

**PROPOSAL FOR RECOVERY PROJECT
FOR PROSPER**

**CONSERVATION OF SE PORTION OF NORTH SELANGOR PEAT
SWAMP FOREST
PHASE 1 - BUKIT BELATA (EXT) FOREST RESERVE**



**Prepared by : Global Environment Centre
5 March 2020**

1. Introduction

This proposal provides a concept for the First Phase of a Recovery Project for Prosper Palm Oil Mill Sdn Bhd (hereinafter referred to as Prosper). It has been prepared by the Global Environment Centre (hereinafter referred to as GEC) at the request of Prosper following a meeting held at GEC office on 30 January 2020 with revisions following a second meeting on 4 March 2020.

Prosper is a medium-sized Malaysian-owned player in the oil palm sector with a total of 10 palm oil mills in Malaysia, as well as oil palm plantations in Selangor, Negeri Sembilan and Pahang. It has a relationship with Far East Holdings Bhd which has significant oil palm plantations in Pahang as well.

In September 2018, Greenpeace International highlighted in its publication “Final Countdown” that a major shareholder of Prosper (Tee Family) had invested in a project to develop oil palm plantations in a forested region of Papua New Guinea (Bewani Oil Palm Plantations Limited - BOPPL) and that this was leading to significant deforestation. Subsequently, a number of clients/trading partners of Prosper (including Bunge Lodgers, Cargill, Mewah Oils & Fats/AAK, Wilmar International, IOI and KLK) restricted their purchases and requested Prosper to upgrade its policies and initiate certain recovery actions for the Tee Family.

In early 2019, the related shareholder divested their holdings in BOPPL, but acknowledged that they retain some responsibility for addressing the impact of the forest loss in PNG. Subsequently, Prosper took a number of actions under guidance of key partners including Wilmar and Earthworm Foundation. On 30th April 2019 it adopted its first NDPE Sustainable Palm Oil Policy (which was later revised on 10th October 2019). It also started exploring options to develop a Recovery Plan to in some way offset the impact of the earlier activities of the related shareholder.

In January 2020, Bunge Lodgers recommended that Prosper consider working with the Global Environment Centre, a Malaysian Non-profit organisation specializing in community-based forest and peatland restoration and best management practices for the oil palm sector. A meeting between Prosper Group and GEC was organized on 30 January 2020.

2. Understanding of the requirements for the Recovery Plan

Wilmar and other supply chain partners have specified¹ that suppliers already in registered grievance cases will be required to submit their Recovery Plans commensurate with the scale of their non-compliant development. The Recovery Plans may include options to protect and restore forest, bare land and/or peat swamps and to assist local communities to secure social forestry rights. The target set for Prosper was to develop a recovery plan by the end of 2019, so there is some urgency in having an acceptable plan developed.

Similar to the Remediation and Compensation Procedure (RaCP) which is applied when RSPO member companies have developed areas without undertaking a prior HCV assessment, Recovery Plans should meet certain basic requirements. The RaCP highlights that potential projects would need to be designed and managed to create significant conservation outcomes, be economically viable/sustainable and be relevant within the landscape & regional context.

¹Joint statement on creating a deforestation-free palm oil supply chain stepping up efforts in supplier group mapping and engagement (Wilmar and Aidenvironment) 7 December 2018.

The RSPO RaCP guidelines provide four key criteria for conservation outcomes. Potential projects need to be:

1. Additional
2. Long lasting
3. Equitable
4. Knowledge-based

Additionality

Potential projects ideally will need to build on the current situation and not already being implemented. If the project is already existing, the project needs to be amended or extended to improve conservation outcomes beyond what is currently being achieved or funded.

Long lasting

Potential projects will need to deliver outcomes that last a minimum of 25 years, and ideally in perpetuity. The project proponent would also need to justify why conservation outcomes do not last beyond the minimum period, hence the desire to be of a longer duration for protection. In addition, the proponent would need to provide evidence that the project proponent will have the capacity and resource to deliver conservation outcomes. Legal safeguards and long-term financial viability will need to be developed to ensure the project is feasible and viable throughout the project lifespan.

Equitable

Project development will need to involve and engage affected stakeholders in planning, decision making and implementation. This would require fair and balanced sharing of responsibilities and rewards, and respect for any legal and customary arrangements.

Knowledge-based

Projects need to draw on the latest knowledge and science related to the specific sites selected and their ecological characteristics and requirements. They should draw on recent assessments of the sites and also local stakeholders and communities.

The projects should also be of a scale appropriate to the size of the impact that they are offsetting. Based on information provided by Prosper, a Land Use Change Analysis (LUCA) exercise was conducted by Wilmar at the request of Prosper on the Project Area in PNG and indicated that there was a conservation liability of 9,076 ha for the period 1st Jan 2016 to 1st Feb 2019. Since the activity in PNG was not directly undertaken by Prosper and the interest in the project has been divested by the related shareholder, it is not appropriate to undertake the recovery project in situ in PNG. In addition, since the involvement was indirect and none of the companies concerned was a member of RSPO or had a commitment to NDPE at the time – Prosper feels that it is not required to consider a project to purchase or establish a totally new conservation area of the same size. Nevertheless, the project selected should be of a reasonable size and involve an appropriate investment over the long term.

3. Proposed Project Site

Following a joint meeting between the representatives of Prosper and GEC in 30 January 2020, it has been proposed to support protection of Bukit Belata (Extension) Forest Reserve as well as rehabilitate selected degraded areas within it. The selection of the proposed site has been made for the following reasons:

- a) The rehabilitation site is located within 1km of Tagar Properties Sdn Bhd, a plantation partly owned by Prosper.
- b) It is located within of Bukit Belata (Extension) Forest Reserve. Therefore, the rehabilitated forest will be legally protected over the long term.
- c) Portions of the site are degraded and covered with grass and shrubs, which are very prone to fire. The rehabilitation will prevent peatland fires and haze and reduction in GHG emissions
- d) The activities can be scaled-up to include an additional adjacent portion of Raja Musa Forest Reserve, if the program can attract additional funds.

The proposed Recovery Project will be to support protection and rehabilitation of an initial area of 3,140 ha of lowland and peat swamp forest in part of Bukit Belata (extension) Forest Reserve. This forest reserve was originally gazetted in 1966 but is facing increasing challenges from drainage, fire and degradation linked to development of plantation and agriculture along its boundary. The recovery project will support the State forestry department to rehabilitate degraded portions and establish longer-term systems for protection and monitoring of the remainder of the forest. The forest is located in the southeast portion of the North Selangor Peat Swamp Forest near to Tagar Properties Sdn Bhd. Based on the progress and resources available, the targeted area could be enlarged over time to about 9,100ha by including an adjacent portion of the Raja Musa Forest Reserve

The North Selangor Peat Swamp Forest (NSPSF) is the largest contiguous area of peat swamp forest remaining in Peninsular Malaysia. It covers an area of 81,304 hectares within various forest reserves – as in the Table 1.

Table 1:

No.	Forest Reserve	Size (ha)
1.	Raja Musa Forest Reserve	35,656
2.	Sungai Karang Forest Reserve	37,417
3.	Bukit Belata (Extension) Forest Reserve (partial)	3,140
4.	Sungai Dusun Wildlife Reserve / Sungai Dusun Forest Reserve	5,091
	Total	81,304

The North Selangor Peat Swamp Forest is of global significance for biodiversity with many rare and endangered species of animals and plants including: Tapir, Malayan Sun Bear, Black Panther, False Gharial (freshwater crocodile), hornbills and 124 species of fish including 6 newly described endemic species found no-where else in the world. Before being constituted as forest reserves in 1992, the forests were state lands which had been intensively logged over a period of 30 years. Consequently, the condition of the forest is quite disturbed and the forest stand is only of medium to low density. There is also a total of 670km of abandoned log extraction and drainage canals that cut through the forest, degrade it and make it susceptible to fire. The location of the site is shown in Figures 1 and 2.

