



**PROJECT IDENTIFICATION FORM (PIF)**  
**PROJECT TYPE: Medium-sized Project**  
**TYPE OF TRUST FUND: GEF Trust Fund**

**PART I: PROJECT IDENTIFICATION**

Project Title:	Mainstreaming of Biodiversity Conservation into River Management		
Country(ies):	Malaysia	GEF Project ID:	TBD
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5281
Other Executing Partner(s):	Ministry of Natural Resources and Environment, Department of Irrigation and Drainage Malaysia, Global Environment Centre	Submission Date:	January 28, 2014
GEF Focal Area (s):	Biodiversity	Project Duration (Months)	48
Name of parent program:	N/A	Agency Fee (\$):	133,380

**A. INDICATIVE FOCAL AREA STRATEGY FRAMEWORK<sup>1</sup>:**

Focal Area Objectives	Trust Fund	Indicative Grant Amount (\$)	Indicative Co- Financing (\$)
<b>BD-2:</b> Mainstream Biodiversity Conservation and Sustainable Use into Production Landscapes, Seascapes and Sectors	GEFTF	1,404,000	7,530,000
Total Project Cost		1,404,000	7,530,000

**B. INDICATIVE PROJECT FRAMEWORK**

<b>Project Objective: To mainstream biodiversity conservation into riverine landscapes through improved river planning and management practices in Malaysia</b>						
Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Co Financing (\$)
1. Enabling institutional framework and capacity for managing riverine biodiversity in productive landscapes	TA	<p>Strengthened institutional environment for riverine biodiversity management, catalysing improved management of riverine habitats in Malaysia, indicated by: (i) adoption of an inter-agency riverine biodiversity management strategy and Best Management Practice and (ii) improved sector policy and regulatory environment as recorded in the GEF BD 2 tracking tool ; (iii) increased number of uptake of best practices; and (iii) increase in dedicated Federal and state budget for riverine biodiversity management.</p> <p>Strengthened capacity of government, private sector and community stakeholders towards mainstreaming biodiversity conservation in river management, indicated by: (i) establishment of river ecosystem unit within DID; (ii) UNDP capacity development scorecard (DID, NRE, and other selected agencies to be determined)</p> <p><i>Baseline and targets will be established during the PPG</i></p>	<p>1.1 Inter-agency Strategy to mainstream biodiversity into river management developed and adopted including: (i) an interagency coordination mechanism with clear jurisdictions of concerned agencies; (ii) coordinated enforcement and compliance monitoring mechanisms; (iii) clear plans for mainstreaming riverine biodiversity management into operations of related sector agencies, private sector and communities, collaborative operational modality and a financing plan, supported by Best management Practice Guidelines.</p> <p>1.2: Institutional capacity of NRE, DID and other related Federal and state agencies and key non-governmental stakeholders enhanced based on a capacity needs assessment through: (i) establishment of a dedicated riverine ecosystem unit within DID; (ii) development and implementation of training modules and programmes; and (iii) awareness programmes targeting policy makers and practitioners.</p>	GEF TF	330,000	400,000

Critical riverine habitat management demonstration	TA	<p>Status of threatened terrestrial and aquatic biodiversity enhanced through erosion control and better protection of 17,000ha of biodiversity-rich catchment forests through multi-stakeholder partnership in upper Kinta Basin, indicated by: (i) improved river water quality and riverine habitat and status of threatened species eg <i>Probarbus jullieni</i>; and (ii) threat reduction by means of increased community incomes from habitat protection compatible activities.</p> <p>Pressures on riverine habitat in targeted sections of the upper Klang river avoided and reduced through integration of biodiversity conservation within the Klang River of Life Programme, indicated by: improved status of endemic fish species eg <i>Tor tombroides</i> in upstream Klang river basin; and operational measures to control alien invasive fish species.</p> <p>y-km of biodiversity rich riparian zone protected through public-private-community partnerships along Kinabatangan and/or Segama Rivers in Sabah; indicated by the size of riparian areas within production landscape managed for biodiversity; maintenance or increase in the number of endangered or vulnerable species such as <i>Glyphis fowlerae</i> and <i>Pongo pygmaeus</i>.</p> <p><i>Baseline and targets eg specific habitats, species and targeted areas will be established during the PPG</i></p>	<p>2.1 : Biodiversity management strengthened and habitat enhanced through improved water reservoir catchment management in Upper Kinta River Basin, including (i) improved erosion control measure through community based forest rehabilitation and other measures; (ii) threat reduction through introduction of alternative land development approaches and generation of habitat conservation compatible incomes for communities; and (iii) enhanced protection of upper Kinta catchment and riverine habitat.</p> <p>2.2 Riverine biodiversity management integrated into planning and implementation of urban river management programmes in the Klang River Basin, including: (i) physical enhancement of riverine habitats in the upper Klang River; (ii) training and awareness programmes targeting key government and community stakeholders on river pollution control and habitat protection and enhancement; (iii) introduction of measures to help control alien invasive aquatic species</p> <p>2.3: Riparian habitat protected and enhanced in partnership with the private sector and local communities in Kinabatangan and/or Segama rivers, through: (i) establishment of riparian corridors to link conservation areas; (ii) mainstreaming biodiversity management in the riparian areas of the oil palm plantations; (iii) up-scaling of community based riparian zone protection and rehabilitation.</p>	GEF TF	950,000	6,280,000	
Sub-Total						1,280,000	6,680,000
Project management cost					GEF TF	124,000	650,000
<b>Total project costs</b>						<b>1,404,000</b>	<b>7,530,000</b>

**C. INDICATIVE CO-FINANCING FOR THE PROJECT BY SOURCE AND BY NAME IF AVAILABLE, (\$)**

Sources of Co-financing	Name of Co-financier	Type of Co-financing	Amount (\$)
National Government	Department of Irrigation and Drainage and other federal agencies	Cash	5,850,000
GEF Agency	UNDP	Cash	30,000
Other Multilateral Agency (ies)	European Union	Cash	170,000
Local Government	State governments and local authorities in targeted river basins	In kind/Cash	750,000
Private Sector	Tourism, Oil palm	in kind	430,000
CSO	Global Environment Centre (GEC)	Cash	200,000
Others	Communities and NGOs in targeted sites	in kind	100,000
<b>Total Co-financing</b>			<b>7,530,000</b>

