



REQUEST FOR MSP APPROVAL (1-STEP PROCEDURE)

TYPE OF TRUST FUND: GEF TRUST FUND

PART I: PROJECT IDENTIFICATION

Project Title:	Developing and Implementing a National Access and Benefit Sharing Framework in Malaysia		
Country(ies):	Malaysia	GEF Project ID: ¹	TBD
GEF Agency(ies):	UNDP	GEF Agency Project ID:	5191
Other Executing Partner(s):	Ministry of Natural Resources and Environment (NRE), Forest Research Institute Malaysia (FRIM), Centre of Excellence for Biodiversity Law (CEBLAW), Sabah Biodiversity Centre (SaBC), Sarawak Biodiversity Centre (SBC)	Submission Date:	August 30, 2013
GEF Focal Area (s):	Biodiversity	Project Duration (Months)	48
Name of parent program (if applicable):	N/A	Agency Fee (\$):	187,150

A. FOCAL AREA STRATEGY FRAMEWORK²:

Focal Area Objectives	Expected FA Outcomes	Expected FA Outputs	Trust Fund	Grant Amount (\$)	Co-financing (\$)
BD-4	4.1 Legal and regulatory frameworks, and administrative procedures established that enable access to genetic resources and benefit sharing in accordance with the CBD provisions	4.1 Access and benefit-sharing agreements (no.) that recognize the core ABS principles of PIC and MAT including fair & equitable sharing of benefits.	GEF TF	1,970,000	5,833,000
Total Project Cost				1,970,000	5,833,000

B. PROJECT FRAMEWORK

Project Objectives: To strengthen the conservation and sustainable use of biological and genetic resources in Malaysia through developing the national framework for the implementation of Access and Benefit Sharing (ABS) under CBD

Project Component	Grant Type	Expected Outcomes	Expected Outputs	Trust Fund	Indicative Grant Amount (\$)	Indicative Cofinancing (\$)
1. Development of a National Regulatory	TA	1.1 A national law on ABS comes into force, taking into account aspects of ABS and intellectual property rights	1.1 National law and implementing regulations on ABS developed with stakeholder participation. 1.2 Institutional framework including	GEFTF	377,900	1,405,000

¹ Project ID number will be assigned by GEFSEC.

² Refer to the reference attached on the [Focal Area Results Framework](#) when filling up the table in item A.

and Institutional Framework on ABS consistent with the Nagoya Protocol		<p>(IPR) in line with the CBD and the Nagoya Protocol (NP) and related international instruments and national circumstances.</p> <p>1.2 Established institutional framework facilitate implementation of the national ABS law and NP at federal and state levels.</p> <p>1.3 Sui generis framework for the protection of traditional knowledge³</p> <p>1.4 Implementation framework on the national law developed towards accession to⁴ NP</p>	<p>national and state competent authorities and supporting measures established to enable implementation of the national ABS law at federal and state levels.</p> <p>1.3 Financial and funding mechanisms established at federal and state levels to receive and reinvest proceeds from ABS agreements towards the conservation of biological diversity and sustainable use of its components.</p> <p>1.4 Supportive institutional framework for <i>sui generis</i> systems for protecting traditional knowledge, innovations and practices and customary uses of biological resources in Sabah</p> <p>1.5 Community protocols constitute the basis for clarifying PIC and MAT requirements between users and providers of traditional knowledge and biological resources.</p> <p>1.6 Ethical code of conduct or guidelines for research on traditional knowledge and genetic resources</p> <p>1.7 Consultation completed with all states and paper on accession to the Nagoya Protocol developed for Cabinet's approval.</p>			
2. Capacity building for implementation of the National ABS Framework	TA	<p>2.1 Capacities of national and state competent authorities and related agencies for ABS implementation improved by at least 30% as measured by prototype ABS Capacity Development Scorecard</p> <p>2.2 80% of the population of researchers, local communities, and relevant industry targeted by the campaign is aware of the National law and CBD and NP provisions related to ABS and traditional knowledge (TK).</p>	<p>2.1 Improved capacities of the state Competent Authorities (CA), National Competent Authority (NCA) and related agencies through training of 100 staffs on processing access applications, negotiating ABS agreements and monitoring and tracking to ensure compliance.</p> <p>2.2 Training programme and modules on bio-prospecting and research procedures developed and made available to federal and state research institutions.</p> <p>2.3 Mechanisms institutionalized to facilitate access to information and support compliance under the national law and the NP.</p> <p>2.4 Campaign to raise awareness on the ABS law, CBD and Nagoya Protocol</p>	GEFTF	470,600	1,200,000

³ A *Sui generis* framework has more elements, but for the purpose of this project and to meet the immediate objectives the focus will be on PIC.

⁴ To be a party to NP, the federal government will require concurrence of all 13 states governments. This exercise will take some time and may extend beyond the life of this project. Some states are showing apprehension, which will require attention during this project and probably beyond. During the GEF constituency meeting held in Cambodia in March 2013, the GEF representative informed the meeting that it is not a prerequisite to be a party to NP at the end of a project which tries to develop national frameworks on ABS.

			targeting researchers, local communities, and relevant industry. 2.5 Knowledge, attitudes and practices (KAP) assessment surveys targeting specific groups (e.g., researchers, local communities, and relevant industry) that may use or benefit from ABS transactions are carried out to assess enhanced awareness about national ABS law, the CBD and Nagoya Protocol.			
3. Demonstratio n of best practice ABS processes (three) recognizing the principles of biodiversity conservation, Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits.	TA	3.1 At least 2 ABS pilot agreements negotiated for specific bio-prospecting activities with fair and equitable benefit sharing provisions. 3.2 At least 3 PIC processes with ILCs implemented in accordance with the planned PIC/community protocol. 3.3 Best practice pilot ABS agreements and PIC processes disseminated at regional level. 3.4 At least 2 ABS pilot agreements negotiated that include <i>in situ</i> and/or <i>ex situ</i> conservation measures to ensure the security of the concerned biological resources (<i>The exact extent of ha will be defined during the inception phase.</i>) 3.5 At least 80% of the population of ILCs participating in the pilot projects are aware of the existence, use and option values of the biological resources under their stewardship.	3.1 Demonstration project on the documentation of traditional knowledge associated with biological resources of Kensiu (Kedah) and Kintak (Perak) Orang Asli for the development of one prototype product for potential commercialization. 3.2 Demonstration project on the development of a pilot ABS agreement with Semai Orang Asli (Perak) for the development of one prototype nutraceutical product for initial commercialization. 3.3 Demonstration project on the utilization of genetic resources associated with TK for the development of health and personal care products in Sarawak 3.4 Best practice pilot ABS agreement and PIC processes in Malaysia are made available to regional audiences. 3.5 <i>In situ</i> and/or <i>ex situ</i> conservation measures to ensure the security of the concerned biological resources are integrated into the pilot projects. 3.6 Awareness raising activities are integrated into pilot projects to increase understanding of the values of biological resources under the stewardship of participating ILCs.	GEFTF	950,500	2,328,000
Subtotal					1,799,000	4,933,000
Project Management Cost ⁵				GEFTF	171,000	900,000
Total Project Cost					1,970,000	5,833,000

⁵ PMC should be charged proportionately to focal areas based on focal area project grant amount in Table D below.

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

Sources of Cofinancing	Name of Cofinancier	Type of Cofinancing	Amount (\$)
National Government	Ministry of Natural Resources and Environment	Grant	3,000,000
National Government	Forest Research Institute Malaysia	Grant	828,000
Local Government	Sabah Biodiversity Centre	Grant	1,172,000
Local Government	Sarawak Biodiversity Centre	Grant	800,000
GEF Agency	UNDP	Grant	33,000
Total Cofinancing			5,833,000

D. GEF/LDCF/SCCF/NPIF RESOURCES REQUESTED BY AGENCY, FOCAL AREA AND COUNTRY

GEF Agency	Type of Trust Fund	Focal Area	Country Name/Global	Grant Amount (a)	Agency Fee (b)	Total c=a+b
UNDP	GEFTF	Biodiversity	Malaysia	1,970,000	187,150	2,157,150
Total Grant Resources				1,970,000	187,150	2,157,150

E. CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Grant Amount (\$)	Cofinancing (\$)	Project Total (\$)
International Consultants	22,000	0	22,000
National/Local Consultants	39600	0	39,600

F. DOES THE PROJECT INCLUDE A “NON-GRANT” INSTRUMENT? No

(If non-grant instruments are used, provide an indicative calendar of expected reflows to your Agency and to the GEF/LDCF/SCCF/NPIF Trust Fund).

PART II: PROJECT JUSTIFICATION

Project Overview

A.1. Project Description. Briefly describe the project, including ; 1) the global environmental problems, root causes and barriers that need to be addressed; 2) the baseline scenario and any associated baseline projects, 3) the proposed alternative scenario, with a brief description of expected outcomes and components of the project, 4) incremental cost reasoning and expected contributions from the baseline , the GEFTF, LDCF/SCCF and co-financing; 5) global environmental benefits (GEFTF, NPIF) and adaptation benefits (LDCF/SCCF); 6) innovativeness, sustainability and potential for scaling up.

Situation Analysis taking into account national circumstances and policies

Malaysia's Importance for Biodiversity and Traditional Knowledge

1. Malaysia belongs to the Sundaland biogeographical region which comprises the Malay Peninsula and the Malay Archipelagic islands of Sumatra, Java, Borneo, and surrounding smaller islands and has been identified as the Sundaland hotspot, a mega-biodiversity region with a wide array of coastal, marine and terrestrial ecosystems. Sundaland is further divided into eco-regions. The global significance of Malaysia's biodiversity is reflected in the representation of several G200 Ecoregions in East and West Malaysia, including tropical lowland, mangrove, peat and montane forests, and marine ecoregions (Sulu-Sulawesi Marine Eco-region and the Andaman Sea)⁶ and in its recognition as one of 17 mega-diversity countries in the world⁷. The flora of Malaysia is exceedingly rich and is conservatively estimated to contain about 15,000 species of flowering plants, more than 2,000 species of ferns, 800 mosses and 700 fungi⁸. Many of these are found nowhere else in the world. In Peninsular Malaysia, for example, well over 26% of the tree species are endemic. Higher endemism is expected in the herbaceous flora with some of the larger genera estimated to be endemic in more than 80% of their species. Diversity is also high among the fauna, with about 306 species of wild mammals, more than 742 species of birds, 567 species of reptiles, 242 species of amphibians, more than 449 species of freshwater fish and more than 150,000 species of invertebrates⁹. Marine biodiversity in Malaysia is globally significant, with coral diversity and associated fish diversity consisting of 221 and 298 species respectively, both representing 80 % of the total species found in an equivalent area in the "Coral Triangle", and other marine species of conservation importance such as dolphins, turtles and dugong also occur.

2. Malaysia also has significant cultural diversity, comprising some 18 sub-ethnic *orang asli* groups in Peninsular Malaysia, 3 major ethnic and 30 sub-ethnic communities in Sabah; and 30 ethnic communities in Sarawak. Up to November 2012, more than 800 species of medicinal and aromatic plants has been documented through consultation with indigenous peoples in Peninsular Malaysia and 760 plants used in traditional knowledge (TK) had been documented through consultation with indigenous peoples in Sarawak.

Legal and Policy Context

⁶ http://en.wikipedia.org/wiki/Global_200 Accessed 18 March 2013

⁷ <http://www.biodiversitya-z.org/areas/26> Accessed 18 March 2013

⁸ Source: <http://www.nre.gov.my/English/Biodiversity/Pages/biodiversity.aspx> Accessed 18 March 2013.

⁹ Source: <http://www.nre.gov.my/English/Biodiversity/Pages/biodiversity.aspx> Accessed 18 March 2013.

3. Malaysia's rich biological heritage has a huge potential to be explored for new wealth creation and to enhance the development of the nation in line with the National Policy on Biological Diversity (NPBD, 1998) and the National Biotechnology Policy (2005), and within the wider framework of the New Economic Model (2010) and the 10th Malaysia Plan (2011-2015). The Convention on Biological Diversity (CBD) gives the recognition that biological diversity is the sovereign right of a nation opposed to the view that biological resources are the common heritage of mankind. Thus nations have the full right over biological resources within their boundaries and can regulate the access to these resources. One of the three objectives of the CBD, as set out in its Article 1, is the *"fair and equitable sharing of the benefits arising out of the utilisation of genetic resources, including by appropriate access to genetic resources and by appropriate transfer of relevant technologies, taking into account all rights over those resources and to technologies, and by appropriate funding"*. Article 15 of the CBD provides the framework relating to the rights and obligations regarding access to genetic resources and their subsequent use, for which national governments are obliged to take legal, administrative or policy implementing measures.

4. In Malaysia's case, the NPBD (1998) states that a review of national legislation should be carried out to identify the areas where new legislation or enhancements are required to put into effect the commitments under the CBD, including those required to implement codes of practice for collectors, and to protect intellectual property rights (IPRs) and other ownership rights. The NPBD also identifies the sustainable utilisation of biological diversity and the equitable sharing of the benefits arising there from as a strategy for biodiversity conservation, and proposes the undertaking of appropriate activities in bio-prospecting as a means by which this can be done. The National Capacity Self Assessment (2008) further establishes the need to build capacity in ABS and TK. The implication is that there is a need for the establishment of a regulatory framework for access to biological resources and benefit-sharing. The implementation of national measures will also have to take into account other international processes which are relevant to, and impact on, the development in this area.

5. At present, only Sabah and Sarawak have established a legal framework on ABS. Sarawak Biodiversity Ordinance was first enacted in 1997 and revised in 2003 to address issues related to biodiversity including ABS and TK. Further, in 2004, Sarawak enacted the Sarawak Biodiversity Regulations to regulate access to biological resources which are declared by Sarawak Biodiversity Council as protected resources¹⁰ and knowledge supplied by natives. Sarawak is planning to revise these laws to include provisions regulating benefit sharing and compliance. The Sabah Biodiversity Enactment was passed in 2000 which among others establishes the legal framework for ABS in Sabah. The Sabah Biodiversity Centre (SaBC) is in the process of enforcing this enactment pending the adoption of the subsidiary regulations to enable its full implementation.

6. Malaysia does not have a national regulatory framework on ABS but NRE has formulated a draft ABS Bill (in process of consultation). In the absence of a regulatory framework, the guideline to conduct research in Malaysia administrated by the Economic Planning Unit (EPU) is

¹⁰ The criteria for determining protected resources are plants with special medicinal, pharmaceutical, therapeutic, agricultural or nutritional values, required for research by SBC and for conservation and preservation purposes.

used for foreign research purposes.

7. An ABS regulatory framework is thus needed to:

- Fulfill Malaysia's legal obligation to implement Article 15 and other relevant articles of the CBD,
- Ensure all bio-prospecting initiatives are legally carried out with the prior informed consent (PIC) of the authority in Malaysia. This will avoid biopiracy where biological resources are taken without permission and developed for commercialisation (and at times patented) and the country does not get anything in return. Without a legal framework, a bio-prospector is NOT obliged to get consent from any authority and materials can flow out easily from the country (although they are required to comply with the EPU Guideline referred to earlier). Even if biopiracy is discovered, no preventive, punitive or compensatory measures can be taken effectively without national law;
- Ensure that an agreement is signed between the bio-prospector and the authority in Malaysia so that benefits are fairly and equitably shared. These benefits may include not only upfront fees for the bio-prospecting activity but also at every stage of the development of the resource up to its commercialisation including transfer of technology and includes non-monetary benefits as prescribed under the CBD;
- Ensure that not only monetary benefits but also gains from joint collaborations to ensure transfer of technology so as to build the needed capacity for national biotechnology development;
- Promote the recognition of TK associated with the biological resources. This knowledge also has to be not only protected but, when shared, fair and equitable benefits should accrue as stipulated in Article 8(j) of the CBD and in the NPBD;
- Give value to our biological resources and thus drive the need for conservation and sustainable use; and also help to ensure that local communities who are custodians of these resources and the TK reap benefits and are provided with alternative livelihoods;
- Ensure harmonisation of laws among states (Sabah & Sarawak have their own laws at present) and to create a standard framework for the whole of Malaysia. This will also ensure a fair benefit-sharing regime throughout Malaysia as all states share the same biodiversity.

8. Malaysia's legal framework on ABS does not intend to impede the development of biotechnology, but to complement the biotechnology industry to ensure Malaysia reaps maximum benefits from the country's rich biological heritage by having a proper legal instrument to regulate access and to spell out how benefits must be shared.

Global environmental problems, root causes and barriers

9. In common with other South East Asian countries, Malaysia faces challenges from a wide range of issues that threaten its biodiversity and ecological stability. Most directly, these concerns the competing land uses for socio-economic development such as for plantations, urban and industrial development, and water storage dams. Urban and industrial developments contribute to the degradation of ecosystems and biodiversity and at times cause pollution. Other factors include fragmentation of forested landscapes by roads and other infrastructure, invasive alien species, and climate change. Natural resources are subject to increasing pressures from rapid social and economic change resulting from trade liberalization and participation in the global economy. These developmental activities lead to increased demand for land use which will ultimately affect the biodiversity including rare, globally threatened and endemic species whose biological values are yet to be fully assessed and tapped.

10. In the context of the present project, the degradation or loss of biodiversity also leads to the loss of associated traditional knowledge, which is area and tribe specific, thus varying from place to place, community to community and tribe to tribe. Therefore, the loss and degradation of habitats, fauna and flora leads to the loss of knowledge held by particular tribal communities. The convenience of modern medicine, easily available modern technology, increasing connectivity with urban civilization, and the lack of awareness of the importance of TK among communities also cumulatively contribute towards the progressive erosion of traditional knowledge.

11. There is also a lack of information on the value and quantity of biological resources that can be utilized for availing through ABS principles to derive monetary and non-monetary benefits.

12. The main root cause of biodiversity loss in Malaysia largely centers s on the lack of economic value placed on biological resources and ecosystem services, and the lack of any national accounting system that would allow such values to be considered in economic planning processes. This includes actual and potential benefits from the exploration and exploitation of biological (genetic) resources.

13. The unclear jurisdiction and lack of control over land resources by indigenous peoples hinders the continuation of their traditional land management practices in the face of larger economic interests, resulting in the degradation and loss of natural resources and biodiversity, as well as the erosion of their customs and traditional knowledge.

14. Also, the lack of access to information and opportunity for civil society input to economic development and land use planning processes also constrains the transparent and accountable governance of natural resources and biodiversity.

