; 12 August 2011 and 29 Aug 2012) and <b>NPEA</b> - 12 times a year or more as needed. National Coordinator also participated as Malaysian Delegation to the 13<sup>th</sup> &amp; 14th Meeting of TWG and MSC on Transboundary Haze Pollution in Brunei (7-9 May 2012), Bali (30 – 31 Oct 2012) and Kuala Lumpur (16-17 July 2013) respectively. NPEA participated in the Sustainable Management of Peatland Ecosystem (SMPE) (2014-2020) Workshop at Pullman Hotel, Kuala Lumpur on 22-25 April 2014. APFP-SEAPeat Special Meeting/Preparatory Meeting for the Establishment of the ASEAN Task Force on Peatlands on 21-23 August 2014, Kuala Lumpur, APFP/SEAPeat Workshop on ASEAN Programme on Sustainable Management of Peatland Ecosystem (APSMPE) on 12 Nov 2014 at Riau, Indonesia; and Programming Workshop For The 6th Replenishment Cycle Of The Global Environment Facility Of The Global Environment Facility (GEF), 14th November 2014 at NRE Putrajaya</p>		<p>peatland management has been established through this project. The effectiveness of the structure is evident with the successful implementation of the APFP project, including in the planning for continuing programme of SMPE.</p>
<p>State Action Plan (SAPP)</p>	<p>FDPM collaborated with FRIM to develop</p>	<p>100%</p>	<p>Activity</p>	

	developed by end Y2 and adopted by the Selangor State Government	SAPP which was completed in April 2014. The SAPP development was guided by the NAP and was principally adopted by the Selangor State Government. Other states with significant peatland areas were also encouraged to develop similar SAPPs.	successfully completed.
<b>Output 1.3: Pilot site (RMFR) established as a focus for educational and awareness activities for the public.</b>	Rehabilitation plan for public participation (CSR activities) developed in Y1 and initial implementation in Y2	Initial rehabilitation plan for public participation jointly developed with GEC in 2011 and successfully marketed to tap corporate social responsibility (CSR) funds from. HSBC, Bridgestone, Sime Darby, etc.). See also Integrated Management Plan (IMP) for NSPSF for the Rehabilitation Plan prepared for RMFR.	Activity successfully completed
	At least 3 different kinds of public awareness materials for pilot site produced for distribution	Various awareness materials for the pilot site was produced and disseminated to stakeholders during meetings/ public events.  These included amongst others:-  Materials jointly produced with GEC; such as the project brochures (Sahabat Hutan Gambut – 1,000 copies), organizers (500 copies), postcards (500 copies) and car/motorbike stickers (500 copies) produced for HSBC and Bridgestone to support their CSR activities at the project site.  FDRS and peat water management billboards erected at various strategic points within the project site and posters	More public awareness materials were able to be produced and disseminated under the project because of the support from partner NGOs and the private sector.
		100%	
		100%	

		for fire prevention and control; and A special illustrated report on the progress of APFP in Malaysia (2010-2015) called GAMBUT, which was completed for the project.			
	Five public events conducted (in conjunction with World Forestry Day, Environment Day, Family Day etc.) involving total 2,500 participants	In collaboration with Selangor State Government, Selangor Forestry Department and GEC, 8 public events were conducted at the RMFR - World Wetlands Day (WWD) 2011, WWD 2012, WWD 2013, WWD 2014 and World Forestry Day (WFD) 2013 These public events attracted more than 2,700 participants.	100%	More events were conducted with the support from partner NGOs and the private sector.	
<b>Output 1.4: Component technically supported</b>	Operational office/ team that will provide technical coordination and support to project component	NPEA established with staff from Wetland Management Section of FDPM to provide technical coordination and support to project component. GEC formally appointed as National Expert to support the component in February 2012 and their service extended to Dec 2014.	100%		
<b>Output 2.1: Status and trends of Malaysian peatlands determined.</b>	Peatland directory framework incorporated within National Forest Inventory (NFI) 5; to start in Y2 and end by Y3	Peatland directory for Malaysia completed in 2014 incorporating NFI 5 results, including contribution from various government agencies. FDPM collaborated with the Faculty of Forestry UPM to prepare the peat directory which was completed in March 2014. Furthermore, Malaysian Wetland Directory had been reviewed through G4NRE Database development under MaGGDI MNRE.	100%	Activity successfully completed.	

	<p>Assessments of peatlands in relation to biodiversity values, carbon content, water supply, fire, drainage &amp; land-use change completed for two critical peatland areas in Selangor by end Y3.</p>	<p>Project provided resources for the assessment of North Selangor PSF (NSPSF) and Kuala Langat South PSF (KLSPSF), which are the two main peat swamp forest areas in Selangor..</p> <p>Amongst the activities supported include:-</p> <p>Assessments for carbon content of the southern portion of the NSPSF at RMFR by FRIM.</p> <p>Preparation of a blueprint for Kuala Langat South Peat Swamp Forest (KLSPSF) by FRIM.</p> <p>Scientific expedition to the NSPSF by MNS to document biodiversity; and</p> <p>Assessment of fire, drainage and land use change in NSPSF as part of the preparation of the IMP for NSPSF by GEC, which includes the rehabilitation plan, fire management plan and buffer zone management plan.</p>	<p>100%</p>	<p>Activity successfully completed.</p>
<p>Management actions are guided by trends and changes in peatland areas through satellite images</p>	<p>Remote sensing and GIS maps were made available for management consideration through the project.</p> <p>Site specific FDRS data has been worked out by MMD. Critical fire prone areas within the State of Selangor identified by DOE. These areas are regularly monitored</p>	<p>100%</p>	<p>Activity successfully completed.</p>	

		<p>on the ground by the respective enforcement agencies and at the site by Sahabat Hutan Gambut Selangor Utara (SHGSU) and the Forest Rangers from Bestari Jaya.</p> <p>Status of the Malaysian peatlands established through Satellite analysis and ground trothing by University Putra Malaysia (UPM) under the projec t.</p>		
<p>Priority areas for peatland biodiversity conservation identified by Y3 and initial activities implemented by Y4</p>	<p>NSPSF and Maludam National Park identified as important peatland biodiversity conservation areas through the project. Subsequently the latter was identified as candidate for nomination as ASEAN Heritage Park under the project.</p> <p>Sarawak Forestry Department agreed on the proposal to nominate Maludam NP as an ASEAN Heritage Park.</p> <p>Assessment of KLPSF confirmed its importance ofr biodiversity conservation and led to cancellation of plans to convert it for plantaion development.</p> <p>FDPM also collaborated with MNS to conduct a scientific biodiversity expedition to NSPSF between 15-25 May 2013 and 24 June – 6 July 2013. The expedition seminar was held on 28 Sept. 2013. Proceeding of the seminar has been prepared.</p>	<p>100%</p>		<p>.Activity completed successfully.</p>

<p><b>Output 2.2: Degradation of peatlands by fire in Selangor State reduced.</b></p>	<p>Critical fire-prone areas identified through maps and reports to stakeholders in Y2</p>	<p>Fire prone map for NSPSF was reviewed and updated under the project by UPM. The information was used in the preparation of the fire management plan for the NSPSF IMP</p>	<p>100%</p>	<p>Activity completed successfully.</p>
<p>Effective fire prevention measures identified and being implemented</p>	<p>Effective fire prevention measures identified and being implemented at the pilot site with various stakeholders' involvement.  These involved the following:-  Selangor Forestry Department Fire Patrol Team re-activated and mobilized.  Community involvement in forest rehabilitation activities launched at RMFR.  Boundary marking (including installation of signboards) for the NSPSF and KLSPSF were carried out.</p>	<p>Effective fire prevention measures identified and being implemented at the pilot site with various stakeholders' involvement.  These involved the following:-  Selangor Forestry Department Fire Patrol Team re-activated and mobilized.  Community involvement in forest rehabilitation activities launched at RMFR.  Boundary marking (including installation of signboards) for the NSPSF and KLSPSF were carried out.</p>	<p>100%</p>	<p>Site-based prevention measures were effective in preventing and controlling the annual fire occurrence at these sites..</p>
<p>Local peatland fire prediction and warning system developed and tested in Y2. Operational by Y3.</p>	<p>Local peatland fire prediction and warning system developed and tested in Y2. Operational by Y3.</p>	<p>FDRS for peatland areas has been developed, tested and verified by MMD taking the State of Selangor as their case study. The system has been operational for the whole country since 2013.</p>	<p>100%</p>	<p>The developed FDRS system has been expanded to cover all of ASEAN Member States (except Cambodia) and incorporates Google Earth</p>

	<p>No of private land owners and local communities involved in Forest Rescue Team (FRT) at critical areas increased</p>	<p>FRT outfit established with involvement of the private sector e.g. Perbadanan Kemajuan Pertanian Selangor (PKPS), Kumpulan Darul Ehsan Berhad (KDEB), Sime Darby Plantations and the local communities.</p> <p>On the latter, an organization known as Sahabat Hutan Gambut Selangor (SHGSU) Utara was officially formed in 2012 with the main purpose of providing support to Selangor Forestry Department (SFD) in detecting and fighting forest fire at NSPSF. The members come from 4 villages located around the NSPSF. SHGSU also has been active in public awareness programmes and participates in few exhibitions promoting peat swamp forest. Their members took part in all planting program organized by the SFD at RMFR.</p>	<p>100%</p>	<p>technology.</p> <p>Activity successfully completed.</p>
<p>FDRS system developed and tested at one pilot site (see Act.2.2.3)</p>		<p>MMD has set up a unit of Automated Weather Monitoring (AWM) Station at the nearby Ladang. Tennamaram (Sime Darby Plantation) to improve the forecast for FDRS for RMFR. Fine tuning of FDRS for RMFR has been completed. FDRS signages have been placed at strategic locations to notify and engage the local communities.</p>	<p>100%</p>	<p>FDRS system has been tested for NSPSF and expanded its scope to cover other AMS as well.</p>

<p><b>Output 2.3: Guidelines for integrated peatland management in Malaysia developed and promoted.</b></p>	<p>Guidelines for integrated peatland management adapted, developed &amp; approved by Y4.</p>	<p>Guidelines for integrated peatland management developed for ASEAN region by GEC. This has been approved in the regional meeting and adapted at the country-level when the new revised NSPSF IMP was prepared.</p>	<p>100%</p>	<p>IMPs have been suggested for other peat swamp forests in the region as well..</p>
	<p>Guidelines for 3 identified sectors (infrastructure, agriculture and plantation development) available in Y2, approved by stakeholders for implementation in Y3</p>	<p>BMP guidelines for palm oil plantation on peat have been developed by MPOB (2011) and RSPO (2012). The RSPO guidelines were developed with significant input from the APFP. These guidelines have the approval from the stakeholders and are binding to the industries. They are being actively implemented.</p>	<p>100 %</p>	<p>Activity completed successfully..</p>
	<p>Total of 5,000 copies of the guidelines produced and circulated to stakeholders</p>	<p>BMP guidelines for agricultural practices and check dam construction on peat were developed under the project in collaboration with Department of Agriculture (DOA) and Department of Irrigation and Drainage (DID) building on pilot activities for check dam construction at the pilot site in 2011-2013. These guidelines have been provided to the relevant stakeholders.</p>	<p>100%</p>	<p>Activity successfully completed.</p>
	<p>Three dialogues held to</p>	<p>More than 5,000 copies of these guidelines were produced and disseminated to various stakeholders during meetings, public events, etc., internally and also externally with AMS.</p>	<p>100%</p>	<p>BMP practices</p>

<p><b>Output 3.1: Sustainable management options for peatlands showcased through demonstration sites.</b></p>	<p>identify, document &amp; promote BMP at three demonstration sites</p>	<p>visits were organized at three demonstration sites in 2012-2013. FDPM collaborated with FRIM to document the BMPs from the demonstration sites (i.e. KLSPSF, SEPPSF, Loagan Bunut NP and Klias FR) and conducted stakeholder's consultation/dialogues at the respective demonstration sites.</p> <p>A report on "Best Management Practices in Peatland of Malaysia" was produced by FRIM</p>		<p>documented from the Malaysian demonstration sites shared with AMS.</p>
	<p>Two study tours / visits to demonstration sites</p>	<p>Ten study tours/visits were organized to Demonstration sites in Malaysia, Indonesia, Thailand and Vietnam. Visit to <b>Raja Musa FR</b> (2011: 15 person), <b>BMP Palangkaraya, Kalimantan Tengah</b> (Nov 2011: 3 persons) /Peer Learning Programme on BMP to <b>Thailand</b> (Apr 2012: 6 persons)/ Technical visit to <b>SEPPSF, Pahang</b> (Jul 2012: 20 persons)/ Study tour to Klias Peatland Centre of Excellence, <b>Sabah</b> (Sept 2012: 20 persons)/Study Tour On "Best Management Practice" To UMTNP, <b>Viet Nam</b> (3-6 Dec 2012: 8 persons)/Study Tour to <b>Riau, Sumatera</b> (27-30 Mar 2013: 13 persons)/ Peer Learning Programme to <b>Banjarmasin, Kalimantan, Indonesia</b> (17-20 Jun 2013: 4 persons)/Study tour to Loagan Bunut NP, <b>Sarawak</b> (27 Jun 2013: 25 persons), Technical visit to <b>Maludam NP</b> (21-22 October 2013: 22 persons) Total persons involved: 136</p>	<p>100%</p>	<p>More study tours/ visits to demonstration sites conducted through government co-funding effort.</p>

	<p>Documentation of lessons learned compiled, produced and disseminated through the various project networks</p>	<p>FDPM collaborated with MNS to document lesson learned from RMFR. A document - "Beyond the Haze; Lessons Learnt from Implementing APFP in Malaysia" produced by MNS</p>	<p>100%</p>	<p>Lessons learned document available for RMFR and shared with AMS.</p>
	<p>Integrated management strategies for NSPSF reviewed and updated</p>	<p>IMP strategies for NSPSF were reviewed and updated by GEC for the period 2014-2023 including preparation of a cooperative fire management strategy and bufferzone management strategy.</p>	<p>100%</p>	<p>Activity successfully completed.</p>
<p><b>Output 3.2: Integrated management strategies for North Selangor PSF and buffer zone adopted.</b></p>	<p>Management strategy for NSPSF buffer zone developed and finalised by Y3</p>	<p>A separate Management strategy for NSPSF buffer zone (Buffer Zone Plan within the NSPSF IMP document) was developed as part of the NSPSF IMP exercise..</p>	<p>100%</p>	<p>Activity successfully completed.</p>
	<p>Development actions at NSPSF buffer zone determined by management strategy</p>	<p>Development actions within buffer zone area of NSPSF have been identified through stakeholder consensus; whereby the management strategy developed and incorporated within the NSPSF IMP. These development actions will be monitored and enforced by the SFD, local government agencies and the State Peatland Working Committee.</p>	<p>100%</p>	<p>Activity successfully conducted.</p>
	<p>Rehabilitation plan for RMFR developed, approved and operational</p>	<p>Rehabilitation plan developed and put into action with annual budget allocation from SFD since 2010. The Rehabilitation Plan was included in</p>	<p>100%</p>	<p>Activity successfully completed.</p>