#### D. INDICATIVE TRUST FUND RESOURCES (\$) REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY1

GEF AGENCY	TYPE OF TRUST FUND	FOCAL AREA	Country Name / Global	Grant Amount (a)	Agency Fee (b)	Total c
UNDP	GEFTF	Biodiversity	Malaysia	1,404,000	133,380	1,537,380
<b>Total Grant Resources</b>				1,404,000	133,380	1,537,380

#### PROJECT PREPARATION GRANT (PPG)

Amount Requested (\$)    Agency Fee for PPG (\$)

- (up to) \$100k for projects up to & including \$3 million 60,000            5,700

### PART II: PROJECT JUSTIFICATION

#### A. PROJECT OVERVIEW:

##### A1. Project Description

**Introduction:** While Malaysia has only 0.2% of the land mass of the world, it has one of the richest fauna and flora in the world, second only to Indonesia in South East Asia. Malaysia is one of the 17 mega-diversity countries in the world, hosting more than 170 000 fauna and flora species. Riverine<sup>2</sup> biodiversity in Malaysia is of global significance. Malaysia has an estimated 500 species of freshwater fish, of which 300 occur in Peninsular Malaysia, 250 in Sarawak and 130 (40% of which are endemic) in Sabah. Other riverine biodiversity includes 158 species of amphibians of which 57 are endemic; 88 species of freshwater crab and 55 freshwater shrimps. At least 20 new species of fish and crabs have been described in the last 15 years indicating that the total diversity is higher. Malaysia has a broad range of aquatic ecosystems including rivers, lakes, swamps and man-made wetland habitats such as reservoirs and rice-fields, which together cover between 12-15% of the country's land area. In addition to aquatic biodiversity – riverine biodiversity includes the species of plants, birds and mammals which occur along the river corridor and upper catchment.

The Kinabatangan River (one of the proposed project sites) is the largest river in Sabah with a length of 560 km, stretching from the highlands of eastern Sabah to the Sulu Sea. The floodplain covers about 4,000 km<sup>2</sup> and is one of the richest areas in terms of both river and terrestrial biodiversity. It is one of two places on the planet where ten primate species cohabitate. These are the Tarsier, Slow Loris, Pig-tailed Macaques, Long-tailed Macaques, Proboscis Monkey, Silvered Langur, Maroon Langur, Grey Langur, Bornean Gibbon, and the famed Orang Utan (Kinabatangan has the highest concentration of wild Orang Utan in Malaysia). There are 50 mammal species living in the Kinabatangan area including the Sun Bear, Pygmy Elephant, Sumatran Rhino, and four species of cats, the Clouded Leopard, Leopard Cat, Marbled Cat and the Flat-headed Cat. The riparian forest provides a vital corridor for the seasonal migrations of many mammal species. Kinabatangan is one of the most productive freshwater fisheries in Malaysia with over 90 species of fish, including freshwater rays and sharks such as the giant freshwater whipray (*Himantura polylepis*) and the endemic Borneo river shark, (*Glyphis fowlerae*)

The upper Kinta Basin includes the third highest mountain in Peninsular Malaysia (*Gunung Korbu*) and has important forest and aquatic biodiversity – some of the important species include rare and endangered species including tiger (*Panthera tigris*), Asian elephant (*Elephas maximus*), Malayan Tapir (*Tapirus indicus*) and Sun Bear (*Helarctos malayanus*) as well as rare plant and bird species. Endangered fish present in the river include the Seven-striped Barb, (*Probarbus jullieni*) or Temoleh. In recent years, the stocks of *P. jullieni* have declined drastically throughout Se Asia due to pressure from unsustainable fishing and habitat degradation, resulting from intensive development activities such as land clearing, deforestation and dam construction.

The biodiversity of the upper reaches of the Klang river is also high with more than 95 mammal species including serow, tiger, leopard and three species of gibbon; 250 bird species, 63 reptiles, 20 amphibians, 363 butterflies. 20 new endemic species of aquatic insects described at one small site in the catchment in recent years. Most of the upper catchment has been designated as within the Selangor State Park. Rare fish species recorded include the Malaysian Mahseer or Kelah *Tor tambroides*.

Riverine ecosystems and associated biodiversity also has significant socio-economic value – in terms of commercial and subsistence fishery; ornamental fish culture and trade; recreational fishery (a US\$300 million/year industry in Malaysia) as well as playing important roles in water supply, flood control and ecotourism. Degradation of riverine ecosystems leads to increased floods, decreased fisheries as well as loss of potential recreation and tourism revenue.

**Threats:** Riverine biodiversity is however in serious decline in Malaysia with most rivers being affected by high silt loads from land clearing and development or urban or industrial pollution. The rivers are largely found outside of formal protected areas – so are affected by a broad range of land use and industrial impacts as well as direct over-exploitation. The current threats are summarised in the following table under three threat categories.

<sup>2</sup> Riverine biodiversity is defined as biodiversity associated with or influenced by rivers including aquatic biodiversity of rivers, tributaries and water bodies, biodiversity of river corridors and riparian zones, as well as upper catchments.

Threat	Description
Habitat modification and clearance of riparian <sup>3</sup> corridors	Many rivers in lowland areas of Malaysia have been negatively affected by the clearance of the riverine or riparian forests. Most of the lowland catchments have been developed for plantations, agriculture and urban areas. Riverine forests are degraded and fragmented and associated biodiversity has seriously declined. Although guidelines exist for the protection of riparian zones and such sensitive environments are meant to be protected – a large proportion of the riparian zone has been cleared for development of plantations or urban development. In Sabah, recent studies at the proposed project sites along the Kinabatangan and Segama Rivers have indicated that oil palm plantations have been mostly developed up to the river banks with the conversion of forests or other natural vegetation in the riparian zone. The Klang River (another pilot site) passes through urban areas in its mid catchment and most of the river corridor has been converted for urban development – leaving little space for riverine habitats and biodiversity. Construction of dams and weirs along the course of rivers also has a negative effect by blocking natural fish migration and spawning routes. Fish spawning habitat is also destroyed by sand mining, dredging and modification of river banks.
Pollution	More than 40% of river systems in Malaysia are classified as slightly or heavily polluted. The main pollution types are industrial waste and sewage in urban areas such as Kuala Lumpur where the proposed pilot river Klang is seriously polluted by domestic sewage, organic waste from food stalls and restaurants ( which leads to depletion of oxygen levels) as well as waste from small and medium scale industries; high silt loads from land clearing and development for agriculture, plantations and infrastructure lead to siltation of rural rivers in many parts of the country. In the Upper Kinta river for example construction of a highway across erodible soils on steep slopes in the upper catchment have led to serious large scale erosion over the past 10 years leading to extreme silting of the upper section of the Sg Kinta and seriously affecting downstream water supply reservoir as well as aquatic biodiversity. High silt loads blocks the gills of fish stiffling oxygen exchange and resulting in death. High levels of silting also fills up the deep riverine pools important for breeding of large fish species.
Alien Invasive Species	The introduction of Alien invasive species is a serious problem for riverine biodiversity in Malaysia. Introduced species such as the suckermouth catfish <i>Hypostomus plecostomus</i> , (from South America) or tilapia <i>Oreochromis spp</i> (from Africa) are able to survive in the polluted and degraded habitats found in urban rivers such as the Klang River and displace local species. In some riverine habitats, such as the mid-stream of the Sg Gombak in Kuala Lumpur, recent studies showed that invasive species form up to 100% of the fish present and have displaced indigenous fish communities. This problem is compounded by the regular release of additional alien invasive species which are introduced to the country through the trade in ornamental fish. Such fish may be released to the wild for religious purposes or because aquarium owners no longer wish to continue maintaining them.

