Terminal Evaluation Report

August 2019

Developing & Implementing a National Access & Benefit-Sharing Framework in Malaysia

UNDP PIMS ID: 5191

Country:	Malaysia
Region:	Asia
Focal Area:	GEF – Biodiversity
Implementing Agency:	United Nations Development Programme
Executing Agency:	Ministry of Water, Land & Natural Resources (MWLNR)
Project Timeframe:	January 2014 – January 2019

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Disclaimer

The TE views were discussed with UNDP, Division of Biodiversity & Forest Management (DBFM), NSC members, local government partners and other key stakeholders. There was a debriefing workshop held with the key stakeholders to present views and refine findings. UNDP, their RTA and the IPs provided comment on the report before finalization. The views held within this report are those of the TE team.

Acknowledgement

The evaluation team would like to acknowledge all project partners who supported the development of this TE. In particular, the TE would like to thank the DBFM, project coordinator Chin Keong Gan, and the project leading staff from the three IPs – FRIM, SaBC and SBC who closely supported the mission in the field.

Abbreviations and Acronyms

ABS	Access to and benefit-sharing (of biological resources)
AGC	Attorney General's Chamber
ATLAS	UNDP tracking system
AWP	Annual Work Plan
CAs	Competent Authorities (administer the licences for access to biological resources under ABS)
CBD	UN Convention on Biological Diversity
CP	Community Protocol (a PIC document demonstrated in Sabah)
DBFM	Division of Biodiversity & Forest Management (MWLNR)
DIPD	Department of Indigenous Peoples Development (~JAKOA)
DIM	UNDP Direct Implementation Modality (of project)
DWNP	Department of Wildlife & National Parks Peninsular Malaysia
EA	Executing Agency (UNDP)
EPUs	Economic Planning Units
GEF	Global Environment Facility (GEF guidelines for Terminal Evaluations are utilized)
FRIM	Forest Research Institute Malaysia (one of the three IPs)
ILCs	Indigenous & Local Communities
IPNM	Indigenous Peoples Network of Malaysia (~JOAS)
IPs	Implementing Partners (service providers for UNDP, a.k.a. 'project partners' – FRIM, SaBC, SBC)
IPRs	Intellectual Property Rights
MAPs	Medicinal & Aromatic Plants
M&E	Monitoring and Evaluation
MWLNR	Ministry of Water, Land & Natural Resources (~KATS) (formerly the Ministry of Natural Resources & Environment (MoNRE) (Executing Agency)
MAT	Mutually Agreed Terms (as part of ABS)
MESTECC	Ministry of Energy, Science, Technology, Environment & Climate Change
MyIPO	Intellectual Property Corporation of Malaysia
NCA	National Competent Authority (administration, guidelines and policy of ABS)
NCRs	Native Customary Rights (ILC land tenure rights)
NP	Nagoya Protocol (of CBD)
NSC	National Steering Committee
PIC	Prior Informed Consent (to discuss TK and ABS)
PIMS	UNDP Project Information Management System
PRF	Project Results Framework (~logframe / Strategic Results Framework)
RPs	Responsible Parties (~ local hire service providers or implementing on behalf of the IPs)
R&D	Research & Development
SaBC	Sabah Biodiversity Centre (One of the three IPs)
SaBCo	Sabah Biodiversity Council
SaFD	Sabah Forestry Department
SBC	Sarawak Biodiversity Centre (One of the three IPs)
SBCo	Sarawak Biodiversity Council
SFD	Sarawak Forest Department
SMART	Specific, Measurable, Achievable, Relevant and Time-bound - Indicators
SMUDENR	Sarawak Ministry of Urban Development and Natural Resources
SMESTR	Sarawak Ministry of Education, Science & Technological Research
SSPU	Sarawak State Planning Unit
TE	Terminal Evaluation (of the project)
TF	Trust Fund
TK	Traditional Knowledge
UNDP CO	United Nations Development Programme Country Office
VDSC	Village Development and Security Committee (~JKKK, with the Head officially designated by government)

UNITS US$ - US dollar; MYR - Malaysian Ringgit; m - million or meters; ha - hectare (100 m x 100 metres)
~ in the above acronyms list indicates the Malaysian language abbreviation

Executive Summary

The executive summary is an 12-page summary of the the Terminal Evaluation (TE) report.