<p><b>Output 3.3: Rehabilitation of degraded peat swamp forest demonstrated in Raja Musa F.R and adjacent buffer zone.</b></p>	<p>Relevant stakeholders participating in two workshops on rehabilitation techniques</p>	<p>the NSPSF IMP document.</p>	<p>Two workshops and numerous field rehabilitation activities were undertaken. Workshop on rehabilitation techniques conducted on 4-6 Feb 2014 at FRIM attended by 25 participants.</p> <p>Minilab on the production of planting material for peat swamp forest species conducted on 11 June 2014 at FRIM attended by 20 participants.</p> <p>Rehabilitation workshops involved participation from 5 different states with peatland in Malaysia.</p>	<p>Activity successfully completed.</p>
<p>Area established for rehabilitation at 3 pilot plots/ areas and results monitored</p>	<p>The following will be the rehabilitation work carried out within the State of Selangor:-</p> <p>Planting of 60 ha area in Forest Compartment. 99 &amp; 100 of RMFR.</p> <p>Planting and treatment of 70 ha. in Forest Compartment 55 of KLSPSF.</p> <p>850 units of small and medium sized dams were constructed by SFD from 2008-2010 and maintained in 2012-2014,</p> <p>Two concrete check dams were installed at Parit 4 &amp; 7 of RMFR under the project.</p> <p>1 other check dam was constructed in Forest Compartment 100 at RMFR funded</p>	<p>100%</p>	<p>Rehabilitation activities encouraged by public and private participation.</p> <p>Rehabilitation (planted) areas exceeded the 100 ha target.</p>	

		by DOE.			
Learning from rehabilitation documented and distributed through the project network	Results of review of existing livelihood activities documented and distributed	Report on rehabilitation of peat swamp forests named “Degraded Peat Swamp Forest Rehabilitation Techniques” completed by FRIM.	100%	PSF rehabilitation experienced shared amongst AMS.	
Results of review of existing livelihood activities documented and distributed	Results of review of existing livelihood activities from the NSPSF documented and recorded in the NSPSF IMP; whereby part of NSPSF zoned for community livelihood activity.  The livelihood activities were also recorded in the following documents:-  Best Management Practices in Peatland of Malaysia by FRIM  Beyond the Haze; Lessons Learnt the from Implementing APFP in Malaysia by MNS  Experience with community nurseries promoted to other ASEAN member states.	100%	Activity successfully completed		
Report on study to reduce impacts of development on peatlands completed	Report on study to reduce impacts of development in NSPSF peatlands documented and recorded in the Buffer Zone Plan of the NSPSF IMP; Detailed Environmental Impact assessment (DEIA) study recommended to be made mandatory for development in areas	100%	Activity successfully completed.		
<b>Output 4.1: Sustainable economic activities in buffer zone of NSPSF enhanced.</b>					

	<p>Initial community alternative livelihoods tested at pilot site (NSPSF)</p>	<p>adjacent to peatlands which are considered Environmentally Sensitive Area (ESA) class 1.</p> <p>Seedling buy-back system and community-led ecotourism package developed and put to practise at NSPSF.</p> <p>Community members have been actively involved in the rehabilitation and awareness activities related to RMFR.</p> <p>They supply seedlings for tree planting activities through buy-back system and facilitate ecotourism activities to the peat swamp forest through Sg. Sireh Homestay outfit.</p> <p>To date 16 community nurseries had been established through project funding.</p> <p>A visit to National Academy for Handicrafts (in Rawang) and National Handicraft Centre (in KL) were organised for 40 SHGSU members in 7 March 2013 as part of livelihood exposure.</p> <p>A number of local farmers are involved in canal blocking and/or general peat swamp water management at Parit 6 supervised by SHGSU.</p> <p>Adjacent land developers and more local farmers now observe BMP practices at RMFR.</p>	<p>100%</p>	<p>Activity successfully implemented.</p>
	<p>Local farmers involved in water management and the BMP i.e. methods of land clearing and crop selection</p>	<p>A number of local farmers are involved in canal blocking and/or general peat swamp water management at Parit 6 supervised by SHGSU.</p> <p>Adjacent land developers and more local farmers now observe BMP practices at RMFR.</p>	<p>100%</p>	<p>Activity successfully conducted.</p>

		<p>The involvement of the local farmers is documented in "Beyond the Haze; Lessons Learnt the from Implementing APFP in Malaysia" by MNS</p> <p>State agriculture Development Corporation (PKPS), following technical guidance by the project, constructed a 600m clay bund between their plantations and clay mine and the forest reserve to maintain water levels and prevent overdrairage and fire. This has been recognised by state government as a successful model and 11km clay bund has been included in the IMP for implementation by the state.</p>		
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**Summary of Key Achievements**

- Development and implementation of a National Action plan on Peatlands (NAPP) development in Selangor State of a State Action plan on peatlands (SAPP);
- On the ground activities related to peatland restoration involving local community tied to livelihood development;
- Establishment of National and State Working and Steering Committees on peatlands;
- Establishment of pilot and demonstration sites showcasing peatland rehabilitation and fire management;
- Integrated Management Plan for North Selangor Peat Swamp Forest (2014-2023) (approved by Selangor State Government on 16 October 2014 at the Selangor State Council of Economic Action (Majlis Tindakan Ekonomi Selangor, MTES) Meeting)
- Ongoing development of the FDRS, improvements in fire monitoring and management, plus development of Peat Watch System; and
- Improved development of community and private company participation in the management of the peatland areas.

#### 4. Financial Report 2010 – 2014

##### a. Summary table of expenditure of GEF Resources

Table 4c. Summary of financial report based on outcomes for Malaysia Component

<b>OUTCOMES</b>	<b>Overall Budget</b>	<b>Overall Expenditure</b>	<b>Balance</b>
I. Capacity Building	USD 240,000.00	USD 217,948.76	USD 22,051.24
II. Reduction in Peatland Degradation	USD 262,000.00	USD 284,051.24	USD (22,051.24)
III. Management and Rehabilitation	USD 271,600.00	USD 271,600.00	-
IV. Partnerships	USD 80,000.00	USD 80,000.00	-
V. Project Management	USD 26,400.00	USD 26,400.00	-
<b>TOTAL</b>	<b>USD 880,000.00</b>	<b>USD 880,000.00</b>	-

#### Comment on expenditure

Check-dam Guidelines was printed in December 2014 by Department of Irrigation and Drainage. Due to technical issues and based on the procedures the amount was paid in 2015.

There was additional spending for Outcome II. These are funds used to support community fire suppression activities to address serious peatland forest fires at the pilot site in the last 2-years.

## b. Co-funding

Table 5c. Summary table for co-funding for Malaysia Component

<b>Title of Project</b>	Rehabilitation and Sustainable Use of Peatland Forests in South East Asia						
<b>Name of Project party:</b>	Forestry Department Peninsular Malaysia, Malaysia						
<b>Target of Co-funding as in project document</b>	USD1,380,457.00						
<b>Source/ type of Co-financing (CASH)</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>TOTAL</b>	<b>Use of co-funding</b>
Selangor State Forestry Department	150,000	266,000	266,000	266,000	266,000	<b>1,214,000</b>	Forest fire suppression & rehabilitation activities
Forest Department Peninsular Malaysia	10,000	17,000	20,000	20,000	20,000	<b>87,000</b>	Maintenance of infrastructure related to forest fire monitoring
Department of Environment Malaysia	1,070,000	461,300	850,970	993,550	2,419,350	<b>5,795,170</b>	Investment into the development of forest fire infrastructures such as check dams, tube wells, watch tower & automated weather stations at several sites in Peninsular Malaysia
Fire and Rescue Department	33,000	33,000	33,000	33,000	66,000	<b>198,000</b>	Forest fire suppression activities in North Selangor Peat Swamp Forest

ANNEX 3: MALAYSIA COMPONENT COMPLETION REPORT

Kuala Selangor District Office					38,000	<b>38,000</b>	Construction of water pipe for transferring water from ex-mining ponds in the Raja Musa FR for forest fire prevention and control
European Union*		30,000	30,000	40,000	50,000	<b>150,000</b>	Community activities related to fire monitoring and forest rehabilitation activities at raja Musa Forest reserve
Bridgestone Tyres Malaysia Sdn Bhd*.		50,000	50,000	50,000	8,000	<b>158,000</b>	Investment in the virtual peatland education centre & nursery, plus public rehabilitation activities at raja Musa Forest Reserve
HSBC Bank*		33,000	33,000	33,000	33,000	<b>132,000</b>	Support for development of friends of north Selangor peat Swamp forest and public tree planting/rehabilitation activities
Sime Darby* Plantations					40,000	<b>40,000</b>	Preparatory work for rehabilitation of degraded areas in Raja Musa FR adjacent to their plantation.
<b>TOTAL</b>	<b>1,263,000</b>	<b>890,300</b>	<b>1,282,970</b>	<b>1,435,550</b>	<b>2,940,350</b>	<b>7,812,170</b>	

\*\$480,000 Co-funding through GEC

**Comment on Co-funding**

- Co-funding portrayed above is based on cash transaction only and shows excellent financial support to the project from various stakeholders. Majority of the fund is invested in pilot site related activities.

- On the other hand, in kind contributions were used to cover for meetings, emolument of government staffs and expenses related to stakeholder consultation which is not captured here.

## 5. Lessons Learned

### a. Related to project management, administration and institutional arrangement

- Implementation of NAP on Peatlands actively being pursued by the various stakeholders and closely monitored by MNRE and National Peatland Working Committee.
- Peatland management is a complex undertaking, as it involves the interest and inputs of many different stakeholders including many different technical agencies, land owners, local community and NGOs. As such, an effective framework for cooperation and coordination between the various parties is critical to optimise the use of resources and efforts. Malaysia succeeded in this by establishing a smart partnerships model with the peatland working group members in implementing various activities of the project plus overcoming government procedures such as appointment of consultants which delayed the project activities in the first two years.
- Malaysia to continuously play an important role to support the continuation of the APFP services and benefits beyond project completion in 2014, including using national funds.

### b. Related to technical deliveries of planned activities and results

- Recent collective efforts to curb and suppress forest fire incidences at the pilot site with the various involvements of local government agencies, private sector and communities are a very good example of multi stakeholder ownership/responsibility.
- Establishment of Sahabat Hutan Gambut Selangor Utara have created a platform for effective community participation in the rehabilitation and forest fire monitoring and prevention activities at Raja Musa Forest Reserve, including creating livelihood opportunities for local communities.
- Project activities implemented at the pilot site shows encouraging progress towards sustainability esp. related to forest rehabilitation and the application of FDRS system.
- There is a need for agencies and personnel involved in peatland management team to continuously undergo capacity building training to manage the ecosystem sustainably.
- State of Sarawak agreed in principal to consider including Muladam NP for nomination as ASEAN Heritage Site

## 6. Conclusion

- Project coordination amongst the various stakeholders has improved because of the APFP project. Transformation can be seen in its implementation/ approach; from sectoral to multi sectoral approach in the management of peatlands in Malaysia.
- National Action Plan for Peatlands (NAPP) as adopted by the Malaysian Cabinet in May 2011 had its progress monitored by MNRE. The NAPP implementation had been subjected to mid-term revision in 2014. It is to be noted that the next half of NAPP implementation will fall within RM11 (2015-2019).

## 7. Recommendations

- a. For implementation of similar projects in future
  - Each states to develop SAPP and all major peatland areas to have its own IMPs for better management;
  - Development of Best Management Practices for fire management, including in buffer zone areas;
  - Develop improved systems of cooperation amongst different stakeholders in peatland management, including involvement of the local communities..
- b. For continuing or scaling-up of current project results
  - Scaling up of the pilot sites to all peatland sites across Malaysia.
  - Enhance the level of coordination amongst multi-sector players across government, the private sector, research and higher learning institutes, NGOs, CBOs, etc.

Annex 1: List of Publications (books, leaflets, videos, etc.)

Date Produced	Description/ Name	Type of Publication (book, video etc)	Quantity Produced	Language
2010	Peatland brochure	Brochure	500 units	English & Malay
2010	Peatland poster	Poster	500 units	English & Malay
2010	Peatland Video	Video	500 units	English & Malay
2011	National Action Plan for Peatlands	Document	Softcopy document; 3,000 units	English & Malay
2012	Peat Fire Suppression	Booklet	500 units	Malay
2012	Equipment for fire suppression	Booklet	500 units	Malay
2013	Assessment of Aboveground Carbon Stock Changes in APFP Pilot Site by FRIM	Document	Softcopy document; 100 units	English
2013	Blueprint For Kuala Langat South Forest Reserve by FRIM	Report	Softcopy document; 100 units	English
2014	Development of Peat for Food Crops by Department of Agriculture Malaysia	Guideline	Softcopy document	English
2014	Design and Construction of Check Dams for Prevention and Control of Peatland Fire by Department of Irrigation Malaysia	Guideline	Softcopy document; 1,000 units	English
2014	Peatland Profile for Malaysia by Faculty of Forestry, UPM	Report	Softcopy document	English
2014	Peatwatch System by Faculty of Forestry, UPM	Manual	Softcopy document Hardcopy	English
2014	North Selangor Peat Swamp Forest Scientific and Bio-D Expedition by MNS	Proceeding	Softcopy document Hardcopy	English and Malay
2014	Selangor State Action Plan for Peatlands by FRIM	Document	Softcopy document; Hardcopy 100 units	English
2014	Beyond the Haze; Lessons Learnt the from Implementing APFP in Malaysia by MNS	Document	Softcopy document; 100 units	English
2014	Best Management Practices in Peatland of Malaysia by FRIM;	Document	Softcopy document; Hardcopy 100 units	English
2014	Degraded Peat Swamp Forest Rehabilitation	Manual	Softcopy document;	English

	Techniques by FRIM;		Hardcopy 100 units	
2014	Integrated Management Plan for North Selangor Peat Swamp Forest by GEC	Document	Softcopy document; Hardcopy 100 units	English (with malay summary)
2014	Buffer Zone Management Plan for North Selangor peat Swamp Forest	Document	Softcopy document;	English (with malay summary)
2014	Cooperative Fire management Plan for North Selangor peat Swamp Forest	Document	Hardcopy 100 units	English (with malay summary)
2014	Rehabilitation Plan for North Selangor peat Swamp Forest	Document	Softcopy document;	English (with malay summary)
2014	APFP Special Report	Report	Softcopy document; 100 units	English

Annex 2: List of Facilities developed/supported by project/co-funding (education displays, demonstration sites, etc.)

Location	Description/ Name	Funded by project / co-funding	Managed by	Status
Petaling Jaya	Fire and Danger Rating System by MMD	Co-funding; USD 25,000	MMD	In operation
Bestari Jaya, Selangor	Automated Weather Monitoring Station by DOE	Co-funding; USD 20,000	MMD	In operation
Pilot site	Peatwatch System by Faculty of Forestry, UPM	Project funded; USD 33,000	Selangor FD/ FDPM	In operation
Pilot site	Check dams	Project funded/ co-funding; USD 75,000	Selangor FD	In operation
Pilot site	Clay bund	Co-funding; USD 40,000	PKPS	In operation
Pilot site	Water transfer pipeline (800 m)	Co-funding; USD 40,000	Selangor FD	In operation
Pilot and demonstration sites	FDRS Signboards	Project funded USD 5,000	Selangor FD, Sarawak Forest Corporation and Sabah FD	In operation
Pilot site	RMFR Virtual Centre	Co-funding; USD 10,000	Selangor FD & GEC	In operation
Pilot site	Peatland Excellence Centre	Co-funding; USD 54,000	Selangor FD	In development
Pilot site	Community nurseries	Project funded; USD 11,000	SHGSU	In operation
Pilot site	Fire suppression equipment	Project funded/ Co-funding; USD 16,000	Selangor FD, Fire and Rescue Department and SHGSU	In operation
Homestay Sg. Sireh	Ecotourism equipments	Project funded; USD 2,000	SHGSU	In operation

## Annex 3: List of agencies/main stakeholders involved in the component implementation

Name of organization	Location	Role in project	Contact person	Contact email or phone
Ministry of Natural Resources and Environment	Putrajaya	Focal Point	Danial Lee Abdullah	danial@nre.gov.my
Department of Environment	Putrajaya	Air pollution	Mohd Amir b. Ismail	amir@doe.gov.my
Department of Irrigation and Drainage	Kuala Lumpur	Water management	Rosilawani bt. Sulong	rosilawani@water.gov.my
Department of Wildlife and National Parks	Cheras	Wildlife management	Mohd Affendi b. Ibrahim	affendi@wildlife.gov.my
Forest Department of Peninsular Malaysia	Kuala Lumpur	Forest management	Hamdan b. Napiah	hamdan@forestry.gov.my
Selangor Forestry Department	Shah Alam	Forest management	Badrol Hisham b. Abdul Rahman	badrol68@yahoo.com
Forest Research Institute Malaysia	Kepong	Forest research	Dr. Ismail Parlan	ismailp@frim.gov.my
Minerals and Geoscience Department Malaysia	Putrajaya	Ground water	Abd. Razak Zainal	razakza@jmg.gov.my
Fire and Rescue Department	Shah Alam	Peat fire	Zainuddin	0194440994
Department of Agriculture Malaysia	Putrajaya	Peat agriculture crop	As'ari Hassan	asari@doa.gov.my
Malaysian Agricultural Research and Development Institute	Serdang	Agriculture research	Wan Abdullah	wawy@mardi.gov.my
Malaysia Meteorological Department	Petaling Jaya	Weather monitoring	Nurizana Amir Aziz	nurizana@met.gov.my
Pahang Forestry Department	Kuantan	Forests Management	Edevaldo J. Yapp	edevaldo@forestry.gov.my
Sabah Forestry Department	Sandakan	Forest management	Christoper A. Matunjau	christopermatunjau@sabah.gov.my
Sarawak Forest Department	Kuching	Forest management	Malcom Demies	malcom@sarawak.forestry.com
Natural Resources and Environment Board	Kuching	Air pollution	Peter Sawal	petersl@areb.my
University Putra Malaysia	Serdang	Research	Dr. Alias Sood	ms_alias@cepar.edu.my
Global Environment Centre	Petaling Jaya	RPEA	Fuad Shariff	fuad@gec.org.my
Malaysian Nature Society	Kuala Lumpur	NE	Balu Perumal	hod.conservation@mns.org.my
SHGSU	Bestari Jaya	CBO	Zainon Kasim	zainonkasim@yahoo.com

**Annex 4: List of beneficiaries or beneficiary groups receiving direct support under community-based aspects of project**

<b>Name of person/community group</b>	<b>Location</b>	<b>Type of support</b>	<b>Cost of support</b>
SHGSU	Kampong Seri Tiram Jaya (8 units), Kg Raja Musa (1 unit), Kg Bestari Jaya (4 units), Kg Ampangan (2 units) & Kg. Damai Sg Tenggi (1 unit)	Community nurseries	USD11,354.83
SHGSU	Kg Bestari Jaya & Kg Ampangan	Fire suppression equipment	USD16,116.11
SHGSU	Homestay Sg Sireh	Ecotourism equipment	USD2,258.06
SHGSU & Loagan Bunut NP Community	APFP pilot site in ASEAN	Study visit	USD5,000.00 (Est.)
SHGSU	Homestay Sg Sireh & Kg Bestari Jaya	Awareness programmes	USD5,000.00 (Est.)