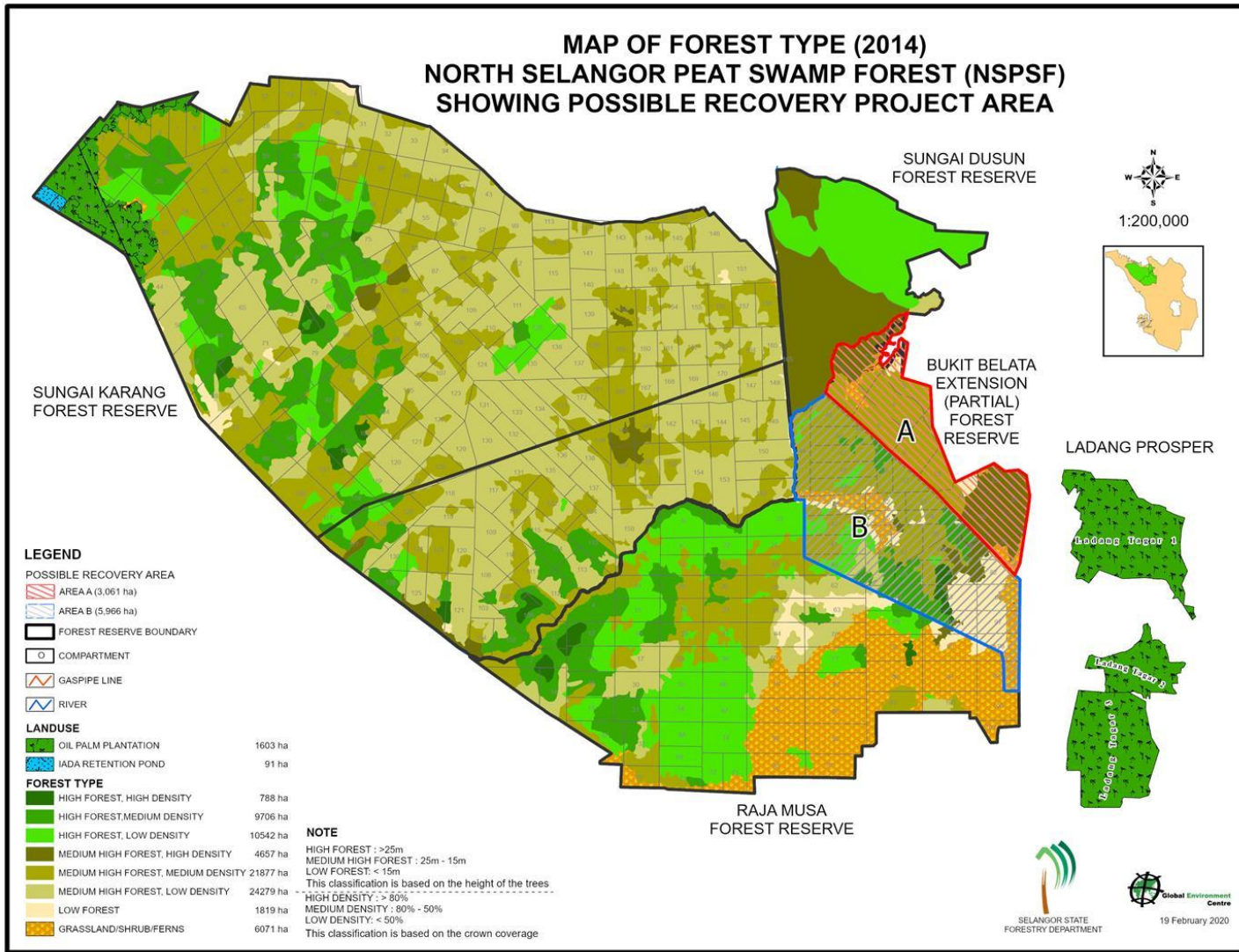


Figure 1: Forest Type map of North Selangor Peat Swamp Forest showing proposed project site (A) - Bukit Belata Forest Reserve (3,140ha)- and possible future expansion area (B) in Raja Musa Forest Reserve (5,966 ha).

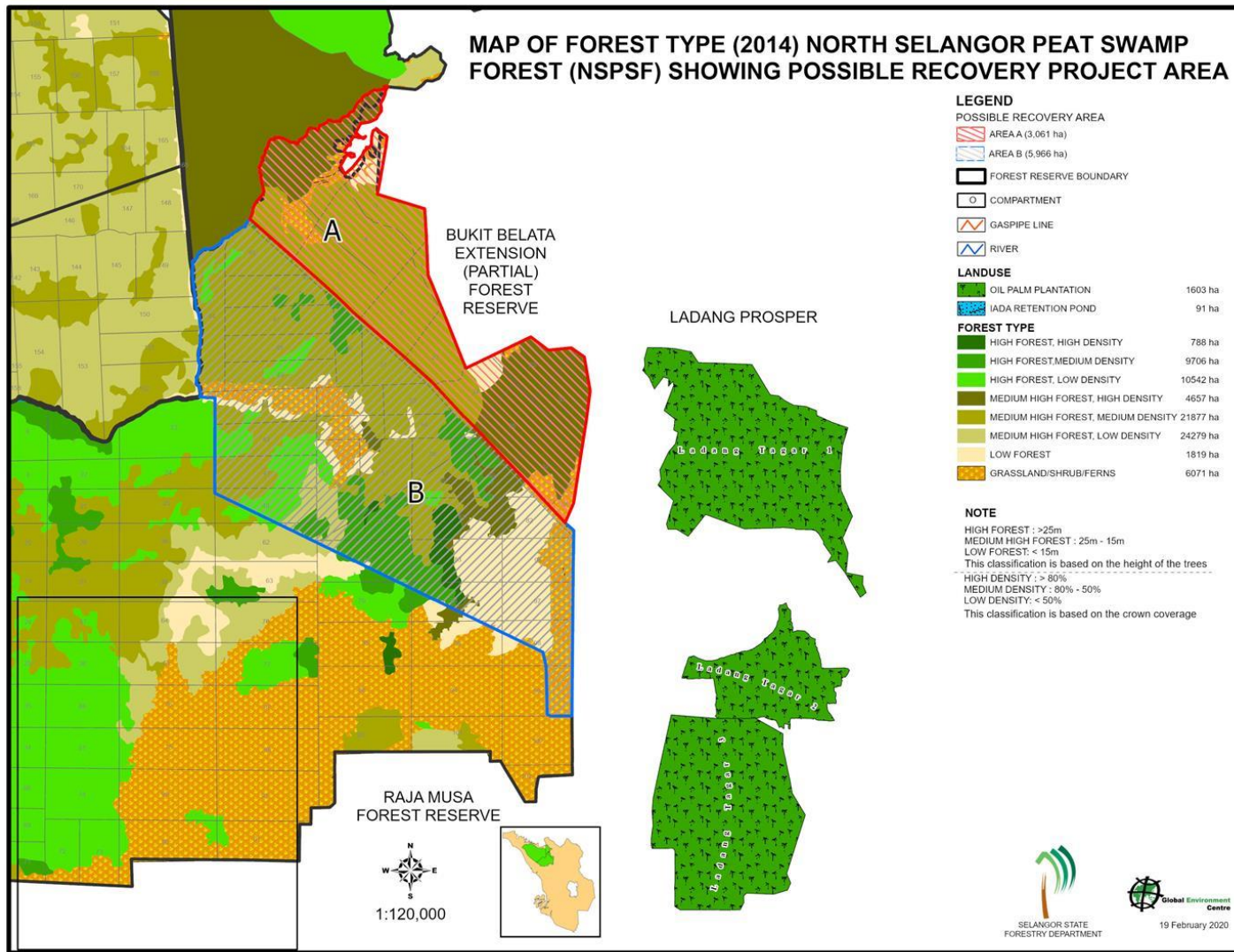


Figure 2: Close up image showing in more detail the proposed project site in relation to the location of the three nearby plantations (Ladang Tagar) partly owned by Prosper.

Several parts of the Bukit Belata (Extension) Forest Reserve have been susceptible to fire in the past 10 years. An area of about 1,000ha of forest in the Bukit Belata (Extension) and adjacent buffer zone have burnt periodically over the last 10 years. GEC and the Selangor State Forestry Department have been rehabilitating some of the degraded areas in the adjacent Raja Musa Forest Reserve and Sungai Karang Forest Reserve in recent years to improve the quality of the forest and habitat for biodiversity, but have yet to start any activities in Bukit Belata.

The main management issues in the Bukit Belata Forest Reserve include:

- a) Encroachment by local settlers
- b) Drainage canals in the forest reserve, linked to adjacent agricultural land and from earlier logging activities
- c) Periodic forest and peatland fires
- d) Active expansion of agriculture and plantations along the boundary of the forest reserve leading to frequent fires and encroachment.

As a result of limited resources, the State Forestry Department has not been able to address these management issues.

Fires burning in Bukit Belata Forest Reserve are shown in Figure 3.



Figure 3: Fires burning in Bukit Belata (extension) Forest Reserve

Drone photographs of the area taken in February 2020 are shown in Figure 4-6.



Figure 4: Degraded portion of Bukit Belata FR linked to previous and ongoing encroachment



Figure 5: Degraded forest on peatland along boundary of Bukit Belata FR



Figure 6: Site for recent planting site of trees by GEC in adjacent Raja Musa Forest Reserve

An Integrated Management Plan has been developed (facilitated by GEC) for the NSPSF covering the period 2014-2023. The Plan specifies a large number of actions that need to take place to prevent further degradation and fires in the forest and the rehabilitate the degraded portions. It has been divided into a number of management zones as shown in Figure 7.

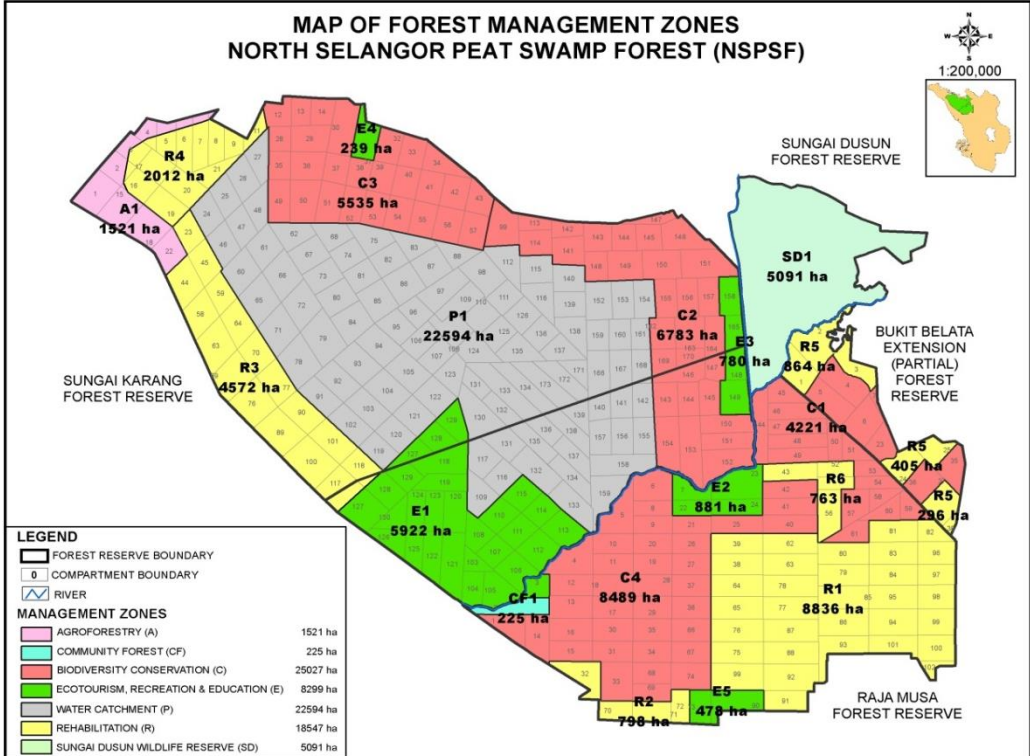


Figure 7: Management zones in North Selangor Pear Swamp Forest (yellow is rehabilitation; pink is conservation; green is education and ecotourism)

A total of 1,365ha of the Forest Reserve has been zoned for rehabilitation while the balance is zoned for conservation. In addition, about 650ha in the adjacent 1km wide buffer zone needs to be managed and rehabilitated, in conjunction with the local community to prevent fires in the reserve.