**Long-term Vision and Barriers:** As called for in the Malaysia’s Common Vision on Biodiversity (2008), the country aspires to maintain integrity of aquatic systems and mainstream biodiversity into river basin management. Federal and state agencies concerning river basin management will have effective collaborative arrangements for riverine management, and riverine biodiversity will be managed according to a river basin and ecosystem based approach. However there are a number of barriers preventing the achievement of the vision and plan. These include:

*a) Sub-optimal enabling framework and capacity for riverine biodiversity management*

One of the other factors that lead to rapid degradation of the rivers and its ecosystem is the lack of appropriate institutional frameworks and capacity for integrated river basin management and the lack of institutional focus on the conservation of riverine biodiversity. The current management of river basins is not holistic. Holistic management requires coordination among multiple government agencies. Relatively weak interagency coordination coupled with unclear jurisdiction and regulations as well as poor enforcement and monitoring has resulted in continuing pollution of rivers, undesirable development along the riverine areas and on-going degradation of protected areas and loss of riparian corridors. The current institutional framework is mainly sector focused and not interlinked. For instance, the main focus of the Department of Irrigation and Drainage and is primarily on flood mitigation and river engineering while the Department of Fishery focuses on commercial fish production and the Forestry Department focuses on management of forest resources. Industrial pollution issues are considered by the Department of the Environment while the local government has responsibility for soil erosion and solid waste. There is no single river-related government body which focuses on integrated river basin management or the conservation of biodiversity or ecosystems of rivers.

There is increasing recognition that the biodiversity of freshwater and riverine ecosystems will only be conserved in the long term if their management is integrated with river basin management plans and practices. However, the understanding and practical experience for this is still low among government agencies, private sector and the community in Malaysia. Moreover, while even stakeholders may agree in principle to better management or conservation of riverine biodiversity – a significant barrier to action is the lack of practical guidance and manuals to undertake river management in a biodiversity friendly manner. Riverine biodiversity conservation as well as the integration of riverine biodiversity concerns into river basin management in Malaysia is also hampered by inadequate efforts on biodiversity assessment and monitoring in rivers. Another important barrier is the lack of effective mechanisms for engaging local communities as well as the private sector in managing rivers and the biodiversity that balances maintenance of riverine biodiversity and associated ecosystem services and allows for sustainable livelihood opportunities..

*b) Absence of successfully demonstrated experiences in integrated riverine management*

A significant barrier to integrated management and conservation of riverine biodiversity is the lack of well-documented practical experiences which can be promoted as best practice to key stakeholders. There are also significant barriers to the collaboration between different stakeholder groups such as between the government, private sector and the local community. In many cases the government acts in an enforcement modality and therefore is normally working in an

<sup>3</sup> Riparian Zone is essentially the land adjacent to streams and rivers; a unique transitional area between aquatic and terrestrial habitats. (Source : Managing Biodiversity in the Riparian Zone, The Ministry of Natural Resources and Environment, Malaysia, 2009)

adversarial way with communities and the private sector. In a complex situation such as the management of rivers - with fragmented government jurisdictions among many agencies – the current situation is one where there is little effective control by the government and often conflicting inputs by the other stakeholders. In order to promote a more integrated and successful approach to conservation of riverine biodiversity it is necessary that there are clear demonstrations of how such approaches can be undertaken by showcasing in different riverine environments and institutional settings a range of workable solutions to problems. Successful practical experience in conserving or rehabilitating riverine habitats is scattered and poorly documented and agencies responsible for river management at local level are frequently not aware of good practices elsewhere.

**Baseline:** Although the Federal government has a range of biodiversity related activities, at present there are little or no dedicated resources or focused activities at national level specifically to address the problems of conservation of riverine biodiversity. As stated above, activities are fragmented between different agencies, un-coordinated and generally with small level of resource allocation. There are however significant resources allocated for other aspects of river management or pollution control which may contribute to the conservation of riverine biodiversity. The proposed project will build on these baseline actions and will leverage increased funding directed to riverine biodiversity management.

In 2005, Department of Irrigation and Drainage (DID) under the NRE launched the One State One River (1S1R) / Living River Programme, which aims to support the State DID in organising a river restoration and water quality improvement programme for one river in their state, with full stakeholder participation. The Programme works to involve everyone in the management of just one river in each state and pool all resources into the rehabilitation and protection of that river. Objectives include: to ensure clean, living and valuable rivers with a minimum water quality of Class II by the year 2015. To make rivers and surroundings a natural recreation area; to ensure rivers are free of rubbish and do not flood. The annual budget of the programme is about US\$3million per year or about US\$300,000 per state per year. One of the rivers supported under the programme is the Kinta River (one of the proposed pilot sites). The main activities supported at present are related to infrastructure for pollution control in the urban areas (e.g. GPT, oil and grease traps) as well as a rubber dam to raise the water level in the mid-section of the river. There are, however, currently no activities supported on the upper section of the Kinta river or specifically to address riverine biodiversity.