Annex 5: Photographic summary



ANNEX 3: MALAYSIA COMPONENT COMPLETION REPORT





ANNEX 3: MALAYSIA COMPONENT COMPLETION REPORT





## ANNEX 4 COMPLETION REPORT (PHILIPPINES)

### National Project Executing Agency: BIODIVERSITY MANAGEMENT BUREAU (BMB)-DEPARTMENT OF ENVIRONMENT AND NATURAL RESOURCES (DENR)

#### 1. Summary

The ASEAN Peatland Forest Project (APFP) opened up the opportunity for the Government of the Philippines to actively engage in the protection, rehabilitation and sustainable use of one of the least known and understood wetland habitat found in the country. The Philippine Component of the APFP paralleled the objectives of the ASEAN Peatland Management Strategy (APMS) and the National Action Plan for the Philippine Peatlands. The project activities focused on the promotion and sustainable management and rehabilitation of peatlands through awareness raising, capability building and enhanced inter-agency cooperation.

Two pilot sites were established, in the first two confirmed peatlands in the country, Agusan Marsh and Leyte Sab-a, to demonstrate community-led sustainable use and rehabilitation strategies. Capacity building activities for national and local peatland managers were initiated through a series of trainings and seminars that included peatland assessment, management, prevention and suppression of wildland fires. A total of 15 trainings/ workshops were conducted at the national and local setting that allowed the participative development of plans and actions needed to be undertaken for the successful implementation of the project. A successful information and education campaign was implemented which raised the awareness on peatlands at the national and local levels. The materials produced and used in the campaign included “Juan Meets the Least Famous Forest” comics, brochures, tarpaulins/posters, and video documentaries. Some of these materials were also translated into the local dialect for better appreciation of the local community members. Field validations were also conducted in other potential peatland sites in the country. A total of 14 sites were visited and ten (10) sites were validated as peatlands.

The project has raised the awareness, both at the local and national level, of the importance of peatlands in the country. Much needed information on the distribution and status of peatlands in the country has also been made available, as well as a wealth of information on the need to protect intact areas and the sustainable use and rehabilitation of degraded areas. Local government units (LGUs) with the support of other local stakeholders have put in place the needed measures to protect, rehabilitate and sustainably use peatlands found within their jurisdictions and continue the initiatives started by the project. These include the issuance of Municipal Ordinances, identification and zoning of peatlands for inclusion in their respective Comprehensive Land Use Plans (CLUP), and declaration of peatland areas as local conservation areas. Some LGUs and local partners/peoples organizations have also made the commitment to provide funding for the continuation of the sustainable farming and rehabilitation initiatives.

Peatlands in the country have mostly been converted for agriculture and later abandoned due to low productivity. Identification and proposal for the protection of intact peatland areas had been initiated for their inclusion in the national protected area system and need to be sustained. Rehabilitation of all degraded peatlands should also be prioritized to restore their natural ecosystem functions including providing a habitat to unique assemblage of plants and animals. As demonstrated by this project, stakeholder engagement is essential in facilitating the conservation, restoration, and sustainable use of the peatlands in the country. Developing more robust policies and strategies that are favoured by the stakeholders should be initiated to scale up current project results.

## **2. Brief Component Description**

The active engagement of the Government of the Philippines in the protection of peatlands started with its participation in the consultation workshop for the development of the ASEAN Peatland Management Strategy (APMS) held in Malaysia in May 2005. The Philippines' country report emphasized that while there are reports of presence of peatlands in the country, it needs help in identifying and verifying where exactly these peatlands are, and in building its capacity towards sustainable peatlands management. The Philippines, as one of the first Association of Southeast Asian Nations (ASEAN) Member States that responded to the immediate application of the APMS, operationalized the ASEAN Peatland Forests Project (APFP) entitled "Rehabilitation and Sustainable Use of Peatland Forests in South-East Asia" in the country. The project implementation paralleled the objectives of the APMS and the National Action Plan for Philippine Peatlands.

The objective of the Philippine Component is to promote the sustainable management and rehabilitation of peatlands through awareness raising, capability building and enhanced inter-agency cooperation for the benefit of the local community and the conservation of biodiversity. This was accomplished thru the following outcomes:

- (1) Capacity in relevant agencies/institutions and other concerned stakeholders on peatland management strengthened in the Philippines;
- (2) Creating an enabling environment for the conservation and sustainable use of Peatlands in the country;
- (3) Land use planning, zoning and rehabilitation measures carried out in suitable peatland sites; and
- (4) Community-led demonstration projects formulated and implemented at the pilot sites managed by local people developed and implemented.

One key strategy employed in project implementation was the identification and application of the peatlands sustainable use practices by the local communities and application of small community-led projects at the pilot demonstration sites, the two confirmed peatlands in the country, the Caimpugan peatlands in Agusan Marsh, Province of Agusan del Sur, Mindanao and the Leyte Sab-a Basin in Leyte Province in the Visayas.

**3. Project Achievements against the Logical Framework (in matrix)**  
**Achievements of the project implementation (November 2009 – June 2014) versus targets in Component Logical Framework Matrix**

OUTPUT	LOGICAL FRAMEWORK TARGETS	PROGRESS	ACHIEVEMENTS (%)	REMARKS
<p><b>OUTPUT 1.1 A</b> core group of peatland managers/ experts established at national, local and community levels</p>	<p>Two TNA FGD/ workshops/ meetings convened &amp; TNA completed</p> <p>One training module developed</p> <p>15 people trained as peatland managers/ experts</p>	<p>TNAs for Agusan Marsh and Leyte Sab-a peatlands done during the Training on Peatland Assessment and Management on November 22-26, 2010. Training needs identified for Agusan Marsh in the Caimpugan Peatland Management Plan were also considered.</p> <p>Training module on Peatlands Assessment and Management prepared by Dr. Jonathan Davies was adapted to the local set-up.</p> <ul style="list-style-type: none"> <li>- 40 participants from various GAs and concerned LGUs attended and underwent training on Peatland Assessment and Management last November 22-26, 2010.</li> <li>- Two (2) Phil representatives attend the Training on Peatland Assessment &amp; Management for Regional Training of Trainers at Kuala Selangor, Malaysia on February 22-26, 2011</li> <li>- Four (4) Phil representatives attend the Technical Workshop on the Best Management Practices for Sustainable Peatland Management in Central Kalimantan, Indonesia on 15-18 June 2011</li> <li>- Six (6) Phil representatives attend the Peer Learning Programme on Best Management Practices on Peatlands for Community Groups Nakhon Si Thammarat Province, Thailand on May 16-18, 2012</li> <li>- Two (2) Phil representatives attend Learning workshop on Sustainable Agriculture in Peatlands in Central and East Kalimantan Indonesia on June 2013.</li> </ul>	<p>100%</p>	<p>More people were trained than the targeted 15 people.</p>

<p><b>OUTPUT 1.2</b> Peatland management enhanced by better coordination between concerned agencies and other stakeholders and policies and developed</p>	<p>15 people send for cross visits/ exchange programs</p>	<p>14 participants attended a five(5)-day international Study Tour conducted in Malaysia (North Selangor Peatland Forest and Kilas Forest Reserve) last 3-7 October 2011. (A participant from the Heed Foundation was not able to join the study tour due to a passport processing problem. He later participated in the Peer Learning Program held in Thailand.)</p>		
	<p>1 expert and a core group established</p> <p>Total of 15 people at 2 pilot sites attend training on participatory assessment</p> <p>Relevant information gathered from participatory assessments on the 2 pilot sites</p>	<p>A National Inter-agency Working Group on Peatlands with 19 members was convened on May 2010.</p> <p>A participatory assessment led by Dr. Jonathan Davies was conducted on Nov. 21, 2010 at the Leyte Sab-a peatland site and on Nov. 24, 2010 at the Caimpugan peatland site in Agusan del Sur. A total of 40 individuals participated in the site-based assessments.</p> <p>Reports on the participatory assessments on the Leyte Sab-a and Caimpugan peatlands done.</p>	<p>100%</p>	<p>(The limited number of meetings was due to the difficulty in scheduling.)</p> <p>The NTWG mirrors the membership of the NPIC and has proven to be</p>
<p>NPIC Set-up and meets semi-annually</p>	<p>A National Project Implementation Steering Committee with 11 members was formally created by virtue of DENR S.O. 2010-203. Three (3) meetings were convened on the following dates: (1) Nov. 19, 2009; (2) April 26, 2011; and (3) Oct. 2, 2013.</p>	<p>A National Technical Working Group with 19 members was formally created by virtue of DENR S.O. 2010-203. A total of 13 meetings were convened (Y2010 - 2 mtgs.; Y2011- 3 mtgs.; Y2012 - 6 mtgs.; and Y2014 - 2 mtgs.)</p> <p>Leyte Sab-a Technical Working Group (with 15 members)</p>		
<p>One set up at national level with 4 annual meetings &amp; 22 participants</p>				

	<p>One TWG for each site, 4 consultations each year, for 20 people from different agencies/institutions.</p> <p>Policies and programs reviewed and developed</p>	<p>and Agusan Marsh Technical Working Group (with 20 members) was formally created by virtue of DENR S.O. 2010-203 and DENR Regional Special Order No. 2010-197. A total of 14 meetings (Y2010- 2 mtg.; Y2011 - 4 mtgs.; Y2012 - 5 mtgs.; Y2013 - 2 mtgs.; Y2014 – 1 mtg.) were convened for Leyte and 11 meetings (Y2010- 2 mtg.; Y2011 - 4 mtgs.; Y2012 - 3 mtgs.; Y2013 - 2 mtgs.; Y2014 – 1 mtg.) for Agusan.</p> <ul style="list-style-type: none"> <li>- Proposed expansion of the Agusan Marsh Wildlife Sanctuary (AMWS) Protected Area from 19,196 ha to 40,940 has to include peatland areas within the municipalities of Talacogon, Bunawan, La Paz, Loreto in Agusan del Sur have been submitted and undergoing review in the Philippine Congress.</li> <li>- Peatlands areas located outside of the proposed expansion of the AMWS that are classified as Alienable &amp; Disposable or are titled have been identified and concerned LGUs have been consulted for the possible declaration of those areas as critical habitats under the Wildlife Act.</li> </ul>		<p>an important vehicle for project implementation. For the pilot sites, the multi – sectoral local working group also proved to be very effective in ensuring implementation of project activities.</p> <p>The NTWG and L TWG have joint activities which proved to be efficient in ensuring cross-fertilization of ideas and experiences. Cross-visits also allowed these active exchanges of ideas and experiences.</p>
		<p>- Two (2) Municipal Ordinances were passed to protect peatlands. (1) Municipality of San Francisco, Agusan del Sur - MO# 01-2013 ("Ordinance for the Protection of the Unique Stunted Peat Swamp Forest in the Barangays Caimpugan and New Visayas, all of San Francisco, Agusan del Sur"); (2) Municipality of Talacogon, Agusan del Sur - MO# 203-2014 ("An Ordinance for the Protection</p>		<p>This is the first pieces of legislation in the country which directly mentions peatland protection.</p>

	<p>1 summit organized</p> <p>Networks operationalized</p>	<p>of the Unique Stunted Peat Swamp Forest within the Municipal Jurisdiction of Talacogon, Agusan del Sur and Providing Funds Thereof").</p> <ul style="list-style-type: none"> <li>- Municipal Ordinance for the establishment of the Leyte Sab-a peatlands as local conservation areas/critical habitats has been drafted.</li> </ul> <p>A Peatland Summit was held on October 24-26, 2012 in Leyte attended by 45 participants representing concerned National Government Agencies, Local Government Units of identified Pilot Sites, NGOs, POs, academe, and other stakeholders from Agusan and Leyte.</p> <ul style="list-style-type: none"> <li>- Society for the Philippine Wetlands organized a Wetlands Caravan: Mobilizing Communities for the Conservation of the Agusan Marsh and Wildlife Sanctuary on June 20-24, 2011.</li> <li>- Caraga Young Artists conducted Peatland Nature Appreciation Walk at Brgy. Caimpugan, San Francisco, Agusan del Sur on June 16, 2012.</li> <li>- Art Exhibit and Comic Launching in Butuan National Museum on October 1, 2012. The paintings of peatlands by the Caraga Young Artist were displayed in the museum for one week.</li> <li>- Dr. Van Leeah Alibo of Caraga State University created Facebook page "Save Caimpugan Peatland of Agusan Marsh, Philippines."</li> <li>- Peatland Ecosystem Appreciation Tour (PEAT) organized by in Leyte Sab-A as part of Environment Month Celebration June 20, 2014.</li> <li>- Bureau of Fire Protection organized three (3) Training Workshop on Sustainable Use of Peatlands through the Prevention and Suppression of Wildland Fires conducted on April 12-15, 2010 (Davao City); Oct. 10-14, 2011 (Agusan del Sur); and Dec. 10-12, 2012 (Leyte) attended by a total of 100 firefighters.</li> </ul>		<p>The project activities established "many firsts" in terms of peatlands management is concerned... first trainings, first ordinance, first summit, first IEC materials (comics, books, videos, etc) first learning sites and a host of many others first.</p>
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<p><b>OUTPUT 1.3</b> Awareness of peatlands raised at national and local levels through an information and education campaign</p>	<p>NAP legally adopted and implemented</p>	<p>- CodeRedd organized Philippine Roadshow on REDD-PLUS and the Philippine National REDD-PLUS Strategy "PANGANGALAGA NG KAGUBATAN NANG MAY PANANAGUTAN" on 13-14 April 2012 with 10 stakeholders from Agusan Marsh pilot sites participating in the activity.</p> <p>The National Action Plan was completed in 2009 and was adopted in the Updated National Wetlands Action Plan for the Philippines 2011-2016 and was implemented under the APFP as well as by other concerned government agencies.</p> <p>The NAP was included in the Fifth National Report to the Convention on Biological Diversity.</p>	<p>100%</p>	
<p>120 stakeholders participate in lectures and presentations</p> <p>1,000 copies of comics in 3 languages available and distributed at pilot sites</p> <p>500 posters in 2 languages available and distributed at pilot sites</p>	<p>Ten (10) lectures/presentations conducted with at least 20 stakeholders in attendance per lecture/presentation</p> <p>The following IEC materials were produced and distributed at the pilot sites:</p> <ul style="list-style-type: none"> <li>- 1,000 copies "Juan Meets the Least Famous Forest" comics in English</li> <li>- 3,000 pcs. (1,000 pcs. in English; 1,000 pcs. in Bisaya; and 1,000 in Waray) of Peatland Brochures/Leaflets</li> <li>- 2 sets (w/ 5 tarpaulins each) of posters, one in Bisaya and one Waray</li> </ul>			