Project Information Table			
Project Title:	Developing and Implementing a National Access and Benefit Sharing Framework in Malaysia		
UNDP Project ID (PIMS #):	5191	**PIF Approval**	
GEF Project ID (PMIS #):	5593	**CEO Endorsement/Approval**	Oct 22,2013
Country	Malaysia	**Project Document (ProDoc) Signature**	Jan 7, 2014
Region	Asia Pacific	**Project manager hired**	August 2016
Focal Area	Biodiversity	**Inception Workshop**	Nov, 2014
Strategic Programs	Ecosystems and Biodiversity	**Terminal Evaluation**	June - Aug 2019
Trust Fund	GEF	**Closing Date**	Jan 6, 2019
Modality	NIM		
Executing Agency / Implementing Partner	Ministry of Water, Land & Natural Resources (formerly Ministry of Natural Resources & Environment)		
Other Partners / Responsible Parties	Forest Research Institute Malaysia (FRIM), Sabah Biodiversity Centre (SaBC), Sarawak Biodiversity Centre (SBC)		
Project Financing:	**at CEO endorsement (USD)**	**at Terminal Evaluation (USD)***	
[1] GEF financing:	1,970,000	1,725,405	
[2] UNDP contribution:	33,000	33,000	
[3] Government:	5,800,000	6,534,557	
[4] Other partners:			
[5] Total co-financing [2 + 3+ 4]:	5,833,000	6,567,557	
PROJECT TOTAL COSTS [1 + 5]	**7,803,000**	**8,325,962**	

*Actual expenditures and co-financing contributions through GEF/UNDP-GoM as of 31 Dec 2018.
Note 1 – the duration was a 4 year project + 1 year no cost extension (7 Jan 2014 to 31 Dec 2017 + no cost extension until 6 Jan 2019)
Note 2. the Centre of Excellence for Biodiversity Law (CEBLAW) was originally going to be a Responsible Party but was replaced in favour of an individual legal consultant

Project Description

GEF provides financial and technical resources to implement the United Nations (UN) Convention on Biological Diversity (CBD), Earth Summit Rio, 1992), which is the world's agreement to conserve biodiversity. The three objectives of CBD were expressed in its Article 1: conservation of biological diversity; sustainable use of its components; and the fair and equitable sharing of the benefits arising out of the utilization of genetic resources (including by appropriate access to genetic resources, and the transfer of relevant technologies and funding). The CBD convention includes the Nagoya Protocol (NP, 2010) as a legal framework that targets this 3rd objective of CBD - i.e. the access to and benefit-sharing of biological resources (ABS).

Project Strategy

a/ Problems the project sought to address

The specific problem that the project sought to address was the lack of a functioning national legal, institutional and financial framework that would enable the equitable sharing of benefits from the bio-prospecting and extraction of biological resources and traditional knowledge (TK), between national / state governments, commercial interests, and the owners / custodians of these resources and their TK. The unclear jurisdiction of indigenous and local communities' (ILCs) land resources has hindered their traditional management of such biological resources. Added to this, ILCs are also increasingly having to face outside commercial interests with seemingly higher economic values for land use, than from biodiversity conservation and sustainable use. The perceived lack of biological value has also meant that the younger generation has little or no interest in the TK associated with biodiversity utilization.

The solution is to make the biological resources generate economic benefits for the country and key stakeholders including ILCs, in the form of business through the discovery and development of new biochemical products such as pharmaceuticals, nutraceuticals, and agro-chemicals. The project will focus on supporting a national regulatory

and institutional framework for ABS, which is needed to support the development of the bio-prospecting industry.

b/ Key barriers that needed to be addressed

Differences in national and state jurisdictions regarding the management / extraction of biological resources complicate their governance. The government carries responsibility for CBD and therefore the conservation of biological resources and their sharing. However, the states have jurisdiction to manage land resources. Furthermore, the east Malaysian states of Sabah and Sarawak have separate legislation on biodiversity and ABS to the ABS Act.