The target areas are located on the Forest Compartments 1, 2, 3, 24, 25, 35, 36, 37 & 38 of the reserve as well as adjacent agriculture land. With a total area of about 2000 ha, the rehabilitation plan is expected to include an integrated and holistic strategy that will benefit both areas.

A recent (10 Feb 2020) discussion among key stakeholders including Selangor State Secretariat, Selangor Disaster Management Unit, Selangor State Forestry Department, Department of Environment, and Local Authorities highlighted the importance to stop the further degradation within FR and emphasized the implementation of the Integrated Management Plan (IMP) NSPSF 2014-2023 for the area including the forest reserve and adjacent lands similar to the Raja Musa Forest Reserve. This will include the forest and water resource management, fire prevention and control, forest protection and rehabilitation as well as enhancing community livelihood for the local communities living in and around the forest such as through forest protection and rehabilitation and sustainable agriculture. The Bukit Belata (Extension) Forest Reserve is also a key part of the Secondary Link 2 of the Central Forest Spine – which links the entire North Selangor Peat Swamp Forest through Bukit Belata (extension) Forest Reserve to the forests of the main Titiwangsa Range running the length of Peninsular Malaysia.

4. Project Goals and Objectives

The project goal will be enhanced conservation of lowland forests and peatlands in Bukit Belata (extension) Forest Reserve. It will support implementation of the Integrated Management Plan (IMP) NSPSF 2014-2023 and contribute to the Management Plan of Selangor Central Forest Spine as well as community engagement in the conservation and sustainable use of peat swamp forest resources.

The immediate objectives are to develop and implement a specific peatland rehabilitation programme for Bukit Belata (Extension) Forest Reserve with following activities for 3 years of period;

- a. To develop rehabilitation strategy and initiate rehabilitation measures in targeted forest areas
- b. Rehabilitation of 200 ha through rewetting and assisted natural regeneration and selected planting in priority portions of the Bukit Belata (Extension) Forest Reserve
- c. Support action by local community and stakeholders on peatland management and fire prevention

4.1 Proposed activities

- 1. To assess forest conservation status and develop rehabilitation plan for targeted forest areas;**
 - Undertake appropriate assessments on key issues including fire incidents and their root causes affecting biodiversity, water management, and so on.

- ✓ Detailed location of degraded peat areas in and its management status
 - ✓ Identification of the drainage canals and flows
 - ✓ Assess extent of peat degradation and water levels i.e. hydrological impacts
 - ✓ Location of fire risks areas and current fire control measures and fire warning system
 - ✓ Analysis of causes of fires
 - ✓ Fire prevention/fire-fighting details including costs
 - ✓ Analysis / lessons from historical data
 - Develop plan for rehabilitation of degraded areas.
 - Assessment and reporting results of rehabilitation measures including enhancement of vegetation and wildlife
 - Contribute to the review and update of the Integrated Management Plan of the North Selangor Peat Swamp Forest
2. Rehabilitation of 200 ha through rewetting and assisted natural regeneration and selected planting in priority portions of the Bukit Belata (Extension) Forest Reserve
- Peatland rehabilitation
 - ✓ Blocking selected drainage channels and raising water levels in fire prone areas
 - ✓ Periodic Monitoring of water levels
 - Encouragement of natural regeneration in (200 ha) included selected tree planting
 - ✓ Seedling procurement and nursery establishment;
 - ✓ Land preparation and marking for tree planting activities
 - ✓ Organise periodic tree planting activities with Prosper staff, volunteers and community groups
 - ✓ Maintenance of planted trees
3. Support action by local community and stakeholders on peatland management and fire prevention
- Organisation of meetings with stakeholders, local communities and landowners to discuss on sustainable use of peatland, fire risk and prevention measures
 - Promoting the Malaysia Good Agriculture Practices (MyGAP), Malaysian Sustainable Palm Oil (MSPO) Standard and the Roundtable on Sustainable Palm Oil (RSPO) BMP Manuals for peatlands.
 - Training of local community on peatland water management appropriate to best management practices for agriculture including crop selection
 - Establishment/guidance of local fire prevention and monitoring team to monitor and communicate with relevant authorities
 - ✓ Development and distribution of information materials on fire prevention
 - ✓ Installation of Fire Danger Risk warning signs in fire prone sites
 - ✓ Regular patrols by community fire patrol team along the boundary of the Forest especially in fire prone sites

4.2 Project Implementation

The proposed activities will be implemented by the Global Environment Centre² in partnership with the Selangor State Forestry Department, Selangor State Disaster Unit, Department of Environment, Agriculture Department, PLAN Malaysia, Malaysian Palm Oil Board, Hulu Selangor District Office, Local communities and local landowners. A strong emphasis will be given to the involvement of local community in fire prevention, patrolling, blocking of drainage channels and forest rehabilitation.

4.3 Benefits

The Project will include a number of value-added elements including:

- Introduction of fire prevention measures for peat swamp forest conservation areas including water management, stakeholder engagement (private sector and community) and community empowerment.
- Reduction risk of peatland and forest fire in Bukit Belata (extension) Forest Reserve and adjacent lands
- Support for forest protection and sustainable peatland management through promoting best management practices of communities living within buffer area; and
- Rehabilitation of 200 ha of forest through encouragement of natural regeneration and selected replanting in Bukit Belata (extension) Forest Reserve through partnership with local communities and Prosper;
- Rehabilitated and protected peatlands secure benefits for biodiversity which may enable endemic species in peatland to be conserved.
- Reduction in GHG emissions which could offset emissions from Prosper plantation and other activities.
- Contribution to the review and update of the Integrated Management Plan of the North Selangor Peat Swamp Forest 2014-2023.

Beneficiaries

The main beneficiaries of the project are expected to be the following:

- Prosper – the project will be recognised as a credible recovery project and so enable Prosper to re-enter into the international palm oil supply chain.
- Selangor State Forestry Department (project will assist them in enhancing engagement of local communities in the implementation of the Integrated Management Plan for North Selangor Peat Swamp Forest 2014-2023).

² The Global Environment Centre is a Malaysia Non-profit, tax-exempt organization with more than 21 years track record in community-based peatland and forest management, fire prevention and rehabilitation. It has been working with the Selangor State government since 2008 on specific measures to protect and rehabilitate peat swamp forests in the state through community action. It has been appointed by the ASEAN Secretariat and ASEAN Member States as the technical and operational support partner for the ASEAN Peatland Management Strategy 2006-2020.

- Local communities – enhance the sustainability of land management and reduce fire risk.

The project will work directly with the targeted local communities at the selected site to establish mechanisms and incentives for their involvement in the conservation and sustainable use of the resource

5. Timetable

The indicative timetable is as below:

Items	2020				2021				2022				2023
	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1	Q2	Q3	Q4	Q1
Activities													
Activity 1 : To assess location and scale of degradation in the identified forest compartment areas													
1.1 Undertake appropriate assessments on key issues including fire incidents and their root causes affecting biodiversity, water management, and so on													
1.2 Development of rehabilitation plan													
1.3 Monitoring of rehabilitation and wildlife													
1.4 Contribute to the review and update of the Integrated Management Plan of the North Selangor Peat Swamp Forest													
Activity 2 : Rehabilitation of 200 ha through rewetting and assisted natural regeneration and selected planting in priority portions of the Bukit Belata (Extension) Forest Reserve													
2.1 Canal blocking and rewetting													
2.2 Seedling procurement and nursery establishment;													
2.3 Land preparation for rehabilitation activities (20 ha)													
2.4 Organise tree planting activities with Prosper staff , volunteers and community groups													
2.5 Maintenance of planted trees (20 ha) – 2 years													
2.6 Encouragement of natural regeneration in less degraded areas (180 ha) – 3 years													

Activity 3 Enhance the understanding of community and stakeholders on peat hydrology, sustainable management on peatland and fire prevention with local communities and landowners												
3.1 Development and distribution of information materials on fire prevention												
3.2 Organisation of meetings with stakeholders, local communities and landowners to discuss on sustainable use of peatland, fire risk and prevention measures												
3.3 Promoting the Malaysia Good Agriculture Practices (MyGAP), Malaysian Sustainable Palm Oil (MSPO) and Roundtable on Sustainable Palm Oil (RSPO) Manual												
3.4 Training of local community on peat water management appropriate to best management practices for agriculture including crop selection												
3.5 Establishment/guidance of local fire prevention and monitoring team to monitor and communicate with relevant authorities												
3.6 Boundary signage and protection past establishment												
3.7 Installation of Fire Danger Risk warning signs in fire prone sites												
4. Project Coordination, Monitoring and Reporting (3 years)												
4.1 Personal												
Community and liaison and implementation team												
Overall project management and reporting												
4.2 Project Running												
Field Office at GEC Raja Musa Office and/or site office												
Local Transport (4WD vehicle for site assessments and coordination)												
Reporting/documentation												

Note: The project timeline may be subject to change due to weather and/ or unforeseen circumstances. Changes, if necessary, will be updated timely.