15. The specific problem that this project will seek to address is the lack of a functioning national legal, institutional and financial framework that will enable the equitable sharing of benefits from the exploration and exploitation of biological resources and traditional knowledge between the state (national and state governments), commercial interests, and the owners and custodians of these resources and traditional knowledge.

Long term solution

16. The long term solution that this project will pursue is to enable the potential of Malaysia's rich biological resources to generate economic benefits to the nation and key stakeholders including ILCs, in the form of business, employment, technology transfer and capacity building opportunities, through the discovery and development of new biochemical products such as pharmaceuticals, nutraceuticals, agro-chemicals, etc. These new opportunities will strengthen economic arguments and motivation for the conservation and sustainable use of the biological resources – Malaysia's globally significant tropical forests, wetlands and coral reefs - that contain the genetic material. The project will focus on supporting and piloting the establishment of an operational national regulatory and institutional framework for ABS in Malaysia which is essential to support the development of a national bio-prospecting industry, including equitable participation in international bio-prospecting programmes and attracting international bio-prospecting companies to invest in Malaysia.

Barriers

The achievement of the above long term solution faces the following barriers:

17. ***Absence of operational national regulatory and institutional framework:*** Limited support for the conservation and sustainable use of biological resources. There is currently lack of understanding of the social and economic values of biological resources, including ecosystem services such as climate and water regulation, maintenance of soil fertility, coastal protection, etc, as well as the potential value of biological resources through bio-prospecting activities. This too extends among decision- and policy-makers, and the constituents to whom they respond, to ensure political support for assigning the levels of resources that are required for its conservation. In the case of genetic resources, lack of awareness among legislators of the purpose and provisions of ABS, as well as the potential economic benefits that it would unlock for the country is a key constraint hindering passage of the ABS Bill.

18. Differences in Federal and State jurisdictions and positions regarding the management and exploitation of biological resources also complicate their governance. The Malaysian Federal Government carries responsibility for establishing and implementing national policies and laws, and ensuring that the country's international obligations arising from its participation in international conventions such as CBD are effectively implemented. The States are accorded with the jurisdiction under the Federal Constitution over their land and resources, and depend to a large extent on their exploitation (eg mineral and timber resources) for State Government income. Consequently, differences in interest often arise regarding the conservation and sustainable management of biological resources and sharing of the benefits arising from the exploitation of natural resources. The East Malaysian States of Sabah and Sarawak further differ in having more advanced State legislation on biodiversity and ABS related subjects, which would need to be amended in order to ensure consistency with the proposed national ABS Bill.

19. ***Limited administrative and technical capacities for ABS implementation:*** Lack of capacity has been identified as a key constraint for the introduction of a national ABS regime

across a wide range of stakeholders and at all levels – national, state, local / community and sectoral. The National Capacity Self-Assessment (NCSA) and National Capacity Action Plan developed in 2008 (NCAP), identified capacity gaps and related actions relating to CBD implementation concerning the policy and institutional framework; regulation and guidelines; federal and state cooperation; inter-agency coordination; knowledge and information management; incentives; increasing the number of experts; research and development; and reporting framework and mainstreaming. At the national level, there is little understanding of ABS issues among sectors other than those directly involved in the conservation and development of biological resources, and even then there is a need to ensure consistency in the vision and rationale behind ABS, given the emergence of relevant initiatives on World Intellectual Property Rights (WIPO) and agricultural / plant genetic resources linked to other global instruments (ITPGRFA).

20. At the state level, capacity for implementation of ABS varies between individual states, with Sabah and Sarawak having dedicated responsible bodies, and Johor and Perak setting up their own biodiversity and biotechnology structures. In general, there is a significant need for awareness raising, specific training and capacity building programmes for the related government departments (potential Competent Authorities) to administer ABS regulations, such as permitting arrangements in order to enable the efficient functioning and therefore profitability and attractiveness of bio-exploration and testing initiatives.

21. Other government institutions also require training inputs to ensure that they have the capacity to perform the roles of “checkpoints” as provided for in the Nagoya Protocol. Checkpoints are one of the key components under the compliance measures established by the Nagoya Protocol. To ensure an effective monitoring and tracking system, key checkpoints must be strengthened. These checkpoints could include the intellectual property examination offices, authorities involved in regulating products or giving marketing approval, research institutions subject to public funding and entities publishing research results relating to the utilisation of genetic resources.

22. At community level, there is lack of awareness among indigenous and local communities about the potential of biological resources and associated traditional knowledge as a new source of wealth creation and alternative livelihood. The absence of such understanding contributes towards the loss and degradation of bio-resources through unsustainable patterns of land use, which also leads to the loss of associated traditional knowledge. The absence of useful and user friendly promotional materials, guidelines and manuals on the value of bio-resources and associated traditional knowledge and the ABS principles enshrined in the CBD in local language is a barrier in this case. Translation of such materials into local languages is, therefore, important for the wide use of these tools by the stakeholders, plus support from appropriate training programmes is needed for the holistic success of this project.

23. Within the biotechnology industry, scientific researchers are among the key stakeholders that will be directly affected by the ABS law when it comes into force. To ensure full participation and compliance of the law by these resource users, awareness raising activities must be conducted, targeting universities, research institutions and biotechnology companies. They must be made aware of this new law, including their obligation to obtain permits from

CAs whenever there is research or bio-prospecting and to obtain PIC from resource providers. Bio-prospectors in particular must be informed of their obligation to share benefits equitably with the resource providers, including possible technology transfer (non-monetary benefits).

24. *Lack of experience in developing and implementing ABS agreements:* While a number of agreements are already in place for bio-prospecting partnership activities, these have not had to comply with CBD / Nagoya Protocol provisions for PIC and mutually agreed terms (MAT) in the absence of a national law to implement these provisions (only the state laws in Sabah and Sarawak). Therefore, while such bio-prospecting is regulated, it may not necessarily take account of the PIC, rights and needs of ILCs and other stakeholders, or include any requirement for the equitable sharing of benefits. There is therefore a strong need for model examples of the consultative processes involved in development of ABS agreements, including PIC and MAT. Further, it is important that all players are able to understand the provisions and implications of such agreements, the sometimes complex issues involved, and ability to negotiate future benefit sharing in the event that commercial products are derived from the process.

Baseline scenario

Policy and regulatory environment

25. Significant progress has been made in establishing the national policy and regulatory environment for the introduction of a national ABS regulatory framework in Malaysia, a draft ABS Bill under consultation at national level.

26. At present, only Sabah and Sarawak have established a legal framework relating to access to biological resources and benefit sharing (ABS). Sarawak Biodiversity Ordinance was first enacted in 1997 and revised in 2003 to address issues related to biodiversity including ABS and TK. The Sarawak Biodiversity Council was established in February 1998, followed by the establishment of the Sarawak Biodiversity Centre (SBC) in the same year to assist the Council with the implementation of the legislation. The Sarawak Biodiversity Centre (Amendment) Ordinance 2003 entrusted the Sarawak Biodiversity Centre to initiate intensive biotechnology based research and development on the State's biological resources, particularly those that have been utilised by indigenous communities, to authorize access to Sarawak's protected resources and to negotiate sharing of benefits derived therefrom, and to facilitate the documentation of the fast disappearing traditional knowledge of indigenous communities on the utilisation of biological resources. Further, in 2004, Sarawak enacted the Sarawak Biodiversity Regulations to regulate access to biological resources which are declared by Sarawak Biodiversity Council as protected resources¹¹ and knowledge supplied by natives. Sarawak is planning to revise the law to include provisions regulating benefit sharing and compliance. SBC has then set up the Traditional Knowledge Documentation Programme to implement its third function, with a total budget of ¹²USD 800,000 over the period 2013-2015.

27. The Sabah Biodiversity Enactment was passed in 2000 which among others establishes the legal framework for ABS in Sabah. The Sabah Biodiversity Centre (SaBC) is in the process of

¹¹ The criteria for determining protected resources are plants with special medicinal, pharmaceutical, therapeutic, agricultural or nutritional values, required for research by SBC and for conservation and preservation purposes.

¹² Exchange rate of USD1 = Ringgit Malaysia (RM) 3.0 applied (April 2013)

enforcing this enactment pending the adoption of the subsidiary regulations to enable its full implementation. SaBC has a total projected operational budget of USD 674,000, plus a projected developmental budget of USD 3,893,000 for the period 2013-2016.

28. At the national level, NRE is the focal point for implementation of CBD and has led on the development of the National Policy on Biological Diversity (1998) and its implementation. The Biodiversity and Forestry Management Division of NRE has an annual operational budget of USD 940,000 and a developmental budget of USD 1,800,000 for the period 2011 – 2013. With reference to ABS, NRE was Executing Agency for the UNDP project “Capacity development for the formulation of a policy and regulatory framework for access and benefit-sharing of biological resources in Malaysia” (2010 – 2012) which invested USD 540,000 into the preparation of the draft national ABS Bill; blueprint on infrastructure, personnel and financial needs to implement the ABS Bill; and raising awareness among key stakeholders. The UNDP project accomplished a final draft national ABS Bill after extensive consultation with a wide range of stakeholders, and which the present project will follow up through to approval. It also supported the consultation on national position with regard to accession to the Nagoya Protocol, which holds that the national ABS Bill must first be put in place with supporting measures before accession is considered. A study of *Institutional Arrangements for Implementing ABS law and its Subsidiary Regulations* was also completed. The study emphasizes personnel needs for the implementation of the ABS law and its subsidiary regulations in comparison with current capacity and identifies possible linkages with the proposed National Biodiversity Centre, which will be considered as a possible NCA for ABS under the present project. Awareness activities were also conducted in relation to CBD and Nagoya Protocol ABS requirements. The present project will build on these achievements by increasing the awareness of national ABS requirements in stakeholders at all levels, including researchers, public, ILCs and industries, and develop a section of the national clearing house mechanism portal on the national ABS framework and related information resources.

29. The GEF supported National Capacity Self-Assessment (\$270,000), through the resulting National Capacity Action Plan 2008 (NCAP) proposed activities relating to the development and implementation of a programme for ABS and the establishment of a national programme on traditional knowledge (TK) related to conservation of biodiversity. Therefore the capacity gaps that were identified must be addressed in order to improve and enhance existing implementation in terms of policy and institutional framework; regulation and guidelines; federal and state cooperation; inter-agency coordination; knowledge and information management; incentives; increasing the number of experts; research and development; reporting framework and mainstreaming.

30. The National Biotechnology Policy was launched in 2005, a commitment by the government to develop biotechnology as a platform for an innovation-led economy. The National Biotechnology Division (BIOTEK) in MOSTI is responsible for steering the national biotechnology agenda. The Policy will be implemented through 3 phases, with the projected total revenue of USD 90 billion contributing 5% to the total GDP of Malaysia. Under phase I of the National Biotechnology Policy, the government has established BiotechCorp (Malaysian Biotechnology Corporation) as the one-stop centre for biotechnology industry development in Malaysia. Under this Policy, several National Biotechnology Institutes have been established

including the Agro-Biotechnology Institute Malaysia (ABI)¹³, the Malaysian Institute of Pharmaceuticals and Nutraceuticals (IPharm)¹⁴, and the Genom Malaysia¹⁵. The ABI undertakes research, development and commercialisation projects related to agro-biotechnology in cooperation with various universities, research institutions and industry players whereas the IPharm undertakes R&D to accelerate the discovery, development and commercialization of pharmaceutical and nutraceutical products. The Genome Malaysia is a network-based not-for-profit organization undertaking basic and translational research aimed at the generation of new intellectual properties and technologies for economic development via large-scale national and international collaborative projects in Comparative Genomics and Genetics, Computational and Systems Biology, Structural and Synthetic Biology and Metabolic Engineering. BiotechCorp received annual deferred income of USD74.3 million in 2010 and USD65.3 million in 2011¹⁶, nearly all of which was from developmental grants.

31. Two states in Peninsular Malaysia have also taken steps to develop their biotechnology frameworks. **Perak** developed the Perak Biotechnology Strategic Blueprint 2011 – 2015, and set up Perak Bio Corporation Sdn Bhd (PBC) in 2009 as the main driver for the development of biotechnology activities in the State. It has developed a Strategic Development Programme with six Policy Thrusts including the establishment of the Biodiversity Management Centre as the focal point for bio-prospecting and other biodiversity based research and development (R&D) activities. The Centre will be responsible to provide access for bio-prospecting and other biodiversity based activities in biotechnology R&D on the State's biological resources and to facilitate the documentation of the Traditional Knowledge (TK) of indigenous communities on the utilisation of biological resources.¹⁷

32. The **Johor** Biotechnology and Biodiversity Corporation was incorporated in 2006 under the the enactment of Johor Biotechnology and Biodiversity Corporation (Enactment No 3 of 2006). With the vision to be the prime mover of biotechnology and biodiversity activities towards making Johor the southern gateway of the Malaysian biotechnology industry, J-BioTech has functions including promoting, intensifying, facilitating and undertaking economic and social development of biotechnology and biodiversity; and promoting and coordinating biotechnology and biodiversity activities by the government, local authorities, public authorities, companies, corporations and individuals.¹⁸

Bio-prospecting Activities and Traditional Knowledge

33. Despite the lack of a national regulatory framework, there are a number of agreements in place regarding bio-prospecting activities. These include initiatives at both federal and state levels. As they are not directly related to the demonstration projects in Component 3 of the GEF Alternative, they are listed in **Annex 1** of the Project Document for reference. Often the biological/genetic resources being bio-prospected are closely linked to the traditional knowledge associated with biological resources held by indigenous and local communities in Malaysia, where government organizations such as FRIM, Sabah Biodiversity Centre and

¹³ http://www.biotech.gov.my/index.php?option=com_content&view=article&id=64&Itemid=63

¹⁴ <http://www.ipharm.gov.my/v4.1/background.php>. See also, feedback to Questionnaire by IPharm.

¹⁵ <http://www.genomemalaysia.gov.my/v3/content/overview.html>

¹⁶ http://www.biotechcorp.com.my/wp-content/uploads/2011/11/publications/Annual_Report_2011.pdf (p139)

¹⁷ <http://www.slideshare.net/jongos89/perak-biotechnology-strategic-blueprint-2011-2015-13402575>

Sarawak Biodiversity Centre have been engaged in both documentation of TK and development of prototypes in partnership with local and international organizations. While these research and development programmes remain in place, the results focus mainly on the documentation of TK and development of the related products in order to achieve national and local economic benefits, and little emphasis is placed on developing, refining and sharing knowledge on the participatory processes involved in PIC and MAT and benefit sharing related to ABS agreements for product development, as well as the linkage between bioprospecting and biodiversity conservation at local level. Therefore, capacity for implementation of a comprehensive ABS regime at state and national levels will remain limited, and barriers for disseminating the related knowledge for practical application in ABS implementation will remain. Linkage between bioprospecting and biological resource conservation at local level also remains weak, affecting the security of these resources. The pilot projects supported by the GEF intervention will ensure that these processes are systematically documented and shared in order to inform national, regional and global audiences, and that biodiversity conservation benefits are achieved at the local level through increased awareness and resource security.

Pilot Project 1

34. The first pilot project concerns the documentation of traditional knowledge associated with biological resources of the Kensiu (Kedah state) and Kintak (Perak state) Orang Asli for the development of one prototype product for potential commercialization, coordinated and executed by FRIM. FRIM's TK research team has completed the TK documentation of 11 (plus two in progress) out of the total of 18 ethnic groups of Orang Asli in Peninsular Malaysia.¹⁹ This work has been supported by USD775,000 in allocations from the 9th (2006-2010) and 10th (for 2011-2013) Malaysia Plans through NRE. This pilot will complete national coverage of Orang Asli traditional knowledge resources, contributing towards a national database under development by FRIM and the preservation of such knowledge.

35. There is also an ongoing NRE project on the development of a Protocol for PIC with the allocation of US\$10,000.²⁰ ILCs to be surveyed are located at: Kampung Ulu Geroch (Perak), Kampung Paya Mendoi (Pahang) and RPS Iskandar (Pahang). The outcome of this project will contribute towards the implementation of PIC and MAT principles in this pilot project.

36. FRIM's capacity for bioprospecting work includes laboratories for chemical analysis, biological analysis, anti-microbial research, cell culture, a Herbal Technology Centre (GMP Compliant²¹ for pilot scale processing), and a Quality Control laboratory (ISO17025). Equipment available includes HPLC, LCMS, FTIR, NMR²² and spectrometer. FRIM also hosts a comprehensive herbarium. FRIM's staff includes a wide range of scientists working on

¹⁹ Norini, H. Abd Latif M., Nagulendran K. & Lim H. F. (2011). 'Traditional knowledge on medicinal and aromatic plants as important culture and heritage of Orang Asli, Peninsular Malaysia', p. 390-399 in Jung Sung Chae (Editor). *Proceedings of the 12th International Joint World Cultural Tourism Conference*. October 7-9, Istanbul, Turkey.

²⁰ CEBLAW was appointed to implement the project

²¹ Good Manufacturing Practice national certification

²² High Performance Liquid Chromatography, Liquid Chromatography and Mass Spectrometer, Fourier Transform Infrared Spectroscopy, Nuclear Magnetic Resonance

applied botanical subjects including herbal extraction and herbal formulation.

Pilot Project 2

37. The second pilot project concerns the development of a pilot ABS agreement with Semai Orang Asli (Perak state) for the development of a prototype nutraceutical²³ / healthcare product based on a Fabaceae species for initial commercialization, also coordinated and executed by FRIM. This builds on baseline work by FRIM with this community, which has identified several potential prototypes based on their traditional knowledge, supported by two PICs. This pilot will establish a third PIC, forest permit and collaborative R&D agreement for the collection, validation and preparation of one species of Fabaceae for the development of the nutraceutical/healthcare product, followed by laboratory analysis procedures leading to the development of a prototype product for initial commercialization, covered by an ABS licensing agreement.

38. The baseline work on identifying potential prototypes related to traditional knowledge resources was financed from 2009-2011 through the MOSTI E-Science fund totaling USD38,370 (included in the baseline costs mentioned for the first pilot project above). In the absence of GEF investment, it is unlikely that this baseline work would receive additional financial support from government cofinancing sources, and prospects of commercial investment are unclear at this time.