In 2011, the Prime Minister launched the River of Life Initiative (ROL) for the Klang River. The ROL is an ambitious initiative being implemented over a period of nine years (2012-2020) to enhance the quality of the Klang River in the centre of Kuala Lumpur. The main elements are beautification and upgrading of urban infrastructure along a 10 km long river corridor in the centre of Kuala Lumpur (budget US\$300 million); upgrading of Kuala Lumpur's Sewage System (Budget US\$600 million); Pollution Reduction and river corridor management ( budget US\$300 million). A pilot ROL public outreach programme was initiated in 2012 with a budget of US\$ 600,000 to explore options to enhance engagement of local communities in reducing pollution of sections of the river. This Initiative is mainly focused on pollution reduction to bring the water quality to Class Iib – making it suitable for recreational use but does not specifically target maintenance or enhancement of biodiversity.

The Sabah State Cabinet adopted the comprehensive Strategy and Action Plan to enhance Water Quality in Selected Rivers in 2012 with the indicative budget of US\$ 132 million over 10 years. The Strategy and Action Plan was developed under the Sabah Development Corridor Initiative, following a two year study looking at five key river basins in eastern Sabah where pollution from oil palm plantations and mills, sand mining and settlements have led to deterioration of river water with negative impacts on biodiversity, water supply and fisheries. A similar plan for the Kinabatangan River has also been developed. The Strategy and Action Plan specifies a number of measures to enhance riverine biodiversity including reducing erosion and agrochemical run-off from plantations through promotion of Best Agricultural practices, controlling pollution from oil palm mills, and enhancing integrated river basin management and catchment protection. Specific recommended actions include protection of all remaining riverine forests, re-establishment of riparian forests to link conservation areas, enhancement of community and private sector engagement in river management and introduction of aquatic biodiversity monitoring programmes. Resources are not currently available to implement the Plan.

Since 2000, the Global Environment Centre (GEC), a Malaysian non-profit organisation has been implementing the River Care Programme to support the engagement of local communities in the protection and rehabilitation of riverine ecosystems. GEC has worked with DID, NRE and local government in six states in Malaysia to undertake assessments of river ecosystems and develop pilot activities for the community based protection and clean-up of rivers. It has developed successful models of river clean-up in conjunction with local authorities and other partners and has built sustaining, multi-stakeholder and community groups in some areas. Projects undertaken have led to documented improvements in water quality and riverine habitat as well as riverine biodiversity. However due to limited resources it has been focused mainly on relatively small project areas. It has worked in all of the proposed project sites and has on-going activities in the Kinta and Klang Basins which will complement and support the proposed project. GEC River Care programme has a planned budget of US\$ 2 million for the next five years which will include work in project sites and other areas.

The European Union is investing 4 million Euro in a project to support community based REDD+ implementation in Sabah. The project support will include capacity building and support for REDD+, as well as three pilot projects. One of them provides target support for government and community to reduce the degradation/forest loss in selected portions of the Kinabatangan river corridor.

**The Project:** The project will focus on addressing the identified barriers to the conservation of riverine biodiversity. The **objective** of the project is: **To mainstream biodiversity conservation into riverine landscapes through improved river planning and management practices in Malaysia.** The main issues and problems in the 3 selected river basins vary and are diverse depending on their location; urban or rural area.

**The incremental approach can be summarised as follows:** The government of Malaysia has clearly identified the critical nature of riverine biodiversity management in its efforts to conserve the amazing array of biodiversity in the country. However, despite strong commitment from the government, actions are seldom taken to concretely remove the barriers to improvement of riverine area management for biodiversity conservation. **In the baseline situation,** the Government’s principal focus of river management remains flood control and water supply with little consideration for riverine biodiversity and habitat management. Uncoordinated management of riverine areas will continue to put pressure on biodiversity from habitat conversion, degradation and pollution. A lack of inter-agency coordination, strategy, capacity and resources will mean that threats to riverine biodiversity will continue to grow, and will likely lead to further habitat fragmentation and destruction. **In the alternative scenario enabled by the GEF,** a set of institutional barriers to integrated and coordinated riverine landscape management will be removed at the national and state levels, backed by development and adoption of the inter-agency strategy to mainstream biodiversity into river management, which provides the foundation for coordinated planning, management including enforcement and compliance monitoring mechanisms. Capacity of institutions responsible for different aspects of river management will be strengthened. Integrated riverine biodiversity management will be demonstrated in three critical habitats in Peninsular and Sabah. The GEF financing will also help catalyze support from both private and public sectors as well as the community towards conservation objectives in the project areas, and provide a mechanism to use such support to generate sustained long-term improvements in riverine biodiversity.

Current Practice	Project Alternative
No national agency with clear responsibility and capacity for the management of riverine biodiversity. Activities, where occurring, are on an ad-hoc, uni-sectoral basis	Nationally agreed strategy to enhance the conservation of riverine biodiversity with allocation of responsibility to different agencies and multi-stakeholder collaboration to enhance riverine biodiversity.
Experience and lessons learned from biodiversity conservation in river management not documented and shared.	Best management practices for riverine biodiversity conservation collated, reviewed, documented and disseminated through appropriate outreach and training programmes and integrated into agency practices.
Investments in river management mainly focused on flood control or water supply with little or no focus on riverine biodiversity	Riverine biodiversity issues mainstreamed into river management planning and practices by national and state agencies
River of Life Project in Klang Basin focusing mainly on pollution control and enhancement of amenity value	ROL integrating biodiversity considerations and helping to conserve or rehabilitate riparian habitats.
Riverine biodiversity in the upper Kinta catchment will continue to deteriorate due to erosion and sedimentation as agencies and local communities work in isolation.	A partnership between government agencies and local communities addresses management in an integrated manner and enhances the management and riverine biodiversity.
Riparian zones along the Segama and Kinabatangan rivers are protected only by selected land owners while others clear and degrade them.	Protection and rehabilitation of riparian zones is enhanced through collaboration and exchange between government, private sector and local communities.