6. Compliance with key criteria for Recovery Projects

The proposed project is in line with key criteria for recovery projects as per the table below:

Criteria	Compliance
Additional	It builds upon rather than duplicates other existing and planned programmes. Currently the Selangor Forestry Department does not have the resources to undertake the required forest protection and rehabilitation measures within the forest reserve. Despite the facts that significant fires have occurred in the forest reserve since There is no organization working on the effective engagement of local communities and fire prevention outside of the forest reserve boundary.
Long lasting	The selected site is currently designated as a permanent forest reserve, which the state government plans to keep in perpetuity. The project will contribute to the review and updating of the Integrated management plan for North Selangor Peat Swamp Forest (2014-2023) which will be extended before the end of the first Phase of the project. The current proposal is considered the first phase of work and it is intended that this will be followed by additional phases supported by Prosper and other stakeholders to continue and expand the work to ensure sustainability of the measures.
Equitable	It involves engagement and support from the local communities and state forestry department GEC has an MOU with the Selangor State Government till 2023 to facilitate multi-stakeholder (community, civil society and private sector) support in the protection and management of the forests in Selangor State with a focus on peatland forests. GEC has been working with local communities along the boundary of the adjacent Raja Musa Forest Reserve in partnership with the Friends of North Selangor Peat Swamp Forest (a local CBO) and will work to expand the work of the group to include the proposed project area. The project will involve and engage affected stakeholders, including State Forestry Department, Local communities and landholders, and other government agencies in the planning, decision making and implementation.
Knowledge based	The project is being implemented by the Global Environment Centre, a Malaysian Non-profit organization which has a 21-year track record in the protection and rehabilitation of peatlands and forest and has been appointed by the 10 ASEAN member states as the Technical and Operational Support Partner for the ASEAN Peatland Management Strategy (2006 to 2020). It has more than 20 years' experience in working in North Selangor Peat Swamp Forest and facilitated the preparation of the current integrated management plan (2014-2023). GEC is also the current co-chair of the RSPO Peatland Working Group and was the lead author of the RSPO Best Management Practice manual on Peatland conservation and management. GEC has ongoing partnerships with a number of Universities and research institutes and will work to encourage their engagement in the project area and activities. The project will undertake further assessments of the site in the first year to update knowledge on the ecological characteristics and requirements to ensure the implementation is built on best available knowledge.

7. Future Phases

In line with the requirement for Recovery Plans to be long lasting with a minimum time-frame of 25 years for the protection and conservation measure – there will be a need to undertake additional phase of the work to ensure the sustainability of the measures including maintenance of the canal blocks and rewetting as well as the rehabilitated forest blocks. In addition, ongoing support will be needed to community and other stakeholders in the buffer zone and for protection measures along the boundaries. The resources for such an extension may be lesser than that of the first phase – assuming that initial protection, peatland rewetting and rehabilitation measures have been successful. However, ensuring a continuing focus on monitoring, maintenance and fire prevention will be critical to ensure the long-term viability of the Conservation measures. Therefore, no later than 6 months before the end of the current phase a proposal on a second phase should be prepared and considered for support by Prosper and other potential supporters.

In addition, as highlighted in Section 3 above, there is also a viable option for expansion of the area to be included in the Recovery Project through adding a portion of about 6,000ha of the adjacent Raja Musa Forest Reserve, to make a total recovery project area of more than 9,000ha. The cost per ha for this extension would be lesser than the First phase as most of this area is further inside the forest and not impacted directly by adjacent land use. There are some portions impacted by abandoned log extraction canals that need direct remediation measures. This additional area could be included in the Recovery Project if there were additional resources available from Prosper, other companies with a need to develop a recovery project, as well as downstream supply partners and brands.

Annex 1: Additional information

Causes of Fire in Bukit Belata (Extension) Forest Reserve

- i) Fires intentionally set by the farmers / small holders
Fire is widely used by farmer in surrounding area, which has been cultivated for farming and oil palm. Farmers use fire as part of land preparation methods for vegetable farming and as a means for waste disposal.
- ii) Poor water management
Development of agriculture in peatland can be unproductive unless specific measures are taken to ensure that the natural hydrology of the peat is maintained as much as possible. The problem in proposed project site arises when the network of drains were developed without careful planning or proper design. The absence of water management structure to control the water level at key junctures of the drainage system can be a case to point. As a result, the peat become over-drained and degraded during dry season and cause flooding during rainy season; which may not be suitable for productive agriculture in the end.
- iii) Farmers lack of capacity for best management practices for sustainable agricultural or palm oil on peat.
Farming on peatland can be considered very challenging because it is done and carried out in marginal lands which are not suitable for most plant crops. Therefore, farmers have to be informed and specially trained not only in crop management (crop selection, fertilizer user and pest control), but also on water management. The majority of farmers are currently very dependent on government agencies (DID, DoA, MPOB etc.) for the technical know-how of peatland management. Further, they are also unaware that peat drainage and fire incidences are closely related and can negatively affect their agriculture activities in the long term. In addition, the communities tend to shy away from zero-burning practices due to the high cost needed and probability of poor crop harvest although they have been exposed to such knowledge beforehand.
- iv) Illegal encroachment into forest reserve area
Residents of Kg Tawakal and others sites have described rampant land-clearing activities taking place inside the forest reserve, which is managed to stop now. Groups of individuals were mentioned to be responsible for illegal land clearing using fires to open up more farmland. They usually ignite the cleared patch of forest at night when there are no patrolling activities.

Approach Strategies:**i. *Identify local issues***

It is important to identify the local issues and causes of the fire at the initial period of implementation. Through consultation and proper understanding of the issues, GEC will be able to develop a comprehensive programme through community participatory approach that will interest the public and ensure a successful project.

ii. *Education and Awareness*

It is important to educate the general public on the impact and causes/sources of haze and the importance of protecting and conserving the peat swamp forest. This can be achieved through regular communications as well as organizing rehabilitation activities such as rewetting the drained peatland areas.

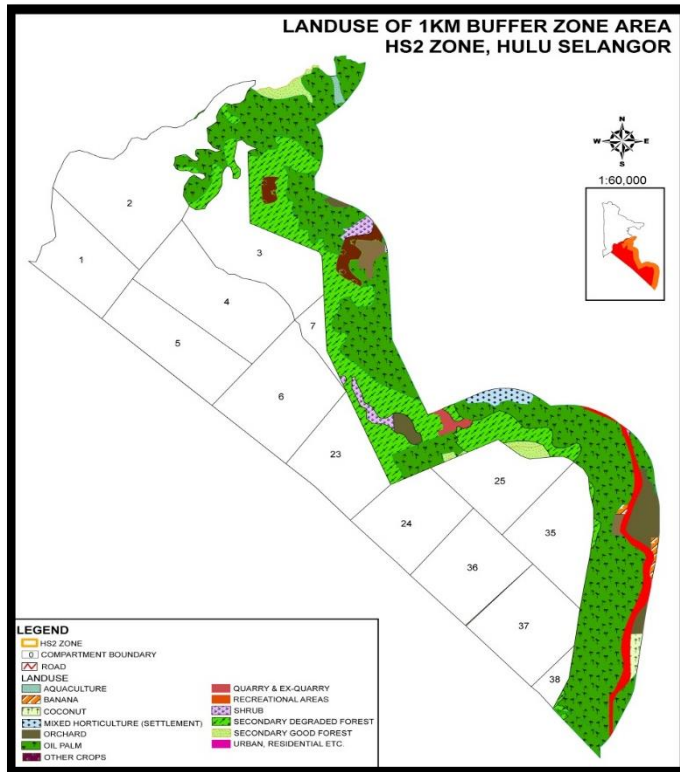
iii. *Empowerment of the local community*

By training the local community and providing them guidance and resources, they will be able to take the ownership and initiative to develop their own localized action plan to improve their environment. Providing the community with a source of alternative and sustainable income will also reduce their dependence on the natural resources and at the same time acts as an incentive for their participation and ownership. Such empowerment is invaluable to achieve a civic conscious community who will take responsibility for their environment.

iv. *Links with relevant platforms/stakeholders*

GEC will be able to provide invaluable contacts and networking opportunities with the state, national and regional platforms and stakeholders. This will help to build a good working relationship that will create a platform to work towards a haze-free environment.

Annex 2: Buffer zone information

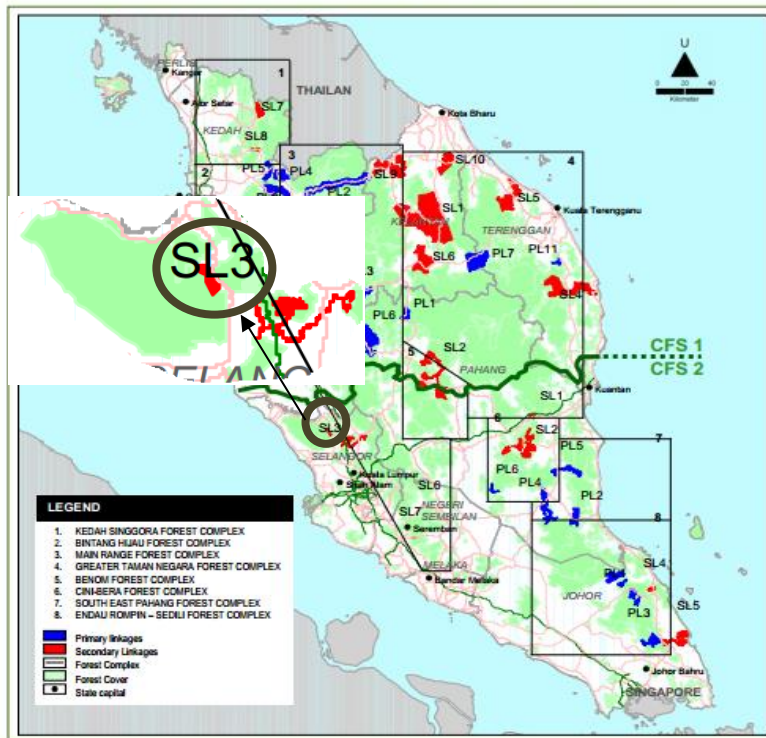


Map of Bukit Belata Tambahan (extension) Forest Reserve and adjacent Buffer Zone (mainly private land, used for farming and oil palm plantation) - known as HS Zone 2 in IMP NSPSF V2)

Hulu Selangor Zone 2 is located in the district of Hulu Selangor (Mukim Hulu Selangor) and North-East portion of NSPSF.

The land-uses adjoining the forest reserve are oil palm plantations and farming areas developed and managed mainly by PKPS, MBI, Felda Sungai Tinggi & Soeharto Plantation and small holders. This development must be carefully regulated to avoid further illegal encroachment and fires and any pollution to the Tenggi River, diseases to the wildlife breeding programme at Sg Dusun Wildlife Reserve and.