Within the biotech industry, scientific research will be most directly affected by ABS. To ensure full participation and compliance of the law, awareness raising activities is needed, targeting research institutions and biotech companies. The organisations and companies need to understand their obligation to obtain permits from CAs whenever there is research / bio-prospecting, and to obtain PIC from resource providers. Bio-prospectors must be informed of their obligation to share benefits equitably with the resource providers, including possible technology transfer (non-monetary benefits).

c/ Project Design

The objective was to 'Strengthen the conservation & sustainable use of biological & genetic resources in Malaysia through developing the national framework for the implementation of Access & Benefit Sharing (ABS) under the UN Convention on Biological Diversity (CBD)'. The project was designed with three outcomes:

1. An operational national regulatory and institutional framework on ABS
2. Strengthened national institutional & stakeholder capacity for implementation of a national ABS framework
3. Best practice ABS processes demonstrated recognizing the principles of Prior Informed Consent (PIC) & Mutually Agreed Terms (MAT) including the access to and fair & equitable sharing of benefits (ABS)

The project was implemented in Peninsular Malaysia, and in Sabah and Sarawak

Purpose and Methodology

The objective of the TE was to gain an independent analysis of the results of the project. The TE focused on identifying project design issues, assessing progress towards the achievement of the project objective. Findings of this review were also incorporated as sections on sustainability and impact, as well as identifying lessons learned and recommendations for the future.

Evaluation Ratings Summary

UNDP-supported GEF-financed projects of this type require the TE to evaluate the implementation according to set parameters and ratings. The result of this TE is presented (see **Annex 10** for rating scale):

Exhibit 2: TE Ratings Summary Table

1. Monitoring & Evaluation	Rating	2. Implementing Agency & Executing Agency (UNDP) / Partner Execution	Rating
Overall quality of M&E	**MS**	**Overall quality of Implementation / Execution**	**S**
M&E Design at entry	MU	Quality of Implementation	S
M&E Implementation	MS	Quality of Execution	S
3. Assessment of Outcomes	**Rating**	**4. Sustainability**	**Rating**
Overall Project Outcome *(Objective)*	**S**	**Overall Likelihood of Sustainability**	**ML**
Effectiveness of Outcome 1	S	Financial resources	ML
Effectiveness of Outcome 2	MS	Socio-economic	ML
Effectiveness of Outcome 3	S	Institutional framework & governance	L
Efficiency	**S**	Environmental	ML
Relevance	**R**		
5. Impact	**Rating**		
Impact	**M**		

Detailed ratings are tabulated below in **Exhibit 3**. A description of the scales is provided in **Annex 10**.

Exhibit 3: TE Ratings and Achievement Summary Table Project: **Developing and Implementing a National Access and Benefit Sharing Framework in Malaysia**	
TE Rating	**Achievement Description**