The immediate **global environmental benefits** are improved management of riverine areas securing critically important biodiversity and habitats. Globally important biodiversity and habitats include sub-montane and lowland dipterocarp forest, peat swamp forest and riverine forest. Rare and endangered species include Tiger, Sun bear, Elephant, Orang Utan, Proboscis Monkey and a wide variety of rare and endemic fish (including Kelah (*Tor tambroides*) giant freshwater whip ray (*Himantura polylepis*) and the endemic Borneo river shark (*Glyphis fowlerae*)) and amphibian species. The global environmental benefits will be secured through the **two project components.**

### **Component 1: Enabling institutional framework and capacity for managing riverine biodiversity in productive landscapes**

The majority of river sections and associated biodiversity are found outside of the totally protected areas in Malaysia. Therefore it is critical for the conservation of riverine biodiversity that clear strategies and plans are developed to conserve riverine biodiversity in productive landscapes. These landscapes include regions being developed or managed for agriculture and plantations; urban and semi-urban development; production forests; as well as for water resources management which together cover more than 80% of Malaysia’s land area. The agencies charged for management of these areas do not normally have biodiversity conservation as one of their objectives. It is therefore important to mainstream the concepts of biodiversity conservation into their work and responsibilities as well as in the practices of other stakeholders. This component has two sets of outputs – the first focusing on enabling institutional framework and the second focusing on capacity development of key agencies for managing riverine biodiversity and habitats.

#### **Output 1.1: Inter-Agency Strategy to mainstream biodiversity into river management developed and adopted**

This output will strengthen institutional environment for riverine biodiversity management, catalysing improved management of riverine habitats in Malaysia with increased government investment and active uptake of best practices. A review will be undertaken, through expert consultation and selected assessments of the current strengths and weaknesses of agencies and practices in different sectors to conserve or address the threats to riverine biodiversity. Subsequently an inter-agency strategy to mainstream riverine biodiversity considerations into the work of the respective agencies and other stakeholders (including private sector and local communities) will be developed through a participatory process. The

strategy will identify required measures to better conserve riverine biodiversity in future through multi-stakeholder actions. These will include an inter-agency coordination mechanism with clear jurisdictions of concerned agencies, modalities for coordinated enforcement and compliance monitoring mechanisms. The project will also support development of Best Management Practice (BMP) Guidelines on how to incorporate biodiversity into river management. The project will document best management practices on riverine biodiversity conservation in Malaysia and neighbouring countries through workshops, dialogues, field visits etc., and based on these, develop BMP guidelines. It is envisaged that these guidelines would be endorsed by DID and promoted for use by a range of stakeholders.

#### Output 1.2: Institutional capacity building

Building on an assessment of human resource and skills requirements during the PPG and Outputs 1.1, a range of capacity building actions will be undertaken for targeted stakeholders (including government agencies, private sector and CSOs). Capacity building activities will include development of modules and materials, training courses, workshops, and public awareness. It is envisaged that the outcome of the capacity building will include: establishment of river ecosystem unit in DID and or enhanced DID capacity on riverine biodiversity as determined through use of the UNDP capacity development scorecard; strengthening biodiversity capacity in other key agencies; introduction of enhanced practices for biodiversity conservation in river management by agencies/other stakeholders in at least four states.

#### **Component 2: Critical riverine habitat management demonstration**

In order to address the second barrier stated above, this component will pilot actual operationalization of integrated riverine area management, mainstreaming biodiversity conservation and habitat management in land use decision making and practices. The component will provide targeted support for three selected river basins sites with significant riverine biodiversity and habitats. The three sites have been selected based on a range of criteria, including biodiversity significance, involvement of multiple stakeholders including civil society, government priorities and associated baseline projects, and different elements for generating experiences and lessons based on various local conditions and circumstances.

River Basin	State	River Length & Basin Area Size	Biodiversity significance	Threats	Baseline Projects	Key Demonstration Objective	Key Stakeholders
Kinta	Perak	100 km 2,540 km <sup>2</sup>	Important forest and aquatic biodiversity including tiger, Asian elephant, Malayan Tapir and Sun Bear, as well as rare plant and bird species. Endangered fish species include the Seven-striped Barb, or Temoleh.	Pollution and siltation from erosion from infrastructure development / modified river flow due to dam construction, shifting cultivation by local <i>Orang asli</i> communities	DID's 1S1R/Living River Programme (solid waste and pollution management in mid-section of the river in Ipoh City.)  GEC's River Care Programme (collaboration management with stakeholders in mid-catchment)	Mainstreaming of biodiversity in the management of the upper catchment of a river currently managed for water supply purposes through establishment of measures to control erosion and enhance protection of catchment forests.	DID, Perak Water Board, Forestry and Fishery Depts., Public Works Dept., GEC, Local communities
Klang	Selangor/ Kuala Lumpur	120 km 1,288 km <sup>2</sup>	95 mammal species including serow, tiger, leopard and three species of gibbon; 250 bird species, 63 reptiles, 20 amphibians, 363 butterflies. 20 new endemic species of aquatic insects described at one small site in the catchment in recent years. Most of the upper catchment has been designated as within the Selangor State Park. Rare fish species recorded include the Malaysian Mahseer	Clearance and conversion of river corridor, Industrial and domestic waste pollution, Invasive Alien fish Species	The Government's ROL Programme as part of the Government's Economic Transformation Programme.	Mainstreaming of biodiversity in river management in urban and semi-urban areas including enhancement of habitat in river corridor and controlling alien invasive fish	DID, Selangor Waters Management Authority, Kuala Lumpur City Hall, Fishery Department, GEC, local communities
Kinabatangan /Segama	Sabah	560 km 16,800 km <sup>2</sup> (Kinabatangan)  330 km 4,744 km <sup>2</sup> (Segama)	50 mammal species, including the Sun Bear, Pygmy Elephant, Sumatran Rhino, Clouded Leopard, Proboscis Monkey, Orang Utan and Bornean Gibbon. Kinabatangan is Over 90 species of fish, including the freshwater whipray and the endemic Borneo river shark as well as a newly-described endemic bagrid catfish species. A number of protected areas are in the Segama Basin, including Tabin Wildlife Reserve and Danum Valley.	Fragmentation of riverine forests caused by oil palm plantation development	Sabah State Government's Strategy and Action Plan to Enhance Water Quality in Selected Rivers in Sabah, EU supported Sabah REDD+ Programme	Expansion and improved effectiveness of riparian corridors in agriculture and plantation landscapes	DID, GEC, Sabah Wildlife, Forestry and Fishery Depts., Environmental Protection Dept., Sabah Biodiversity Centre, oil palm sector, EU, WWF

Separate outputs have been developed according to the needs and opportunities in the selected river basins as follows:

Output 2.1: Biodiversity management strengthened and habitat enhanced through improved water reservoir catchment management in Upper Kinta River Basin.