<p>1 video documentary on Philippine Peatlands produced</p>	<p>- Three video documentaries:  a. "Saving the Philippine Peatlands" (9 mins.)  b. "Protecting the Philippine Peatlands" (18 mins.)  c. ASEAN Peatland Forest Project Philippine Component: An Accomplishment Report – (11 mins.)</p>	
<p>Four dialogue completed, with c. 100 people per assembly; Local communities in and surrounding peatland areas with a fuller understanding of peatlands and issues affecting them</p>	<p>Fifteen (15) community consultations/assemblies conducted with no less than 30 individuals/local community members in attendance per consultation.</p> <p><b>OTHER ACCOMPLISHMENTS:</b></p> <ul style="list-style-type: none"> <li>• Research and Development <ul style="list-style-type: none"> <li>a. Research on the "Carbon Storage and the Role in Climate Change Mitigation of the Caimpugan Peatland" in Agusan Marsh Wildlife Sanctuary, Philippines by Dr. Van Leeah Alibo</li> <li>b. Plant Diversity and Forest Structure of the Caimpugan Peat Swamp Forest in Mindanao, Island Philippines by Lowell Aribal</li> </ul> </li> <li>• Research Report on Community-based Assessment of Barangay Caimpugan's Critical Resources and Peatland Management Plan by Propegemus Foundation, Inc. and Philippine-Australian Community Assistance Program</li> <li>• SB Lerriza de Leon was awarded as one of the Women Leaders in Biodiversity Conservation last 17 April 2013 because of her Municipal Ordinance in protecting the peat swamp forests in San Francisco, Agusan del Sur</li> <li>• Inclusion of peatland ecosystem in the curriculum of BS Environmental Management in Visayas State University Alangalang Campus</li> </ul>	<p>These other accomplishments were initiated by partners from the Academe who participated in the National Action Planning for peatlands and has committed to support the project.</p> <p>Another first for the project is the award given to an active member of Agusan group.</p>

<p><b>OUTPUT 1.4</b> Sustainable financial mechanism for peatland management identified and secured</p>	<p>Meetings convened with donor agencies</p> <p>Funding available to continue activities at project end</p>	<ul style="list-style-type: none"> <li>- Potentials for carbon financing explored with a Memorandum of Agreement with Non-Timber Forest Products (NTFP)/CoDeREDDWISE initiated to include Caimpugan Peatlands in the Demonstration Project for REDD-Plus under the Philippine National REDD-Plus Strategy.</li> <li>- Dr. Douglas Macmillan, Consultant on Incentives Options, and Chin Sing Yun of the Global Environment Centre conducted site visit assessment and dialogues with local stakeholders regarding financing/incentive options for sustainable financing of peatlands in Agusan Marsh on November 16-19, 2011.</li> <li>- Meetings with the concerned LGUs with jurisdiction over peatlands were conducted to discuss potential sources of funding (i.e. municipal budget allocation) to support peatland conservation initiatives.</li> <li>- Buying Living Tree System of Bureau of Fire Protection - DILG currently being implemented Leyte Sab-a Basin with support from the SEApeat Project.</li> <li>- LGUs in Agusan Marsh and Leyte Sab-a Basin has committed to provide funds and to continue rehabilitation and pilot demo site initiatives.</li> <li>- The Municipality of Sta. Fe, Leyte has put up counterpart funding amounting to PHP 800,000.00 (~USD 18,000) for the canal blocking and flood control in Barangay San Isidro.</li> <li>-The Philippine Tropical Forest Foundation Incorporated, a local donor agency has indicated that they will include the Leyte Sab-a as part of their “Forest and Community Rehabilitation Project” for the Yolanda or Typhoon Haiyan affected areas.</li> </ul>	<p>100%</p>	<p>Funding mechanism to continue all project initiatives have been completely identified and works have been done to ensure sustainability of the activities it has started. The project life may be too short though to attain the word “secured”</p>
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<p><b>OUTPUT 2.1</b> Peatlands suitable for sustainable use and conservation activities identified</p>	<p>30 days of surveys completed in peatland areas and land use assessments completed per site Six sites surveyed</p> <p>Prioritized sites for conservation identified</p>	<p>- The DENR, Department of Agriculture, Department of Agrarian Reform, the Department of Interior and Local Government and the National Irrigation Administration, has passed a resolution in April 2014, to make the Leyte-Sab a as part of their convergence area. Meaning these agencies will pool in their resources for assistance in this area. The Resolution fully acknowledges the existence of peatlands in the area and hence needs protection.</p> <p>Survey of potential peatland areas were conducted on Dec. 7-17, 2010; May 10-20, 2011; and June 6-10, 2011</p> <p>Out of the total of 12 sites visited and surveyed all over the country, 10 sites were verified as peatland areas.</p> <p>- Caimpugan Peatland, with approximate area of 5,325 hectares, including adjacent areas of peatland in Agusan Marsh, and the peatlands located within the Leyte Sab-a Basin covering an approximate area of 1,740 hectares were the identified pilot demonstration sites for the implementation of the APFP project.</p> <p>- 14 sites were visited and surveyed all over the country and 10 sites were verified as peatland areas.</p> <p>Peatland was included in the updated Management Plan of the Agusan Marsh Wildlife Sanctuary</p>	<p>100%</p>	
<p><b>OUTPUT 2.2 A</b> local guide for planners and developers in peatlands and</p>	<p>Regional guide translated and adapted to Philippine situation</p>	<p>While there is no Regional Guide produced, the Guidelines for the Sustainable Development Planning and Management of Peatlands was drafted and is undergoing final review by the DENR Policy Technical Working Group.</p>	<p>100%</p>	

<p>peatland buffer zones prepared</p>	<p>Small group meetings convened with developers/planners to highlight needs and promote guidelines</p>	<p>Discussions and promotion of the guidelines with planners/developers at the local level (barangay and municipal) were done during the LTWG Meetings for Agusan and Leyte. Meetings were also initiated with the Municipal Mayors and Municipal Planning and Development Officers (MPDO) of Sta. Fe and Alang-alang in Leyte, the Provincial Planning and Development Officer (PPDO) of Agusan del Sur, Mayor of Talacogon, and Mayor and MPDO of Sta. Josefa in Agusan del Sur.</p>		
<p><b>OUTPUT 3.1</b> Land use-planning activities including iterative consultations and zoning of land use at the project pilot sites developed and implemented</p>	<p>Four one day consultations carried out at two pilot sites covering 12-16 barangays with 25 people at each consultation</p>	<p>- Zoning and Land-use Consultations with Agusan Marsh Stakeholders held on May 16, 2012 attended by 35 participants with at least 8 Barangays represented.                  - Zoning and Land-use Consultations with Leyte Sab-a Stakeholder held on May 30, 2012 attended by 40 participants with at least 4 Barangays represented.</p>	<p>100%</p>	
<p><b>OUTPUT 3.2</b></p>	<p>Zoning plans developed and approved by all stakeholders through consultations</p>	<p>- Preliminary zoning plans have been developed and are being incorporated in the Comprehensive Land-use Plans (CLUP) of Municipalities encompassing the pilot demo sites and adjacent peatland areas.                  - Module for the integration of peatlands in the CLUP has been developed and is being used by the concerned peatland municipalities in the updating and finalization of their respective CLUPs.                  - CLUP of the Municipality of San Francisco, Agusan del Sur has been updated to include peatlands in the Protection Zone (for approval of zoning ordinance in SB).                  - Bunawan, Agusan del Sur on-going process for integration of peatland in CLUP                  - Talacogon, Agusan del Sur CLUP is for approval in Sanggunian Bayan &amp; peatland area is included                  - Alang-alang and Sta. Fe in Leyte are still on process for integration of peatland areas in the CLUP</p>	<p>100%</p>	
	<p>One-day meetings</p>	<p>- Action Plan development for rehabilitation measures in</p>		

<p>Hydrological regime restored and replanting carried out at the pilot sites by the community</p>	<p>convened at 2 pilot sites involving 30 participants for developing action plan for rehabilitation measures</p> <p>Rehabilitation Plan developed and implemented</p> <p>Three ha sites under rehabilitation per site</p> <p>Equipment (water gates etc) procured for restoration of hydrological regime</p>	<p>Agusan Marsh Pilot Site conducted during the OJT/Workshop held on Nov. 16-19 attended by 35 local community members.</p> <ul style="list-style-type: none"> <li>- Action Plan development for rehabilitation measures in Leyte Sab-a Pilot site conducted on Dec. 15, 2011 attended by 40 local community members.</li> <li>- Workshop on Status Review of Pilot Demo Sites on the Rehabilitation and Sustainable Agriculture in Degraded Peatlands held at Tagaytay City on June 23-25, 2014 attended by 57 participants (16 Leyte TWG members, 24 Agusan TWG members, and 17 NTWG members)</li> </ul> <p>Rehabilitation Plans for Y2012 developed and implemented per Barangay (Agusan - 8 Brgys.; Leyte - 4 Brgys.)</p> <ul style="list-style-type: none"> <li>- Ten (10) hectares of degraded peatlands in Agusan Marsh (5 ha each in Brgy. Caimpugan and Brgy. Mahariika) were planted with indigenous tree species found in the area and are known to survive in perennially water logged areas such as Lanipao tree (<i>Terminalia copelandii</i>) and Tiga tree (<i>Tristaniaopsis micrantha</i>).</li> <li>- 80 ha of watershed of Leyte Sab-a basin and 200 ha of degraded peatlands in Agusan Marsh was included in the DENR's National Greening Program</li> </ul> <p>GPS and digital camera purchased.</p>		
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<p><b>OUTPUT</b>  <b>4.1</b> Demonstration projects in sustainable use of peatlands at the pilot sites managed by local people developed and implemented</p>	<p>2 restoration plans developed and implemented; 10 hectare pilot rehabilitation area (one hectare per barangay surrounding the pilot sites) planted and maintained, including canal blocking activities in Sab-a</p>	<p>Restoration plans for the Agusan Marsh and Leyte Sab-a peatlands developed and implemented. - Ten (10) hectares of degraded peatlands in Agusan Marsh (5 ha each in Brgys. Caimpugan and Maharlika) were planted with indigenous tree species, i.e. Lanipao (<i>Terminalia copelandii</i>), Bangkal (<i>Naucllea orientalis</i>), Mambog (<i>Mitragyna diversifolia</i>), Potat (<i>Barringtonia acutangula</i>) and Tiga (<i>Tristanopsis micrantha</i>). Four (4) hectares (1 ha. per barangay) of degraded peatlands within the Leyte Sab-a basin were planted with Lanipao trees.</p> <p>- Five (5) hectares pilot demo rehabilitation project for degraded peatlands was undertaken by the Municipality of Talacogon. The species planted in the rehab demo site is Lumbia (<i>Metroxylon sagu</i>) as showcase learning area which can be replicated by the communities for their livelihood.</p> <p>- 80 ha of watershed and degraded peatlands in Leyte Sab-a basin and 200 ha in Agusan Marsh were included in the DENR' National Greening Program (Reforestation Program) - Canal blocking was explored with the LGU of Sta. Fe, Leyte with positive feedback of budget allocation from the LGU for the activity</p>	<p>100%</p>	
	<p>2-day workshops for formulation of demonstration projects convened at 2 pilot sites, with 25 people per meeting from 3 - 4 barangays in the pilot sites</p>	<p>-Agusan Marsh Pilot Site On-the-Job Training/ Workshop for Communities (8 Brgys.) around the Pilot Sites on Participatory Assessments to Improve Local Knowledge of Sustainable Use of Peatlands held on Nov. 16 to 19, 2011 attended by 35 local community members/ stakeholders.</p> <p>- Leyte Sab-a Pilot Site On-the-Job Training/ Workshop for Communities (4 Brgys.) around the Pilot Sites on Participatory Assessments to Improve Local Knowledge of Sustainable Use of Peatlands held on Dec. 13 to 17, 2011 attended by 40 local community members/ stakeholders.</p> <p>- Multi-Sectoral Seminar- Workshop on Ecotourism Development for Agusan held March 5, 2012 and Leyte Sab-a Pilot Site held on March 12, 2012 were both</p>		

	<p>Demo projects developed and implemented; 2 community organizers in place for 30 days in selected barangays</p> <p>Equipment and inputs bought and available to local people; Materials for ecotourism development procured for 2 pilot sites; Ecotourism business plans developed</p>	<p>attended by 40 participants.</p> <ul style="list-style-type: none"> <li>- Stakeholder's consultation on Ecotourism Planning in Agusan Marsh held on May 15, 2012 with 35 participants.</li> <li>- Stakeholder's consultation on Ecotourism Planning in Leyte Sab-a held on May 29, 2012 with 40 participants.</li> <li>- Demo projects developed, sustainable agriculture through raised-bed method and floating garden, and implemented within 10 hectares of peatland area in Agusan Marsh involving eight (8) Barangays and four (4) Municipalities in Agusan del Sur.</li> <li>- Demo projects developed (Sorjan farming) and implemented within four (4) hectares of peatland involving four (4) Barangays and two (2) Municipalities in Leyte.</li> <li>- Community organizers were not needed as local stakeholders were actively involved in the training and establishment of the demo projects with Dr. PaulinoCabahit (DA-ATI) for Leyte &amp; Mr. Alvin Dorado (PASAK) for Agusan as de facto supervisors.</li> </ul> <p>Soil test kits, limes, fertilizers, seeds purchased (e.g. pechay, watermelon, melon, cucumber, bell pepper, eggplant, string beans, tomato, ampalaya, kangkong, etc.) Ecotourism business plans developed for Agusan Marsh and Leyte Sab-a.</p> <p>Caimpugan Peatland Adventure: Ecotourism Development Plan was developed</p>		
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### Summary of Achievements

The project has been successful in achieving the desired outputs and in most cases even going above and beyond the set targets. Major achievements include the creation and operationalization of the peatland working groups at the national and local levels by virtue of DENR Special Order 2010-203. The National Project Implementation Committee (NPIC), with 11 members, had a total of three (3) meetings, the National Inter-Agency Working Group, also known as the National Project Steering Committee, with 19 members, had a total of thirteen (13) meetings, while the two local Technical Working Groups, Agusan (20 members) and Leyte (15 members), had a total of 11 and 14 meetings respectively.

Capacity building activities for national and local peatland managers were conducted through a series of seminars and trainings, which included attendance of 14 Philippine representatives (from concerned national agencies, local government units, representatives of pilot sites, and academe) in a five (5)-day international Study Tour conducted in Malaysia (North Selangor Peatland Forest and Klias Forest Reserve) held on 3-7 October 2011. The tour provided the venue for the participants from different ASEAN countries to share their experiences and knowledge on peatland conservation and management and for the participants to also observe first-hand the initiatives that Malaysia has taken to manage their peatland forest. Four other regional trainings/technical workshops were attended by 14 representatives from the Philippines that enabled them to enhance the implementation of the project in the country. A total of 15 trainings/ workshops were also conducted at the national and local setting that allowed the participative development of plans and actions needed to be undertaken for the successful implementation of the project.