Pilot Project 3

39. The third pilot project aims to develop an ABS mechanism which includes access to genetic resources through to benefit sharing with ILCs. The ABS mechanism is to enable the sharing of benefits with local communities through creating a value chain leading to the development of products for the healthcare, personal care and cosmeceutical²⁴ industries from traditional knowledge associated with genetic resources in Sarawak. It also aims to promote benefit sharing with ethnic communities so that they are able to improve their livelihoods and preserve their traditional knowledge while promoting the sustainable use of biological resources for the State of Sarawak. This project will be coordinated and executed by the Sarawak Biodiversity Centre (SBC).

40. This pilot project builds on SBC's on-going research based on traditional knowledge documented through its Traditional Knowledge Documentation Programme. In Sarawak, SBC is tasked to "ensure that the traditional knowledge of how Sarawak's ethnic communities use biodiversity, is properly documented" under the SBC Ordinance (Amendment) 2003. There are 30 ethnic communities in Sarawak. Up to November 2012, 760 plants had been

²³ **Nutraceuticals** are products derived from food sources that provide extra health benefits, in addition to the basic nutritional value found in foods. Depending on the jurisdiction, products may claim to prevent [chronic diseases](#), improve health, delay the [aging](#) process, increase [life expectancy](#), or support the structure or function of the body. Source: [Nutraceuticals/Functional Foods and Health Claims on Foods](#).

²⁴ **Cosmeceuticals** refers to the combination of [cosmetics](#) and [pharmaceuticals](#). Cosmeceuticals are cosmetic products with biologically active ingredients purporting to have medical or drug-like benefits. Source: <http://en.wikipedia.org/wiki/Cosmeceutical>

documented through consultation with indigenous peoples of 13 ethnic communities in 59 locations in Sarawak through SBC's Traditional Knowledge Documentation Programme, implemented through the TK Journal Methodology (Developed in collaboration with Bioversity International).²⁵ SBC has identified a plant called *Litsea cubeba* that produces essential oils. Chemical analyses to determine the composition of these essential oils and their antimicrobial activities were carried out and results show that its essential oils have significant antimicrobial activity. Various prototype products for personal care and household which are infused with the essential oil of *L.cubeba* have been developed. SBC has also applied for, and been granted the Geographical Indication (Sarawak Litsea) and Trademark (LitSara) for the essential oil derived. Currently, SBC is carrying out bulk extraction of Sarawak Litsea for further research and to develop prototype products. The Kampung Kiding community plays an important role in providing raw materials to SBC for bulk extractions. SBC also provides capacity building to the community to carry out steam distillation of the oil and propagation of the plant at the village. SBC is currently seeking collaboration with both local and foreign entrepreneurs for product manufacturing and commercialization. Under this Component, three communities namely the Bidayuh, the Lun Bawang and the Kelabit communities from Kampung Kiding, Long Semadoh Area (Long Telingan and Long Kerebangan) and Bario Area (Pa'Ukat and Pa'Lungan) will be involved.

41. There is also an ongoing SBC project in Sarawak on the Development of a Community Protocol for PIC under the TK Documentation Programme with the allocation of US\$16,700.²⁶ ILCs will be surveyed at Kampung Kiding, Ba'Kelalan and Kampung Semadang. It is scheduled to be completed by the end of October 2013 and the output will feed into the implementation of this pilot project.

42. In addition to its Traditional Knowledge Documentation Programme, SBC has a bioprospecting R&D programme that focuses on making discoveries in biological resources that lead to the development of herbal therapies, nutraceuticals, cosmeceuticals for health-care and pharmaceutical drugs, *inter alia*. The R&D Programme is supported by seven well-equipped and specialized laboratories (extraction, microbiology, molecular biology, plant tissue culture, analytical chemistry and bioinformatics), staffed with trained scientists. The discoveries will consequently provide a pipeline of bio-products for the bio-industry to generate economic returns and revenues for the State.

43. In the absence of GEF investment, the TK documentation programme will continue, but the full range activities to develop an ABS mechanism which involve various ILCs and various locations in the State as planned under the pilot project will not be implemented. SBC's co-financing is budgeted to support its TK documentation programme and there is limited allocation to carry out the specific activities to develop an ABS mechanism for the State. These activities may be limited to one or two ILCs (out of 30 ILCs in Sarawak) in locations which are more accessible.

Proposed GEF Alternative

44. While the baseline activities are substantial, the aforementioned barriers inhibit the

²⁶ Prof Gurdial and P.F. Gan are the resource persons.

actual realization of the global objective of ensuring ABS and contribution from use of biological resources for biodiversity conservation and for meeting Aichi targets. This Project aims to remove the barriers mentioned above through three inter-related outcomes. To accomplish this, Government of Malaysia is requesting support from the GEF and UNDP to conserve its globally significant biodiversity. The **Project Objective** is: *to strengthen the conservation and sustainable use of biological and genetic resources in Malaysia through developing the national framework for the implementation of Access and Benefit Sharing under CBD.*

45. The project objective will be achieved through the implementation of three interconnected components. **Component 1** addresses the need for a national regulatory and institutional framework on ABS, including a financial mechanism to reinvest funds from ABS agreements back into biodiversity conservation. The operationalisation of this framework will be supported by the strengthening of national institutional and stakeholder capacity in **Component 2**, including measures for the documentation and protection of traditional knowledge; and through demonstration of pilot ABS agreements and PIC processes regarding ABS of indigenous and local communities' traditional knowledge in **Component 3**, which will provide experience and lessons learned to inform refinement of the framework and implementation processes including model PIC and benefit-sharing procedures. The three components will result in the following project outcomes:

Outcome 1: An operational national regulatory and institutional framework on ABS.
(Total cost: 1,782,900 US\$; GEF 377,900 US\$; Co-financing 1,405,000 US\$)

46. This outcome aims to establish a national law and implementing regulations on ABS, together with the associated institutional framework and supporting measures needed to enable their implementation. It will also include an institutionalized financial mechanism that receives proceeds from ABS agreements and re-invests them in biodiversity conservation; development of a *sui generis* framework for the protection of traditional knowledge focusing on PIC requirements in the ABS context, an ethical code of conduct or guidelines for research on traditional knowledge and genetic resources and the establishment of a supportive institutional framework. Demonstration activities in component 3 will inform development of implementation procedures through piloting and documenting all stages of the process of bioprospecting through to early commercialization of products, testing PIC and benefit sharing processes, and developing guidelines and model ABS agreements. The development of the implementation framework on the national ABS law will lead towards accession to the Nagoya Protocol through the completion of consultation procedures with all states and the drafting of a paper for Cabinet approval.

47. The development of the national law and regulations will be conducted through a transparent and consultative process ensuring full participation of all relevant stakeholders including the indigenous and local communities and NGOs. The implementation of law is closely linked to the establishment of the institutional framework at both federal and state levels considering the constitutional structure of Malaysia's governmental system. The National Competent Authority, possibly the planned National Biodiversity Centre, will be established at Federal level. The Competent Authorities will be identified in all 13 States to

handle permit applications. These authorities will coordinate with checkpoints (hosted by technical agencies such as MyIPO, MOSTI, universities and MOH (Drug Control Authority)) to be established in monitoring the access and ensuring compliance by users with the proposed national ABS law, the CBD and the Nagoya Protocol.

48. These authorities will further be assisted by the supporting measures in handling their daily affairs, among others, the guidelines on rules and procedures for the regulators, guidelines on roles and responsibilities of NCA and CA, streamlined administrative systems such as permits for access, application forms and fees.

49. A dedicated financial mechanism will be established to channel monetary benefits arising from ABS agreements to be reinvested in biodiversity conservation. Without this mechanism, proceeds from ABS agreements will go to a government consolidated fund where they may be used for various purposes and not necessarily channeled for biodiversity conservation. The project will support expert inputs for the design and establishment of this financial mechanism, taking into account the specific Malaysian federal and state legal and administrative requirements.

50. The development of a *sui generis* framework will focus on the use of community protocols as the basis for clarifying PIC and MAT requirements between users and providers of traditional knowledge and genetic resources. A pilot project will demonstrate the use of community protocols to develop *sui generis*²⁷ approaches to ABS for protection of traditional knowledge within the broader legal landscape in Sabah, coordinated and executed by SaBC in collaboration with NGO Natural Justice and social enterprise Borneo Conservancy Initiative. The project will take place in Ulu Padas (Sipitang District) in south-western Sabah. The ethnic Lundayeh community, with a combined population of approximately 500 people, resides in the villages of Long Pasia and Long Mio at the mouths of the Pasia and Mio rivers, respectively, which are important tributaries of the Padas River. Ulu Padas is well-known for its high level of biodiversity and endemism and was identified in the 1992 Sabah Conservation Strategy as a priority for inclusion in the state protected area network. The project design emerged from 3 years of discussions with civil society organisations, state government agencies, researchers, and communities from around Sabah, and through a major review of laws and policies relating to indigenous peoples and community conserved territories and areas, and builds on the experiences and responds to key recommendations from four community-based biodiversity projects in Sabah.

51. This pilot relates to four-interlinked components to develop a framework for an integrated and community-based approach to ABS in Sabah, with the outputs including the development of a community protocol as the basis for clarifying PIC processes and MAT with external actors; guidelines or a code for ethical conduct of research on traditional knowledge and genetic resources (in accordance with the Tkarihwaié:ri Code of Ethical Conduct) and a

²⁷ Generally speaking, protection for [intellectual property](#) is extended to "matter" depending upon its "characteristics". The main types of intellectual property law ([copyrights](#), [patents](#), and [trademarks](#)) define "characteristics". Any matter that meets such criteria is extended protection. However, *sui generis* statutes exist in many countries that extend intellectual property protection to matter that does not meet characteristic definitions: [mask works](#), [ship hull designs](#), [fashion designs](#) in France, [databases](#), or [plant varieties](#) require *sui generis* statutes because of their unique characteristics. Source: http://en.wikipedia.org/wiki/Sui_generis

supportive institutional framework for *sui generis* systems for protecting traditional knowledge, innovations and practices and customary uses of biological resources. The emphasis on community-based development of community protocols is fully in line with Article 12 of the Nagoya Protocol which requires Parties to the Protocol, among others, to support the development by ILCs, community protocols in relation to access to traditional knowledge and the fair and equitable sharing of benefits.

52. A series of training, communication education and public awareness activities and products will increase the capacity and confidence among communities to provide greater clarity to external stakeholders about their core values, challenges, priorities, and plans relating to the conservation and customary sustainable uses of biodiversity and the protection and promotion of their traditional knowledge, greater awareness of how traditional knowledge can be accessed and used, how they can retain control over the process and considerations such as ownership of knowledge and sharing of benefits arising from its utilisation. Special focus will be given to women, considering their essential role in developing and using community protocols. The experiences and lessons learned and the output of the project will be disseminated to other communities, other Asian countries, and internationally including through providing relevant input to meetings involving Parties to the CBD. The experiences and lessons learned in Sabah will be used to inform preparation of a model national process for the development and use of community protocols²⁸.

53. The development of the national ABS law and implementing regulations, together with institutional framework and other supporting measures will lead towards the readiness for accession to the Nagoya Protocol through the completion of consultation procedures with all states and the drafting of a paper for Cabinet approval. This is in line with the new general policy championed by the AGC to have the necessary legislation in place before becoming a party to a treaty²⁹.

54. The outputs under this outcome are as follows:

1.1 National law and implementing regulations on ABS developed with stakeholder participation.

1.2 Institutional framework including national and state competent authorities and supporting measures established to enable implementation of the national ABS law at federal and state levels.

1.3 Financial and funding mechanisms established at federal and state levels to receive and reinvest proceeds from ABS agreements towards the conservation of biological diversity and sustainable use of its components.

1.4 Supportive institutional framework for *sui generis* systems for protecting traditional knowledge, innovations and practices and customary uses of biological resources in Sabah

1.5 Community protocols constitute the basis for clarifying PIC and MAT requirements between users and providers of traditional knowledge and biological resources.

²⁸ To be a party to NP, the federal government will require the concurrence of all 13 state governments. This exercise will take some time and may extend beyond the life of this project. Some states are showing apprehension (which will require attention during this project and probably beyond). During the GEF constituency meeting held in Cambodia in March 2013, the GEF representative informed the meeting that it is not a prerequisite to be a party to NP at the end of a project which aims to build capacity and develop national ABS frameworks.

²⁹ This is the effect of lessons learned from participation in other international treaties, in particular, the CEDAW Convention whereby Malaysia became a party without first having domestic law to cater to its obligations under CEDAW and has subsequently been facing international pressure to achieve this, and in relation to its Reservations to certain provisions of CEDAW.

1.6 Ethical code of conduct or guidelines for research on traditional knowledge and genetic resources

1.7 Consultation completed with all states and paper on accession to the Nagoya Protocol developed for Cabinet's approval.

Outcome 2: Strengthened national institutional and stakeholder capacity for implementation of the national ABS framework.

(Total cost: 1,670,600 US\$; GEF 470,600 US\$; Co-financing 1,200,000 US\$)

55. This outcome aims primarily to improve the capacities of the state Competent Authorities (CA), the National Competent Authority (NCA), possibly a National Biodiversity Centre, and related agencies regarding the implementation of the ABS law and their obligations under the CBD and other related international treaties. Specifically, the NCA, CAs and related agencies need to be trained, among others, to understand the ABS rules and procedures, including granting of permits, assessment of access applications, core principles of PIC and MAT and their application, and rights and roles of ILCs; interpret ABS provisions of national law, the Nagoya Protocol, the CBD and other related international agreements such as ITPGRFA; understand and keep abreast of negotiations at WIPO and FAO to ensure that all authorities dealing with ABS will have a common and coordinated national approach; and negotiate ABS agreements. These will ensure better understanding of national and international provisions of ABS, and enhance the implementation of the proposed national ABS law at all levels. The significant capacity building activities incorporated in the pilot demonstration activities in Component 3 will contribute towards this outcome, including training and awareness raising for the pilot communities, participatory monitoring of the progress and implementation of pilot activities in Peninsular Malaysia by a Technical Committee including representatives from NRE, JAKOA, Orang Asli *Tok Batins* (community heads) and the TK research team, and making results available to national, regional and global audiences as case studies and guidelines.

56. In terms of monitoring and tracking, the NCA, CAs and other institutions (potential checkpoints) require training to ensure compliance by users of the proposed national ABS law and ABS agreements. Mechanisms to support compliance (including national level databases on traditional knowledge, access permits and ABS agreements), and to track and monitor genetic resources in the patent system will also be put in place to assist the regulators.

57. Guidelines on MAT and benefit sharing, based on a review of international best practices will be developed to assist regulators in negotiating ABS agreements and to understand and apply requirements for the fair and equitable sharing of benefits.

58. Mechanisms to facilitate access to information will be strengthened for national and international users, including the development of an information gateway in the form of a dedicated section on ABS on the national clearing house mechanism website hosted by NRE. Development of a "Users' Guide" of rules and procedures for users and providers will further clarify the access requirements.

59. Other important stakeholders like the ILCs, researchers and relevant industries will be specifically targeted by an awareness raising campaign, on the proposed national ABS law and the application procedures and ABS issues. Tools, methods, and outreach materials will be

developed to raise awareness and knowledge of national law and CBD and Nagoya Protocol provisions related to ABS and traditional knowledge among stakeholders, to prepare the way for implementation. ILCs will also be trained for safeguarding their traditional knowledge. As part of the project's monitoring and evaluation system, knowledge, attitudes and practices (KAP) assessment surveys will be conducted targeting specific groups (ILCs, researchers and relevant industries) that may use or benefit from ABS transactions to determine the project's impact on awareness levels. These would include baseline surveys at the start-up of the awareness raising activities for specific target groups, and repeat surveys following the same methodologies at project completion.

60. With these developments, decision making on ABS issues at national and state levels and within relevant agencies will be informed and strengthened through the use of appropriate tools, guidelines, frameworks and guides. As a consequence, access to biological resources will be informed and enhanced under the provisions of the proposed national ABS law, including equitable benefit sharing provisions.

61. The outputs under this outcome are as follows:

2.1 Improved capacities of the state Competent Authorities (CA), National Competent Authority (NCA) and related agencies through training of 100 staff on processing access applications, negotiating ABS agreements and monitoring and tracking to ensure compliance.

2.2 Training programme and modules on bio-prospecting and research procedures developed and made available to federal and state research institutions.

2.3 Mechanisms institutionalized to facilitate access to information and support compliance under the national law and the NP.

2.4 Campaign to raise awareness on the ABS law, CBD and Nagoya Protocol targeting researchers, local communities, and relevant industry.

2.5 Knowledge, attitudes and practices (KAP) assessment surveys targeting specific groups (e.g., researchers, local communities, and relevant industry) that may use or benefit from ABS transactions are carried out to assess enhanced awareness about national ABS law, the CBD and Nagoya Protocol.

Outcome 3: Best practice ABS processes (three) are demonstrated recognizing the principles of biodiversity conservation, Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits.

(Total cost: 3,278,500 US\$; GEF 950,500 US\$; Co-financing 2,328,000 US\$)

62. This outcome focuses on demonstrating the development of pilot ABS agreements, with attention to the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits. It consists of three pilot projects, distributed across three states: Kedah and Perak in Peninsular Malaysia, and Sarawak in East Malaysia (on the island of Borneo). The emphasis of each demonstration project is slightly different, collectively covering all stages in the development and initial commercialization of prototype products based on bio-prospecting and application of the

traditional knowledge of indigenous and local communities, and contributing towards the understanding of associated issues such as the development of value chains and the participation of ILCs in the collection, documentation, preparation and sustainable production and conservation of biological resources. These pilot projects will seek to demonstrate the sharing of monetary and non-monetary benefits with the indigenous and local communities, and will result in improved biodiversity conservation at local level.

Pilot Project 1

63. The first pilot project concerns the documentation of traditional knowledge associated with biological resources of the Kensiu (Kedah state) and Kintak (Perak state) Orang Asli for the development of one prototype products for potential commercialization, coordinated and executed by FRIM. This will complete national coverage of Orang Asli traditional knowledge resources (see baseline), contributing towards a national database under development by FRIM and the preservation of such knowledge. Planned activities are as follows.

Socio-economic Component

64. For the project to be undertaken, two sub-ethnic groups of Orang Asli will be selected. Sub-ethnic group also is referred to as a community. The selection of the two sub-ethnic groups will be guided by the Department of Orang Asli Development (JAKOA) and will be based on accessibility to the respective locality (*kampung* or village) and the willingness of the sub-ethnic groups to participate in the said project. In fact, before the Rapid Rural Appraisal (RRA) is conducted, a discussion must be held with the headman or *Tok Batin* to seek his consent for the sub-ethnic group to be involved in the project.