Figure 3.2 : Primary and Secondary Linkages in The Central Forest Spine



Map of Secondary Linkage 3 in the Central Forest Spine at Selangor State

Hulu Selangor zone 2 also located in the Central Forest Spine (CFS) 2 and the network 2 (Secondary Link 3: Bukit Gading Forest Reserve - Bukit Belata (Extension), Forest Reserve- Raja Musa Forest Reserve). This area is important in sustaining the ecological networks. This will serve as the backbone network of Environmentally Sensitive Areas (ESA), which strengthen the network of protected areas and help protect the health of ecosystems (including wildlife population) to reduce the damaging effects of fragmentation.

Annex 3 GEC Profile



The *Global Environment Centre* was established in 1998 to work on environmental issues of global importance. The Centre is registered in Malaysia as a non-profit organization (Reg. no. 473058-T) but works regionally and internationally both directly and through many partners. It supports information exchange and capacity building as well as undertakes strategic projects particularly in developing countries. It works in partnership with other like-minded agencies worldwide. It is active in the fields of climate change mitigation and adaptation, biodiversity, water resources, agriculture and forestry. It has worked actively on global and regional assessments on peatlands and climate change, sustainable agriculture, forestry and plantation management, REDD+ as well as forest conservation and rehabilitation. GEC coordinates a number of regional and global networks, including the GEF-CSO Network which links organisations in more than 140 countries working to address global environmental issues.

Mission

To support the protection of the environment and sustainable use of the natural resources to meet local, regional and global needs, through strategic partnerships with communities and like-minded organizations.

Objectives

1. To promote integrated management of biodiversity and water resources with a focus on community involvement and biodiversity conservation.
2. To promote the protection and sustainable use of forests and wetlands with a focus on integrated management for biodiversity and climate change
3. To enhance awareness, understanding and capacity as well as partnerships between different organizations and sectors to address environmental issues.

Programme Areas

1. River Care Programme
2. Forest and Coastal Programme
3. Peatland Programme
4. Outreach and Partnerships Programme

River Care Programme

The focus of this programme is to promote and support the integrated management of river basins with particular emphasis on ensuring that biodiversity and wetland conservation and community considerations are incorporated into river basin management.

GEC has undertaken a range of projects and initiatives related to Integrated river basin management including:

Workshops and Meetings

GEC has organized or co-organized a number of meetings including:

- Community flood preparedness for building climate resilience (2016)

- Training of Trainers (TOT) for Community participation in River Management under DID 1 State 1 River programme (2009-now)
- RIVER Ranger training (2009-now)
- SMART Ranger training (2008-now)
- Workshop on River Auditing (2009-now)
- Workshop on Water Auditing (2010)
- Training programme for Government agency and community leaders on community based river management (2006-2008)
- Training courses on community based river management and assessment (2005)
- Workshop on Biodiversity and River Management in Malaysia (2004)
- Workshop on Integrated Management of Wetlands, Biodiversity and River Basins, World Water Forum, Japan (2003)
- East Asian Seminar on River Restoration, Malaysia (2003)
- Workshop on Community Approaches to River Management, Malaysia (2001)
- Workshop on Design Of River Basin Initiative, Netherlands (2001)
- Workshop on Sustainable Management of Water Resources in Malaysia (1999)

River Management, Rehabilitation Projects

GEC has been involved with various partners in the following site-based riverine assessment and management projects which emphasize community participation:

- Community Empowerment for Flood Disaster Management in Malaysia (2019)
- Integrated Management of Kinta River Basin for community & ecosystem services through active community and stakeholder participation (2018-ongoing)
- W.A.T.E.R Project : Sg. Penchala River Programme – Water Stewardship (2018 –ongoing)
- WATER Project : Water Stewardship - Water Balancing and Sustainable River Catchment Management for Selangor River Basin (2018-ongoing)
- Sustainable Water Resource Management for Community via Drinking Water Supply (2018-ongoing)
- SMART (Start Managing All Resources Today) Ranger for Schools within Klang Valley (2018-ongoing)
- River of Life Public Outreach Programme Phase 5 (2016 – ongoing)
- Sg. Kinta Education Programme (2018)
- Pulau Pangkor Waste Management (2015 - 2018)
- Enhancing Community-based River Management through the National River Care Fund (2016-2017)
- Sg Way Rehabilitation Project under GAB Foundation W.A.T.E.R project (2007-on going)
- Sg Kinta Rehabilitation Project under GAB Foundation W.A.T.E.R project (2012-on going)
- Earth Watch River Water Quality and Monitoring Programme (2013 – 2016)
- Water Conservation Programme for Schools in Malaysia (2014 – 2016)
- Community Flood-Proofing and Adaptation for Climate Resilience (2015-2016)
- River of Life Public Outreach Programme Phase 1 and Consolidation Phase (2012 – 2014)
- Sg Pinang River Care Programme (2010-2014)
- Sg Klang River Ranger (2009-2010)
- Rehabilitation of Kelana Jaya Lakes, Selangor (2002-2009)
- Rehabilitation of Sg Penchala, Federal Territory/Selangor Malaysia (2003-2009)
- Community Involvement in Conservation of Biodiversity of Sg Nenggiri basin, Kelantan (2003-2009)
- Assessment of aquatic resources of Meliau Range Conservation Area, Sabah (2003-2005)

- Assessment of the Perak River (2005-2006)
- Integrated Management of the Salut-Mengkabong River Basin, Sabah (2003-2006)

National River Care Fund

National River Care Fund (NRCF) is a small grant programme initiated by GEC to empower communities by creating a society equipped with knowledge and capability to manage our rivers through monitoring, protection and rehabilitation activities. The NRCF supports local community, community based, non-profit organisations or learning institutions which are passionate and committed about environmental issues but lack resources or skills to take actions. Selected organisations or institutions are granted with a grant up to RM5,000 or training, to design and execute their own river activities with support from GEC and other related agencies. Up to Dec 2019, 48 river initiatives in 12 states in Malaysia have been supported by NRCF.

Information Exchange

GEC is supporting a range of information exchange and networking activities including:

CBD-Ramsar River Basin Initiative

The River Basin Initiative (RBI) is an activity under the joint work plan of the Ramsar Convention on Wetlands and the Convention on Biological Diversity. This initiative aims to help establish a global network to share information, as well as support activities and projects that demonstrate the principles and practice of integrated water resources management. The work of GEC focuses on support to the River Basin Initiative Network – including electronic newsletters and web portal.

Malaysian River Network

The Malaysian River Network was established in 2004 to link groups working on the restoration and rehabilitation of river systems in Malaysia, including communities participating in river management. Activities include organizations of workshops and meetings, an electronic discussion group, a small grants scheme, manuals and guidelines and collaborative projects.

Forest and Coastal Programme

The programme aims to promote and support the sustainable management of forests and wetlands to conserve biodiversity and mitigate climate change.

The Forest and Coastal Programme includes a broad range of activities related to assessment and management of forests and biodiversity at the local, national and global levels. This programme also focuses on climate change issues. The programme has organised/co-organised a number of meetings both in the country and around the world. Workshops and meetings are usually centered around topics that relate to forest, biodiversity and sustainable management issues.

Activities completed or underway include:

Forest and Wetland Management and Restoration Projects

- Assessment on Impact of the Implementation of the National Programme on Fire Prone Peatland Management of Malaysia (2019)
- Mangrove rehabilitation in Sungai Limau and Kampung Sungai Tiram (2019-ongoing)
- Community Based Mangrove Conservation and Sustainable Livelihoods in Sungai Johor, Malaysia (2018-ongoing)

- National Mangrove Tree Planting (Treasure the Mangroves) (2018-ongoing)
- Community-based fire prevention programme at Kuala Langat South Forest Reserve (2017 – ongoing)
- Mangrove planting in Kampung Dato Hormat, Sabak Bernam (2017 – ongoing)
- Community based Mangrove Protection and Livelihood Development in Manjung (2015 – on going)
- Conservation of North Selangor Peat Swamp Forest, including fire prevention and rehabilitation of Raja Musa Forest Reserve (2014-ongoing)
- Involving local community in the rehabilitation of Raja Musa Forest reserve (2014-ongoing)
- Assessment of options for community-based natural resources management and livelihood enhancement in Manjung District, Perak (2013 - ongoing)
- Ecological mangrove rehabilitation for village protection and sustainable livelihood (2012 – 2014)
- Meliau Range Conservation Programme, Sabah (2003- 2006)
- Rapid assessment of impacts of tsunami on coastal ecosystems in Aceh, Sumatra (2005)
- Rapid assessment of impacts of tsunami on mangroves in Malaysia (2005)
- Community based rehabilitation of mangroves in Malaysia (2006-2009)
- Community based protection of forests (2006-
- Urban Forest protection and Tree planting initiative (2007-
- Community based forest management programme in Northern Vietnam (2008-2009)

Networking and Partnerships

- Development of a Coastal Greenbelt Initiative to exchange experience and best practices in coastal forest protection and rehabilitation

Workshops and Meetings

GEC has organized or co-organized a number of meetings including:

- Workshop on Wetlands, Biodiversity and Climate Change, Malaysia (2004)
- Workshop on Conservation of Biodiversity of Ulu Tungud Forest Reserve, Sabah (2004, 2005)
- Workshop on Tsunami and Coastal Wetlands, India (2005)

Peatland Programme

The focus of this programme is to promote sustainable management of peatlands, especially in Southeast Asia. Peatland Programme works closely with various stakeholders to promote best management practices in peatland management, fire prevention and rehabilitation.