Based on the results of a rapid assessment of the catchment in 2013 the project will support more in-depth assessments on biodiversity distribution and status in the Upper Kinta Catchment threats (eg land clearing, soil erosion, pollution etc) and management options and develop a multi-stakeholder management strategy and action plan for the catchment. Based on the plan, a range of actions will be undertaken with key stakeholders including local communities to support implementation of the management strategy including for example - support erosion control measures through community based forest rehabilitation or development of soil bio-engineering options along main access roads; reducing impacts of indigenous communities on river water quality by providing alternative land development approaches and generating alternative incomes for *Orang asli* communities linked to forest protection such as ecotourism or forest rehabilitation in the reservoir catchment. It is envisaged that this sub-component will lead to enhanced conservation of threatened aquatic biodiversity through erosion control and better protection of 17,000ha of biodiversity- rich catchment forests through multi-stakeholder partnership in upper Kinta Basin, indicated by improved river water quality and riverine habitat and status of threatened species, as well as a decrease in local threats such as increased community incomes from habitat protection compatible activities.

Output 2.2: Riverine biodiversity and habitat management integrated into planning and implementation of urban river management programmes in the Klang River Basin

Under the aforementioned Government's RoL Programme, DID as the lead agency for the river clean-up component will work with the project to incorporate biodiversity considerations into the future implementation of the ROL programme. It is envisaged that the activities will include:

- Physical enhancement of riverine habitats in the upper Klang River based on detailed assessment of the status of riverine biodiversity in selected parts of the Klang River basin and strategies to enhance riverine biodiversity conservation.
- Training and awareness programmes for key government and community stakeholders on river pollution control and habitat enhancement.
- Promote the control of alien invasive species and enhancement of indigenous riverine biodiversity in urban areas through introduction of controls on the sale and release of alien invasive fish species.

The expected outcomes will include riverine biodiversity conservation being incorporated into the Klang River of Life Programme with natural river stretches better protected and x-km of river adopted by local stakeholders with riverine habitats enhanced, indicated by improved status of endemic fish species such as Malaysian Mahseer in upstream Klang river basin and operational measures to control alien invasive fish species.

Output 2.3: Riparian habitat protected and enhanced in partnership with the private sector and local communities in Kinabatangan and/or Segama rivers in Sabah

The focus of the pilot activity in Sabah State will be to mainstream biodiversity into implementation of the Strategy and Action Plan to enhance Water Quality in Selected Rivers in Sabah – which was approved in late 2012 – but has yet to be implemented. It is proposed in particular to focus on those elements related to the establishment and maintenance of riparian zones along rivers, following the national Guidelines for managing biodiversity in the riparian zone approved by the NRE in 2010.

The project will work with local stakeholders to support protection and rehabilitation of additional riparian forests and associated biodiversity in Sabah, expanding and strengthening the existing riparian corridors. Existing best practices for plantation and community-based protection and rehabilitation of riparian zones along the Kinabatangan and Segama rivers will be documented and promoted. There are already some good practices of riverine habitat management by the private sector and communities in some parts of the river basins. The project will support up-scaling of the good practices in larger areas in the riverine landscapes. The expected outcomes will include protection and enhancement of y-km of riparian zone along Kinabatangan and/or Segama Rivers through public-private-community partnerships. Possible indicators for the outcome are the size of riparian areas within production landscape managed for biodiversity, maintenance or increase in the number of endangered or vulnerable species such as Borneo River Shark and Bornean Gibbon. Exact target areas and indicator species will be determined during the PPG.

It is envisaged that this work will be undertaken in collaboration with The Sabah Environmental Protection Department – which is responsible for preventing negative impacts of plantations on rivers in the state, as well as the DID, Sabah Agriculture Department and Land departments and local authorities. Collaboration will also be made with the Roundtable on Sustainable Palm Oil (RSPO) and NGO coalitions working to conserve the Kinabatangan River Corridor.

**Innovativeness, sustainability and potential for scaling up:** The proposed project is innovative in that it focusses on multi-stakeholder engagement which is critical to address protection and sustainable use of riverine biodiversity and resources in a sustainable manner. There is a proposed high engagement of local communities and the private sector ( oil palm and tourism industries) in all three of the project sites. Sustainability will be enhanced by integrating the project with national and state level initiatives and frameworks including the River of Life Initiative, Living River/One State, One River Programme, Sabah Strategy and Action Plan for enhancing water quality in selected rivers in Sabah and the Master plan for



the Lower Kinabatangan. Close involvement of a broad range of government, private sector and civil society stakeholders will also contribute to sustainability. The project will have high potential for scaling up as it will focus on establishment of multi-stakeholder partnerships and practical demonstration of new approaches to riverine protection, management and rehabilitation.