65. The RRA will be accompanied by awareness activities, as although local leaders may have some understanding of traditional knowledge (TK) issues, members of the local community in general usually do not fully understand the potential economic value of their TK. Many will not be sure of the actual benefits that can be derived from participating in this project. Therefore, by organizing an awareness workshop, the community will be informed of the objectives of the project and its implications. The participants (comprising men, women, and youths) will be briefed on what is TK, TK erosion and loss, the background of Convention on Biological Diversity (CBD), Malaysia's National Policy on Biological Diversity (1998), and the current project and its importance. The TK awareness workshop will serve as a platform for exchanging experiences relating to TK issues in Malaysia. In particular, issues regarding prior informed consent (PIC), potential economic benefits of the project, and fair and equitable sharing of benefits will be raised and discussed.

66. An important aspect of CBD's achieving fair and equitable sharing of benefits is to obtain PIC from the local community. Three types of PICs will be obtained from the local community. In the first PIC, the household head or spouse will be informed of the objectives of the project and, if amenable, will then sign the PIC letter. With the signing of PIC1, the TK project will be considered officially accepted and will proceed with the various planned activities. Those who are willing to attend the training workshop on specimen collection (phase 1) and herbarium specimen preparation (phase 2) will be required to sign PIC2, which is to be obtained from individuals. If the specimens are found to have potential for commercialisation later on, PIC3 will be obtained from householders granting their consent

for FRIM to develop prototype products.

67. To gather information on the sub-ethnic's background and knowledge and use of TK, a socio-economic survey will be conducted at the household level. Wherever possible, enumerators of the indigenous community will be trained to assist in the socio-economic survey. The survey will enhance understanding of the potential economic values of medicinal plants. The information gathered will be used in preparing documentation training later on.

Preparation of Herbarium Specimen and Identification of Plant Species

68. Following the completion of the socio-economic survey, another two capacity-building workshops (phase 1 & phase 2) will be conducted. These workshops are designed to train between 20 and 25 villagers (comprising knowledge holders and youths of both genders) to document their knowledge on medicinal and aromatic plants. PIC2 will be obtained from participants to ensure their willingness and commitment to share information when collecting and documenting the plant species. Permission to collect the plants will be obtained from the State/District Forestry Department through a forest permit.

69. In workshop Phase 1, the botanists will give lectures on the correct techniques to collect and document the plant samples and to prepare herbarium specimens. The participants will then be involved in a hands-on session to collect and document the plant samples.

70. Herbarium specimens will be prepared in phase 2 of the workshop. The participants will be involved in pressing and mounting the plant samples that are assigned to them with help from the TK team facilitators. Also during workshop phase 2, selected plant samples with potential therapeutic or cosmeceutical value will be collected for screening purposes. Chemists and biologists will conduct the screening activities. Simultaneously, botanists will identify the plant samples collected. Unlike the preparation of other herbarium plant specimens, the sub-ethnic group of Orang Asli responsible for the collection and preparation of the said specimens will be recorded as the collectors. This will be done in appreciation of their effort.

Evaluation of Therapeutic Potential

71. Evaluation of therapeutic potential or bioprospecting is the exploration, extraction, and screening of biological diversity and indigenous knowledge for commercially valuable genetic and biochemical resources. With the aim of exploring the potential of selected plant species as therapeutic, nutraceutical, and/or cosmeceutical agents besides validating their traditional claims, the project will focus on six therapeutic areas, namely, anti-microbial, anti-inflammatory, anti-oxidant, anti-diabetic, anti-cholesterol, and/or biopesticidal. In addition, the project will evaluate the safety of plant extracts through cytotoxicity studies.

72. The project will also conduct phytochemical screening. This involves the detection of important phytochemical constituents such as alkaloids, saponins, flavonoids, tannins, triterpenes, and steroids. Besides these phytochemicals, essential oils of the aromatic plants will also be analysed.

73. Local community members who participated in capacity-building workshops will be involved in the collection and preparation of selected plant species for bioprospecting. The plant parts, i.e., leaf, stem, bark, and fruit, will be collected and cut into small pieces before being transferred to FRIM for further processing, i.e., drying, grinding, extracting, and phytochemical and bioactivity screening.

74. Outputs of the activity will be:

- Plant extracts added to the FRIM extract library
- Essential oils added to the FRIM essential-oil library
- Bioactivity and phytochemical profiles of the plant species developed
- Traditional claims validated scientifically

Candidates for further research and product development will be identified on the basis of their bioactivity and phytochemical profiles.

Development of Product Prototype

75. Plant species that provide multiple bioactivities will be selected as potential therapeutic, nutraceutical, and/or cosmeceutical agents. PIC3 will be obtained and further research will be carried out to identify the active ingredients for product development. This will involve:

- Bioassay guided isolation
- Fingerprinting development for quality control from raw material to prototype product(s)
- Optimization of extraction procedure
- Structural elucidation and characterization of active compound(s)

76. Identification of chemical or bioactive compounds from medicinal plants is essential for the scientific validation of their uses and in the preparation of standardized herbal products as a prerequisite to the discovery of novel therapeutic, nutraceutical, and cosmeceutical uses. Once the active ingredient is identified, a prototype product will be developed. Efficacy and safety of the prototype product also will be evaluated. Successful product prototype(s) will be licensed to a private company for initial commercialisation.

77. The outputs of this stage will be:

- Extraction protocol
- Active ingredient (in the form of standardised extract, fraction, or compound)
- Prototype product (nutraceutical or cosmeceutical)
- Licensing agreement

Technical Committee on MoU between FRIM and JAKOA

78. A Technical Committee is set up to monitor the progress and implementation of activities of the existing project on “Documentation of traditional knowledge on medicinal and aromatic plants used by Orang Asli, Peninsular Malaysia.” Members of the Technical Committee include representatives from the Ministry of Natural Resources and Environment, JAKOA, 11 *Tok Batins*, and the TK research team. Decisions of the Technical Committee will be based on consensus.

79. With another two sub-ethnics of Orang Asli to be covered under the GEF project, it is recommended that the *Tok Batins* from those two sub-ethnics also sit on the Technical Committee. This is to ensure that they are in the mainstream together with other *Tok Batins*, as decisions made will definitely have implications for their respective communities.

80. During the course of the pilot project, FRIM will promote conservation efforts to ensure the security of the biological resources concerned, through *in-situ* and/or *ex-situ* conservation measures as appropriate.

Pilot Project 2

81. The second pilot project concerns the development of a pilot ABS agreement with Semai Orang Asli (Perak state) for the development of a prototype nutraceutical³⁰ / healthcare product based on a Fabaceae species for initial commercialization, also coordinated and executed by FRIM. This builds on baseline work by FRIM with this community, which has identified several potential prototypes based on their traditional knowledge, supported by two PICs. This pilot will establish a third PIC, forest permit and collaborative R&D agreement for the collection, validation and preparation of one species of Fabaceae for the development of the nutraceutical/healthcare product, followed by laboratory analysis procedures leading to the development of a prototype product for initial commercialization, covered by an ABS licensing agreement. As for the first pilot project, the overall process will be documented with particular attention to the related agreements, and the results made available. The same Technical Committee as in Pilot Project 1 will monitor the progress and implementation of activities.

82. The activities planned under this pilot are summarized in the following table:

Year	Activities	Agreement
Y1	<i>Procurement of PIC 3 Collection, validation and preparation of one species Extraction and fractionation of sample Bioassay guided isolation Safety evaluation towards extract/active fraction based on therapeutic values calculations.</i>	<i>PIC 3 Forest permit Collaborative R&D agreement with owner of the resources (state / ILC)</i>
Y2	<i>Fingerprinting development for quality control from raw material to prototype product(s) Optimization of extraction procedure Formulations of active ingredients towards 1 prototype product development</i>	
Y3	<i>Structural elucidation & characterization of active compound(s) Efficacy evaluation of the prototype product</i>	<i>Licensing agreement</i>

³⁰ **Nutraceuticals** are products derived from food sources that provide extra health benefits, in addition to the basic nutritional value found in foods. Depending on the jurisdiction, products may claim to prevent [chronic diseases](#), improve health, delay the [aging](#) process, increase [life expectancy](#), or support the structure or function of the body. Source: [Nutraceuticals/Functional Foods and Health Claims on Foods](#).

83. At this stage, details for the commercialization stage of this pilot project are not yet available.

84. During the course of the pilot project, FRIM will promote conservation efforts to ensure the security of the biological resources concerned, through *in-situ* and/or *ex-situ* measures as appropriate.

Pilot Project 3

85. The third pilot project aims to develop an ABS mechanism which includes access to genetic resources through to benefit sharing with ILCs. The ABS mechanism is to enable the sharing of benefits with local communities through creating a value chain leading to the development of products for the healthcare, personal care and cosmeceutical³¹ industries from traditional knowledge associated with genetic resources in Sarawak. It also aims to promote benefit sharing with ethnic communities so that they are able to improve their livelihoods and preserve their traditional knowledge while promoting the sustainable use of biological resources for the State of Sarawak. This project will be coordinated and executed by the Sarawak Biodiversity Centre (SBC), and builds on SBC's on-going research based on traditional knowledge documented through its Traditional Knowledge Documentation Programme (see baseline).

86. This pilot project will contribute to the achievement of the third objective of the proposed GEF project in the following ways:

- By documenting good practice processes in creating a value chain from community's traditional knowledge to product development;
- By ensuring that ABS guidelines and agreement between SBC, ethnic communities and the private sector are established for Sarawak;
- By disseminating good practices on ABS in Sarawak within Malaysia and to other countries.

87. This pilot project is divided into the following components:

Component A

Developing a value chain for healthcare, personal care and cosmeceutical products between communities, SBC and other government agencies and industries.

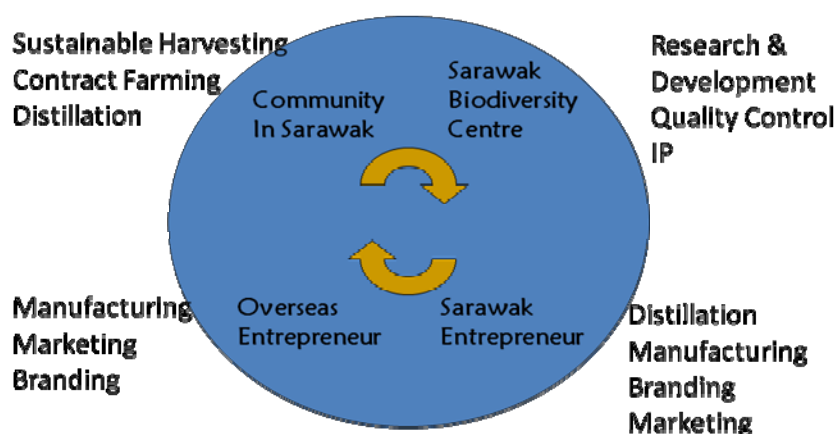
88. Through the Sarawak Biodiversity Centre's (SBC) research, new uses have been identified from plants resources which were collected and documented under the Centre's Traditional Knowledge Documentation Programme. Among the plants documented were those that produced essential oils. Chemical analyses to determine the composition of these essential oils and their antimicrobial activities were carried out. Results show that these essential oils could potentially be developed into personal and health care products.

³¹ **Cosmeceuticals** refers to the combination of [cosmetics](#) and [pharmaceuticals](#). Cosmeceuticals are cosmetic products with biologically active ingredients purporting to have medical or drug-like benefits. Source: <http://en.wikipedia.org/wiki/Cosmeceutical>

89. One such example of a plant which has been identified for new use through SBC's research is *Litsea cubeba*. Essential oil from the fruits and leaves of *L. cubeba* has shown significant antimicrobial activity. Various prototype products for personal care and household which are infused with the essential oil of *L. cubeba* have been developed.

90. Because of its uniqueness, SBC has applied for, and been granted the Geographical Indication (Sarawak Litsea) and Trademark (LitSara) for the essential oil derived. Currently, SBC is carrying out bulk extraction of Sarawak Litsea for further research and to develop prototype products. The Kampung Kiding community plays an important role in providing raw materials to SBC for bulk extractions. SBC also provides capacity building to the community to carry out steam distillation of the oil and propagation of the plant at the village. With empowerment, the community can be the provider of either raw materials in terms of sustainable production of plant resources and also essential oil through village distillation.

91. Under the Sarawak Litsea project, SBC is currently seeking collaboration with both local and foreign entrepreneurs for product manufacturing and commercialization. With the commercialization of the products, negotiations between SBC and entrepreneurs will include contract supply of raw materials and royalties from the sales of the product. The following diagram shows the linkages between the community, SBC and entrepreneurs and the respective roles of the parties involved.



92. Under this Component, three communities namely the Bidayuh, the Lun Bawang and the Kelabit communities from Kampung Kiding, Long Semadoh Area (Long Telingan and Long Kerebangan) and Bario Area (Pa'Ukat and Pa'Lungan) will be involved. The Bidayuh community from Kampung Kiding will be involved in distillation of raw materials and in product development for pre-commercialization. The Lun Bawang community will be involved in distillation of raw materials and in cultivation while the Kelabit community will be involved in cultivation and product development for pre-commercialization. At this pre-commercialisation stage, the communities involved will be receiving some monetary benefits from the supply of raw plant materials, and essential oil.

93. *Expected Outputs and Benefits:*

- Capacity building among ethnic communities of Sarawak in providing and preparing

quality raw materials in a sustainable manner for prototype product development and pre-commercialization

- Improved process in creating a value chain for product development and pre-commercialization
- Improved method to ensure sustainable collection of raw plant materials, essential oil production and also cultivation of plants for sustainable supply of raw plant materials among the ethnic communities in Sarawak.
- Enhanced infrastructure and technology in developing prototype products at SBC and other research institutions collaborating with SBC
- Improved infrastructure and techniques for product development at pre-commercialization stage among industries in Sarawak

Component B

Benefits shared with ethnic communities of Sarawak and Private Sectors based on Mutually Agreed Terms

94. As traditional knowledge of the ethnic communities is used as leads for research, SBC understands the importance of various intellectual property protection to safeguard the Sarawak's rich genetic resources, biodiversity and traditional knowledge.

95. SBC has registered the essential oil produced from the plant *Litsea cubeba* which grows in Sarawak, as 'Sarawak Litsea' for Geographical Indication in Malaysia. The oil composition of Sarawak Litsea clearly varies from the essential oil of *Litsea cubeba* from other countries. Other forms of intellectual property protection with regards to Sarawak Litsea include registration for trademark and patent. Products that contain the essential oil Sarawak Litsea will carry the trademark LitSara to indicate that it is a value added product.

96. This component aims to develop a guideline on how benefit sharing could be established with ethnic communities in Sarawak when their traditional knowledge associated with genetic resources is used for product development in the healthcare, personal care and cosmeceutical industries.

97. Expected Outputs & Benefits

- Increased understanding and awareness among communities on the potential benefits arising from the utilization of their traditional knowledge
- Development of Sarawak-specific guidelines for sharing of benefits when collaborating with ethnic communities in Sarawak in developing their traditional knowledge associated with genetic resources
- A model ABS agreement with fair and equitable benefit sharing provisions is developed based on input from communities, SBC and industries

98. Under this pilot project, SBC will encourage *in-situ* conservation of the habitat where *Litsea cubeba* is found. The natural habitat where *Litsea* is found will be maintained by the community since the community will need to sustainably harvest the *Litsea*. This is part of the procedure for Good Wildcraft Practice³². Besides that they will also be involve in *ex-situ*

³² For a description see: <http://en.wikipedia.org/wiki/Wildcrafting>

conservation of plants since they will be encouraged to carry out contract farming. Areas which are disturbed and not utilized by the community will be planted with *Litsea*.

Sharing of best practices and lessons learned at national and international levels

99. The results and lessons from these demonstration activities will be made available to national and regional audiences (for example, through the ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB)) and provide feedback for refinement of the national ABS framework and implementation processes. Global audiences with a professional interest in ABS would be reached through dissemination of results at a proposed side event during a forthcoming CBD COP Meeting.

Raising awareness of the values of biological resources among participating ILCs

100. Awareness raising activities will be included as an integral part of the pilot projects in order to increase the understanding of the participating ILCs regarding the values of the biological resources (eg dipterocarp forest) under their stewardship. These will include seminars, informal discussion sessions and videos appropriate for indigenous audiences. Assessments of awareness levels among these audiences will be conducted at project inception and project completion to determine shifts in understanding through Output 2.5. Increased understanding of the values of these resources, as realized through the demonstration projects, will provide incentive for their conservation and sustainable use.

101. The outputs under this outcome are as follows:

3.1 Demonstration project on the documentation of traditional knowledge associated with biological resources of Kensi (Kedah) and Kintak (Perak) Orang Asli for the development of one prototype product for potential commercialization.

3.2 Demonstration project on the development of a pilot ABS agreement with Semai Orang Asli (Perak) for the development of a prototype nutraceutical/healthcare product for initial commercialization.

3.3 Demonstration project on the utilization of genetic resources associated with TK for the development of health and personal care products in Sarawak.

3.4 Best practice pilot ABS agreement and PIC processes in Malaysia are made available to regional audiences.

3.5 Awareness raising activities are integrated into pilot projects to increase understanding of the values of biological resources under the stewardship of participating ILCs.

102. The project's **Stakeholder Involvement Plan** (see Project Document **Section IV Part IV**) provides details of stakeholder organizations and their roles in project implementation, including mechanisms for participation. This includes federal government agencies concerned with the governance of ABS implementation (NRE and Federal Economic Planning Unit) and other bodies concerned with biotechnology development (including the MOSTI, MOA, MDTCC, and others); State Economic Planning Units and other responsible authorities for ABS implementation at state level (such as SaBC and SBC); ILC representatives and social

and environmental NGOs involved in ABS issues; research institutions involved in bio-prospecting and related research (eg FRIM, universities); technical experts on environmental law (CEBLAW); and private sector organizations and businesses involved in developing biotechnology products.

103. In addition, implementation of the project is supported by monitoring and evaluation inputs in order to achieve effective project management based on results-based management. This will include assessment of awareness levels on specific subjects in order to substantiate related SRF indicators.