	Outcomes/ Results
Results Overall Project Objective Achievement **Satisfactory**	**Objective: Strengthen the conservation & sustainable use of biological & genetic resources through developing a national framework for the implementation of Access & Benefit Sharing (ABS) under CBD** The **overall TE rating** at the project objective level is **Satisfactory**. National ABS law, regulations & institutional framework will enable Malaysia to accede to the Nagoya Protocol – the rating against the objective indicator is Satisfactory. Malaysia is a now a party to the CBD's Nagoya Protocol with accession in November 2018 and entered into force in February 2019. Summary List of Legislation - ABS Act 795 (2017) - output from ABS I (UNDP project 2010-13) through to ABS II (2014-19) - National Regulations (draft status) - Sabah Biodiversity Enactment (2000), Amended 2017, passed into Law 2018 - Sabah Access to Biological Resources & Benefit-Sharing Regulations (Draft, 2018) - Sarawak Biodiversity Centre Ordinance (1997, Amendments, 2003, 2014) - Sarawak Biodiversity Regulations (2016) The Access to Biological Resources & Benefit Sharing Act 2017 (Act 795) was adopted by government in August 2017 and published in the Gazette in October 2017. The Act consists of 10 parts and two schedules that cover provisions on permits to access biological resources, benefit sharing agreement, prior informed consent (PIC), mutually agreed terms (MAT), monitoring, and payment into fund. A draft of the Access & Benefit Sharing Regulations was reviewed by the Attorney General's Chamber (AGC) in November 2018 with comments to now be incorporated. The enforcement of the Act and its regulation will only take effect once the regulation is approved by the AGC and the Minister. The draft regulation has been with the AGC for the last nine months (as of August 2019). This lack of an approved regulation has held up the development of ABS, in particular in terms of the competent authorities (CAs) and checkpoints to fully discharge their duties. An institutional framework (as described within Act 795) and its draft regulations has been established. Notably the CAs are beginning to function. E.g. in the issuance of licences to access biological resources. Finance mechanisms for managing ABS monetary benefits - The rating is Moderately Satisfactory The National Conservation Trust Fund is currently not replenished, and is not managed to handle ABS investments and disbursements. The Sabah ABS fund appears to be for recurrent administrative costs. Thus, only Sarawak appears to have a fund directly set up for ABS investments to be used for biodiversity conservation, although at present it also uses incoming funds for ABS administration. The ABS Act 795 includes funding which indicates that the national or state governments may establish a fund for biodiversity conservation (para 22), with the draft regulations reiterating the Act. Thus, the Act rather left this issue open. The FRIM ABS agreements are also of note, under which, future royalties are divided four ways (community, government CA, FRIM (developer), and a trust fund for R&D). For these TFs, FRIM has a 'research, development, commercialization management committee' including: FRIM, state government and ILC members. Having a TF proportion is considered necessary due to the high R&D costs of product development. However, with this focus on R&D, it appears that this 25% TF portion of the royalty is not really 'ear-marked' for village cultivation or biodiversity conservation.
Effectiveness - Outcome 1 Achievement **Satisfactory**	**Outcome 1**: **National regulatory & institutional framework for ABS** The **overall TE rating** for the outcome is **Satisfactory** National law and implementing regulations on ABS come into force - The rating is Satisfactory See the above Objective Indicator 1 National & State Competent Authorities identified and implementing the ABS law / regulations - The rating is Moderately Unsatisfactory A National Competent Authority (NCA) has been established. Fourteen CAs representing the 13 states and federal territories have been identified. They are the EPUs of all the peninsular states of: Johor, Melaka, Pahang, Selangor, Perak, Kedah, Perlis, Kelantan, Penang and Terengganu, plus the Forestry Department of Negeri Sembilan State. In east Malaysia, Sabah's CAs is the Sabah Biodiversity Council (SaBCo), and the Sarawak CA is the Sarawak Ministry of Urban Development & Natural Resources (SMUDNR). The CA for the Federal Territories (Kuala Lumpur, Labuan, Putrajaya) is the Ministry of Federal Territories. The capacity of the NCA to maintain its skills and staffing is of concern, especially in their need to 'lead' and liaise with the 13 state-level CAs. The evidence includes a lack of functioning webpage, lack of up

	to date information for the CBD / Nagoya Protocol's ABSCH; and a lack of informing state CAs when national access permits have been issued for research in particular states. Most of the EPUs of the peninsular states believe that they require further training and that their responsibilities are not yet clear, which in part is due to the ABS regulations remaining in draft form. Local institutional system for protection of TK and customary uses of biological resources in Sabah - The rating is Satisfactory Two community protocols (CPs) were developed. Melangkap Community Protocol has been published by SaBC. The CP consists of seven chapters which cover: village TK, PIC, MAT procedures to access the community resources and TK. The community 'ownership' of the CP is very high. The first complete draft of the Long Pasia / Mio Community Protocol (Malay) was completed in July 2018. The CPs together with the experiences in the peninsular states (FRIM pilots in Perak and Kedah states), SBC in Sarawak and studies by project consultants have been used to inform and as a reference for procedures when working with communities. Although CPs *per se* are not mentioned in the draft ABS regulation. The Melangkap Community Protocol stands as a good demonstration of community management of natural resources, however to date the 'community protocol' approach has not been replicated by the other states which have more directly followed the national guidelines on PIC, MAT and ABS. This is partly because the Sabah CPs only cover PIC and expected access procedures, whereas the models on the peninsular (FRIM) and Sarawak (SBC) have developed further into actual ABS agreements for particular bio-resources. Funding mechanism for proceeds from ABS agreements for biological conservation and sustainable use - The rating is Moderately Satisfactory This is a repeat indicator - See above Objective Indicator 2
Effectiveness - Outcome 2 Achievement **Moderately Satisfactory**	**Outcome 2**: **Strengthened institutional capacity for implementation of an ABS framework** The **overall TE rating** for Outcome 2 is **Moderately Satisfactory** Improved capacity of Competent Authorities (NCA, CAs) in ABS - the outcome indicator rating is Satisfactory The UNDP Capacity Development Scorecard indicated that at a national level and on the peninsular, capacities are somewhat lacking, especially in comparison to Sabah and Sarawak. This was largely confirmed by the peninsular CAs (~EPUs). For the national level capacity (MWLNR as the focal agency for ABS), some of the comments on the scorecard were revealing: - The national ABS law was adopted on 17 October 2017 and is not in force pending finalization of its subsidiary legislations - There is an overall policy and commitment under the national ABS law, however, getting buy-ins from all states to implement the federal law is taking time. There is official and political commitment at the top level within MWLNR - The CAs and Checkpoints have been identified under the national ABS law. However, other institution for ABS such as the NCA's Advisory Committee are yet to be established. - A dedicated ABS institution to oversee / coordinate implementation of ABS at the national (federal) level is not yet in place. The officers involved in ABS are from the civil service and so are transferable and do not necessarily have biodiversity background or training. - DBFM (MWLNR) oversee ABS implementation. A unit under the National Biodiversity Centre (NBC) will act as the NCA at the national level - The understanding on ABS is adequate but financial resources, personnel and expertise are limited to address the issues - The motivation level of the ABS focal point is high as the personnel have the interest. There is a need to develop technical skills on ABS. Trainings at the national and regional level have been undertaken - No monitoring has been done as the national ABS law is still not operational NCA, CAs and related agencies trained to implement the national ABS framework - The rating is Moderately Unsatisfactory Whilst three national-level training events were conducted for 140 participants, these were somewhat dis-jointed. Sabah and Sarawak undertook a more complete training programme. Researchers, ILCs & industry aware of the ABS Act, and ABS / TK documentation procedures - The rating is Moderately Satisfactory The findings of the 2nd KAP study with 1,149 respondents (550 institutional, 599 ILCs), in 2017:

	- Institutional stakeholders - the knowledge of the existence of ABS regulations was good, however less than one third understood the policies, law or procedures / practices under ABS (e.g. licences, PIC, and equitable sharing of benefits) - ILCs - knowledge on ABS regulations was low, although the principles of ABS were understood, however a number of ILCs were concerned that the ABS law would restrict resource collection for local use, which it does not. A concern of the evaluation team was the level of protection of community Traditional Knowledge (TK) as their Intellectual Property Right (IPR). For example, where do the laws or regulations control researchers who make PICs / ABSs, but by then will have taken the TK, taken the plants, grown them commercially and extracted active compounds, and thereafter applied for patents, without the need to either go back to the village or share the patent. The ownership of community TK and any link to IPRs isn't present in Act 795, however, ABS draft regulations (Part 3) provide the expected IPR protection stating 'recognition or co-ownership of IPRs'. The draft ABS User's Guideline (Annex 3) – has suggested two clauses: 1/ Technology transfer - The Access Party must provide the following to the Provider and its members ' 'Transfer technologies relating to the research and development of the biological resources accessed to the provider, including technology protected by IPRs and/or relevant to conservation and sustainable utilization of biological diversity; and 2/ Intellectual Property Rights (IPRs) – 'The Access Party agrees to joint ownership of IPRs with the Provider arising out of the utilisation of the Biological Resource and associated Traditional Knowledge accessed' and 'The Access Party must notify the Provider before applying for IPRs'. The meaning of co-ownership or joint ownership of IPRs, in the Malaysia context has not been examined, however it would appear that until the ABS regulations are approved in their present form, IPRs of local communities with TK are not safeguarded. Neither the FRIM nor SBC PIC documents have such IPR provisions highlighted. The FRIM PIC agreement letter with the Kensiu community to grant FRIM permission for further study on prototype development indicated only benefits in the future to be discussed. The terms in the SBC PIC documents are quite basic, more an outline of tasks for the community to carry out. Neither FRIM nor SBC shared their ABS agreements.
Effectiveness - Outcome 3 Achievement **Satisfactory**	**Outcome 3**: **Best practice in ABS piloted with biodiversity conservation, Prior Informed Consent (PIC), Mutually Agreed Terms (MAT), and Equitable sharing of benefits** The **overall TE rating** for Outcome 3 is **Satisfactory** **Justification**: The project is expected or has achieved most of its global environmental objectives. ABS agreements negotiated with fair and equitable benefit sharing provisions – the outcome indicator is rated as Highly Satisfactory Sarawak Biodiversity Centre (SBC) successfully signed a joint ABS benefit-sharing agreements with five communities involved in the *Litsea cubeba* oil production in March 2019. The pilot project demonstrated a complete value chain from biological resource (raw material) collection, through primary oil extraction to secondary product processing (soap, air freshener) to marketing and sales. Forest Research Institute Malaysia (FRIM) produced two prototypes traditional medicines named 'Pengloy Semai' and 'KaHerbs', based on the ILC TK of these medicinal plants in Kedah and Perak State. FRIM has negotiated two ABS agreements with the Semai and Kensiu communities for initial commercialization of these prototypes. The ABS agreements are with the respective CAs, namely Kedah and Perak EPUs, awaiting approval to move to signature. PIC processes with ILCs implemented – the outcome indicator is rated as Satisfactory A national standard PIC template has been developed based on the experiences drawn from the pilot projects conducted by FRIM, SBC and SaBC. It is included in the ABS regulation (draft) and ABS User's Guide. FRIM and SBC both gained PIC during the engagement with their respective communities, in the lead up to creating ABS agreements. In the case of SaBC, the PIC stage was encapsulated within the two Community Protocols (CPs) that were developed. Under the project, the PIC processes were piloted in nine communities. Best practice ABS agreements and PIC processes disseminated at regional level – The outcome indicator rating is Moderately Satisfactory The requirements for ABS and PIC have legal status in-country, with supporting procedures developed for the licensing of research (commercial or otherwise) of biological resources. The required supporting ABS regulation to the ABS Act, has not to date been finalised, with the government view that until done