Activities completed or underway include:

Peatland Management and Restoration Projects

- Measurable action for Haze-Free Sustainable Land Management in Southeast Asia (MAHFSA) (2019-ongoing)
- Technical Assistance and Knowledge Exchange for Sustainable Management of Peatland Ecosystems in Malaysia (TAKE-SMPEM) (2019-2024)
- Sustainable Management of Peatland Ecosystems in Mekong Countries (2019-2023)
- Assessment of South Sumatra and Kalimantan Oil Palm on Peatland (ongoing)
- Sustainable Landscape Management in South Ketapang (2018-ongoing)

- Bukit Leelau Mini Landscape project (2018-ongoing)
- Climate change adaptation and mitigation in Orang Asli communities in Selangor and Pahang (2018-ongoing)
- Review of IOI Plantations' peatland management & rehabilitation in West Kalimantan and to develop IOI Peatland Policy (2016-ongoing)
- Implementation and Supervision for Sustainable Management of Peatland Ecosystems in Indonesia (SMPEI) (2018-2019)
- Development and enhancement of a smartphone application – ASEAN Fire Alert Tool (2014-2015)
- Sustainable Management of Peatland Forests in Southeast Asia (SEApeat Project, 2010-2015)
- Rehabilitation and Sustainable Use of Peatland Forests in South East Asia (ASEAN Peatland Forests Project (APFP), 2010-2014)
- Fire and Haze Prevention through Rehabilitation and Improved Management of Peatlands in Riau Province, Sumatra, Indonesia (bilateral Malaysia-Indonesia MOU, 2008-2009)
- Promotion of Sustainable Forest and Land Management in Vietnam Uplands (2009)
- Management Support to Ningbo-Cixi Wetland Center, China (2007-2011)
- Improve Peatland Management and Reduce Land and Forest Fires and Associated Transboundary Haze Pollution in the ASEAN Region (AusAID-AADCP, 2007-2008)
- Development of regional project for the rehabilitation and sustainable use of peatlands in Southeast Asia. (2006-2008)
- Development of a management strategy for the Merang-Kepahayan peat swamp forest in Sumatra Indonesia (2005-2007)
- Rehabilitation of the Ruoergai peatlands, China (2002-2009)
- Restoration of drained and burnt peatlands in Central Kalimantan, Indonesia (2002-2007)

Networking and Partnerships

- Coordination of South East Asia Peat Network with 500 members
- Establishment of Peatlands in Southeast Asia website www.aseanpeat.net
- International/Malaysia Peatland Society (member)
- International Mire Conservation Group (Board Member and member)
- Global Peatlands Initiative (technical partner/member)
- International Tropical Peatland Center (invited partner)

Workshops and Meetings

GEC has organised or co-organised a number of meetings including:

- UNFCCC COP25 Side event “Mapping and Monitoring Peatland Ecosystems in ASEAN” (2019)
- Regional Train-the-Trainers Workshop on ASEAN Guidelines on Peatland Fire Management, West Kalimantan, Indonesia (2016)
- Seminar on Tropical Peatlands in a Global Context (2016)
- IMCG Field Symposium in Borneo and Peninsular Malaysia in conjunction with the 15th International Peat Congress (2016)
- UNFCCC COP21 Side Event “Workshop Towards a Low Carbon and Climate Resilient ASEAN Community” (2015)
- Workshop on Fire Prevention and Control in Peatlands, Malaysia (2002)
- Workshop on Wise Use and Sustainable Management of Peatlands, Thailand (2003)
- Workshop on Best Management Practices for Peatlands, Indonesia (2003)
- Workshop on Peatlands and Climate Change, Italy (2004)
- International Workshop on Integrated Management of Peatlands for Biodiversity and Climate

Change, Malaysia (2004)

- International Workshop on Peatland Conservation, Restoration and Sustainable Use, China (2004)
- Workshop on Peatland Biodiversity and Climate Change, Canada (2005)
- Workshop on Peatlands Biodiversity and Climate Change, UNFCCC COP12, Kenya (2006)
- Workshop on Peatlands, Biofuel and Climate Change, UNFCCC COP13 Indonesia (2007)
- Workshop on Peatlands and REDD, Forest Day UNFCCC COP14 Poznan (2008)
- Training to Improve Peatland Management and Reduce Land and Forest Fires and Associated Transboundary Haze Pollution in the ASEAN Region (Cambodia, December 2007; Philippines, January 2008; Viet Nam, January 2008; Lao PDR, January and April 2008; Myanmar, March 2008; Indonesia, April 2008; Thailand, May 2008)
- Training for Capacity Building of Head of Villages from Indonesia to Apply Zero Burning on Peatlands (Selangor, Malaysia, July 2008)
- Series of training sessions were conducted for community groups including women group on post-harvesting production and a Training of Trainers (TOT) on sustainable management of peatlands with four training modules developed on sustainable peatland management include alternative livelihood options (Riau, Indonesia, December 2008 – November 2009)
- ASEAN Workshop on Peatland Management (Songkhla, Thailand, May 2009)
- International Meeting on Integrated Management and Rehabilitation of Tropical Peatlands (Kuala Lumpur, Malaysia, November 2009)
- Technical Workshop on Development of the ASEAN Peatland Fire Prediction and Warning System (Kuala Lumpur, Malaysia, July 2010)
- Workshop on Options for Carbon Financing to Support Peatland Management (Riau, Indonesia, Oct 2010)
- Training Programme on Peatland Assessment and Management “Regional Training of Trainers (TOT)” (Selangor, Malaysia, February 2011)
- Technical Workshop on Best Management Practices for Sustainable Peatland Management (Kalimantan, Indonesia, June 2011)
- Workshop on Fire Danger Rating System Development and Application to Minimize Peatland Fire in Indonesia (Riau, Indonesia, September 2011)
- ASEAN Technical Workshop on Development of the ASEAN Peatland Fire Prediction and Early Warning System (Kuala Lumpur, Malaysia, March 2012)
- Peer Learning Programme on Best Management Practices on Peatlands for Community Groups (Nakhon Si Thammarat, Thailand, May 2012)
- Workshop on Enhancing Sustainable Forestry Practices on Peatlands (Bogor, Indonesia, June 2012)
- Technical Visit and Meeting on Integrated Management Plans for Peatlands in Southeast Asia (Pahang, Malaysia, July 2012)
- Technical Training Programme on Assessment and Identifying Peatland Areas using Geographic Information System (GIS) (Ho Chi Minh, Viet Nam, August 2012)
- Peer Learning on Best Management Practices on Peatland for Community (South and Central Kalimantan, Indonesia, June 2013)
- ASEAN Workshop on Enhancement of the Fire Danger Rating System (Selangor, Malaysia, October 2013)
- Informal Meeting with Plantation Sector on Haze Prevention (Selangor, Malaysia, December 2013)
- Consultation Meeting and Field Visit on Peat Assessment (Koh Kong, Cambodia, August 2014 and April 2015)
- Inception Workshop for Implementation of Peatland Forest Management and Field Assessment in Lao PDR (Vientiane, Lao PDR, February 2015)
- Workshops on Design of the ASEAN Programme on Sustainable Management of Peatland Ecosystems (2014-2020) (Dec 2013, April 2014, August 2014, November 2014, March 2015, June

2015)

Intergovernmental Cooperation Programmes

- Technical and operational support agency for ASEAN Peatland Management Initiative (APMI) and ASEAN Peatland Management Strategy 2006-2020 (APMS)
- Member of the Coordinating Committee for Global Action on Peatlands
- Coordinating the Assessment of Peatlands Biodiversity and Climate Change in association with the Convention on Biological Diversity
- Member of the Peatland Group for the Revised guidelines on Greenhouse Gas Emissions of the Intergovernmental Panel on Climate Change
- Actively Promoting the Inclusion of Peatlands in Climate Change Mechanisms (especially REDD, LULUCF, CDM and Bali Road Map implementation)
- Technical and Operational Support Partner for ASEAN Programme on Sustainable Management of Peatland Ecosystems 2014-2020 (APSMPE)
- Co-chair of Roundtable for Sustainable Palm Oil (RSPO) – Emission Reduction Working Group (ERWG)

ASEAN Peatland Management Initiative (APMI)

In 2003, GEC was formally appointed by the ASEAN Secretariat to act as a founding partner for the ASEAN Peatland Management Initiative (APMI) with a focus on technical and operational support. In this role, GEC has facilitated numerous workshops, meetings and exchanges and also played a key role in generating resources to support development and implementation of the initiative. Later, GEC has been recognised by the ASEAN Secretariat and ASEAN Member States as the Technical and Operational Support Partner of the ASEAN Peatland Management Strategy 2006-2020 (APMS) and ASEAN Programme on Sustainable Management of Peatland Ecosystems 2014-2020 (APSMPE) to support the rehabilitation and sustainable management of peatland forests in Southeast Asia.

ASEAN Peatland Management Strategy (APMS)

From APMI, a strategy to tackle the regional interboundary haze problem was developed – ASEAN Peatland Management Strategy 2006-2020 (APMS). The original document was produced in 2006, and it was reviewed in 2012 and reprinted in 2014. The revised version APMS was circulated widely to regional stakeholders who are involved in peatland management as well as potential partners who are interested in supporting national and regional efforts to sustainably manage the peatlands ecosystems.

ASEAN Programme for Sustainable Management of Peatland Ecosystems 2014-2020 (APSMPE)

This programme is a long term multi-stakeholder Programme for the Sustainable Management of Peatland Ecosystems 2014-2020 for the region. It supports the collaboration between different stakeholders (including government, private sector, communities and civil society) in the ASEAN Region to achieve the goal of the ASEAN Peatland Management Strategy 2006-2020 (APMS), which is to promote sustainable management of peatlands in the ASEAN region through collective actions and enhanced cooperation, to support and sustain local livelihoods, reduce risk of fire and associated haze and contribute to global environment management.

Outreach and Partnership Programme

This programme area incorporates activities relating to general capacity building, environmental education, information exchange and awareness rising on global environment issues.

Project

- Empowering targeted Orang Asli communities in natural resource conservation and sustainable livelihoods (2010-ongoing)

Capacity Building Assessments

GEC has been actively involved in a number of capacity building assessments including:

- Assisting in the coordination of the preparation of the Asia Pacific component of the UNDP-GEF Capacity Development Initiative and the synthesis report on Biodiversity
- Training needs assessment on fire prevention and control in peatlands in Malaysia
- Global needs assessments for integration of management of wetlands, biodiversity and river basins for Ramsar Convention and Convention on Biological Diversity.
- Needs assessment for integrated management of peatlands in Southeast Asia for ASEAN Secretariat.