Given that there is a dearth of information and knowledge on peatlands in the country at the start of the project, successful information and education campaign was implemented that raised the awareness on peatlands at the national and local levels. IEC materials that were produced and distributed include (a) "Juan Meets the Least Famous Forest" comics, (b) Peatland brochures in three languages (English, Bisaya, and Waray), (c) Tarpaulins/Posters in Bisaya and Waray, and (d) three video documentaries on protecting and saving Philippine peatlands. A pictorial handbook of the Flora of Agusan Peatlands is currently being finalized by the National Museum for printing and distribution.

Demonstration projects for sustainable use of peatlands and rehabilitation were implemented in two pilot sites, Caimpugan Peatland in Agusan del Sur Province and the Leyte Sab-a Basin in Leyte Province. Two types of farming method, raised-bed and floating garden, were demonstrated in eight barangays (four barangays for each type) covering a total of 10 hectares in Agusan Marsh. A third method, Sorjan farming, was demonstrated in four barangays within the Leyte Sab-a basin covering a total of four (4) hectares, one hectare for each barangay. Rehabilitation of degraded peatlands were also initiated in the two pilot sites with 10 hectares planted with indigenous tree species found in the area and are known to survive in perennially water logged areas such as Lanipao tree (*Terminalia copelandii*) and Tiga tree (*Tristaniaopsis micrantha*) within Agusan Marsh (5 hectares each in barangays Caimpugan and Maharlika) and four (4) hectares in Leyte Sab-a. Local government units that have jurisdiction over the peatland areas in the pilot sites have also incorporated in their comprehensive land-use plans the zoning of the peatlands as protection and conservation zones. A total of 14 other potential peatland sites throughout the country were also

surveyed and assessed. Ten (10) sites (6 in Mindanao, 3 in Luzon and 1 in Samar) were positive for presence of peatlands.

#### 4. Financial Report 2010 – 2014

##### a. Summary table of expenditure of GEF Resources

Table 4d. Summary of financial report based on outcomes for Philippines Component

OUTCOMES	Overall Budget		Overall Expenditure		Balance	
I. Capacity Building	USD	133,028	USD	132,974.34	USD	53.66
II. Reduction in Peatland Degradation	USD	23,257	USD	23,193.52	USD	63.48
III. Management and Rehabilitation	USD	46,195	USD	46,171.52	USD	23.48
IV. Partnerships	USD	42,520	USD	42,508.08	USD	11.92
V. Project Management	USD	17,000	USD	16,999.99	USD	0.01
<b>TOTAL</b>	<b>USD</b>	<b>262,000</b>	<b>USD</b>	<b>261,847.46</b>	<b>USD</b>	<b>152.54</b>

##### b. Co-funding

Table 5d. Summary table for co-funding for Philippines Component

<b>Title of Project</b>	Rehabilitation and Sustainable Use of Peatland Forests in South East Asia							
<b>Name of Project party:</b>	Department of Environment and Natural Resources – Protected Areas and Wildlife Bureau (DENR-PAWB) Philippines							
<b>Target of Co-funding as in project document</b>	\$370,000							
Source/type of Co-financing (cash or in kind)	2008 (USD)	2009 (USD)	2010 (USD)	2011 (USD)	2012 (USD)	2013 (USD)	2014 (USD)	<b>TOTAL</b>
Co-funder 1: Government of the Philippines (GOP) Note: Cash (Tax and hosting of 2 Project Meetings, Ecotourism)			4,633.09	2,331.55	2,331.55	4,663.09	72,277.92	<b>86,237.20</b>

**ANNEX 4: PHILIPPINES COMPONENT COMPLETION REPORT**

activities in Agusan Marsh PS for the Y2014)								
Co-funder 2: DENR- PAWB Note: In kind (Office space, facilities, staff time and mandatories such as water, electricity, telecommunication, security and janitorial services)			51,200.75	62,112.38	8,160.41	4,196.78	2,564.70	<b>128,235.02</b>
Co-funder 3: Bureau of Fire Protection Note: Cash and In kind (trainings, IEC materials, provision of firetrucks, ambulance, firefighting equipment to peatland communities, and hosting of Welcome Dinner during the Project Management Meetings hosted by Philippine Component)			8,113.51 (Cash) Conduct of trainings; Hosting of Welcome Dinner during the PMM	105,703.22 (Cash) Provision of fire truck, equipment, hoses & PPEs in San Francisco; Conduct of trainings;	7,694.10 (Cash) Conduct of training; Production of IEC materials  235,486.13 (In Kind) donation of fire truck, equipment, hoses, & PPEs in Talacogon and Alangalang	15,574.73 (Cash) Training on BLTS; conduct of meetings; and hosting of Welcome Dinner  326,416.41 (In Kind) donation of fire truck, equipment, hoses, & PPEs in Talacogon and Sta. Fe	1,165.77 (Cash) Conduct of meetings	138,251.33 Cash 561,902.54 In kind <b>700,153.87 (total)</b>
Co-funder4: SCPW Note: Cash (For the conduct of Wetlands Caravan in Agusan Marsh)			10,025.65					<b>10,025.65</b>
Co-Funder 5: Propegemus Foundation, Inc. Note: Cash (For the conduct of Community Assessment of		100,000						<b>100,000</b>

Barangay Caimpugan's Critical Resources and Peatland Management Plan. This was completed in June 2009)								
Co-Funder 6: Conservation International- Philippines Note: Cash (For the conduct of In-depth floristic and faunal survey of Caimpugan PSF. This was completed in May 2008)	20,000							20,000
TOTAL								1,044,651.74

**Note: US\$1=Php42.89**

### **Comment on Co-funding**

Prior to the Project implementation in 2010, Propegemus Foundation, Inc. and Conservation International- Philippines contributed USD 100,000 and USD 20,000, respectively, as part of their commitment to the Peatland Project.

The actual co-funding levels amounting USD 1,044,651.74 exceed the planned co-funding levels which is USD 370,000. A lot of parallel funding related to the Project was also generated during the project implementation.

## **5. Lessons Learned**

- a. Related to project management, administration and institutional arrangement

Early delays in the disbursement of funds had an impact in the timely execution of project activities. Arrangements needed to be done before transfer of funds to the local partner can be initiated (i.e. opening of bank accounts/ procurement of check books, etc.) should be made clear and potential disbursement and liquidation issues should already be discussed prior to the actual project implementation to prevent delays. In some cases, personal funds were used just to ensure that project activities would not be postponed.

- b. Related to technical deliveries of planned activities and results

Active engagement of the Local Government Units in the planning, management and execution of project activities in the demonstration sites have proven to be effective in ensuring the smooth implementation of activities in their respective areas of jurisdiction. Local community members trust the local officials they have elected and their cooperation in project activities were assured when they saw their local leaders actively participating. Local policies (municipal ordinances) were passed.

The project generated a wealth of new knowledge on the status and distribution of peatlands and on sustainable peatland management and rehabilitation in the country. All this information is available in the project documentation (i.e. reports and presentation) and should be made readily available to the public particularly the peatland stakeholders and policy makers.

The sustainable farming techniques, raised-bed, floating garden, and Sorjan farming, demonstrated in the pilot sites have provided the local communities with potential livelihood opportunities. Although there is still a lot of improvement needed (i.e. selection of planting materials, making the farm/garden typhoon resilient) and the strategy is still being developed, they could already start using this farming technique in building their own backyard farms and learning-by-doing.

## **6. Conclusion**

Peatlands in the Philippines are relatively small compared to other ASEAN member countries. However, this habitat is home to a unique assemblage of plants and animals and forms an integral part of our countries' wetland ecosystem. It is the least known and understood ecosystem type in the country and has been subjected to varying destructive activities such as conversion to agriculture, drainage, and reclamation for human settlements.

The project has raised the awareness on the importance and distribution of peatlands in the country as well as provided a wealth of information on its sustainable use and rehabilitation and the need to conserve intact areas. We now have an understanding of why peatlands should not be drained and converted for agricultural purposes or reclaimed for human settlement. However, we still need a lot of improvement in our rehabilitation strategies, particularly in the aspect of restoring the hydrological regime in the degraded peatlands.

Policy changes have already been put in place to protect, rehabilitate and sustainably use peatlands in the country. The proposal to expand the Agusan Marsh Wildlife Sanctuary Protected Area to include large tracts of peatlands has been submitted to the Philippine Congress for their appropriate action. Two municipalities in Agusan del Sur have issued Municipal Ordinances to for the protection of peatlands within their jurisdiction. Comprehensive Land Use Plans (CLUP) of concerned municipalities are also being reviewed to include the zoning of peatlands in their areas. Peatland areas that are located outside of the proposed expansion of the Agusan Marsh Protected Area that are classified as Alienable and Disposable or are titled have been identified and concerned LGUs and other stakeholders have been consulted for the possible declaration of these areas as critical

habitats under the Wildlife Act. In Leyte Sab-a a draft Municipal Ordinance has been prepared to declare peatlands in the areas as local conservation areas.

Another positive outcome of the project is securing funding to continue activities in the pilot sites at project end. LGUs and local partners/POs commit to provide funding for the continuation of project initiatives. However, other initiatives at the national level, including replication of the strategies and conservation initiatives in other identified peatland areas would require much needed funds and the long-term sustainability of project initiatives will still need to be addressed.

## **7. Recommendations**

### **a. For implementation of similar projects in future.**

The project results should be used in designing more robust policies and measures for peatland sustainable use, restoration, and conservation that is favored by the stakeholders.

There is a need to identify planting materials (for peatland rehabilitation and sustainable agriculture) that is both indigenous and typhoon resilient. These can be done through the learning-by-doing experiences of the local communities.

### **b. For continuing or scaling-up of current project results**

While identification, mapping, and profiling of all the remaining peatlands in the country is being prioritized by SEApeat Project, Liguasan Marsh in Mindanao is still relatively unexplored due to the peace and order situation. However, it is one of the areas where intact peatland swamp forests may still be found. All intact peatland swamp forests should be prioritized for protection, if possible, should be included in the protected area system.

- Degraded peatland areas covered by Certificate of Landownership Agreements (CLOAs) that have been found to be unsuitable for agriculture and have been abandoned should be reverted back to forest lands.
- Demonstration sites should be used to attract financial donors that can provide funding to transform the sustainable use practices to livelihood initiatives for the local communities. One potential livelihood activity that was identified and proposed by the local community members is the backyard floating garden initiative.
- Ecotourism is a viable way to deflect pressures away from the peatlands, especially the intact ones, and at the same time provide livelihood to the local communities.

Annex 1: List of Publications (books, leaflets, videos, etc.)

Date Produced	Description/ Name	Type of Publication (book, video etc)	Quantity Produced	Language
2008	National Action Plan: Sustainable Use and Protection of Philippine Peatlands	book	1,000 copies	English
2009	Care for Our Peatlands (English)	flyers	1,000 copies	English
2009	Care for Our Peatlands (Bisaya Version)	flyers	150 copies	Bisaya
2009	Care for Our Peatlands (Waray Version)	flyers	200 copies	Waray
2009	Community-based Assessment of Barangay Caimpugan's Critical Resources and Peatland Management Plan: A Research Report (published by Propegemus Foundation, Inc.			English
Nov 2010	Training Module: Peatland Assessment and Management	book		English
December 2010	Saving the Philippine Peatlands – 9 minutes	Video		English
Jan 2011	Training Report: Peatland Assessment and Management	book		English
November 2011	Protecting Philippine Peatland – 18 minutes	Video		English
Jan 2012	Learnings from a Cross Visit to Malaysia's Peatlands	document		English
May 2012	Stakeholders Consultation on Initial Land-use Planning, Agusan Marsh Pilot Site, Prosperidad, Agusan del Sur	document		

1 October 2012	Juan Meets the Least Famous Forest	comics	1,000 copies	English
October 2012	What is Peat (patterned after Rajah Musa's Tarpaulin)	tarpaulin	1 set (consists of 5 tarpaulins)	Bisaya
October 2012	What is Peat (patterned after Rajah Musa's Tarpaulin)	tarpaulin	1 set (consists of 5 tarpaulins)	Waray
2012	Multi-stakeholders Seminar-Workshop on Ecotourism Development: Activity Report ( <i>the objective of the seminar-workshop was to assess the potential of developing ecotourism in the two pilot sites in Agusan Marsh, Agusan del Sur, and Leyte Sab-a Basin, Leyte</i> )	document report		English
July 2013	ASEAN Peatland Forests Project Philippine Component: An Accomplishment Report (as of June 2013) – 11 minutes	Video		English
Oct 2013	Caimpugan Peatland Adventure Ecotourism Business Plan (DENR)	document report		English
2013	Guidelines for Sustainable Development Planning and Management of Peatlands (DENR Administrative Order) – catalysed by the Project	document		English
June 2014	Module for the Conduct of Consultations with Municipalities with Peatland on the Inclusion of Peatland Concerns in Their Comprehensive Land-use Plans (Alton C. Durban, Environmental Legal Specialist)	document		English

August 2014	A Pictorial Handbook of Flora of Agusan Marsh, Philippines	book	500 copies	English
Sept 2014	Updating and Enhancement of Agusan Marsh Wildlife Sanctuary (AMWS) Management Plan – Final Draft Report	Document report		English
	Caimpugan Peatland Adventure: Ecotourism Business Plan	Document report		English
	Updated Management Plan of Agusan Marsh Wildlife Sanctuary			English
	Several relevant publications were catalysed/triggered during APFP implementation. These include:			
2008	“Forest Formation of the Philippines” produced through the ASEAN Korea Environment Cooperation Project (Dr. Edwino Fernando as lead author), 2008	book		English
Oct 2012	“Focusing the Lens of Conservation: A Look Into the Caimpugan Peat Swamp Forest of Caraga and its Role in Mitigating Climate Change” by Dr. Van Leeah Alibo published in Our Mindanao October 2012 issue pp. 32-36	Document Article		English
Dec 2012	A scientific journal entitled, “Carbon Storage of Caimpugan Peatland in Agusan Marsh, Philippines and its Role in Greenhouse Gas Mitigation”	document		English

	published in Journal of Environmental Science and Management, December 2012		
2012	DENR Publication on <i>Climate Change Adaptation: Best Practices in the Philippines</i> , pp. 102-104, published in 2012	book	English
2012	<i>Soil Conservation Guided Farms Under Peat and Peatlands of the Philippines</i> by Dr. Wilfredo B. Sanidad, published in BSWM Soilscape (October-December 2012, Vol.3 No.4), p.9 and p.12	Article	English

There are relevant publications triggered during the APFP implementation. These include:

- “Forest Formation of the Philippines” produced through the ASEAN Korea Environment Cooperation Project (Dr. Edwino Fernando as lead author), 2008
- “Focusing the Lens of Conservation: A look into the Caimpugan Peat Swamp Forest of Caraga and its Role in Mitigating Climate Change” by Dr. Van Leeah Alibo published in Our Mindanao October 2012 issue pp. 32-36
- A scientific journal entitled, “Carbon Storage of Caimpugan Peatland in Agusan Marsh, Philippines and its Role in Greenhouse Gas Mitigation” published in Journal of Environmental Science and Management, December 2012
- DENR Publication of Climate Change Adaptation: Best Practices in the Philippines, pp. 102-104, published in 2012
- Soil Conservation Guided Farms Under Peat and Peatlands of the Philippines by Dr. Wilfredo B. Sanidad, published in BSWM Soilscape (October-December 2012, Vol.3 No.4), p.9 and p.12

Other publication/technical report with relevant information on peatland

- National Wetlands Action Plan for the Philippines 2011 – 2016
- The Fifth National Report to the Convention on Biological Diversity 2014

Annex 2: List of Facilities developed/supportedby project/co-funding (education displays, demonstration sites, etc.)