104. Activities under the three outcomes will be focused at three levels of intervention: (i) the national (federal) level, in order to establish the national regulatory and institutional framework, and develop national capacity for governance of the framework and technical support measures for its implementation; (ii) provincial (state) level, in order to establish state competent authorities and capacity for ABS implementation including checkpoints and permitting arrangements; and (iii) local level, to demonstrate pilot ABS activities and development of community protocols in the field in collaboration with ILCs and other stakeholders, and to raise awareness and understanding of ABS processes and their regulatory framework. There will be equitable representation of women and indigenous peoples in community level activities such as TK documentation, negotiation of ABS agreements, capacity building, alternative livelihoods and awareness programmes.

Incremental cost reasoning

Summary of Incremental Nature of the Project

105. This Project aims to strengthen the conservation and sustainable use of biological resources in Malaysia through developing the national framework for the implementation of Access and Benefit Sharing under CBD, including raising national capacity to the stage of implementation-readiness.

106. **The incremental approach of the proposed project is summarized as follows:** The Government of Malaysia has identified the introduction of a national ABS framework consistent with the CBD's provisions as a priority and is investing significantly in efforts to conserve biodiversity, support the national biotechnology industry and the documentation and protection of traditional knowledge. There are ongoing investments from Malaysian government bodies and the commercial sector in bio-prospecting. However, while these activities are consistent with the requirements of existing legislation, there remain weaknesses in the current legal and regulatory framework that do not require that PIC processes and ABS agreements involving the equitable sharing of benefits will fully implement the provisions of the CBD and the Nagoya Protocol. Even without the project Malaysia would still work towards the implementation of its obligation under Article 15 of the CBD but the speed the success to achieving the ABS objectives of the CBD would be limited. Therefore, ILCs in particular may not gain from bio-prospecting, although their land and traditional knowledge may be utilized. The Government of Malaysia therefore aims to ensure that all parties, including the federal and state governments and ILCs stand to benefit through the fair and equitable distribution of benefits from bio-prospecting. In addition, while examples of biodiversity are being conserved through the PA system, the lack of value attached to biodiversity rich ecosystems on state land inside and outside the PA system could lead to its rapid degradation and conversion for other land uses. Efforts to date have been

inadequate to remove the existing barriers to the introduction of an effective national ABS regime that will contribute towards biodiversity conservation and encourage sustainable use of biological resources, therefore the threats of ecosystem degradation and land conversion remain, forgoing the opportunity of future bio-discovery options.

107. **Without GEF investment in the proposed project**, acceptance of the national ABS Bill by all states will be difficult to obtain or at least is likely to drag on, delaying its approval and the implementation of the national ABS regime as we are evidencing now. It is also likely that accession to the Nagoya Protocol will be hindered, which will be more difficult to resolve without project support. The lack of technical expert input towards the development of implementing regulations will affect their completion and quality and supporting information sharing mechanisms and guidance materials may not be available. The absence of a national financial and funding mechanism to receive monetary benefits from ABS agreements and to reinvest these weakens national potential for the sustainable financing of biodiversity conservation. Inter-agency and inter-state coordination for biotechnology development will remain weak, resulting in potential conflicts and confusion which may adversely affect investors. Levels of awareness among decision makers, sectoral agencies, the commercial sector and ILCs amongst others concerning the potential benefits of an effective ABS regime will continue to remain low. Resources will not be available to support the level of capacity building needed to bring the NCA, state CAs, checkpoint authorities and other stakeholders to implementation readiness in the short term, and local experience and information-sharing on the development of PIC, MAT and benefit-sharing will remain inadequate. Bio-prospecting and use of traditional knowledge resources will continue to be weakly regulated, therefore ILCs across the country at risk of losing out on the benefits associated with bio-prospecting and there will be little incentive for improving the security of biological resources at local level. It is highly possible that there will be absence of regulatory framework to arrest biopiracy without the GEF intervention to strengthen the existing regulatory system. The The Tongkat Ali *Eurycoma longifolia* plant and the recent “*Muscodor Strobilii*” fungus cases are some examples which reflect the weaknesses of the existing regulatory system when patent protections are granted to products of biotechnology that are based upon biological resources from Malaysia without the prior informed consent of Malaysia and without any benefit sharing with Malaysia. Without uniform and streamlined access rules, fees and conditions, States within Malaysia which have similar biodiversity are more likely to fight against each other causing downward-spiral competition. Overall, the constituency and financial resources for biodiversity conservation will not advance beyond baseline levels.

108. **Alternative scenario enabled by the GEF:** The project complements baseline programmes and projects by supporting the development of the national ABS framework, addressing this at a whole country level and putting in place supporting capacity to enable effective implementation. This will enable the rapid completion of national ABS legislation, preparation and approval of implementing regulations, identification of NCA and state CAs, and the processes and machinery required for full implementation of the ABS regime in line with CBD and Nagoya Protocol requirements. It will also break new ground in developing a *sui generis* framework focusing on the use of community protocols for traditional knowledge and genetic resources, demonstrated in Sabah. Considering the constitutional structure that the subject of forests and land are under the jurisdiction of the State governments, this project will enhance the communication and cooperation between these agencies through outputs identified

above. Intensive awareness raising and capacity building efforts will ensure that all concerned stakeholders understand the principles behind the ABS regime, the requirements for its implementation, and the potential benefits that can be realized to different parties. The project will also facilitate the reinvestment of benefits from ABS agreements back into biodiversity conservation and supporting ILCs through official mechanisms. The NCA, state CAs, checkpoint authorities and other stakeholders will be brought rapidly to implementation readiness, and through the pilot projects, the inclusion of appropriate PIC, MAT and ABS agreements in bio-prospecting and product development processes will be demonstrated, and community protocols for use of ILC traditional knowledge developed. *The results* and lessons learned *from the project* will also be shared and contribute to global best practices on ABS, thus informing other countries (in particular ASEAN countries) to develop and implement suitable ABS and conservation frameworks and providing necessary methods and modalities that can be applied in developing ABS agreements in other countries. These in turn can also provide useful guidance to the ongoing regional and global processes related to ABS. As a result, the project will ensure that the country, states and ILCs all stand to gain from the further development of Malaysia's biotechnology industry, including its participation in international projects and foreign investment. Benefits will also include technology transfer, capacity building, increased knowledge and documentation of biological resources and traditional knowledge. Overall, the project will enable the country to be brought to a state of readiness regarding accession to the Nagoya Protocol. It will also increase Malaysia's attractiveness for biotechnology development and investment through the certainty, transparency and clarity of its ABS regime, mechanisms to facilitate access applications, facilitate the protection of its cultural heritage of indigenous traditional knowledge, and catalyze more effective financing and *motivation* for biodiversity conservation. These stakeholders whom capacity has been built are expected to carry out the activities beyond the life of the project. These efforts will necessarily involve strong gender components, especially within the local context of indigenous and local communities.

Global environmental benefits

109. The project will achieve global environmental benefits through enhanced national contribution towards the achievement of the three objectives of the CBD (especially Objective 3 on ABS) and of the goals of its Strategic Plan. Specifically, the project will contribute towards reduced rates of biodiversity loss in Malaysia through the following mechanisms:

- *Increasing awareness of the existence, use and option values of biological resources among key audiences;*
- *Enabling greater economic benefits to the government and other stakeholders from genetic resources through the biotechnology industry, thereby providing incentives for biodiversity conservation;*
- *Providing communities that are holders of genetic resources and associated traditional knowledge with livelihood options that result in economic benefits, thereby reducing pressures for unsustainable use and conversion of ecosystems;*
- *Contributing to national development strategies and economic growth, reducing poverty and poverty-associated threats to ecosystem integrity; and*
- *Contributing towards the maintenance of global ecosystem services and biodiversity conservation*

Innovativeness, sustainability and potential for scaling up

110. The project is innovative in the national context, as ABS is a new emerging field and the project will enable the biotechnology industry to take full advantage of Malaysia's rich

biological resources in line with national economic development priorities. Also, while some commercial agreements have been developed for bioprospecting in Sabah and Sarawak, these have yet to fully comply with the requirements of CBD for PIC, MAT and benefit sharing with ILCs and other stakeholders, so the proposed best practice pilot projects will truly be leading the way for future agreements, as well as providing the first steps towards more collaborative governance of natural resources

111. The environmental and social sustainability of project activities will be in compliance with the Environmental and Social Screening Procedure for the project (see **Annex 4** of the Project Document). For example, one of the principles for bio-prospecting permitting is to ensure that exploitation of the biological resources is conducted in a sustainable manner, and this is expected to be included in any related agreements. Also the advancement of technology allows the development of synthetic compounds which could significantly reduce future reliance on raw materials. At a higher level, the project will remove barriers enabling the development of Malaysia's biotechnology industry, which is expected to lend major economic value and increased awareness of the importance of Malaysia's natural resources and biodiversity, providing strengthened arguments for conservation and sustainable use of these resources, in line with the third objective of CBD. Similarly, the ABS regime that the project aims to put into place will meet CBD requirements, ensuring the protection of traditional knowledge belonging to Malaysia's diverse population of ILCs and the fair and equitable sharing of benefits from the development of biological resources among all concerned parties. This will be a significant improvement on the current situation, where no such protection exists.

112. The project's financial sustainability is likely to be strong on two counts. First, the establishment of financial mechanisms for the management of ABS and their reinvestment into conservation supported by this project will provide a sustainable source of income in the long term that will contribute towards the conservation of global significant biodiversity, as well as increasing benefits to local communities. And secondly, the project will remove barriers allowing the national biotechnology industry to develop, and creating a conducive environment for investment from international companies with an interest in bio-prospecting.

113. By installing a comprehensive national framework for ABS, including a national law, implementing regulations, institutional set up, supporting information management and capacity building for the competent authorities and related agencies, the project will demonstrate strong institutional sustainability under the leadership of NRE. NRE has obtained approval for the establishment of a National Biodiversity Centre, to be financially supported under the 10th Malaysia Plan. Once in place, this centre will receive operational funds from the Malaysian Government and may become the body responsible for implementing the proposed national ABS law. Institutional sustainability is also underpinned by the fact that baseline activities have already included extensive consultation with stakeholders at all levels, including ILCs from all over the country as well as a wide range of sectors, and that the project will support a continued inclusive and consultative approach supported by awareness raising measures in order to introduce the national ABS framework.

114. The outcomes of the project will be scaled up through the dissemination of project results, lessons learned and experiences including demonstration of best practices in the development of

ABS agreements and PIC processes. This will be achieved through making project information available in a timely manner through the NRE website as well as Malaysian government participation in ASEAN environmental initiatives. The sharing of benefits with ILCs through ABS agreements is likely to incentivize involvement in ABS processes by other communities, and enhance the uptake of community based conservation approaches in Malaysia.

A.2. Stakeholders. Identify key stakeholders (including civil society organizations, indigenous people, gender groups, and others as relevant) and describe how they will be engaged in project and/or its preparation:

115. During project preparation, a preliminary stakeholder analysis was undertaken in order to identify key stakeholders, assess their interests in the project and define their roles and responsibilities in project implementation. **Table 1** below lists the key stakeholders associated with establishing a national ABS framework in Malaysia.

Table 1. Roles and Responsibilities of Stakeholders in Project Implementation

Stakeholder	Roles and Responsibilities
Stakeholders with direct involvement	
Ministry of Natural Resources and Environment (NRE)	The national executing agency for the project. The agency also houses the GEF Operational Focal Point (OFP) and coordinates and implements GEF financed projects. Responsible for coordination of environmental issues including CBD implementation, and promulgation of the draft ABS legislation at Federal level.
Economic Planning Unit (EPU)	Responsible for formulating policies and strategies for socio-economic development and evaluating and recommending development programmes and projects. The Environment and Natural Resources Economics Section (ENRES) and International Cooperation Section would be involved.
State EPUs	Responsible for formulating policies and strategies for socio-economic development and evaluating and recommending development programmes and projects at state level.
Forest Research Institute Malaysia (FRIM)	Research institution covering a wide range of forest-related subjects. Involved in the nature-based product discovery investigations and traditional knowledge documentation of Orang Asli (indigenous peoples of Peninsular Malaysia). FRIM is an official implementing partner and co-financier, and will provide technical inputs for project implementation including responsibility for executing demonstration activities in Peninsular Malaysia for the third component of the project. Member of project's Technical Working Group.
Sarawak Biodiversity Centre (SBC)	Research institution and ABS regulator in Sarawak involved in the nature-based product discovery investigations and traditional knowledge documentation of Orang Asal (indigenous peoples of Sarawak). SBC is an official implementing partner and co-financier and will provide technical inputs for project implementation including responsibility for executing demonstration activities in Sarawak under the third component of the project. Member of project's Technical Working Group.
Sabah Biodiversity Centre (SaBC)	ABS regulator in Sabah. Involved in traditional knowledge documentation of Orang Asal (indigenous peoples of Sabah). SaBC is an official implementing partner and co-financier, and will provide technical inputs for project implementation including responsibility for executing demonstration

	activities in Sabah under the third component of the project. Member of project's Technical Working Group.
Centre of Excellence for Biodiversity Law (CEBLAW)	Centre of excellence in biodiversity law, part of the national University of Malaya, is an official implementing partner and responsible for providing expertise in ABS laws and related issues and in executing the ABS law-related outputs of the project.
Department of Orang Asli Development (JAKOA)	Responsible for eradicating poverty among the Orang Asli, improving their health, promoting education, and improving their general livelihood. Could play a supportive role in the PIC process involving indigenous peoples.
Stakeholders with indirect involvement	
Malaysian Agricultural Research and Development Institute (MARDI)	Mandated to conduct research in agriculture, food and agro-based industries. MARDI's feedback to ABS implementation in cases involving genetic resources for food and agriculture is crucial.
Forestry Department Peninsula Malaysia (JPSM)	Responsible for forest lands and nature reserves conservation in Peninsular Malaysia. Potential Competent Authority responsible in granting access permits.
State forestry departments	Responsible for forest lands and nature reserves conservation at state level. Potential Competent Authorities responsible in granting access permits in respective state.
Ministry of Science, Technology and Innovation (MOSTI)	Responsible for steering the national biotechnology agenda pursuant to the National Biotechnology Policy 2005. BiotechCorp under MOSTI was established as the one-stop centre for biotechnology industry development in Malaysia and IPharm undertakes discovery, development and commercialization of pharmaceutical and nutraceutical products.
Ministry of Agriculture & Agro-based Industry (MOA)	Responsible for legislating, planning and implementing agricultural development programs, policies and strategies; evaluating, coordinating and ensuring the implementation of agro-food agriculture development projects/programs and conducting R&D and innovation that enhance productivity and competitiveness in the agro-food sector. Their involvement is important to ensure that the ABS framework is implemented in a supportive manner with the other international instruments like the ITPGRFA.
Ministry of Plantation Industries and Commodities (KPPK)	Responsible for formulating policies and strategies for the overall development of the plantation and the commodity sectors; and supervising financial management and implementation of plantation and commodities development programmes. Their involvement is crucial to ensure the implementation of the ABS framework does not affect the normal trading of commodities.
Ministry of Health (MOH)	Responsible, among others, for reviewing research involving human subjects
Ministry of Rural and Regional Development (KKLW)	Responsible in rural development and improving the well being of rural residents.
Ministry of Domestic Trade, Cooperative and Consumerism (MDTCC)	Responsible for monitoring domestic trade, advocating and protecting consumers' rights, protection of intellectual properties as well as registration and governance of businesses.
Universities	Host research institutions/departments which are the resource users of biodiversity in Malaysia. Their involvement in related activities such as awareness events is important to create awareness for researchers within universities who are conducting research and development on biodiversity to ensure compliance with the ABS regulatory framework.
Indigenous and local communities (ILCs)	Partners in traditional knowledge documentation programmes. Their PIC must be sought for ABS agreements in the third component of the project.

Private sector organizations, businesses and research institutions	Biotechnology companies are key stakeholders as they are potential users of biological resources in Malaysia. Their involvement in related activities such as awareness events is important.
NGOs - national and international environmental NGOs (e.g. TWN, MANGO)	Important for consultation, feedback and awareness raising. Assist to monitor compliance with the ABS regulatory framework by resource users.
National indigenous peoples NGOs and indigenous peoples associations (e.g. COAC, PACOS, SADIA etc)	Important for technical support, consultation and feedback, training and monitoring. High capacity for grass roots action with indigenous and local communities. Provide useful insights and views relating to the reassertion of governance structures grounded in customary law and practices of indigenous peoples.

A.3. Describe the socioeconomic benefits to be delivered by the Project at the national and local levels, including consideration of gender dimensions, and how these will support the achievement of global environment benefits (GEF Trust Fund/NPIF) or adaptation benefits (LDCE/SCCF):

116. The biotechnology industry has enormous potential to contribute towards the national economy, as well as to provide economic justification for the conservation and sustainable use of Malaysia's natural resources. Technology transfer will help to build Malaysia's capacity for research and development in the biotechnology industry, further supported by baseline investment in training and capacity building activities and commercial partnerships (see baseline section above for further information).

117. The potential benefits provided by bio-prospecting for ILCs, to be demonstrated by the pilot projects, provide incentives for community-based natural resource management such as community conserved areas, the sustainable use of state land resources and the preservation of traditional knowledge. These are of particular value in encouraging the conservation of biodiversity outside the protected area system, which is otherwise highly vulnerable to land conversion under Malaysia's National Land Code, as well as to degradation from unsustainable patterns of land use. Traditional knowledge has been increasingly acknowledged by researchers as playing a key role in combating or, adapting to the impact of, climate change. Indigenous crops too are seen to be crucial in addressing the issues of nutrition and food security compounded by climate change impacts as they are proven to be more drought-tolerant.

118. The improved likelihood of ecosystem conservation under such a scenario will help to secure the socio-economic benefits provided by ecosystem services, to the advantage of local communities who are often most dependent upon NTFPs, and who will also benefit from ecosystem-based adaptation (such as storm protection from mangrove forests, and hydrological buffering from highland forests). As women among the local communities are more often engaged with gathering natural resources and collecting water, they are the primary beneficiaries of sustainable and quality supply of these resources. National level benefits will accrue through ecosystem services underpinning the national economy (such as hydrological regulating services, water purification, soil protection, coastal protection and pollination, for example), and global environmental benefits will include carbon sequestration and maintenance of globally significant biodiversity. While systematic information is lacking on this at the national level, a number of

economic valuation studies have been conducted for different ecosystems, services and uses in Malaysia (see examples below³³).