Training Courses and Materials

GEC has organised or provided input to a number of training activities including:

- Training course on fire prevention and control in peatlands, Malaysia
- Awareness and communication skills for peatland conservation, Indonesia
- Integrated Implementation of Environmental Conventions, United Nations
- Manual on best management practices for fire prevention and control in peatlands
- Training programme on negotiation and implementation of MEAs for Government of Malaysia with UNU and UNEP.
- E-learning programme on Multilateral Environment Agreements for Government of Malaysia with UNU and UNEP.

Information Dissemination and Environmental Education

- Posters, leaflets and information materials on lake pollution, peatlands, climate change and community participation.
- Student Activity Book and Teachers Guide on environmental issues affecting urban rivers and lakes
- Arts and Earth Festival (August-September 2006)

Development of Networks and Partnerships

- Interim Secretariat for GEF CSO Network (2016-2017)
- Central Focal Point of the GEF NGO Network (2010 - 2015)
- Secretariat for LEDS AFOLU Working Group (2014-Apr 2017)
- Establishment of Global Environment Network with members in 30 countries
- Partnerships to implement collaborative projects in Malaysia, Indonesia, China, India and Thailand
- Partnership and cooperation with international organisations and conventions including Convention on Biological Diversity, Ramsar Convention on Wetlands, United Nations Environment Programme, United Nations Development Programme, United Nations University

Mode of Operation

- *Partnership with other like-minded organizations*
- *Building cross-sectoral or integrated coalitions to address key issues*
- *Information exchange and dissemination* – through newsletters, web-sites and the Internet.
- *Institutional strengthening* – South-South network and training programme
- *Education and public awareness* – through dissemination of awareness materials & organisation of awareness campaigns
- *Policy development* – through strategic workshops and policy development initiatives
- *Demonstration Projects* - undertaking strategic projects in conjunction with partner agencies

Networks

The Global Environment Centre coordinates a number of networks relating to environment activities including the South East Asia Peat Network, The River Basin Initiative Network, Malaysian River Network, SE Asia CSO Environment Alliance and the Global Environment Network (GEN). It has been elected as the Regional Focal Point for SE Asia for the GEF-CSO Network (2008-2015), the Central Focal Point of the Network (2010 -2015) and the Interim Secretariat for the Network (2016-2017).

Partners

GEC works with many organisations in implementing its programmes. Currently major partners include: ASEAN Secretariat;; Department of Irrigation and Drainage, Malaysia; Environment Action Committee, Sabah;; International Fund for Agriculture Development; Forestry Department of Peninsular Malaysia; Ministry of Environment and Forestry, Indonesia; Ministry of Water, Land and Natural Resources, Malaysia; Petaling Jaya Municipal Council, Ramsar Convention Secretariat; Sabah Forest Department, Secretariat of the Biodiversity Convention; Selangor State Government; State Forestry and Grassland Administration China; United Nations Development Programme; United Nations Environment Programme; United Nations University, Wildlife Habitat Canada, and Wetlands International (HQ, China, Indonesia, Russia, South Asia and Thailand).

Members

GEC has member organisations through its various specialised networks from more than 30 countries – mainly in Asia, and Africa.

Funding

Funding for GEC activities has been provided by a broad range of agencies including: European Commission, European Union, ASEAN Regional Centre for Biodiversity Conservation; Asia Pacific Network for Global Change (APN); AusAID; Canadian High Commission, Malaysia; Canadian International Development Agency; DANIDA, Ministry of Foreign Affairs, Denmark; Department of the Environment Malaysia; Department for International Development UK, Directorate General for International Cooperation, Netherlands; European Union; Global Environment Facility; Global Peatland Initiative, Global Water Partnership, International Fund for Agriculture Development, Keidanren Nature Conservation Fund, Japan; Ministry of Natural Resources and the Environment Malaysia, Netherlands Embassy, Malaysia; Secretariat of the Ramsar Convention on Wetlands; United Nations Development Programme; United Nations Environment Programme; Wildlife Habitat Canada; and Wetlands International. In addition many national and local organizations and individuals have provided significant support for activities or contributed in kind to the Centre.

GOVERNANCE

ADVISORY COUNCIL

Mr Delmar Blasco

Former Secretary General, Convention on Wetlands (Ramsar, Iran 1971)

Tan Sri Razali Ismail

Former Special Advisor to the Prime Minister of Malaysia

Former President of the United Nations General Assembly (1996/7)

First Chairman of the Commission of Sustainable Development

Prof. Emeritus Tan Sri Zakri Abdul Hamid

Science Advisor to Prime Minister of Malaysia

Former Director, Institute of Advanced Studies, UN University, Japan,

Former Chairman of SBSTTA, Convention on Biological Diversity

Dato' Wong Sai Hou

Former State Assemblyman for Kg Tunku and Chairman, Petaling Jaya City Environment Committee

Datuk Zul Mukhshar bin Md. Shaari

Former Director General Forest Department of Peninsular Malaysia

Dato' Ir. Lim Chow Hock

Former Director of Department of Drainage & Irrigation (River and Coastal) of Peninsular Malaysia

Dato' Halimah Hassan

Former Director General of Department of Environment Malaysia

Dr. Salmah Zakaria

Chair of ASM Climate Change and Water, Former Director General of National Hydraulic Research Institute of Malaysia (NAHRIM)

MANAGEMENT BOARD

Mr Zainudin Ismail - Chairman

Environmental Lawyer

Former Chairman of the KL Bar Council

Professor Mohd Ali Hashim

Department of Chemical Engineering, University Malaya
Malaysia

STAFF

GEC's activities are coordinated through a secretariat currently with nearly forty staff. In addition, a broad range of associates and partners assist in the implementation of activities. GEC undertakes projects in more than 10 countries mainly in the Asia Pacific region either operating directly or through local partner organizations.

Key Management and technical staff of the GEC HQ include the following:

FAIZAL PARISH (fparish@gec.org.my)

Director

Ecologist / Environmental Management Specialist

- Overall direction
- Programme Development
- Partnership with international organizations and conventions
- Peatland and climate change
- Integrated River Basin Management

VICTORIA LOUIS (victoria@gec.org.my)

Office Manager

Accountant

- Administration of office and projects
- Recruitment and administration of personnel
- Provision of finance and admin services for partners and projects

DR K. KALITHASAN (kalithasan@gec.org.my)

Manager, River Care Programme

Water and Waste Management Specialist

- Kelana Jaya Lake Rehabilitation Project
- Urban waste management
- Sungai Penchala Rehabilitation Project

NAGARAJAN RENGASAMY (nagarajan@gec.org.my)

Manager, Forest and Coastal Programme

Forest and Natural Resource Management

- Forest rehabilitation
- Community participation

SERENA LEW SIEW YAN (serena@gec.org.my)

Coordinator, Peatland Programme

Peatland and Natural Resource Management

- ASEAN Programme on Sustainable Management of Peatland Ecosystems (APSMPE)
- Landscape approach – good management practices and stakeholders engagement
- Community development/empowerment and indigenous group participation

ADELAINA TAN (adelaine@gec.org.my)

Coordinator, Outreach and Partnerships Programme

Chemist/Biologist

- Civil society participation and networking
- Community participation
- Indigenous peoples participation

JAGEDSWARI MARIAPPAN (jagedeswari@gec.org.my)

Senior Programme Officer, River Care Programme

EIA Expert

- Environmental Impact Assessment
- Environmental Management
- Water Quality Monitoring and Auditing

SATHIS VENKITASAMY (sathis@gec.org.my)
Senior Programme Officer, River Care Programme
 River and Natural Resource Management

- River rehabilitation
- Environmental education
- Community participation

NORAZRIN MAMAT (norazrin@gec.org.my)
Senior Programme Officer, River Care Programme
 River and Natural Resource Management

- River rehabilitation
- Environmental education
- Community participation

MUHAMAD FAIZUDDIN ZAINUDDIN (faizuddin@gec.org.my)
Senior Programme Officer, Peatland Programme

- Forest and plantation management
- Peatland and climate change
- Forest and peatland rehabilitation

AIDA HAYATI (aidahayati@gec.org.my)
Senior Programme Officer (GIS), Peatland Programme

- Peat forest fire
- Data analysis
- Project management

JONATHAN TENG (jonathan@gec.org.my)
Programme Officer, Peatland Programme
 GIS and Remote Sensing

- Forest Rehabilitation
- Geographic Information System

NOR ASIKIN ASMUNI (asikin@gec.org.my)
Programme Officer, Peatland Programme

- Agriculture livelihood
- Project management
- Data collection

MOHD FARIS RABBANI SUBARI @ SUBIYRI (faris@gec.org.my)
Programme Officer, Peatland Programme

- Peatland rehabilitation
- Peatland and climate change
- Community participation

MULYADI (mulyadi@gec.org.my)
Field Programme Officer, Peatland Programme
 Forest and Natural Resource Management

- Forest rehabilitation
- Stakeholders engagement
- Community participation

MD NAZERI MOHD SIDEK (nazeri@gec.org.my)
Programme Officer, Forest and Coastal Programme
 Forest and Natural Resource Management

- Forest rehabilitation
- Community participation

MOHD MUHYIDDIN (muhyiddin@gec.org.my)
Programme Officer, Forest and Coastal Programme
 Forest and Natural Resource Management

- Forest rehabilitation
- Community participation

NURHAYATI HASSAN (nurhayati@gec.org.my)
Programme Officer, Forest and Coastal Programme
 Forest and Natural Resource Management

- Forest rehabilitation
- Community participation

JUHAZMAN JAMALUDDIN (juhazman@gec.org.my)
Programme Officer, Forest and Coastal Programme
 Forest and Natural Resource Management