Location	Description/ Name	Funded by project/co-funding	Managed by	Status
Agusan del Sur Province	AgusanPeatlands Demonstration Site	APFP/POs/LGUs	DENR/LGU/PO	On-going rehabilitation
Leyte Province	Leyte Sab-a Demonstration Site	APFP/LGUs	DENR/LGU	Severely damaged by super typhoon Yolanda; being reestablished and On-going rehabilitation

Annex 3: List of agencies/main stakeholders involved in the component implementation

Name of organization	Location	Role in project	Contact person	Contact email or phone
Department of Environment and Natural Resources - Protected Areas & Wildlife Bureau (DENR-PAWB)	Quezon City	Project Executing Agency; National coordination, policy formulation, linkage/ networking, fund sourcing, technical assistance	Armida P. Andres - National Coordinator	<a href="mailto:nenengandres@yahoo.com.au">nenengandres@yahoo.com.au</a> +632 9246031 loc. 212
DENR-Forest Management Bureau	Quezon City		Rebecca Aguda	+632 9282891
DENR - Ecosystems Research and Development Bureau	Los Baños, Laguna		Dr. Simplicia A. Pasicolan	+6349 5362229 loc.230
DENR Foreign Assisted and Special Project Office	Quezon City	National coordination, policy formulation, linkage/ networking, fund sourcing, technical assistance	Rosemarie Carbon	+632 928 0028
National Water Resources Board	Quezon City		Francis Hilarie Emmie Ruales	+632 920 2724
DILG-BFP	Quezon City	Policy formulation and technical assistance pertaining to forest fire and its prevention	C Insp. Dennis A. Molo	<a href="mailto:forestfirefly_503@yahoo.com">forestfirefly_503@yahoo.com</a> +632 3760117
DA-BSWM	Quezon City	Policy formulation, technical assistance and support in areas of agriculture, soil and water management	Engr. Sam Contreras Dr. Wilfredo Sanidad Engr. Oscar Costelo	+632 9230459 +632 9230474
National Museum of the Philippines	Manila	Technical support in inventory and assessments and research related activities	Dr. Edwin R. Tadiosa	+632 5270291
Society for the Conservation of Philippine Wetlands	Pasig City	Advocacy and awareness raising; fund sourcing	Zenaida Ugat	+632 6372409

University of the Philippines Los Baños	Los Baños, Laguna	Training, technical support in inventory and assessments and research related activities specifically in Agusan Marsh	Dr. Edwino Fernando	
DENR Region 8	Tacloban City	Oversees pilot level managements; Coordinates and implements local level activities; Organizes meetings with relevant stakeholders at local level pilot site; Facilitates Evaluation Mission at the local level; Links with relevant partners and supporters.	Corazon H. Makabenta – Focal Person, Leyte Sab-a Pilot Site	<a href="mailto:corahmakabenta@yahoo.com">corahmakabenta@yahoo.com</a>
Local Government Unit - Alangalang, Leyte	Alangalang, Leyte	Local coordination, site policy formulation, networking and linkage/ networking, fund sourcing	Loreto T. Yu – Municipal Mayor Engr. Antonio L. Varona - MPDO	
Local Government Unit - Sta. Fe, Leyte	Sta. Fe, Leyte		Oscar J. Monteza - Municipal Mayor Engr. Cynthia V. Lantajo- MPDO	
DA – Agricultural Training Institute	Visca, Baybay, Leyte	Training, technical support in inventory and assessments and research related activities in Leyte Sab-a pilot Site	Dr. Paulino Cabahit	
Department of Agriculture Region 8		Local coordination, site policy formulation, networking and linkage/ networking, fund sourcing		
NIA Region 8				
Visayas State University, Alangalang Campus	Alangalang, Leyte	Training, technical support in inventory and assessments and research related activities in Leyte Sab-a pilot Site	Dr. Marichu Padayao	
St. Benedict Farmers Institute of Sustainable Agriculture	Alangalang, Leyte	Advocacy and awareness raising and technical assistance		

DENR Region 13 (Caraga)	Butuan City	Oversees pilot level management; Coordinates and implements local level activities; Organizes meetings with relevant stakeholders at local level pilot site; Facilitates Evaluation Mission at the local level; Links with relevant partners and supporters.	Jaime Ubanos – Focal Person, Agusan Marsh Pilot Site	<a href="mailto:pawczmscaraga@yahoo.com">pawczmscaraga@yahoo.com</a> +6385 3424406
PENRO - Protected Area Superintendent Office		Oversees pilot level management; Coordinates and implements local level activities; networking and fund sourcing; inventory and site assessment of peatlands	PASu Rufino Miranda	<a href="mailto:rmm_miranda@yahoo.com">rmm_miranda@yahoo.com</a>
Local Government Unit - San Francisco	San Francisco, Agusan del Sur	Local coordination, site policy formulation, networking and linkage/ networking, fund sourcing	Lerriza de Leon – Municipal Councilor	+639177456733
Local Government Unit - Talacogon	Talacogon, Agusan del Sur		Jesryl Masendo – Municipal Mayor	+639156363893
LGU – Agusan del Sur (Provincial Planning Development Office)	Prosperidad, Agusan del Sur		Sylvia de Guzman	
DAR Region 13				
National Commission on Indigenous People				
HEED Foundation, Inc.		Advocacy and awareness raising and technical assistance in Agusan Marsh Pilot Site	Fernando Salise	
ASSCAT			Oscar M. Mojica	

Annex 4: List of beneficiaries or beneficiary groups receiving direct support under community-based aspects of project

Name of person/community group	Location	Type of support	Cost of support
Caimpugan Native Farmers and Fisherfolks Multipurpose Cooperative (CANFFMULCO)	Caimpugan, San Francisco, Agusan del Sur	Technical and financial support for the establishment of Floating Garden and 5 Hectares Rehabilitation Project	Php 120,000.00 (USD 2,797.85)
New Visayas Farmers Association	New Visayas, San Francisco, Agusan del Sur	Technical and financial support for the establishment One(1) Hectare Raised Bed Agriculture	Php50,000.00 (USD 1,165.77)
Kahugpungan Sa Mga Kababayan-an Sa Sabang Gibong, Inc.	Sabang Gibong, Talacogon, Agusan del Sur	Technical and financial support for the establishment Floating Garden	Php50,000.00 (USD 1,165.77)
Kahugpungan sa Malahutayong Kababayan-an Sa La Flora Association ,Inc.	La Flora, Talacogon, Agusan del Sur	Technical and financial support for the establishment Floating Garden	Php50,000.00 (USD 1,165.77)
Hiniusang Panginabuhi sa Maharikanhong Lumad, Inc	Maharlika, Talacogon, Agusan del Sur	Technical and financial support for the establishment Floating Garden and 5 Hectares Rehabilitation Project	Php 120,000.00 (USD 2,797.85)
Causwagan Agrarian Reform beneficiaries Multipurpose Cooperative	Causwagan, Talacogon, Agusan del Sur	Technical and financial support for the establishment One(1) Hectare Raised Bed Agriculture	Php50,000.00 (USD 1,165.77)
Panaghuisa Alang sa kaugaling-nan ug kalingkawasan, Inc. (PASAKK, Inc.)	San Teodoro, Bunawan, Agusan del Sur	Technical and financial support for the establishment One(1) Hectare Raised Bed Agriculture	Php50,000.00 (USD 1,165.77)
Pag-asa Integrated Women's Association	Pag-asa, Sta. Josefa, Agusan del Sur	Technical and financial support for the establishment One(1) Hectare Raised Bed Agriculture	Php50,000.00 (USD 1,165.77)
Brgy. Tabangohay, Alangalang, Leyte	Alangalang, Leyte	Technical and financial support for the establishment Sorjan Farming (1ha) Site level restoration(1ha)	Php 175,000 (USD 4,080.20)
Brgy. Divisoria, Alangalang, Leyte	Alangalang, Leyte	Technical and financial support for the establishment Sorjan Farming (1ha) Site level restoration (1ha)	Php 175,000 (USD 4,080.20)
Brgy. Langit, Alangalang, Leyte	Alangalang, Leyte	Technical and financial support for the establishment Sorjan Farming (1ha) Site level restoration (1ha)	Php 175,000 (USD 4,080.20)
Brgy. San Isidro, Sta. Fe, Leyte	Sta. Fe, Leyte	Technical and financial support for the establishment Sorjan Farming (1ha) Site level restoration (1ha)	Php 175,000 (USD 4,080.20)

**Annex 5: Photographic summary**



**Photo 1.**Agusan Marsh Pilot Site Technical Working Group Meeting.



**Photo 2.**Community consultation for the Leyte Sab-a Pilot Site at Brgy.Langit, Alang-alang, Leyte.



**Photo 3.** Training on Peatland Assessment and Management conducted by Dr. John Davies of GEC at Butuan City on November 22-26, 2010.



**Photo 4.** Participants of the Philippine Peatland Summit held last October 24-26, 2012 at the Leyte Sab-a pilot site.



**Photo 5.** Training on Fire Prevention in Peatlands conducted by the Bureau of Fire Protection at Brgy.Patin-ay, Prosperidad, Agusan del Sur on October 10-14, 2011.



**Photo 6.** Participants of the Training Workshop on Sustainable Use of Peatlands through the Prevention and Suppression of Wildland Fires held on April 12-15, 2010 in Davao City.



**Photo 7.** Raised beds, at the demonstration site in Agusan Marsh located in Brgy. San Teodoro, Bunawan, Agusan del Sur, ready for planting.



**Photo 8.** Raised beds demonstration site in Brgy. San Teodoro, Bunawan, Agusan del Sur planted with corn.



**Photo 9.** Establishment of floating garden by the local communities at the Agusan Marsh demonstration site.



**Photo 10.** Floating garden at the Agusan Marsh demonstration site located in Brgy. Caimpugan, San Francisco, Agusan del Sur.



**Photo 11.** A portion of the 200 hectares of degraded peatlands in Agusan Marsh that is undergoing rehabilitation through the National Greening Program of the Government.



**Photo 12.** Establishment of Sorjan farming system in the Leyte Sab-a demonstration site in Brgy. Langit, Alang-alang, Leyte.



**Photo 13.** Demonstration farm at Brgy. Pag-asa, Sta. Josefa, Leyte.



**Photo 14.** Degraded peatland rehabilitation demonstration site located in Brgy. Langit, Alang-Alang, Leyte.

## **GEF 2751 – Rehabilitation and Sustainable Use of Peatland Forests in South East Asia (ASEAN Peatland Forests Project, APFP)**

### **ANNEX 5: VIETNAM COMPLETION REPORT**

**National Project Executing Agency: Viet Nam Environment Administration (VEA)**

#### **1. Summary**

The ASEAN Peatland Forests Project (APFP) activities in Vietnam have been started since 2009, however only some project activities, which were significant progress through the efforts of VEA, were conducted until 2010 and were. Final evaluation of the project activities was held at Ministry of Natural Resources and Environment in November 2014.

In 2011, the activities focused on determining the Terms of Reference (TOR) for each project component activities. A general agreement was reached between the U Minh Thuong National Park (UMTNP) Management Board and VEA on the framework of the project activities at the demonstration site. Several meetings were held between the National Expert of the Project and consultants/institutes which will cooperate with VEA to carry out project activities. Priority project activities that have been carried out in the pilot site (UMTNP) are the inventory of peatlands, evaluation of socio-economic status in the buffer zone and capacity building for local staff in pilot site (through training workshops).

The first draft of National Action Plans for Peatlands (NAP) now developed. VEA would have been organized one national workshop to finalize the draft, but unfortunately, due to some unforeseen situation (Director of Vietnam Component project took heavy ill for a long time in hospital then he has long time again to prepare and move to another position in Department of Natural Resources and Environment of Quang Ninh Province. Now he is no longer to work for VEA and for the project any more. It has been a long time for the works of project interrupted. VEA is going assign a new person in the roll of director to continue working for project. The NAPP was edited and sent to Administration Office of Vietnam Government for approval at the end of 2014.

Have conducted surveys for collecting and analysing data of peatland resources in Vietnam and especially the U Minh peatland areas of the Mekong Delta, and developed technical guidance for project activities of the Vietnam component, in cooperation with both UMTNP and U Minh Ha National Park (UMHNP) and consultants to carry out project activities in pilot site. Based on project activity, a land use planning in peatlands was analysed and showed the discrepancies between land use planning in local authorities and trends of conservation and sustainable use of peatland resources.

A handbook for conservation and sustainable use of peatlands in U Minh Thuong was published and disseminated to stakeholders and local agencies in peatlands. Capacity of park's staff has been improved through many workshops on role of peatlands and sustainable management of peatlands.

of semi-detailed peatlands map of the Mekong Delta (scale 1:250,000) was completed and a final map is being completed. Map of pealand distribution of UMTNP and UMHNP was completed and the result has been useful for water management to minimize the degradation of peatlands.

A plan of integrated management of water and fires was done and has been applied in U Minh Thuong National Park. There has no any fire in peatland located in U Minh Thuong National Park from 2009 to 2014. This is one of respected results of APFP project activity in pilot site of UMTNP. Technical method of water and fire management that has been applied effectively in UMTNP is transferred to UMHNP (Ca Mau Province). A plan of conservation and rehabilitation of ecosystems and biodiversity conservation in peatlands of UMTNP has been implemented at provincial level.

Aiming to prepare a proposal for sustainable livelihood projects with local communities at UMTNP, a survey to evaluate the present development of socio-economy and livelihood of the local community in the buffer zone of U Minh Thuong National Park was carried out. UMTNP also conducted a quick survey to collect indispensable data to evaluate the livelihood of local communities in buffer zone. From the findings and results of the surveys and understanding of current status of local community livelihoods, suitable types of livelihoods will be chosen to support the development of livelihood towards the protection of peatland resources with the participation of the community in the park buffer zone.

Approximately 2,000 households who are living within the buffer zone of UMTNP participated in the awareness and capacity building programmes. 100 households of the community group were supported and trained on the methods of sustainable agro-forestry production. A sustainable community livelihood project at UMTNP has been developed and implemented. 51 households were selected through competition have been supported by the peatland project to participate in the livelihood development project. Based on the result of evaluation of livelihood development activities, more than 85 % households get more income from this activity.

VEA in collaboration with the National Expert developed proposal of U Minh Thuong National Park becoming ASEAN Heritage Park (AHP). At the field visit to UMTNP during the 5<sup>th</sup> Project Management Meeting and 3<sup>rd</sup> PSC Meeting in November 2011, ASEAN Secretariat suggested U Minh Thuong National Park to be proposed as an AHP and requested the country component to develop a proposal document of U Minh Thuong National Park to submit to the 22<sup>nd</sup> ASEAN Working Group Meeting on Natural and Biodiversity Conservation in March 2012, in Myanmar. UMTNP was designated as ASEAN Heritage Park in 2013.

## **2. Brief Component Description**

### **Background**

The project activities in Vietnam have been implemented since 2009. Although there were some difficulties that delayed project activities, there has been significant progress through the efforts of VEA and Regional Project Executing Agency (RPEA) of the project. This is the Completion Report for the Vietnam Component activities carried out from 2010 to 2014.

The Project focuses on the following activities: (i) strengthening capacity and institutional framework for sustainable peatland management; (ii) reduction of peatland degradation; (iii) integrated management and rehabilitation of selected peatlands; and (iv) involvement of local communities in sustainable peatland management.

Key activities of the project have been focused on the demonstration site at U Minh Thuong National Park where there is an important remnant patch of peatland in the Mekong Delta. Although VEA has received funding from the Project, only a few activities have been carried out under the efforts of VEA so far. The main reason for the slow implementation of activities is a recent change in personnel and the organizational restructuring of VEA.

However, the framework of the project activities in 2011 have been completed with the cooperation between the Environment Agency and other agencies, including the pilot site (UMTNP); it therefore can be confident that the project activity from of the Vietnam Component is well undertaken.

**Project Goals and Objectives**

The overall project goal is to promote sustainable management and rehabilitation of peatlands in Vietnam through capacity building, improved inter-sectoral management and demonstration of best practices in U Minh Thuong National Park (UMTNP).