## A.2. Stakeholders:

STAKEHOLDERS	MANDATE AND RELEVANT ROLES IN THE PROJECT
Ministry of Natural Resources and Environment (NRE)	Federal Government Ministry which is to be the national executing agency for the project. It is responsible for natural resources management, conservation and management of environment especially biodiversity conservation, river basin, wildlife and forest management and includes key divisions such as Biodiversity and Forestry Management; and Water Resources Drainage and Hydrology and key departments such as: Department of Irrigation and Drainage ( the proposed government project implementing agency), Department of Wildlife and National Parks, Department of Environment, and Department of Forestry
Department of Irrigation and Drainage (DID)	The Department of Irrigation and Drainage (DID) is the key government agency managing water resources management in Malaysia esp. on river management with the vision to lead and provide world class services in water resources management especially river and coastal zone management to enhance quality of life by ensuring water security and environmental sustainability. DID Malaysia will be the lead government implementing agency of the project
Global Environmental Centre	Global Environment Centre (GEC), local leading non-profit organisation working on water resource and river management in Malaysia with active involvement at national, regional and global level. It has undertaken field projects in more than 15 countries and has more than 15 years hands-on experience in water resource, river and biodiversity conservation especially through local stakeholders participation. It will act as a co-implementer with DID.
Economic Planning Unit (Federal/State)	Federal/State Government Agency responsible for national economic and development planning, as well as development of strategies and policies in determining financial allocations for the various sectors of the national economy and as well as coordinate cross-cutting socio-economic. All three state EPU of demonstration states: Economic Planning Unit of Selangor, Perak and Sabah will be playing key role on facilitating state governments' engagement in the project.
Forestry Department	The Forestry Department of Peninsular Malaysia is responsible for overseeing the management of forests in particular in forest reserves. It is a lead implementing agency in the associated GEF supported project on the central Forest Spine. State forestry departments in Selangor, Perak and Sabah are responsible for the management of forests in the respective targeted basins and can support activities to rehabilitate riparian zones.
Fishery Department	The federal Fishery Department is responsible for the management of fish and other aquatic resources in the country. The main focus is on marine fisheries, but a Freshwater Fishery Research Centre looks at freshwater fish from the perspective of aquaculture and to some extent management and conservation. The department also has an office dedicated to freshwater fish taxonomy. State fishery departments are responsible for management of riverine and lake fishery – but are more active in those states with large river systems ( eg Sabah, Sarawak and Pahang) or large water bodies/lakes ( eg Perak, Terengganu)
State Governments and agencies	State Governments in the project pilot implementation sites are critical stakeholders in ensuring the security of the priority areas and corridors in their respective state, as water catchment and forestry policy formulation and implementation is responsibility of the state agencies. Among the agencies are : State Departments for forestry and fisheries; water resources agencies like Selangor Waters Management Authority (SWMA) and Perak Water Board, and Environment Protection Department of Sabah (EPD)
Ministry of Housing and Local Government	Key Ministry responsible for planning, coordinating and implementing excellent as well as sustainable living environment for Malaysian people. The local authorities or the proposed demonstration sites as well as the department of Town and Country Planning, the initiator of the National Physical Plan, falls under this Ministry.
Ministry of Agriculture and Agro-Based Industry	Federal Government Agency responsible for planning and implementation of policies, strategies and agricultural development programmes and houses two departments relevant to biodiversity conservation: Department of Agriculture and Department of Fisheries.
Ministry of Works	Federal Government Ministry responsible for infrastructural development and providing policy and regulatory framework for the construction sector and construction and management of federal roads through Department of Works.
Private Sector: Oil Palm	Some of selected oil Palm plantations in project site play significant role on integrating biodiversity conservation into their land management activities and as well as supporting the project through their CSR programme. The project will also collaborate with the Roundtable on Sustainable Palm Oil to promote good management of riparian buffers by their various member companies.
Tourism business	Tourism operators, concessionaires, lodge owners in one of the targeted demonstration site (Perak) esp. shall be key stakeholders in the projects, in support of biodiversity conservation plan development especially through alternative livelihoods based on community based eco-tourism.
Civil society organizations & Local communities	Local communities are key users and beneficiaries of the riverine biodiversity and water resources. They are the affected parties of human wildlife habitat conflict, and play a major role in local habitat conservation and ecosystem services. Important co-implementers of demonstration level activities including Dissemination of project information and awareness programme, Community monitoring/stewardship, designing and implementation of socio-economic measures to establish biodiversity conservation sites, as well as participatory biodiversity and ecosystem service monitoring and protection activities. Among the key CSOs likely to be involved are KOPEL, KAPOK, HUTAN and Kinabatangan River Spirit Initiative (Kinabatangan River).
Indigenous community organisations	Organisations such as The Indigenous Peoples Network of Malaysia or Jaringan Orang Asal Se-Malaysia (JOAS) working for indigenous community rights will be important stakeholders in biodiversity conservation demonstration level activities including forest and fishery resources monitoring and management. Traditional knowledge on land and water management and will be involved in implementation of relevant activities like "Tagal" system and ecotourism, as well as being represented in the project implementation committees at state level.

**A.3 Risk. Indicate risks, including climate change, potential social and environmental risks that might prevent the project objectives from being achieved, and, if possible, propose measures that address these risks.**

RISK	RANKING	MITIGATING MEASURES
Various government agencies responsible for the management of different aspects of river basins are unwilling to coordinate and collaborate, leading to inappropriate/conflicting development in the catchment, e.g. logging, road construction, plantation etc. and undermining project progress.	MEDIUM	The Government recognises the need for better coordination to improve riverine area management. The project will develop the inter-agency strategy to mainstream biodiversity into river management, which will be adopted by key agencies. The Strategy will include a inter-agency coordination mechanism with clear jurisdictions of concerned agencies as well as coordinated enforcement and compliance monitoring mechanisms. It will also include plans for mainstreaming riverine biodiversity management into operations of related sector agencies, private sector and communities, collaborative operational modality and a financing plan. The project will also invest in capacity development of NRE, DID and other relevant agencies at Federal and local levels for effective collaboration between institutions. At the site level, collaboration will be established by: establishment of site level project coordination committees and/or riverine area management working committee that will be linked to existing state committees and mechanisms.
Local communities will be reluctant to engage in project activities and in riverine habitat management in general	Low	The site level component 2 of the project builds on aforementioned extensive baseline activities. Active consultations with the local communities will be conducted from early stage of the PPG phase. During the PPG phase, local champions will be identified who will act as anchors for the project activities. Other forms of engagement will include capacity building trainings and provision of incentives for their participation during the implementation phase of the project. These plans will be elaborated during the PPG phase based on through socioeconomic analysis and consultations on the ground with both man and women, with due consideration for gender dynamics.
Climate change impacts, such as increased storm events and rising water temperatures and levels, could affect critical habitat such as forest cover and habitats and biodiversity and ultimately on water resources.	Low	The Project will work to address the anticipated negative impacts of climate change by increasing resilience of river basins, taking the basin-wide approach. This approach, coupled with the generation of accessible information on environmental parameters, will enable climate change trends and impacts to be identified and relevant management and conservation strategies to be developed in a timely fashion.

**A.4. Coordination. Outline the coordination with other relevant GEF financed and other initiatives:**

The project will complement and link to the pipeline GEF financed project to Improving Connectivity in the Central Forest Spine (IC-CFS) Project implemented through UNDP. The upper catchments of the Kinta and Klang Rivers are parts of the 5 million ha CFS, although not in the specific areas targeted for action through the CFS project. The overall elements of the CFS project which deal with sustainable forest area landscape management and development of PES schemes will be particularly complementary. This proposed project will generate the strategy, guidelines and best practices for conservation of riverine biodiversity which will be relevant to other portions of the CFS area. Close coordination will be achieved through regular contacts, updates and information exchanges between the two lead government agencies, namely the Forestry Department Peninsular Malaysia and DID that are both under the NRE, through the steering committees that will be chaired by the NRE.