119. Women have unique ways of producing and transmitting knowledge, but face barriers to participating in decision-making processes, both traditional and contemporary, that favour men in positions of power. For instance, the importance of gender and the essential role of women in developing and using community protocols (one of the demonstration project themes) have long been considered.³⁴ Key lessons that will be integrated into this project include providing spaces for separate meetings and trainings with women to build their technical skills and capacities, supporting female champions and facilitators to complement (not threaten) traditional leadership, and using the strengths of customary laws (e.g. social norms of honour, pride, and reciprocity) as the basis for culturally appropriate and representative decision-making processes both within communities and in multi-stakeholder settings.

120. One of the pilot projects intends to develop a community protocol for the indigenous and local community. Community protocols help valorise traditional ecological knowledge and customary laws and resource governance systems and enable communities to articulate their own visions of environmental sustainability and the culturally appropriate terms and practices they expect from external stakeholders. Past experience shows that protocols increase not just communities' sense of pride, but also government and private sector understanding and respect for their identities and biocultural heritage.

121. The pilot projects will work closely with community facilitators, community-based organisations, and NGOs to ensure that the partner communities are integrally involved in all aspects of the project and in locally appropriate ways. This will include, among other things, regular meetings and discussions (in-person, phone, email), group reflection and revision of the project to date, focused workshops and peer training sessions (including community reporting, monitoring, and consolidation workshops), and support for community outreach and communication tools. These are part of the efforts and initiatives of Malaysia towards achieving Target 18 of the Aichi Biodiversity Targets by 2020.

³³ Kumari, K. 1995. An environmental and economic assessment of forest management options: A case study in Malaysia. The World Bank. *Environment Department paper No. 026*. Washington, D.C.: The World Bank.

Tan-Soo, J.S. 2010. Economic valuation of flood mitigation services provided by tropical forests in Malaysia. MS project, Duke University.

UNEP. 2007. *Guidelines for Conducting Economic Valuation of Coastal Ecosystem Goods and Services*. UNEP/GEF/SCS Technical Publication No. 8. <http://www.unepscs.org/remository/startdown/1958.html>

UNEP, 2007. Procedure for Determination of National and Regional Economic Values for Ecotone Goods and Services, and Total Economic Values of Coastal Habitats in the context of the UNEP/GEF Project Entitled: "*Reversing Environmental Degradation Trends in the South China Sea and Gulf of Thailand*". South China Sea Knowledge Document No. 3. UNEP/GEF/SCS/Inf.3
DiRocco, T.L. 2012. A thorough quantification of tropical forest carbon stocks in Malaysia. Carbon Stocks of Tropical Forests. Univ California, Berkeley Environmental Sciences 2012. 18pp.
http://nature.berkeley.edu/classes/es196/projects/2012final/DiRoccoT_2012.pdf

³⁴ See, for example, Köhler-Rollefson, I., 2012. *Invisible Guardians – Women manage livestock diversity*. FAO Animal Production and Health Paper No. 174. FAO: Rome, Italy; Shrumm, H., and H. Jonas, 2011. *Asia Regional Initiative on Biocultural Community Protocols: Inception Meeting Report (2-4 April, 2011: Digana, Sri Lanka)*. Natural Justice: Malaysia/India.

A.4 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:

122. The project strategy, described in detail within this document, makes the following key assumptions in proposing the GEF intervention:

- Malaysia's federal and state governments are strongly committed to the introduction of a national framework for ABS.
- Key stakeholders involved in bio-prospecting for specific products are willing to participate in the pilot demonstration activities under this project.

123. During project preparation, risks were identified, elaborated and classified according to UNDP/GEF Risk Standard Categories³⁵, and assessed according to criteria of 'impact' and 'likelihood'. These risks and the mitigation measures will be continuously monitored and updated throughout the project, and will be logged in ATLAS and reported in the PIRs. The UNDP Environmental and Social Screening Procedure (see **Annex 4** of the Project Document) has been applied during project preparation and did not identify any significant environmental or social risks associated with the proposed project. In general, the project will contribute positively towards the conservation of biodiversity and maintenance of ecological stability, as well as towards an improved legal framework for ABS through which indigenous and local communities have increased potential to benefit from bio-prospecting activities, including improved prospects for preservation of their traditional knowledge.

TABLE 2. PROJECT RISKS ASSESSMENT AND MITIGATION MEASURES

Identified Risks	Category	Impact	Likelihood	Risk Assessment	Elaboration of Risks	Mitigation Measures
Target audiences for training, awareness raising and other capacity building activities are not committed to participate in project activities	Operational	Medium	Moderately Likely	Low	Some intended target audiences may not attach high priority to project activities vs their other duties and activities, affecting their level of participation.	Measures will vary with target audience. For ILCs, careful timing to avoid busy farming periods and provision of incentives to participate are often required. For government officials, high level requests to participate and selection of suitable venues for training are important.
Potential delay in approval of the national ABS Bill would delay some Component 1 & 2 activities such as the legal mandate for a national financial mechanism for reinvestment of	Operational	Medium	Moderately Likely	Low	The national draft ABS Bill includes a clause for establishment of such a financial mechanism. Therefore delays in the approval of the Bill would delay the establishment of the financial mechanism.	The project will conduct extensive consultation and advocacy campaigns with the state level stakeholders to create awareness and political will to take up the proposed ABS regulatory framework and approve the national ABS Bill. Benefit sharing is still feasible through specific ABS agreements in the absence of the national law; as well as under state level legislation in some cases.

³⁵ Includes the following eight categories: environmental; financial; operational; organizational; political; regulatory; strategic; and other.

ABS proceeds into conservation.						
Active ingredients investigated in pilot projects fail to show promise as prototypes preventing PIC processes to run to completion of ABS agreements and provide actual benefits for sharing	Operational	Medium	Unlikely	Negligible	The early screening of active ingredients during bio-prospecting for potential products does not guarantee that prototypes can be successfully developed, leading towards commercialization. An element of trial and error is involved.	The selection of pilot projects for inclusion in this project has been carefully based on the experience of the agencies involved, existing lines of research and development, and the application of traditional knowledge. Potentially, the screening process could be adjusted or expanded during implementation in order to reduce this risk.
Potential difficulties in adopting the national ABS regulatory framework by relevant stakeholders especially at the state level due to the federal-state constitutional structure.	Political	High	Moderately Likely	Medium	The national draft ABS Bill has been drafted and is currently out for consultation. Certain states have existing ABS-related legislation that would require amendment or repeal, and concerns about the balance of control over their natural resources. These concerns will need to be addressed in order for the national Bill to pass.	<p>The project will conduct extensive consultation and advocacy campaigns with the state level stakeholders to create awareness and political will to take up the proposed ABS regulatory framework.</p> <p>NRE and the project will conduct forums or seminars targeting legislators (Members of Parliament) to advocate for their support to the new ABS regulatory framework.</p> <p>The project and NRE will also involve the AG's Chambers throughout the consultation process for the ABS Bill and subsidiary regulations.</p> <p>Modification of the draft ABS Bill to address the concerns of certain states may need to be considered if other approaches are not successful.</p>

Government staff turnover may impede project implementation	Operational	Medium	Likely	Medium	Some senior government staff with strong knowledge of ABS related subjects are likely to retire or move position during the project period. Less experienced staff may therefore have to lead on some activities.	The project generally aims to build capacity within the government agencies involved in ABS issues, and will train several people from each competent authority, as well as other related agencies. This will increase the depth of experience and skills available both for the project and future ABS work. The advancement of this subject area also provides increased opportunity and incentive for staff to remain involved.
Commercial confidentiality restrictions may limit information sharing on development process	Operational	Low	Moderately Likely	Low	The development of prototype and final commercial products through bio-prospecting processes requires a high degree of confidentiality in order to protect intellectual property rights, which may affect the amount of information that can be shared on pilot projects supported by this project.	Subcontracts for the pilot projects will specify what information can and cannot be made publicly available through mutual agreement. In general, the demonstration focus of this project is on best practice PIC processes and benefit sharing agreements rather than the commercial products themselves, so this is unlikely to be of significant concern regarding the project outcomes.

A.5. Explain how cost-effectiveness is reflected in the project design:

124. As one of the world's 17 mega-biodiversity countries, Malaysia has exceptional biological and genetic resources. Aside from traditional uses by its great diversity of indigenous and local communities (ILCs), these genetic resources remain largely untapped but have huge potential in the global marketplace. The Government of Malaysia has recognized this potential, as expressed in the National Biotechnology Policy (2005), a commitment by the government to develop biotechnology as a platform for an innovation-led economy. Advances in this field are expected to capitalize on the rich components of biological diversity in this country which could result in the development of products such as pharmaceuticals, nutraceuticals, cosmetics, antibiotics and vaccines. The resulting biotechnology industry is expected to lend major economic value and increased awareness of the importance of Malaysia's natural resources and biodiversity, providing strengthened arguments for conservation and sustainable use of these resources, in line with the third objective of CBD. The projected total revenue of the biotechnology industry in Malaysia for the period of 2005 to 2020 is USD 90 billion, contributing 5% to the total GDP of Malaysia.

125. Consequently, the investment of US\$ 1.97 million from GEF can be considered very modest and cost-effective in comparison with the national socio-economic and global

environmental benefits that will accrue from this project intervention.

126. The lack of a national ABS framework and adequate capacity for its implementation are significant barriers impeding the development of an operational ABS regime regulating Malaysia's biological resources and associated traditional knowledge and the equitable sharing of benefits from such progress. These barriers also negatively affect conservation efforts, as the full value of Malaysia's bio-diverse forests, wetlands and marine ecosystems cannot be realized and sectoral land uses such as plantation development take priority over the maintenance of biodiversity and ecosystem services, foregoing future opportunities for bio-prospecting. The project's intervention aims to remove these barriers, allowing this industry to develop, providing benefits including technology transfer to the state, commercial sector and ILCs, and strengthening arguments and motivation for biodiversity conservation.

127. Importantly, the development of the national ABS framework and demonstration of best practice PIC and ABS agreements embodying CBD's principles will also provide a secure and transparent environment for international investors, increasing Malaysia's attractiveness as a centre for biotechnology.

128. Finally, the establishment of financial mechanisms for the management of ABS and their reinvestment into conservation supported by this project will provide a sustainable source of income in the long term that will contribute towards the conservation of global significant biodiversity, as well as increasing benefits to local communities. This approach is likely to incentivize similar practices by other communities, and enhance the uptake of community based conservation approaches in Malaysia.

A.6. Outline the coordination with other relevant GEF financed initiatives [not mentioned in A.1]:

129. The current project is the only planned national ABS project in Malaysia financed by GEF. As such, there are limited needs for coordination with other GEF financed projects, but linkages and synergies will be sought with the projects listed in the table below. In addition, the project will build on the regional UNEP/GEF project "Building capacity for regionally harmonized national processes for implementing CBD provisions on access to genetic resources and sharing of benefits" for the ASEAN region. The table below lists the projects relevant to the current project and shows how collaboration with these projects will be ensured.

130. Although not GEF-financed, it should be mentioned that the project builds on a strong baseline which was largely supported by the UNDP project "Capacity Development for the Formulation of a Policy and Regulatory Framework for Access and Benefit-sharing of Biological Resources in Malaysia" executed by NRE, and which was completed in 2012 (see baseline section for details).

Table 3. Coordination with Related GEF Financed Initiatives

GEF Financed Initiatives / Interventions	How collaboration with the project will be ensured
UNDP/GEF National	CEO Approved. Under this project, revision of the National Biological Diversity Policy

Biodiversity Planning to Support the Implementation of the CBD 2011-2020 Strategic Plan in Malaysia	which deals with the conservation and sustainable use of biodiversity in a holistic manner will build in the ABS mechanism to support conservation efforts, also to be reflected in the revised NBSAP. These documents will also reflect that the traditional knowledge, innovations and practices of indigenous and local communities relevant for the conservation and sustainable use of biodiversity, and their customary use of biological resources, are respected, integrated and reflected in the implementation of the CBD with the full and effective participation of indigenous and local communities. This project is also implemented by the same division in NRE and the NSC will have the same chair which not only enhances the project coordination but also the direction and guidance from the top management of NRE.
UNDP/GEF National Capacity Self Assessment for Global Environmental Management	Completed 2009. The National Capacity Self-Assessment (NCSA), identified capacity gaps where this project aims to intervene. The National Capacity Action Plan (2008) (NCAP) identified 13 activities to improve and enhance the implementation of the CBD. In the context of this project, the NCAP proposes activities relating to the development and implementation of a programme for ABS and establishing a national programme on traditional knowledge (TK) related to conservation of biodiversity. Therefore the capacity gaps that were identified must be addressed in order to improve and enhance existing implementation in terms of policy and institutional framework; regulation and guidelines; federal and state cooperation; inter-agency coordination; knowledge and information management; incentives; increasing the number of experts; research and development; reporting framework and mainstreaming. The present project addresses most of these issues, such as an improved national legal and institutional framework for ABS, systematic capacity building for ABS and TK, improved inter-agency coordination regarding permits and checkpoints, mainstreamed access procedures such as harmonization of application forms across agencies, and support for pilot projects demonstrating ABS processes for bio-prospecting R&D and the application of TK. This project was implemented by the same division in NRE which enables the institutional memory to be applied to the current project.
UNEP/GEF Building capacity for regionally harmonized national processes for implementing CBD provisions on access to genetic resources and sharing of benefits	Malaysia as one of the active countries in the Like-Minded Megadiverse Countries (LMMC) group has been seen as playing a leading role in the development of ABS regulation under CBD. Related to this, Malaysia has provided ABS expertise to ASEAN workshops and member States, and has actively participated in the UNEP/GEF Project. Experiences gathered and lessons learned from the present project will be shared with other ASEAN member States through its Multi-Stakeholder Workshops and Peer-to-Peer Exchanges. These activities promote the transfer of practical knowledge, enable the dissemination of experiences, offer examples to those who have yet decided on how to proceed, and increase the capacity of ASEAN countries like Cambodia, Brunei and Myanmar to develop their national ABS regimes and to explore options for common positions at the regional level. As the UNEP/GEF project is scheduled for completion in June 2013, the present project (through NRE) will take note of its main results and take these into account in the design and implementation of the national framework on ABS, and in sharing results and lessons learned from the present project with ASEAN countries through the ASEAN Working Group on Nature Conservation and Biodiversity (AWGNCB). This project is implemented by the same division in NRE which allows for consistency between national and regional efforts and avoids duplication while enhancing synergy and coordination.
GEF Small Grant Project – Sabah bio-cultural legislation	Coordination with the present project will take place through SaBC, which has an official coordinating role regarding ABS implementation in the state of Sabah and is responsible for executing an activity under Component 1 to demonstrate the use of community protocols to develop <i>sui generis</i> approaches to ABS for protection of traditional knowledge within the broader legal landscape in Sabah.
UNDP/GEF Improving the Connectivity of the Central Forest Spine (IC-CFS)	Council Approved. The project aims to increase connectivity of the Central Forest Spine for biodiversity conservation and maintaining ecosystem services. The proposed project will complement the IC-CFS Project by establishing a system for handling ABS issues and demonstrating model ABS agreements which will support the conservation of

	important ecosystems such as in the CFS area. The pilot sites in Peninsular Malaysia are within the CFS, contributing improved management of the CFS by realising economic benefits from the use of biological resources while ensuring custodians of the resources will derive benefits from the use, thus incentivising enhanced protection of the natural resources. NRE and UNDP will ensure close coordination of the project.
UNDP/GEF Enhancing the effectiveness and financial sustainability of protected areas in Malaysia	CEO Approved and under implementation. This project aims at increasing financial resources for management of protected areas through conventional and non-conventional sources. Hence the benefit sharing element of ABS could be an important source for funding to strengthen financing of protected areas in Malaysia. It is envisaged that through successful benefit sharing, which brings about tangible monetary benefits, it could provide an alternative source of income for indigenous and local communities (ILCs) living in and around protected areas which will reduce their dependency on resources which will translate into keeping a protected area more intact and reducing pressure on overall biodiversity. This project is implemented by DWNP and NSC is chaired by NRE which will allow for coordination of these 2 projects.
UNDP/GEF Biodiversity Conservation in Multiple Use Forest Landscapes in Sabah, Malaysia	Under Implementation. The objective of the project is to bring the landuses in the connecting landscape and protected areas under a common and integrated management umbrella strategy in order to mainstream biodiversity, ecosystem functions and resilience, while enabling ongoing sustainable uses, by achieving three interconnected outcomes: (1) provisioning of an enabling environment for optimized multiple use planning, financing, management and protection of forest landscapes; (2) demonstration of multiple-use forest landscape planning and management system, and (3) demonstration of innovative sustainable financing methods for multiple-use forest landscape management. Coordination mechanisms – the project will be implemented by the Sabah Forestry Department with the support from Sabah Foundation and Sabah Biodiversity Centre. The participation of Sabah Biodiversity Centre in this project will enable the incorporation of ABS mechanisms within the targeted outcomes, especially outcome 3 on innovative sustainable financing.

A.7 Describe the institutional arrangement for project implementation:

PROJECT IMPLEMENTATION ARRANGEMENT:

131. The project's implementation and execution arrangements will focus on maintaining strong collaboration and cooperation, and avoid duplication of effort, among ABS related initiatives in Malaysia during the four year implementation period. The Ministry of Natural Resources and Environment (NRE) is the government institution responsible for the daily execution and coordination of the project and will serve as the government *Executing Agency* (EA). UNDP is the sole *GEF Implementing Agency* (IA) for the project. The project is nationally executed (NEX), in line with the Standard Basic Assistance Agreement between the UNDP and the Government of Malaysia, and the Country Programme Action Plan (CPAP). Other executing partners include: Forest Research Institute of Malaysia (FRIM), Centre of Excellence for Biodiversity Law (CEBLAW), Sabah Biodiversity Centre (SaBC) and Sarawak Biodiversity Centre (SBC), who each will have specific roles to play concerning the execution of the project components.

Project Oversight

132. Oversight of project activities will be the responsibility of the National Steering Committee (NSC). Day-to-day operational oversight will be ensured by UNDP, through the

UNDP Country Office in Kuala Lumpur, and strategic oversight by the UNDP/GEF Regional Technical Advisor (RTA) responsible for the project. This oversight will include ensuring that the project practices due diligence with regard to UNDP's Environmental and Social Screening Procedure (see **Annex 4** of the project document for details). The structure of project management and oversight arrangements is shown in **Figure 1** below.