- Component Sub-Outcome 1: Capacity for sustainable peatland management in Vietnam strengthened
- Component Sub-Outcome 2: The degradation of peatlands in Vietnam minimised through forest management and fire control
- Component Sub-Outcome 3: Peatlands in UMTNP sustainably managed and rehabilitated
- Component Sub-Outcome 4: The local community at UMTNP less dependent on peatlands for their livelihood

**3. Project Achievements against the Logical Framework  
Achievements of the project implementation (November 2009 – December 2014) versus targets in Component Logical  
Framework Matrix**

OUTPUT	LOGICAL FRAMEWORK TARGETS	PROGRESS	ACHIEVEMENTS (%)	REMARKS
Output 1.1 The degradation of peatlands in Vietnam minimised through the implementation of the National Action Plan on Peatlands	<ul style="list-style-type: none"> <li>• National Action Plan finalised &amp; included peatlands for conservation.</li> <li>• 30 % staff trained in peatland management</li> </ul>	<ul style="list-style-type: none"> <li>• The National Action Plan is completed, submitted to the government for approval.</li> <li>• Relevant staffs in central and local levels participated the workshop on peatlands management.</li> </ul>	100	
Output 1.2 Awareness of peatland management in Vietnam raised	<ul style="list-style-type: none"> <li>• Materials on peatland management in general produced.</li> <li>• Materials for pilot site (UMTNP) produced.</li> <li>• Reports from baseline surveys completed</li> </ul>	<ul style="list-style-type: none"> <li>• Some of materials on peatlands such as integrated management of water and fires in peatlands, biodiversity conservation were completed and disseminated to the parks.</li> <li>• Some posters of biodiversity in U Minh Thuong National Park were produced and showed in some places in the park.</li> <li>• Executive Summary of the project reports was disseminated to relevant agencies for the use of peatland management</li> </ul>	100	
Output 2.1 Management of peatlands in Vietnam Enhanced	<ul style="list-style-type: none"> <li>• Inventory of all peatland areas in country published by MONRE</li> <li>• Research Reports published by MONRE</li> </ul>	<ul style="list-style-type: none"> <li>• Inventory of peatlands in Vietnam and Mekong Delta were done and showed in Vietnam Peatland Maps.</li> <li>• Inventory of peatlands in U Minh Thuong and U Minh Ha National Parks were completed in large scale map (1:10,000).</li> <li>• A handbook of peatlands in U Minh region was published and disseminated to stakeholders. Peatland assessment for rehabilitation of forest in peatlands of UMTNP was completed and applied by UMTNP from 2012 – 2014.</li> </ul>	100	

<p>Output 3.1 Support the implementation a site management plan for UMTNP</p>	<ul style="list-style-type: none"> <li>• Site management plan for UMTNP developed and operational,</li> <li>• Buffer zone management plan finalised and operational,</li> <li>• Tourism master plan developed and operational,</li> <li>• 80% of staff at UMTNP trained in peatland management</li> </ul>	<ul style="list-style-type: none"> <li>• Report on assessment of potential risks of forest fires in peatlands of UMTNP and UMHNP.</li> <li>• A five years action plan of U Minh Thuong National Park was completed and approved by the park.</li> <li>• A land use planning of buffer zone of UMHNP was prepared to support the local government.</li> <li>• 100% technical staff and 80% management staff of U Minh Thuong participated technical training courses held in the park and province.</li> <li>• 100 % technical staff of U Minh Ha National Park participated technical training/workshops funded by APFP project.</li> <li>• 100 % of targeted households in buffer zone of UMTNP participated the workshops on values and functions of peatlands.</li> <li>• A project of rehabilitation of <i>Melaleuca</i> forest in UMTNP was prepared and approved by provincial government.</li> <li>• Support for designating ASEAN Heritage Park and approved ASEAN in 2013.</li> </ul>	<p>100</p>	
<p>Output 4.1 Communities in buffer Zone of UMTNP obtaining alternative sustainable livelihood</p>	<ul style="list-style-type: none"> <li>• Survey completed and report ready</li> <li>• Sustainable livelihood project proposals for communities livelihood in Buffer zone approved by Government and/ or NGOs</li> <li>• One project operational</li> <li>• Information and awareness materials developed and disseminated to other interested group</li> </ul>	<ul style="list-style-type: none"> <li>• A report on socio-economic conditions of local community in buffer zone of UMTNP was completed and applied to develop a project of local community livelihood development in buffer zone.</li> <li>• Based on result of livelihood development activity supported from APFP, another livelihood development project funded by GIZ was conducted in buffer zone of UMTNP in 2012.</li> <li>• 51 households receiving support from the project under "Green Contract".</li> <li>• The "Green Contract" considered as lesson-learn has been applied in U Minh Ha National Park successfully.</li> </ul>	<p>100</p>	

## Summary of Achievements

Two large peatland areas in Vietnam have been gazetted as national parks since 2002. Both of parks have been supported by the government and partly from several non-governmental organisations to protect forests and wildlife. However, there are still many shortcomings have led to the degradation of peatland and its resources. Although APFP only implemented for about 3 years and is supported by a modest budget, the project activities have achieved significant results that not only help to better manage the park as well as to stimulate the local governments to provide funds on national park management activities.

What is noteworthy is inventory of peatlands in Vietnam, and detailed mapping of peatland distribution in U Minh Ha and U Minh Thuong National Parks that has been useful for peatland resources management of the parks. Ecosystems and biodiversity of plants have been inventoried and evaluated and the results have facilitated to set up the plan of restoration and sustainable management of natural resources on peatlands.

Improvement of hydrology management has resulted in healthy forest ecosystem development as well as seasonally inundated grasslands, which have been disappeared, have been restored and facilitated as feeding areas of waterfowls.

Total of fifty-five households participated in activities of livelihood development have achieved significant results, including "Green Contract" – the innovative financial mechanism as one of alternative options to support community livelihoods. Through the activities of community livelihood development in the buffer zone of UMTNP, community-based management programme in the park has been applied effectively in the past three years resulting in no forest fire since 2009.

During implementation of the project activities, some good results from project activities in UMTNP has been transferred and applied effectively in U Minh Ha National Park.

## 4. Financial Report 2010 – 2014

### a. Summary table of expenditure of GEF Resources

Table 4e. Summary of financial report based on outcomes for Viet Nam Component

Expenditure category	Overall budget	Cumulative expenditure to end of previous reporting period- 28Jul'2009- 31Dec'2013	Current Period expenditure *-1Jan'2014 to 30Jun'2014	Cumulative expenditure to date	Balance available for future periods
I. Capacity Building	USD 55,000.00	USD 48,185.40	USD 6,746.86	USD 54,932.26	USD 67.74
II. Reduction in Peatland Degradation	USD 44,000.00	USD 41,290.10	USD 2,595.97	USD 43,886.07	USD 113.93
III. Management and Rehabilitation	USD 45,000.00	USD 38,002.28	USD 7,218.96	USD 45,221.24	USD (221.24)
IV. Partnerships	USD 75,000.00	USD 72,056.32	USD 4,153.51	USD 76,209.83	USD(1,209.83)
V. Project Management	USD 11,000.00	USD 6,525.28	USD 4,177.18	USD 10,702.46	USD 297.54
<b>TOTAL</b>	<b>USD230,000.00</b>	<b>USD 206,059.38</b>	<b>USD 24,892.49</b>	<b>USD 230,951.87</b>	<b>USD (951.87)</b>

## b. Co-funding

Table 5e. Summary table for co-funding for Viet Nam Component

<b>Title of Project</b>	Rehabilitation and Sustainable Use of Peatland Forests in South East Asia					
<b>Name of Project party:</b>	Viet Nam Environment Administration					
<b>Target of Co-funding as in project document</b>	<b>USD 335,000</b>					
<b>Source/type of Co-financing</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>TOTAL</b>
<b>In-cash co-financing</b>						
Co-funder 1 <i>Restoration of Melaleuca forest has been of 500 hectares in UMTNP</i> From Kien Giang Provincial Government	-	25,000	25,000	25,000	10,000	85,000
Co-funder 2 <i>Alien vegetation control in the park in UMTNP</i> From Kien Giang Provincial Government	-	80,000	10,000	10,000	10,000	110,000
Co-funder 3 <i>Local community livelihood development in buffer zone of UMTNP</i> From GIZ-Kien Giang	-	-	15,000	15,000	-	30,000
Co-funder 4 <i>Restoration of Melaleuca forest has been of 500 hectares in UMHNP</i> From ENRICH-SNV	-	10,000	20,000	35,000	5,000	70,000
Co-funder 5 <i>Integrated management of water and fire in peatlands of UMHNP</i> From ENRICH-SNV	-	-	-	30,000	10,000	40,000
Co-funder 6 <i>Restoration of Melaleuca forest of 30 hectares in UMTNP</i> From ENRICH-SNV	-	-	-	-	15,000	15,000
<b>Total In-cash co-financing</b>		<b>115,000</b>	<b>70,000</b>	<b>115,000</b>	<b>50,000</b>	<b>350,000</b>
<b>In-kind Co-financing</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>TOTAL</b>
Co-funder 1 <i>UMTNP staff and managers had facilitated the initial development and implementation of project activities.</i>	4,000	6,000	10,000	10,000	3,000	33,000
Co-funder 2 <i>VEA staff and managers supported during project activities implementation.</i>	-	5,000	10,000	10,000	3,000	28,000
Co-funder 3 <i>Facilitated for local community livelihood development in buffer zone of UMTNP</i>	-	7,000	10,000	10,000	3,000	30,000

<b>Title of Project</b>	Rehabilitation and Sustainable Use of Peatland Forests in South East Asia					
<b>Name of Project party:</b>	Viet Nam Environment Administration					
<b>Target of Co-funding as in project document</b>	<b>USD 335,000</b>					
<b>Source/type of Co-financing</b>	<b>2010</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>TOTAL</b>
<b>In-cash co-financing</b>						
Co-funder 4 <i>Facilities and equipment ( furniture, boats, ..) to be used during project implementation</i>	-	65,000	60,000	70,000	49,000	244,000
Co-funder 5 <i>Finding sources of the in-cash co-funding from local government and NGOs, and facilitated for these projects implementation from 2012 to 2014.</i>	-	-	20,000	15,000	4,000	39,000
<b>Total of in-kind co-financing</b>	<b>4,000</b>	<b>83,000</b>	<b>110,000</b>	<b>115,000</b>	<b>62,000</b>	<b>374,000</b>
<b>TOTAL of in-cash and in-kind co-financing</b>	<b>4,000</b>	<b>198,000</b>	<b>180,000</b>	<b>230,000</b>	<b>112,000</b>	<b>724,000</b>

### Comment on Co-funding

Most of the co-funding was set up in the APFP-Vietnam Component referred to "in-kind" contribution only. However, in the period of the APFP activities, besides of in-kind co-financing we tried to contact the NGOs and other organizations which are operating their project in the Mekong Delta to share the objectives and activities of APFP that could be cooperated to conduct some activities in peatlands. The ideas of natural resources protection and initial results of the APFP activities were concerned by SNV and GIZ. They have supported some activities in U Minh Ha and U Minh Thuong National Parks. There has been continuous support from the SEApeat project to the APFP activities at UMTNP and UMHNP.

In addition, although the APFP project activities were implemented only the first year, the initial results of the APFP activities were showed to the provincial authorities to address the issues in peatlands of the parks that needs to be conducted and supported from the local authorities.

Therefore, the project consultants have played an important role in the link between the project's activities and the activities of NGOs and local governments to be shared and supported practical activities.

## 5. Lessons Learned

### a. Related to project management, administration and institutional arrangement

After two years of implementation of the project activities, units and technical consultants have achieved positive impact from the project activities in the demonstration site (UMTNP) and other areas such as U Minh Ha National Park (in Ca Mau Province).

An understanding of the aspirations of the local community and the park managers on peatlands is very important. Therefore, national expert needs to have a lot of time on peatlands.

TOR of each activity was done clearly and then consultants followed up to complete the project activities.

Although project management office (VEA) located in Hanoi and demonstration site (U Minh Thuong National Park) at the southernmost region of South-Vietnam, a distance of over 2000 km, from coordination of project activities through national experts and consultants in the southern part who were responsible to implement the project activities in pilot site resulted in more favourable conditions.

The good relationship between national expert and consultants in implementing the project activities, and regular monitoring and supervision of the project activities successfully completed the project on schedule.

However, a number of workshop activities on capacity building for local staffs held at the pilot site, which was conducted by VEA has caused unnecessary high costs due to the cost of travel of many participants from Hanoi to the Southern.

### b. Related to technical deliveries of planned activities and results

Evaluate each phase of the APFP-Vietnam Component activities, which was applied soon without waiting for the end of the project activities. *For examples:*

- *Integrated management of water and fire in peatlands in UMTNP will transferred to peatlands of UMHNP.*
- *The Green Contract applied in U Minh Thuong National Park has been applied in buffer zone of UMHNP at the end of 2013.*
- *Technical method for peatlands inventory applied in U Minh Thuong National Park has been applied for peatlands inventory of U Minh Ha peatlands in 2014*

Knowledge of the local staffs on peatland management in Mekong Delta was enhanced through training courses and capacity building programmes.

Sharing the results of APFP activities with local authorities and NGOs, through which Vietnam Component can get a consensus and support from them.

A good relationship between consultants/national experts and local governments and parks managers resulted in good project activities.

## 6. Conclusion

After two years of implementation of the project activities, units and technical consultants have carried out pretty good for each issue the project activities in the demonstration site (UMTNP) and other areas such as U Minh Ha National Parks (in Ca Mau Province).

Peatlands resources management in pilot site was done well. The project results have been applied for rehabilitation and conservation of ecosystem and peatlands biodiversity in UMTNP.

Local staff's knowledge on management of peatland resources has been improved through training and participation of the project activities. Results of project activities have facilitated management of peatlands in UMTNP effectively, particularly water and fire management in peatland forests.

Local community livelihoods in the buffer zone of the park has been improved significantly in recent years, and community-based management of national park through local community livelihood development project resulted in no illegal activity, no fires in UMTNP since 2009.

## 7. Recommendations

### a. For implementation of similar projects in future

The implementation of APFP has achieved the expected results. However, there are still many issues will have to continue in the future:

- *Capacity building for local managers and local staff in peatlands of Mekong Delta and particularly in pilot sites (U Minh Ha and U Minh Thuong National Parks).*
- *Awareness enhancements of local communities who are living and dependent in peatlands resources in the Mekong Delta.*
- *Develop suitable management plan of peatland ecosystems of U Minh Ha and U Minh Thuong National Parks.*
- *Develop activities on rehabilitation of ecosystems and biodiversity in peatlands of U Minh Thuong and U Minh Ha National Parks*
- *Institutional strengthening and capacity building for the rescue activities of wildlife species on peatlands which species are in the IUCN Red List*
- *Support for activities of environmental education and ecotourism in two peatlands national parks (U Minh Thuong and U Minh Ha).*
- *Develop activities that limit invasive species in peatlands of U Minh Ha and U Minh Thuong National Parks.*

### b. For continuing or scaling-up of current project results

- *Support activities of local community livelihood development in peatlands of U Minh Thuong and U Minh Ha National Parks.*
- *Support local governments to have a plan on sustainable use of peatland resources in Mekong Delta to restrict the exploitation of peatlands for the other uses.*

**Annex 1: List of Publications (books, leaflets, videos, etc.)**

Date Produced	Description/ Name	Type of Publication (book, video, etc.)	Quantity Produced	Language
2010	Ecosystems and biodiversity of U Minh Thuong National Park (13-minute TV film shot for national and international info sharing)	Video	10	Vietnamese, English
2011	Peatland assessment in U Minh Region	Technical Report	20	Vietnamese
2011	Value and function of peatlands in U Minh Region	Technical Report	30	Vietnamese
2012	National Action Plan: Sustainable Use and Protection of Viet Nam Peatlands (NAP) – to be approved/endorsed by the government of Viet Nam	Booklet	2	Vietnamese
2012	Guidelines for integrated management of water and fires in peatlands	Technical Report	30	Vietnamese
2012	Biodiversity in peatlands of U Minh Thuong National Park (UMTNP)	Poster	20	Vietnamese
2012	Waterfowl conservation in peatlands of U Minh Thuong National Park	Poster	30	Vietnamese, English
2012	Issues of protection of peatlands natural resources in Mekong Delta: Habitats and Biodiversity	Leaflet	45	Vietnamese
2012	Natural resources of peatlands in U Minh Thuong National Park	Video	45	Vietnamese
2012	Guidelines and Process: Green Contract: Principal Contract on Community Livelihood Development at U Minh Thuong National Park Buffer Zone	Technical Report & Booklet	120	Vietnamese, English
2012	Protected Resources on Peatlands in Ca Mau Province	Technical Report	50	Vietnamese
2012	Green Contract	PDF		English
2012	Vietnam Peat Video	Media file		Vietnameses
2012	Bảo Vệ Tài Nguyên Trên Vùng Đất Than Bùn Tỉnh Cà Mau	PDF		Vietnamese
2012	Chức năng và vai trò đất than bùn trong bối cảnh biến đổi khí hậu	Powerpoint		Vietnamese