- Forest rehabilitation
- Community participation

SITI JOANNI MATLAN (joanni@gec.org.my)
Technical Officer, Forest and Coastal Programme
 Forest and Natural Resource Management

- Forest rehabilitation
- Community participation

MOHAMED YASREEN MOHAMED ALI (yasreenali@gec.org.my)
Programme Officer, River Care Programme
 River and Natural Resource Management

- River rehabilitation
- Environmental education
- Community participation

SHARIFAH NUR ZULAIKHA SYED OTHMAN (zulaikha@gec.org.my)
Programme Officer, River Care Programme
 River and Natural Resource Management

- River rehabilitation
- Environmental education
- Community participation

TSIA MUN KAIK (tsiamunkaik@gec.org.my)
Programme Officer, River Care Programme
 River and Natural Resource Management

- River rehabilitation
- Environmental education
- Community participation

MUNIANDY MK RAMANSURVEY (muniandy@gec.org.my)

Programme Officer, River Care Programme

River and Natural Resource Management

- River rehabilitation
- Environmental education
- Community participation

VINITA A. GANESH (vinita@gec.org.my)

Programme Officer, River Care Programme

River and Natural Resource Management

- River rehabilitation
- Environmental education
- Community participation

SHAFINAZ SHAHABUDIN (shafinaz@gec.org.my)

Senior Communication Officer, Outreach and Partnership Programme

- Communication and outreach
- Media relations

UMMI NUR ASYIQEEN ZULKEFLY (ummi@gec.org.my)

Communication Officer, Outreach and Partnership Programme

- Communication and outreach

YAP NI YAN (yapniyan@gec.org.my)

Graphic Designer, Outreach and Partnership Programme

- Communication and outreach materials
- Information resource materials management

Annex 4: GEC peatland related project experience

Name of the organisation: Global Environment Centre					
Project title: Measurable Action for Haze Free Sustainable Land Management in Southeast Asia (MAHFSA)					
Location	Cost of the action (EUR)	Role	Donors to the action (name)	Amount contributed (by donor)	Dates
Southeast Asia	3,100,000	Implementing Partner of the ASEAN Secretariat and CIFOR	International Fund for Agricultural Development (IFAD)	USD 3,500,000	April 2019 – March 2024
Objectives and results of the action	<p>The programme aims to prevent, monitor, and mitigate land and forest fires to control transboundary haze pollution through concerted national efforts, regional and international cooperation.</p> <p>The specific Objectives are:</p> <ul style="list-style-type: none"> ▪ Objective 1: to build capacity and enhance data, information and results management systems for sustainable peatland management and haze control ▪ Objective 2: to enhance the availability and usage of knowledge products on sustainable peatland and haze management ▪ Objective 3: to enhance ASEAN regional coordination mechanisms for advancing sustainable land management, and haze prevention policies, programmes, and projects 				

Name of the organisation: Global Environment Centre					
Project title: Technical Assistance and Knowledge Exchange for Sustainable Management of Peatland Ecosystems in Malaysia (TAKE-SMPEM)					
Location	Cost of the action (EUR)	Role	Donors to the action (name)	Amount contributed (by donor)	Dates
Malaysia, Indonesia and tropical peatland countries (information exchange)	890,000	Executing Agency	International Fund for Agricultural Development (IFAD)	USD 1,000,000	January 2019 – December 2022
Objectives and results of the action	<p>The Project Goal: To provide technical assistance for the sustainable management of peatlands in Malaysia, and facilitate SPM knowledge exchange in Southeast Asia, and with Africa through SSTC.</p> <p>The Specific Development Objectives are:</p> <ol style="list-style-type: none"> i. To provide technical assistance for the development of policies, plans, guidelines and investment frameworks for sustainable peatland management in Malaysia; ii. To strengthen community participation in sustainable peatland management and sustainable alternative livelihoods in the targeted peatland landscapes in Malaysia; and iii. To enhance knowledge exchange and understanding on SPM in Southeast Asia, and Africa through SSTC. 				

Name of the organisation: Global Environment Centre					
Project title: Restoration and conservation of peat swamp forests in Selangor through stakeholders participation					
Location	Cost of the action (EUR)	Role	Donors to the action (name)	Amount contributed (by donor)	Dates
North Selangor (Raja Musa Forest Reserve) and South Selangor (Kuala Langat Forest Reserve) Malaysia	1,061,823	Coordinator and implementer	HSBC Bank Malaysia Berhad/ Yayasan Sime Darby/Boh /Gamuda/Bridgestone/ Selangor State Government	RM 5,056,300	23/11/2010 to 31/12/2020
Objectives and results of the action	<p>The project has been implemented together with the Selangor Forestry Department and Selangor State government to strengthen the efforts for fire prevention, restoration and conservation of the Selangor Peatlands through NSAs participation. It supported development and implementation of Integrated Management Plan for North Selangor Peat Swamp Forest 2014-2023 and Fire Management Plan for South Selangor Peat Swamp Forest 2017-2021. Strong links have been developed with local government agencies, the private sector and the adjacent local communities. The project supports state and local policies to protect and conserve the environmental resources as well as providing a sustainable alternative livelihood options to local communities as follows:</p> <ol style="list-style-type: none"> I. Contributed and supported state level dialogue and knowledge management activities II. Demonstrated effectiveness of sustainable management and wise use of Selangor peatlands III. Participation of NSAs in peatland management and conservation processes is strengthened IV. Awareness created among the local community living adjacent the forest and NSAs support generated for restoration. V. Linkages between community, government agencies and private sectors; and VI. Expanded the project activities to new villages around the area in Selangor districts 				

Name of the organisation: Global Environment Centre					
Project title: Management and Rehabilitation of Southeast Pahang Peatland Landscape					
Location	Cost of the action (EUR)	Role	Donors to the action (name)	Amount contributed (by donor)	Dates
Bukit Leelau mini landscape and adjacent peatland area in Southeast Pahang Peatland Landscape	EUR 200,000	Executing Agency	IOI Plantation, Bursa Bull Charge (Bursa Foundation), Bunge Loders Croklaan UNDP	RM 900,000	September 2018 – September 2020
Objectives and results of the action	<p>The project has been implemented together with the stakeholders within the landscape to strengthen the efforts for fire prevention, restoration and conservation of the Southeast Pahang peatlands. Strong links have been developed with local government agencies, the private sector and the adjacent local indigenous communities. The project supports management and rehabilitation of the degraded peatland areas as well as providing sustainable alternative livelihood options to local communities as follows:</p> <ol style="list-style-type: none"> I. Contribute and support state level dialogue and knowledge management activities II. Demonstrated effectiveness of sustainable management and rehabilitation of the peatlands III. Participation of stakeholders in peatland management and conservation IV. Introduce integrated and sustainable farming practices and develop mechanisms to market the produces V. Linkages between community, government agencies and private sectors; and VI. Expanded the project activities to adjacent villages within the landscape 				

Name of the organisation: Global Environment Centre					
Project title: Sustainable Management of Peatland Forests in South East Asia (SEapeat)					
Location	Cost of the action (EUR)	Role	Donors to the action (name)	Amount contributed (by donor)	Dates
Indonesia, Malaysia, Philippines, Vietnam, Cambodia, Lao PDR, Myanmar and Thailand	3,024,954	Executing Agency	European Union (Budget line: 210401; Reference: EuropeAid/12832 0/C/ACT/Multi)	EUR 1,789,063	From December 2010 to January 2016
Objectives and results of the action	<p>SEapeat was a Regional project to complement ASEAN Peatland Forests Project (APFP), and support involvement of ASEAN Member States in sustainable management of peat swamp forests. The project focused on reducing deforestation and degradation of peatland forests in SEA by strengthening governance and developing incentives to promote their integrated management, sustain local livelihoods, reduce greenhouse gases (GHG) emissions and conserve biodiversity. It worked with a range of NSAs including private sector, local communities, CSOs and academia.</p> <p>Results :</p> <ul style="list-style-type: none"> • New peatland areas discovered in Cambodia, Myanmar and the Philippines. • NAPPs were developed in 5 out of 10 ASEAN Member states • Incentive options to reduce peat forest degradation tested in AMSs • FDRS improved and employed to predict probability of peatland fires and hotspot monitoring enhanced. • Conservation status of peatlands was enhanced in five countries. • Sustainable Peatland Management guidelines for peat areas and plantations on peat were developed and adopted. 				

Name of the organisation: Global Environment Centre					
Project title: Rehabilitation and Sustainable Use of Peatland Forests in South East Asia (ASEAN Peatland Forests Project (APFP))					
Location	Cost of the action (EUR)	Role	Donors to the action (name)	Amount contributed (by donor)	Dates
ASEAN (focal countries – Indonesia, Malaysia, Philippines, Vietnam) plus other AMS in a Regional Component	8,729,774	Facilitated implementation of country components and took lead on Regional Component (as Regional Project Executing Agency)	Global Environment Facility (GEF) via IFAD Other co-funders (governments, private sector)	EUR 3,676,580 (USD 4,299,164) EUR 5,100,000	July 2010 to January 2015
Objectives and results of the action	<p>The ASEAN Peatland Forests Project (APFP) was a Regional project to support implementation of the ASEAN Peatland Management Strategy (APMS). It aimed to demonstrate, implement and scale up the sustainable management and rehabilitation of peatland forests in Southeast Asia; focusing on:-</p> <ul style="list-style-type: none"> • strengthening institutional capacity and frameworks; • reducing the rate of degradation on peatlands in Southeast Asia; • demonstrating integrated management and rehabilitation of peatlands at target sites; <p>and</p> <ul style="list-style-type: none"> • engaging private sector and local communities in sustainable peatland management. <p>It fitted within the framework of the ASEAN Peatland Management Initiative (APMI), and directly supported the ASEAN Peatland Management Strategy (APMS), and associated National Action Plans on Peatlands.</p> <p>It facilitated the cooperation between government and NSAs in the four target countries (Indonesia, Malaysia, Philippines and Vietnam), as well as support ASEAN Secretariat and ASEAN Member States through regional activities.</p>				