133. NRE will take overall responsibility for the project execution, and the timely and verifiable attainment of project objectives and outcomes, but will report to the NSC. NRE will provide support to, and inputs for, the implementation of all project activities, and recruitment of project staff and contracting of consultants and service providers with the advice from and involvement of the UNDP. International procurement will be mainly handled by the UNDP upon request of the NRE. NRE will nominate a high level official (Under-Secretary of the Biodiversity and Forestry Management Division) who will serve as the *National Project Director (NPD)* for project implementation. The NPD will be responsible for providing government oversight and guidance for project implementation. The NPD will not be paid from the project funds, but will represent a Government in-kind contribution to the Project.

134. The *UNDP Country Office (UNDP-CO)* will be responsible for: (i) providing financial and audit services to the project; (ii) overseeing financial expenditures against project budgets approved by NSC; (iii) appointment of independent financial auditors and evaluators; and (iv) ensuring that all activities including procurement and financial services are carried out in strict compliance with UNDP/GEF procedures. A UNDP staff member will be assigned the responsibility for the day-to-day management and control over project finances.

135. The *National Steering Committee (NSC)* will be convened by NRE and may include NGO membership. The NSC will comprise relevant national and state agencies, and membership by those agencies should remain consistent. The NSC will serve as the project's coordination and decision-making body. The NSC meetings will be chaired by the Secretary General of NRE. It will meet according to necessity, but not less than once in 6 months, to review project progress, approve project work plans and approve major project deliverables. The NSC is responsible for ensuring that the project remains on course to deliver products of the required quality to meet the outcomes defined in the project document. The NSC's role will include: (i) overseeing project implementation; (ii) approving annual project work plans and budgets, at the proposal of the Project Manager (PM), for submission to UNDP; (iii) approving any major changes in project plans or programmes; (iv) providing technical input and advice; (v) approving major project deliverables; (vi) ensuring commitment of resources to support project implementation; (vii) arbitrating any conflicts within the project and/or negotiating solutions between the project and any parties beyond the scope of the project; (viii) overall project evaluation and (ix) ensuring that UNDP Environmental and Social Screening Procedure safeguards are applied to project implementation.

136. The NSC will be chaired by the Secretary General of NRE and include the following stakeholders: Federal Economic Planning Unit (EPU), Public Service Department, Ministry of Science, Technology and Industry (MOSTI), Ministry of Agriculture (MoA), Ministry of Plantation Industries and Commodities (KPPK), Ministry of Finance (MoF), Ministry of Rural and Regional Development (KKLW), Ministry of Domestic Trade, Co-operatives and Consumerism (MDTCC), Forest Research Institute Malaysia (FRIM), Department of Forestry

Peninsular Malaysia (JPSM), Dept of Wildlife and National Parks (PERHILITAN), Marine Parks, Sabah Biodiversity Centre (SaBC), Sarawak Biodiversity Centre (SBC) and UNDP and NGOs. Specific NSC membership and terms of reference will be finalized during the Project Inception Workshop.

137. A *Technical Working Group (TWG)* will be established to handle all technical matters relating to the project and will be chaired by the NPD. The members of the TWG will consist of representatives from NRE, Attorney General's Chambers (AGC) / NRE's Legal Advisor (LA-NRE), CEBLAW, and other relevant stakeholders to be determined by the NSC. Consultants and technical support will be provided by local and international professionals with extensive experience of the subject areas required by the project. The specific consultancy inputs required are detailed in the project document. The UNDP global knowledge network will also provide inputs through best practices and lessons learned from similar experiences in other countries.

Project Management

138. The day-to-day administration of the project will be carried out by a *Project Management Unit (PMU)* within the NRE comprised of a PMU Director, Project Manager (PM), a Project Assistant, and additional support staff. The project staff will be recruited following UNDP and NRE recruitment procedures. The PM will, with the support of the Project Assistant, manage the implementation of all project activities, including: (i) preparation/updates of project work and budget plans, record keeping, accounting and quarterly and annual progress reporting; (ii) drafting of terms of reference, technical specifications and other documents as necessary; (iii) identification, proposal of project consultants to be approved by the NSC, coordination and supervision of consultants and suppliers; (iv) organization of duty travel, seminars, public outreach activities and other project events; and (v) maintaining working contacts with project partners at the central and local levels.

139. The PM is accountable to the NRE and the NSC for the quality, timeliness and effectiveness of the activities carried out, as well as for the use of funds. The PM will produce Annual Work Plan and Budget Plans to be approved by the NSC. These plans will provide the basis for allocating resources to planned activities. The PM will further produce quarterly operational reports and Annual Progress Reports (APR) for submission to the NSC. These reports will summarize the progress made by the project versus the expected results, explain any significant variances, detail the necessary adjustments and be the main reporting mechanism for monitoring project activities. The PM will also be technically supported by contracted national and international service providers. Recruitment of specialist services for the project will be done by the PM in consultation with the UNDP and the NRE. The PM will also liaise and work closely with all partner institutions to ensure good coordination with other complementary national programmes and initiatives. The organogram for project management (see **Fig. 1** below) illustrates the working relationship between all the main project implementing parties or bodies.

Project Management for Demonstration Projects

140. Under the supervision of the central Project Management Unit, project management for the implementation of demonstration activities in Component 3 will be coordinated through an exchange of letters (a recognized form of agreement) between NRE as EA and the project partner responsible for implementation of each demonstration (pilot) project, namely FRIM (for pilot projects in Perak and Kedah), SaBC (for pilot projects in Sabah) and SBC (for pilot projects

in Sarawak). The exchange of letters will include as a minimum the following items: Statement of Work for the activities to be undertaken (objectives; technical specifications of the activities to be performed; deliverables and verifiable indicators; schedule for implementation; M&E and reporting requirements; responsibilities of each party); budget and disbursement schedule; supervision, review and acceptance; procedure for termination. The management arrangements for the demonstration projects must be entirely consistent and integrated with those for the overall project, including the project M&E Plan, reporting requirements and budget disbursement. The local management arrangements for each pilot project will be described in the exchange of letters, and are expected to include representation of principal stakeholders such as relevant state authorities, ILCs and other partners in their implementation. There will be equitable participation of women and ethnic minorities on local level committees and groups related to PIC negotiations, community co-management, training and awareness activities. See the **Stakeholder Involvement Plan** in the Project Document for further details.

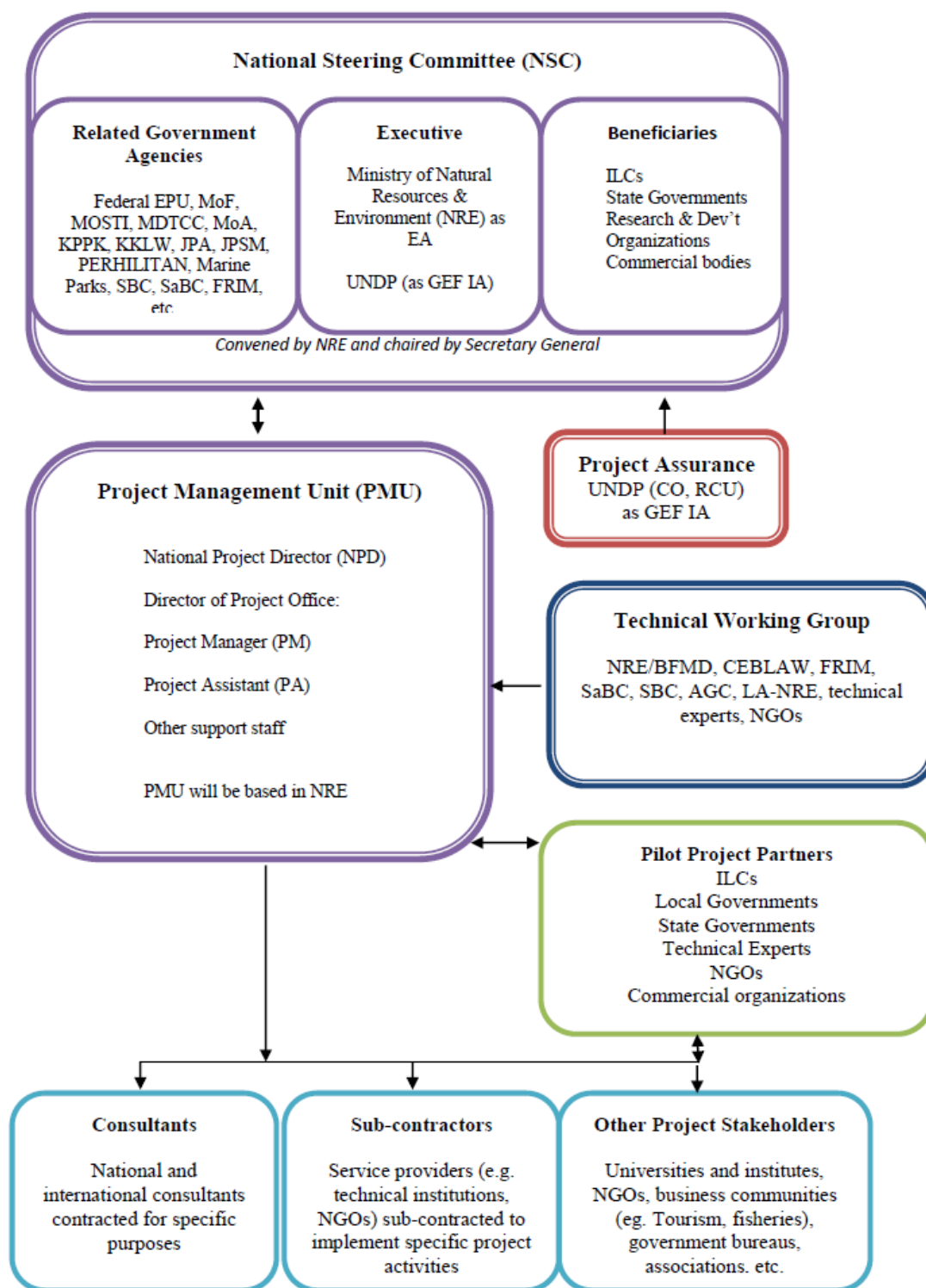


Figure 1. Organogram showing the structure for project management and oversight.

A. DESCRIPTION OF THE CONSISTENCY OF THE PROJECT WITH:

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

B.1 National strategies and plans or reports and assessments under relevant conventions, if applicable, i.e. NAPAs, NAPs, NBSAPs, national communications, TNAs, NCSA, NIPs, PRSPs, NPFE, etc.

141. The proposed project is fully in line with the country's national policies, strategies and plans. Malaysia ratified the CBD in June 1994, and has implemented its national obligations through instruments including: the National Policy on Biological Diversity (1998), the 5-year Malaysia Plans, as well as policies such as the National Policy on the Environment (2002), National Wetlands Policy (2004), National Physical Plan (2005), and National Urbanisation Plan (2006), and a number of legislative initiatives implemented through an institutional framework coordinated by the Ministry of Natural Resources and Environment. Biotechnology has been identified by the Government as an area of high priority, evident by the launching of the National Biotechnology Policy in 2005, a commitment by the government to develop biotechnology as a platform for an innovation-led economy. Advances in this field are expected to capitalize on the rich components of biological diversity in this country which could result in the development of products such as pharmaceuticals, antibiotics and vaccines. Several States in Malaysia have also put in place their respective biotechnology blueprints and legislative measures (such as Perak and Johor), with the vision to be the prime movers of biotechnology activities.

142. However, as identified in the National Capacity Self-Assessment (NCSA), there still remain capacity gaps which make the implementation of these initiatives a difficult task. This is where this project aims to intervene. The National Capacity Action Plan developed in 2008 (NCAP) has identified 25 activities to improve and enhance the implementation of three environmental conventions, including the CBD.

143. Malaysia's vision 2020 under the National Policy on Biological Diversity (1998) is to transform Malaysia into a world centre of excellence in conservation, research and utilisation of tropical biological diversity. It encourages the wise use of the components of biodiversity for sustainable development. Its Action Plan includes, inter alia, strategies to integrate conservation, research and development with effective utilisation of biological diversity, commercialization and sustainable utilisation of biological resources through bio-prospecting and ensuring fair distribution to the nation and local communities of benefits arising from the use of biological resources. The National Policy on Biological Resources (1998) and its Action Plan are currently being revised under the NBSAP project (2012 – 2015), supported by UNDP Malaysia and funded by GEF and the Government of Malaysia, in order to implement the Aichi Targets adopted at the 11th Conference of the Parties in 2010.

144. Malaysia's efforts in conserving biodiversity and associated TK can be seen in several other initiatives. Among others, the Government in 2011 has adopted the 5-year Central Forest Spine Master Plan, under which four major but isolated forest complexes will be connected to form one large 5.3 million ha forest complex. Two forest reserves in Johor and Sarawak has been identified as Genetic Resource Areas, where the Government targeted 8 and 14 commercial species respectively for genetic conservation. Starting from the 9th Malaysia Plan (2006-2010), the Government initiated TK documentation with the view to preserve and conserve the indigenous peoples' fast disappearing knowledge relating to biological resources. The Government also initiated a project to develop the Prior Informed Consent/Community Protocol

for indigenous and local communities. In the ABS context, Malaysia played an active role in the negotiations under the CBD leading up to the adoption of the Nagoya ABS Protocol.

145. Furthermore, the Government with financial support from UNDP Malaysia developed the draft Access and Benefit Sharing Bill in 2010 to implement Article 15 of the CBD. The Bill aims to regulate access to biological resources and associated traditional knowledge and to ensure the fair and equitable sharing of benefits from their research and commercial utilization.

146. Malaysia has also joined other biodiversity related conventions including the Ramsar Convention (since 1994), and CITES (since 1978). Malaysia is also a party to the International Treaty on Plant Genetic Resources for Food and Agriculture (since 2003) and started to implement its Multilateral System. The Government also follows closely the negotiations that are underway in the WIPO Intergovernmental Committee on Intellectual Property and Genetic Resources, Traditional Knowledge and Folklore. Malaysia participates actively in regional ASEAN environmental initiatives and has provided advice and expert support on ABS issues to the member states of ASEAN.

147. The project addresses the GEF 5 BD4 Focal Area objective – *Build capacity on access to genetic resources and benefit sharing*, contributing directly towards Outcome 4.1 *Legal and regulatory frameworks, and administrative procedures established that enable access to genetic resources and benefit sharing in accordance with the CBD provisions* and Output 4.1 *Access and benefit-sharing agreements (number) that recognize the core ABS principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits*. There is currently no GEF tracking tool for ABS frameworks, therefore this project uses its own indicators (see the strategic results framework). The project will establish the national legal and regulatory framework for ABS, build capacity for its implementation through a range of training, awareness and supportive information management and guidance outputs, and demonstrate best practice ABS processes recognizing the principles of Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) including the fair and equitable sharing of benefits.

148. The project is consistent with the eligibility criteria and priorities of the GEF Trust Fund as it will support the Government of Malaysia to develop the national ABS framework and capacity, ensuring the PIC of the ILCs to associated TK is respected and recognised, promoting bio-prospecting and drug discovery, ensuring fair and equitable sharing of benefits accrued, and transfer of technology. In addition, the project will facilitate private sector engagement and projects targeting investments in the conservation and sustainable use of genetic resources in-situ. Lessons from this project will be used to improve the capacities in Malaysia for handling issues relating to ABS, as well as to share this experience among other ASEAN countries, the majority of which do not have an ABS framework or operational ABS regime in place.

B.3 The GEF Agency's program (reflected in documents such as UNDAF, CAS, etc.) and Agencies comparative advantage for implementing this project:

149. 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 has a large portfolio of biodiversity projects, with 55 projects in 45 countries globally. With respect to ABS, UNDP has a number of ABS projects globally with a Senior Technical Adviser specializing in ABS. In Malaysia, UNDP has been supporting NRE through the "*Capacity*

Development for the Formulation of a Policy and Regulatory Framework for Access and Benefit-Sharing of Biological Resources in Malaysia” Project since 2010. Through the project, a final draft national ABS Bill was produced and a study on institutional arrangements for implementing ABS law and its subsidiary regulations was completed. 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 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.

DESCRIBE THE BUDGETED M & E PLAN:

150. Project monitoring and evaluation will be conducted in accordance with established UNDP and GEF procedures and will be provided by the project team and the UNDP Country Office (UNDP-CO) with support from the UNDP/GEF Regional Coordination Unit in Bangkok. The Strategic Results Framework in **Annex A** provides performance and impact indicators for project implementation along with their corresponding means of verification. The M&E plan includes: inception report, project implementation reviews, quarterly and annual review reports, and mid-term review and final evaluation. The following sections outline the principal components of the M&E Plan and indicative cost estimates related to M&E activities (see **Table 4** below). The project's M&E Plan will be presented and finalized in the Project's Inception Report following a collective fine-tuning of indicators, means of verification, and the full definition of project staff M&E responsibilities.

151. A Project Inception Workshop will be conducted with the full project team, relevant government counterparts, co-financing partners, the UNDP-CO and representation from the UNDP-GEF Regional Coordinating Unit, as well as UNDP-GEF (HQs) as appropriate. A fundamental objective of the Inception Workshop will be to assist the project team to understand and take ownership of the project's goal and objective, as well as finalize preparation of the project's first Annual Work Plan (AWP) and annual and quarterly activity plans on the basis of the Strategic Results Framework. This will include reviewing the logframe (indicators, means of verification, assumptions), imparting additional detail as needed, and on the basis of this exercise, finalizing the BWP with precise and measurable performance indicators, and in a manner consistent with the expected outcomes for the project. A gap analysis on the implementation of the ABS framework should also be conducted during project inception to confirm the scope of the project intervention.

152. A detailed schedule of project review meetings will be developed by the project management, in consultation with project implementation partners and stakeholder representatives and incorporated in the Project Inception Report. Day-to-day monitoring of

implementation progress will be the responsibility of the Project Manager based on the project's Biennial Work Plan, activity plans and its indicators. Specific targets for the first year implementation progress indicators together with their means of verification will be developed at the Inception Workshop and included in the BWP. Targets and indicators for subsequent years would be defined annually as part of the internal evaluation and planning processes undertaken by the project team.