2012	Một số vấn đề quản lý tổng hợp mực thủy cấp và phòng cháy rừng trầm trọng vùng đất than bùn (INTEGRATED MANAGEMENT OF WATER AND FIRE IN PEATLANDS)			Vietnamese
2012	Một số vấn đề quản lý động vật hoang dã trong khu vực bảo tồn thiên nhiên (SOME ISSUES OF MANAGEMENT OF WILDLIFE IN PEATLANDS)			Vietnamese
2012	Báo Cáo Tăng Cường Các Biện Pháp Kiểm Soát Ph.Ng Cháy Rừng Cho Các Khu Vực Đất Than Bùn U Minh Kiên Giang Và Cà Mau (Fire Prevention In Peatlands)	Powerpoint/PDF		Vietnamese
2012	201210 Guideline Dat than bun U Minh	Booklet/PDF		Vietnamese
2013	Restoration and conservation of ecosystems and biodiversity in peatlands	leaflet	30	Vietnamese
2013	Peatland in UMTNP: Value, function, habitats, biodiversity and community in buffer zone	Leaflet	1,000	Vietnamese
2013	Ecosystems and biodiversity in peatlands of U Minh Thuong National Park	Booklet	1,000	Vietnamese
2013	Evaluation of socio-economic conditions in order to prepare a proposal for sustainable livelihoods projects with local community in buffer zone of U Minh Thuong National Park	Technical Report	20	Vietnamese
July 2013	Changes of plant ecosystems and biodiversity after improving of hydrological management in peat swamp of U Minh Thuong National Park, Kien Giang Province	Booklet	60	Vietnamese
December 2013	A handbook of peatlands in U Minh region	Booklet	100	Vietnamese
December 2013	Inventory of peatlands in Vietnam and Mekong Delta	Booklet	50	Vietnamese
December 2013	Inventory of peatlands in U Minh Thuong National Parks scale map (1:10,000)	Map	20	Vietnamese
December 2013	Ecosystems of U Minh Thuong National Park (1:10,000)	Map	20	Vietnamese
December 2013	Land cover in U Minh Thuong National Park (1:10,000)	Map	10	Vietnamese
December 2013	Assessment of conservation and land-use in peatlands of U Minh region.	Technical Report	100	Vietnamese
December 2013	Plan of socio-economic development of buffer zone of	Technical Report		Vietnamese

December 2013	UMTNP, Kien Giang Province Strengthen measures to prevent forest fires on peatlands U Minh region.	Technical Report			Vietnamese
December 2013	Buffer Zone Development Plan (sustainable livelihood projects) for socio-economic development of buffer zones: UMTNP, Kien Giang, & U Minh Ha National Park, Ca Mau	Technical Report	20		
December 2013	Promoting measures for fire prevention and control in peatlands of U Minh Region	Technical Report	45		
2013	5-year Action Plan for U Minh Thuong National Park (2015-2019)	Technical Report	40		
2013	Đề nghị U Minh Thượng là vườn di sản ASEAN (U Minh Thượng proposed as an ASEAN Heritage Park)	Magazine article /PDF	100		Vietnamese
2013	Hiện trạng và giá trị của các vùng đất than bùn trong khu vực Đông Nam Á (Status and values of Peatlands in Southeast Asia)	Magazine article /PDF	100		Vietnamese
2014	Biodiversity of U Minh Thuong National Park	Poster	20		Vietnamese
2014	Waterfowl conservation in Peatlands of U Minh Thuong National Park	Poster	30		English
2014	Ecotourism Master Plan for U Minh Thuong National Park	Technical Report	60		Vietnamese
March 2014	Field assessments of peatlands in UMTNP and contribution to refinement and implementation of the park management plan & development of buffer zone plans	Technical Report	45		Vietnamese
March 2014	Promoting the incorporation of peatland conservation into land-use planning for water resource management, agriculture and forest management	Technical Report	45		Vietnamese
December 2013	Training Module: Sustainable peatland management	Technical Report	30		Vietnamese
December 2013	Birds of U Minh Thuong National Park	Technical Report	30		Vietnamese
	Peatland Ecosystems, ĐẤT THAN Bùn VÀ HỆ SINH THÁI	Powerpoint			Vietnamese
	DỰ ÁN PHỤC HỒI VÀ SỬ DỤNG BỀN VỮNG TÀI NGUYÊN ĐẤT THAN Bùn, VÙNG ĐÔNG NAM Á, Workshop on Biodiversity Rehabilitation and Conservation of Peatlands in Lower Mekong Delta, Vietnam	Powerpoint			Vietnamese
	201401 Green Contract	PDF			Vietnamese
	Peat hydrology management experiment	Powerpoint/PDF			Vietnamese

**Annex 2: List of Facilities developed/supported by project/co-funding (education displays, demonstration sites, etc.)**

Location	Description/ Name	Funded by project/ co-funding (USD)	Managed by	Status
UMTNP	Restoration of Melaleuca forest of 500 hectares in UMTNP	Kien Giang Provincial Government (USD 85,000)	UMTNP	Still going on
UMTNP	Alien vegetation control in the park in UMTNP	Kien Giang Provincial Government (USD 110,000)	UMTNP	Finished
UMTNP	Local community livelihood development in buffer zone of UMTNP	APFP and GIZ-Kien Giang (USD?)	UMTNP and GIZ-Kien Giang	Finished
UMHNP	Integrated management of water and fire in peatlands of U Minh Ha National Park	ENRICH-SNV (USD 40,000)	ENRICH-SNV	Finished
UMHNP	Restoration of Melaleuca forest of 30 hectares in UMTNP	ENRICH-SNV (USD 15,000)	ENRICH-SNV and UMHNP	Still going on
UMHNP	Local community livelihood development in buffer zone of UMTHP	SEApeat (USD?)	GEC	Still going on
UMHNP, UMTNP	Develop a plan of environmental education and eco-tourism in U Minh Ha and U Minh Thuong National Park	SEApeat (USD?)	GEC	Still going on

**Annex 3: List of agencies/main stakeholders involved in the component implementation**

Name of organisation	Location	Role in project	Contact person	Contact email or phone
U Minh Thuong National Park	U Minh Thuong District, Kien Giang province	Coordinate the implementation of the project activities in pilot site	Nguyen Van Huong Director of UMTNP	letuyenumt@gmail.com
U Minh Ha National Park	Vo Doi District, Ca Mau Province	Coordinate the implementation of the project activities in pilot site	Nguyen Thanh Nguyen Director of UMHNP	ntantruyen@yahoo.com.vn
Kien Giang People Committee	Rach Gia City	Coordinate the implementation of the project activities in pilot site (UMTNP)	Nguyen Hoang Nam Deputy-Chair of PPC	
Center for Environment Science and Ecology (CESE)	Ho Chi Minh City	Coordinate with consultants to promote the implementation of project activities in pilot sites	Asci. Prof. Dr. Nguyen Thi Van Ha Huynh Tan Kiet	ntvha2003@gmail.com huynhtankiet2001@yahoo.com

**Annex 4: List of beneficiaries or beneficiary groups receiving direct support under community-based aspects of project**

	Name of person/community group	Location	Type of support	Cost of support	Income after one and haft years	
					USD	VN Dong
	TỔ VĂN THÀNH	U Minh Thuong (UMT)	Agricultural production	750	<b>16,000,000</b>	780.48
2.	TỔ THỊ HỒNG	UMT	Agricultural production	750	24,000,000	1,170.73
3.	DU TẤN BỜ	UMT	Agricultural production	750	ND	
4.	CAO HOÀI THẠNH	UMT	Agricultural production	750	ND	
5.	ĐÀO TRƯỜNG SINH	UMT	Agricultural production	750	ND	
6.	VÕ VĂN QUANG	UMT	Agricultural production	750	ND	
7.	TRẦN VĂN DÔ:	UMT	Agricultural production	750	ND	
8.	NGUYỄN VĂN THUẬN	UMT	Agricultural production	750	ND	
9.	TRƯƠNG VĂN NỮA	UMT	Agricultural production	750	39,000,000	1,902.44
10.	NGUYỄN VĂN PHÚC	UMT	Agricultural production	750	ND	
11.	PHẠM HỒNG Ý	UMT	Agricultural production	750	12,000,000	585.36
12.	HỒ VĂN VUI	UMT	Agricultural production	750	9,300,000	453.65
13.	TRƯƠNG VĂN DÙNG	UMT	Agricultural production	750	63,000,000	3073.17
14.	TRẦN THỊ THÚY	UMT	Agricultural production	750	ND	
15.	NGUYỄN THỊ CỎ	UMT	Agricultural production	750	ND	
16.	NGUYỄN VĂN MƯỜI MỘT	UMT	Agricultural production	750	ND	
17.	LÊ VĂN THUYỀN	UMT	Agricultural production	750	6,000,000	292.68
18.	NGUYỄN VĂN HUNG	UMT	Agricultural production	750	36,000,000	1,756.10
19.	NGUYỄN VĂN HÒA	UMT	Agricultural production	750	45,000,000	2,195.12
20.	NGUYỄN QUỐC TIẾN	UMT	Agricultural production	750	25,000,000	1,219.51
21.	TRẦN MINH HOÀNG	UMT		750	60,000,000	2,926.83
22.	PHẠM VĂN KHÔI	UMT	Agricultural production	750	23,000,000	1,121.95
23.	PHẠM MINH NHẬT	UMT	Agricultural production	750	38,000,000	1,853.66
24.	NGUYỄN THỊ CHÂU	UMT	Agricultural production	750	2,000,000	95,20
25.	NGUYỄN PHÚ CƯỜNG	UMT	Agricultural production	750	50,000,000	2,439.02
26.	NGUYỄN VĂN MẾN	UMT	Agricultural production	750	67,000,000	3,268.29

	Name of person/community group	Location	Type of support	Cost of support	Income after one and haft years	
					USD	VN Dong
27.	LÊ VĂN MƯỜI	UMT	Agricultural production	750	50,000,000	2,439.02
28.	TRẦN VĂN OAI	UMT	Agricultural production	750	53,000,000	2,585.36
29.	DƯƠNG VĂN CHIẾN	UMT	Agricultural production	750	2,000,000	95,20
30.	PHAN THÀNH BIỂN	UMT	Agricultural production	750	59,000,000	2,878.05
31.	TRẦN THỊ NHANH	UMT	Agricultural production	750	30,000,000	1,463.42
32.	PHAN THỊ HỒNG	UMT	Agricultural production	750	60,000,000	2,926.83
33.	DANH ĐỨC	UMT	Agricultural production	750	2,000,000	95,20
34.	NGUYỄN VĂN HẢI	UMT	Agricultural production	750	2,000,000	95,20
35.	TRẦN BÉ BA	UMT	Agricultural production	750	2,000,000	95,20
36.	CHUNG QUỐC TUẤN	UMT	Agricultural production	750	36,000,000	1,756.10
37.	LÝ VĂN NỮA	UMT	Agricultural production	750	6,000,000	2,92.68
38.	PHẠM VĂN TƯ	UMT	Agricultural production	750	2,000,000	95,20
39.	CHÂU VĂN THẮNG	UMT	Agricultural production	750	2,000,000	95,20
40.	PHẠM VĂN THỐNG	UMT	Agricultural production	750	2,000,000	95,20
41.	PHẠM ANH VĨNH	UMT	Agricultural production	750	5,000,000	243.90
42.	NGUYỄN THỊ CAM	UMT	Agricultural production	750	2,000,000	95,20
43.	NGUYỄN VĂN TUẤT	UMT	Agricultural production	750	2,000,000	95,20
44.	HUỲNH VĂN HÙNG	UMT	Agricultural production	750	2,000,000	95,20
45.	LÊ TRINH	UMT	Agricultural production	750	2,000,000	95,20
46.	NGUYỄN VĂN ĐIỆN	UMT	Agricultural production	750	11,000,000	536.58
47.	ĐINH VĂN DŨNG	UMT	Agricultural production	750	2,000,000	95,20
48.	NGUYỄN VĂN DIỆP	UMT	Agricultural production	750	2,000,000	95,20
49.	NGUYỄN VĂN VŨ	UMT	Agricultural production	750	16,000,000	780.48
50.	HỒ VĂN TUẤN	UMT	Agricultural production	750	14,000,000	682.92
51.	HUỲNH VĂN THỌ	UMT	Agricultural production	750	2,000,000	780.48

**Annex 5: Photographic summary**



Inception Workshop on APFP activities in HCM City, 21 June 2010. Vice-Minister of MONRE - Prof. Dr. Bui Cach Tuyen gave a speech about goals and activities of APFP-Vietnam Component. Field trip in U Minh Thuong National Park after the initial workshop. 22 June 2010.



Training workshop on rehabilitation and conservation of peatland in U Minh Thuong National Park. on 23 October 2011



Workshop on establishing sustainable livelihood demos with participation of local community in the buffer zone of UMTNP. 22 October 2011



Households in buffer zone of UMTNP attended the workshop and participated the community livelihood development project. 22 October 2011.



Several models of agricultural production of communities participated livelihood development project in the buffer zone of UMT National Park





Workshop on establishing sustainable livelihood demos with participation of local community in the buffer zone of U Minh Thuong National Park. 22 October 2011



Households in buffer zone of UMTNP attended the workshop and participated in the community livelihood development project. 22 October 2011.



Field visit in pilot site (UMTNP) by MONRE and governmental agencies, June 2013.



Dicussion meeting on The five years action plan of UMTNP, October 2013.



Field training for local staffs in U Minh Thuong and U Minh Ha National Parks. February 2012.



Surveys for peatland assessment in U Minh Thuong and U Minh Ha National Parks in March to June 2012.

ANNEX 5: VIET NAM COMPONENT COMPLETION REPORT



Study tour of Malaysian Group had exchanges of experiences in APFP implementation in U Minh Thuong National Park.



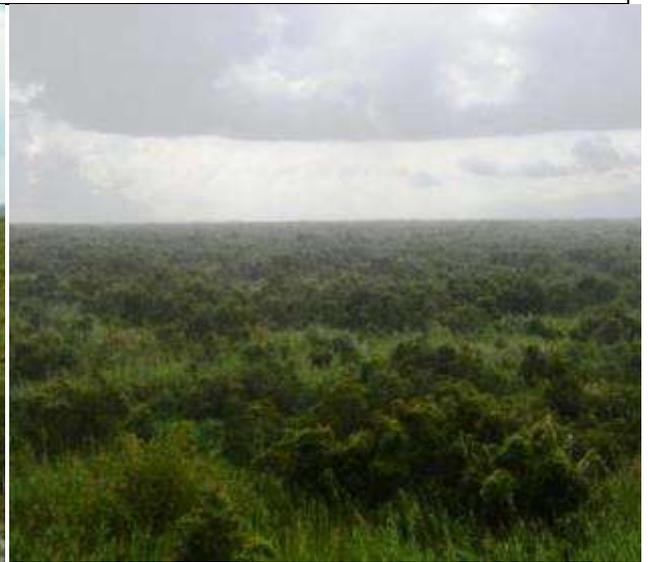
Mid-term review of activities of APFP-Vietnam Component in UMTNP from 27 - 29 October 2012.



Project results in biodiversity were made into posters placed in the UMTNP



Through APFP-Vietnam activities UMTNP was recognized as ASEAN Heritage Park in 2012, and a meeting held to pass on the certificate to the UMTNP.



Changes of landscape of *Melaleuca* forest after three years project implementation in UMTNP. Left photo taken in Sep. 2009, and right photo in July 2014



Final workshop on activity results of APFP-Vietnam Component held in 11 December 2013.



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