Major linkages identified are the links to the Living River/ISIR Programme of DID (Kinta River) and the River of Life Initiative (Klang River). The project will be fully integrated in these on-going initiatives. In Sabah the project will be linked to the implementation of the Sabah Strategy and Action Plan for Enhancing Water Quality in Selected rivers in Sabah as well as on-going work for the conservation of the lower Kinabatangan/ Segama Rivers coordinated by the Wildlife Department and Forestry Department. Links will be made with the European Union Supported work to facilitate Community-based REDD+ activities in the Kinabatangan River Corridor. Links will also be made with the on-going work of GEC's River Care Programme. Further consultations with Government agencies, GEF Focal Point, UNDP and other agencies (local, national and bilateral donors), and private sector and CSOs will be undertaken during the design stage of the project.

**B.1 Description of the consistency of the project with:**

**National strategies and plans or reports and assessments under relevant conventions, if applicable:**

Malaysia's National Policy on Biological Diversity was endorsed in 1997. The policy recognises, among others the importance of freshwater and riverine ecosystems in providing ecological services such as improvement of water quality, maintenance of hydrological regime and the need for watershed protection. The policy identifies freshwater and riverine ecosystems as one of the inadequately protected ecosystems that require increased efforts for in situ conservation. It also encourages the consideration of biodiversity issues in sectoral policies, such as water policies. The Common Vision on Biodiversity (2008) and specifically calls for the maintenance of integrity of aquatic systems and the mainstreaming of biodiversity into river basin management. Addressing inland water biodiversity conservation is one of the key areas emphasized in the Malaysia's 4th National Report (2010) to CBD. Malaysia is currently in the process to update the 1998 National Biodiversity Strategy and Action plan which is expected to be completed by October 2014. Malaysia's National Policy on Wetlands (1999) calls for action to enhance conservation efforts in wetlands. One of the action plans outlined

was the need to develop and implement integrated management plans, and coordinate these at each specific wetland site and within the catchment.

Various steps have been taken by the government in recent years to facilitate a more integrated approach to the management of rivers and water resources such as:

- The current development of the National Water Resources Policy to manage the water resources sustainably.
- Under 9th and 10th Malaysia Plan to expand the implementation of IWRM and IRBM.
- River basin management/rehabilitation plans have been established for several key river basin such as Sg. Langat, Sg Muar and Sg. Klang.
- In Economic Region plans, eg. Sabah Development Corridor and the Northern Corridor Economic Region emphasise environmentally sustainable development
- The National Physical Plan, particularly, under the establishment of the Central Forest Spine

### **B.2 GEF focal area and/ or fund (s) strategies, eligibility criteria and priorities:**

The project conforms closely to the GEF's Operational Strategy, the objectives and the eligible activities under the Biodiversity Focal Area (FA) Strategy; supporting directly Strategic Objective 2, "To mainstream biodiversity conservation and sustainable use into production landscapes, seascapes and sectors", mainly through Outcome 2.1: Increase in sustainably managed landscapes and seascapes that integrate biodiversity conservation and Outcome 2.2: Measures to conserve and sustainably use biodiversity incorporated in policy and regulatory frameworks. The project will contribute to the GEF objective and outcomes through strengthening institutional environment and capacity for riverine biodiversity management, catalysing improved management of riverine habitats in Malaysia, and through demonstrating integrated riverine area planning and management in three critical biodiversity rich riverine areas. In addition, the project will contribute to achievement of the Aichi Targets, in particular under the strategic goal B: Reduce the direct pressures on biodiversity and promote sustainable use, Target 5: the rate of loss of all natural habitats, including forests, is at least halved and where feasible brought close to zero, and degradation and fragmentation is significantly reduced; Target 7: areas under agriculture, aquaculture and forestry are managed sustainably, ensuring conservation of biodiversity; Target 8: reduction of pollution to levels that are not detrimental to ecosystem functions and biodiversity; and Target 12: preventing extinction of known threatened species.

### **B.3 The GEF Agency's comparative advantage for implementing this project:**


UNDP's strategy in environment and energy is to support transition to low carbon and climate resilient development. The UNDP's Biodiversity and Ecosystems Programme comprises a large portfolio of biodiversity mainstreaming projects, with 55 projects in 45 countries globally. In the UNDP operation in Malaysia, The project fits within the UNDP Country Programme Document (CPD), covering 2013-2015, directly contributing to the achievement of CPD Outcome 2 "Strengthened institutional capacity in managing climate change, including achieving both the 2015 renewable energy target of 5.5% of total electricity generation mix and an enhanced national framework for biodiversity management of the central forest spine in Peninsular Malaysia and the heart of Borneo." The UNDP has a significant current biodiversity portfolio in Malaysia, which is mostly financed with GEF funding, ranging from the IC-CFS Project, Protected Area Financing Project, Sabah multiple use forest management project, ABS project, Biodiversity Enabling Activities to update the NBSAP, Biodiversity Financing Project. The UNDP Country Office (CO) will assign an experienced biodiversity conservation programme manager within the Energy and Environment Unit, guided by the head of the Unit and supported by the alternate, administrative assistant, and the UNDP finance office. The UNDP Regional Technical Adviser based in Bangkok will provide technical support to the CO for implementation, monitoring and evaluation of the project.

**PART III: APPROVAL/ENDORSEMENT BY GEF OPERATIONAL FOCAL POINT(S) AND GEF AGENCY**

**A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S):**

<b>NAME</b>	<b>POSITION</b>	<b>MINISTRY</b>	<b>DATE</b> <i>(MM/DD/YYYY)</i>
Dr. Lian Kok Fei GEF Operational Focal Point	Undersecretary, Environmental Management and Climate Change Division	Ministry of Natural Resources and Environment	01/22/2014

**B. GEF AGENCY(IES) CERTIFICATION**

<b>This request has been prepared in accordance with GEF/LDCF/SCCF policies and procedures and meets the GEF/LDCF/SCCF criteria for project identification and preparation.</b>					
<b>Agency Coordinator, Agency name</b>	<b>Signature</b>	<b>Date</b> <i>(MM/DD/YYYY)</i>	<b>Project Contact Person</b>	<b>Telephone</b>	<b>Email Address</b>
Adriana Dinu UNDP/GEF Executive Coordinator and Director a.i		01/28/2014	Midori Paxton, Regional Technical Advisor, EBD, UNDP	+66- 818787510	midori.paxton @ undp.org