153. Measurement of impact indicators related to ABS targets will occur according to the schedules defined in the Inception Workshop. The measurement of these will be undertaken through subcontracts or retainers with relevant institutions. Periodic monitoring of implementation progress will be undertaken by the UNDP-CO through quarterly meetings with the Implementing Partner, or more frequently as deemed necessary. This will allow parties to take stock and to troubleshoot any problems pertaining to the project in a timely fashion to ensure smooth implementation of project activities.

154. Annual Monitoring will occur through the NSC Meetings (NSCM). This is the highest policy-level meeting of the parties directly involved in the implementation of a project. The project will be subject to NSCMs at least two times a year. The first such meeting will be held within the first six months of the start of full implementation.

155. The Project Manager in consultations with UNDP-CO and UNDP-GEF RCU will prepare a UNDP/GEF PIR during the months of June-August. In addition, the Project Manager, in consultation with UNDP-CO will prepare an Annual Review Report (ARR) by the end of January and submit it to NSC members at least two weeks prior to the NSCM for review and comments. The ARR will be used as one of the basic documents for discussions in the NSCM. The Project Manager will present the ARR (and if needed the PIR) to the NSC, highlighting policy issues and recommendations for the decision of the NSCM participants. The Project Manager also informs the participants of any agreement reached by stakeholders during the PIR/ARR preparation on how to resolve operational issues. Separate reviews of each project component may also be conducted if necessary. The NSC has the authority to suspend disbursement if project performance benchmarks are not met. Benchmarks will be developed at the Inception Workshop, based on delivery rates, and qualitative assessments of achievements of outputs.

156. The terminal NSCM is held in the last month of project operations. The Project Manager is responsible for preparing the Terminal Report and submitting it to UNDP-CO and UNDP-GEF RCU. It shall be prepared in draft at least two months in advance of the terminal NSCM in order to allow review, and will serve as the basis for discussions in the NSCM. The terminal meeting considers the implementation of the project as a whole, paying particular attention to whether the project has achieved its stated objectives and contributed to the broader environmental objective. It decides whether any actions are still necessary, particularly in relation to sustainability of project results, and acts as a vehicle through which lessons learnt can be captured to feed into other projects.

157. UNDP Country Offices and UNDP-GEF RCU as appropriate, will conduct yearly visits to project sites based on an agreed upon schedule to be detailed in the project's Inception

Report/Annual Work Plan to assess first hand project progress. Any other member of the National Steering Committee can also accompany.

Reporting

158. The Project Manager will be responsible for the preparation and submission of the following reports that form part of the monitoring process. A Project Inception Report will be prepared immediately following the Inception Workshop. It will include a detailed Annual Work Plan divided in quarterly time-frames detailing the activities and progress indicators that will guide implementation during the first year of the project. An Annual Review Report (ARR) shall be prepared by the Project Manager and shared with the National Steering Committee. As minimum requirement, the ARR shall consist of the Atlas standard format for the Project Progress Report (PPR) covering the whole year with updated information for each element of the PPR as well as a summary of results achieved against pre-defined annual targets at the project level. The ARR should consist of the following sections: (i) project risks and issues; (ii) project progress against pre-defined indicators and targets and (iii) outcome performance. The Project Implementation Review (PIR) is an annual monitoring process mandated by the GEF. Once the project has been under implementation for a year (from the CEO approval date), a Project Implementation Report must be completed by the CO together with the project team. Quarterly progress reports: Short reports outlining main updates in project progress will be provided quarterly to the local UNDP Country Office and the UNDP-GEF RCU by the project team. UNDP ATLAS Monitoring Reports: A Combined Delivery Report (CDR) summarizing all project expenditures, is mandatory and should be issued quarterly following the finalization of the quarterly progress reports. The following logs should be prepared: (i) The Issues Log is used to capture and track the status of all project issues throughout the implementation of the project. (ii) the Risk Log is maintained throughout the project to capture potential risks to the project and associated measures to manage risks; and (iii) the Lessons Learned Log is maintained throughout the project to capture insights and lessons based on good and bad experiences and behaviours. Project Terminal Report: During the last three months of the project the project team will prepare the Project Terminal Report. Periodic Thematic Reports: As and when called for by UNDP, UNDP-GEF or the Implementing Partner, the project team will prepare Specific Thematic Reports, focusing on specific issues or areas of activity. Technical Reports are detailed documents covering specific areas of analysis or scientific specializations within the overall project. As part of the Inception Report, the project team will prepare a draft Reports List, detailing the technical reports that are expected to be prepared on key areas of activity during the course of the Project, and tentative due dates. Where necessary this Reports List will be revised and updated, and included in subsequent APRs.

External Evaluations

159. The project will be subjected to at least one independent external review and one evaluation: An independent Mid-Term Review will be undertaken at the mid-point of the project lifetime. The Mid-Term Review will determine progress being made towards the achievement of outcomes and will identify course correction if needed. It will focus on the effectiveness, efficiency and timeliness of project implementation; will highlight issues requiring decisions and actions; and will present initial lessons learned about project design, implementation and management. Furthermore, it will review and update the ESSP report. Findings of this review

will be incorporated as recommendations for enhanced implementation during the final half of the project's term. The organization, terms of reference and timing of the mid-term review will be decided after consultation between the parties to the project document. The ToR for this Mid-term review will be prepared by the UNDP CO based on guidance from the UNDP-GEF Regional Coordinating Unit.

160. An independent Final Evaluation will take place three months prior to the terminal National Steering Committee meeting, and will focus on the same issues as the mid-term review. The final evaluation will also look at impact and sustainability of results, including the contribution to capacity development and the achievement of global environmental goals. The Final Evaluation should also provide recommendations for follow-up activities. The ToR for this evaluation will be prepared by the UNDP CO based on guidance from the UNDP-GEF Regional Coordinating Unit.

Learning and Knowledge Sharing

161. The project will develop a communications strategy in the first year, which will be updated annually and implementation supported by a communications, education and awareness specialist. This will include capturing and disseminating lessons learned, for review at NSC meetings in order to inform the direction and management of the project, and shared with project stakeholders as appropriate. A project completion report will document the project's achievements and lessons learned at the end of the project. Results from the project will also be disseminated within and beyond the project intervention zone through a number of existing information sharing networks and forums.

Branding and Visibility

162. Full compliance is required with UNDP's Branding Guidelines and guidance on the use of the UNDP logo. These can be accessed at <http://web.undp.org/comtoolkit/reaching-the-outside-world/outside-world-core-concepts-visual.shtml>. Full compliance is also required with the GEF Branding Guidelines and guidance on the use of the GEF logo. These can be accessed at http://www.thegef.org/gef/GEF_logo. The UNDP and GEF logos should be the same size. When both logs appear on a publication, the UNDP logo should be on the left top corner and the GEF logo on the right top corner. Further details are available from the UNDP-GEF team based in the region.

Audit Clause

163. The Government will provide the Resident Representative with certified periodic financial statements, and with an annual audit of the financial statements relating to the status of UNDP (including GEF) funds according to the established procedures set out in the Programming and Finance manuals. The Audit will be conducted according to UNDP financial regulations, rules and audit policies by the legally recognized auditor of the Government, or by a commercial auditor engaged by the Government.

Table 4. M&E Activities, Responsibilities, Budget and Time Frame


Type of M&E activity	Responsible Parties	Budget US\$ <i>Excluding project team staff time</i>	Time frame
Inception Workshop	Project Manager UNDP CO UNDP GEF	10,000	Within first three months of project start up
Inception Report	Project Team UNDP CO	None	Submit draft two weeks before the IW, finalize it immediately following IW
Measurement of Means of Verification for Project Purpose Indicators	Project Manager will oversee the hiring of specific studies and institutions, and delegate responsibilities to relevant team members	To be finalized in Inception Phase and Workshop. Indicative cost: 15,000.	Start, mid and end of project
Measurement of Means of Verification for Project Progress and Performance-measured annually	Oversight by Project Manager Project team	None	Annually prior to ARR/PIR and to the definition of annual work plans
ARR and PIR	Project Team UNDP-CO UNDP-GEF	None	Annually
Quarterly progress reports	Project team	None	Quarterly
CDRs	Project Manager	None	Quarterly
Issues Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Risks Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Lessons Learned Log	Project Manager UNDP CO Programme Staff	None	Quarterly
Mid-term Review, including ESSP review	Project team UNDP- CO UNDP-GEF Regional Coordinating Unit External Consultants (i.e. review team)	40,000	At the mid-point of project implementation.
Final Evaluation	Project team, UNDP-CO UNDP-GEF Regional Coordinating Unit External Consultants (i.e. evaluation team)	40,000	At the end of project implementation
Terminal Report	Project team UNDP-CO local consultant	0	At least one month before the end of the project
Lessons learned	Project team UNDP-GEF Regional Coordinating Unit (suggested formats for documenting best practices, etc)	5,000	Yearly
Audit	UNDP-CO Project team	10,000	Yearly
TOTAL indicative COST <i>Excluding project team staff time and UNDP staff and travel expenses</i>		US\$ 120,000	

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

A. RECORD OF ENDORSEMENT OF GEF OPERATIONAL FOCAL POINT (S) ON BEHALF OF THE GOVERNMENT(S): (Please attach the [Operational Focal Point endorsement letter\(s\)](#) with this template. For SGP, use this [OFP endorsement letter](#)).

NAME	POSITION	MINISTRY	DATE (MM/dd/yyyy)
Dr. Lian Kok Fei	Undersecretary, Environmental Management and Climate Change Division, GEF Operational Focal Point	Ministry of Natural Resources and Environment	05/14/2013

B. GEF AGENCY(IES) CERTIFICATION

This request has been prepared in accordance with GEF/LDCF/SCCF/NPIF policies and procedures and meets the GEF/LDCF/SCCF/NPIF criteria for project identification and preparation.					
Agency Coordinator, Agency name	Signature	DATE (MM/dd/yyyy)	Project Contact Person	Telephone	Email Address
Adriana Dinu, UNDP/ GEF Officer-in-Charge and Deputy Executive Coordinator		08/26/2013	Midori Paxton, Regional Technical Advisor, Ecosystems and Biodiversity, UNDP	+66- 818787510	midori.paxton@ undp.org

AMEWORK

Developing a National ABS Framework in Malaysia

Contribute to the conservation and sustainable use of globally significant biodiversity in Malaysia

	Baseline	End of Project target	Source of Information	Risks and assumptions
Regulations and in place Malaysia to accede	No national law, regulations or operational institutional framework; state legislation on ABS only exists for Sabah and Sarawak	National law and implementing regulations on ABS come into force by end of project and are applied by national and state Competent Authorities.	National law and implementing regulations on ABS gazetted and national and state Competent Authorities appointed.	<p><u>Risks:</u> Target audiences for training, awareness raising and other capacity building activities are committed to participate in project activities.</p> <p>Potential delay in approval of ABS Law would delay the legal mandate for establishment of a national financial mechanism (Conservation Trust Fund) for reinvestment of ABS proceeds into conservation.</p> <p>Active ingredients investigated in pilot projects fail to show promise as prototypes preventing PIC processes to run to completion of ABS agreements or provide actual benefits for sharing.</p> <p><u>Assumption:</u> Malaysia's federal and state governments are committed to the conservation and sustainable use of the country's biological resources and the introduction of a national framework for ABS.</p>
Financial mechanism(s) for ABS	No mechanism exists	Financial and funding mechanism(s) established and operational for the reinvestment of proceeds from ABS agreements into conservation	Official government reports	

	Baseline	End of Project target	Source of Information	Risks and assumptions
<p>and implementing regulations on ABS developed with stakeholder participation.</p> <p>framework including national and state competent authorities and supporting measures established to enable implementation of law at federal and state levels.</p> <p>funding mechanisms established at federal and state levels to receive and reinvest proceeds from ABS agreements towards the biological diversity and sustainable use of its components.</p> <p>stitutional framework for <i>sui generis</i> systems for protecting traditional knowledge, innovations and practices and customary uses in Sabah</p> <p>protocols constitute the basis for clarifying PIC and MAT requirements between users and providers of traditional knowledge and es.</p> <p>f conduct or guidelines for research on traditional knowledge and genetic resources</p> <p>completed with all states and paper on accession to the Nagoya Protocol developed for Cabinet's approval.</p>				
Implementing come into force	No national law; state legislation on ABS only exists for Sabah and Sarawak	National law and implementing regulations on ABS come into force by year 2	National law and implementing regulations on ABS gazetted.	<p><u>Risks:</u></p> <p>Potential difficulties in adopting the national ABS regulatory framework by relevant stakeholders especially at the state level due to the federal-state constitutional structure.</p> <p>Potential delay in approval of ABS Law would delay the legal mandate for establishment of a</p>

	Baseline	End of Project target	Source of Information	Risks and assumptions
Competent and operational of national ABS	No national competent authority; state competent authorities only exist for Sabah and Sarawak ³⁶ .	National and State Competent Authorities identified for all (13) States and operational for full implementation of national law and regulations on ABS by end of project	Official government records; national law and implementing regulations on ABS	national financial mechanism (Conservation Trust Fund) for reinvestment of ABS proceeds into conservation. <u>Assumption:</u> Federal and state government support exists for introduction of the national framework for ABS
for <i>sui</i> protection of and customary resources species of m national t	No institutional framework for <i>sui generis</i> systems for protection of traditional knowledge and customary uses of biological resources exist for Malaysia	Supportive institutional framework for <i>sui generis</i> systems for protecting traditional knowledge, innovations and practices and customary uses of biological resources developed for Sabah State and used to inform national framework development.	Official government records (SaBC); Project reports	Key stakeholders, in particular, indigenous peoples involved willing to participate in this project

	Baseline	End of Project target	Source of Information	Risks and assumptions
mechanism(s) at federal and state levels to ensure that proceeds from ABS transactions are reinvested into the conservation of biological diversity and sustainable use of its components	No formal governmental financial mechanism exists for reinvesting proceeds from ABS agreements towards the conservation of biological diversity and sustainable use of its components	Financial and funding mechanism(s) established at federal and state levels by end of Year 3 to receive and reinvest proceeds from ABS agreements towards the conservation of biological diversity and sustainable use of its components	Official government records (NRE) Project reports	
<p>of the state Competent Authorities (CA), National Competent Authority (NCA) and related agencies through training of 100 research applications, negotiating ABS agreements and monitoring and tracking to ensure compliance.</p> <p>and modules on bio-prospecting and research procedures developed and made available to federal and state research institutions.</p> <p>nationalized to facilitate access to information and support compliance under the national law and the NP.</p> <p>awareness on the ABS law, CBD and Nagoya Protocol targeting researchers, local communities, and relevant industry.</p> <p>and practices (KAP) assessment surveys targeting specific groups (e.g., researchers, local communities, and relevant stakeholders) to assess enhanced awareness about national ABS law, the CBD and Nagoya Protocol.</p>				
national and state level mechanisms for ABS established by an act in the draft law	<p>ABS Capacity Scorecard baselines³⁷:</p> <p>NRE: 33%</p> <p>Sabah: 35%</p> <p>Sarawak: 31%</p> <p>Other states: 0%</p>	<p>ABS Capacity Scorecard targets:</p> <p>NRE: 75%</p> <p>Sabah: 75%</p> <p>Sarawak: 75%</p> <p>Other states: 30%</p>	Project reports on Capacity Scorecard	<p><u>Risks:</u></p> <p>Potential delay in approval of national law on ABS constrains confirmation of target audiences for capacity building (national and state competent authorities)</p> <p>Institutional hosts of ABS-</p>

results

	Baseline	End of Project target	Source of Information	Risks and assumptions
	Other agencies:0%	Other agencies: 30%		related databases agree to allow access through CHM website operated by MNRE.
and related S and subjects to n of the k. ³⁸	No staff have been trained	100 staff from the NCA, 13 state CAs and related agencies (see footnote) are trained	Project reports	<u>Assumption:</u> Target audiences for training, awareness raising and other capacity building activities are committed to participate in project activities
ation of unities, and ed by the e national rovisions dditional g stakeholders ublic, ILCs	0%	80%	-Results of structured interviews and /or questionnaires at start of awareness campaign (baseline) and repeated at project completion. -Documented expressions of support	

ect on the documentation of traditional knowledge associated with biological resources of Kensiu (Kedah) and Kintak (Perak) development of one prototype products for potential commercialization.

ect on the development of a pilot ABS agreement with Semai Orang Asli (Perak) for the development of one prototype hcare product for initial commercialization.

ect on the utilization of genetic resources associated with TK for the development of health and personal care products in

ABS agreement and PIC processes in Malaysia are made available to regional audiences.

activities are integrated into pilot projects to increase understanding of the values of biological resources under the stewardship Cs.

n grants, university staff in charge of research grant administration, product approval under MOH (Drug Control Authority) and MyIPO

	Baseline	End of Project target	Source of Information	Risks and assumptions
Agreements Prototypes with Benefit sharing	No ABS agreements in Malaysia that fully comply with CBD requirements	At least 2 ABS pilot agreements negotiated for initial commercialization of prototypes with fair and equitable benefit sharing provisions	Project reports; ABS agreements	<u>Risks:</u> Commercial confidentiality restrictions may limit information sharing on development process? Active ingredients investigated in pilot projects fail to show promise as prototypes preventing PIC processes to run to completion of ABS agreements or provide actual benefits for sharing. <u>Assumption:</u> Key stakeholders involved in bio-prospecting for specific products are willing to participate in this project
Processes ⁴⁰ with In accordance Community	Some developmental work in Sabah and Sarawak on PIC processes	At least 3 PIC processes with ILCs implemented in accordance with the planned PIC/community protocol	Project reports;	
Pilot ABS Processes Local level	Malaysia participates in UNEP-GEF ASEAN ABS project, but has limited experience to contribute to date	Best practice pilot ABS agreements and PIC processes presented at international workshop for ASEAN countries in Year 4, published in workshop proceedings and made available through NRE website	Project reports; workshop proceedings; press releases.	

ing of ABS pilot agreements above.

	Baseline	End of Project target	Source of Information	Risks and assumptions
ments arising that specify to ensure the d biological	No ABS agreements in Malaysia that fully comply with CBD requirements or include specified conservation measures for related biological resources	At least 2 ABS pilot agreements negotiated that include <i>in situ</i> and/or <i>ex situ</i> conservation measures to ensure the security of the concerned biological resources	Project reports; ABS agreements	
ulation of e pilot e existence, f the der their	0%	80%	-Results of structured interviews and /or questionnaires at start of awareness activities in pilot projects (baseline) and repeated at project completion. -Documented expressions of support	