	so, the ABS Act 795 can't be promulgated. This also means that the rights of the ILCs are not yet fully protected, such as concerning the sharing of IPRs. The ABS agreements of the 'FRIM communities' have not been approved by the respective CAs so far, and the ABS agreements of the 'SBC communities' include non-disclosure clauses and so are not open for dissemination. The TE team only had limited access to either. The TE team briefly assessed both types and found that the FRIM ABS agreements appeared more balanced towards ILCs and biodiversity conservation and would serve better for 'best practice' dissemination. The SaBC Community Protocols provide a different approach where a community wish to document TK, establish and update their natural resource management methods (new or customary) and set up engagement procedures for outside interests (bio-prospectors, product developers, researchers etc). Additionally, SBC and SaBc have established ABS Trust Funds, although how these will benefit biodiversity conservation is not yet clear. <u>ABS agreements that specify biological resources conservation</u> – the outcome indicator rating is Moderately Unsatisfactory The Act 795 states 'the Access may not result in adverse environmental impact which may be difficult to control and mitigate'. The draft regulations state that 'the permit holder shall undertake to take all reasonable measures, (a) for conservation and its ecosystem; (b) to control, mitigate or remedy any adverse environmental impacts.' In biodiversity conservation terms, these legal statements are somewhat weak. They assume that resource extraction under ABS is fairly benign. In areas with high biodiversity value, any permit applications need to state the likely impacts, and how they are going to be avoided, minimised, or the ecosystem integrity restored thereafter. If the impacts are going to be residual then a discussion of whether a permit should be issued in the first place, or if such residual impacts can be offset in a 'like for like' capacity. <u>ILCs are aware of the value of biological resources under their stewardship</u> – the outcome indicator rating is Moderately Satisfactory Through the pilot projects, a number of ILCs have improved knowledge of the value of 'their' biological resources and associated TK. Development potential has been outlined for two prototype products in Kedah and Perak, one aromatic oil in Sarawak, and within two CPs in Sabah (listing biodiversity and TK of value). It is however the 'Access Parties' e.g. the researchers who are also the developers (i.e. FRIM and SBC) who having collected the plant specimens and associated TK, who are now effectively the sole holders of this biological material, its chemical compound data, and local knowledge of its traditional value. The ILC TK in many cases is expected to die out with this generation. The access parties also have the advantage of the plant and TK accumulated and confirmed across many ILCs, making the access parties combined TK much stronger. The ILCs are in a position of trust, relying on the Access Party informing them of the value of particular biological resources to develop in partnership or with a third party. The ILCs awareness of the value of a potential product at this stage is likely to be far less than the Access Party (and their developer if not themselves), so equity in negotiating any ABS agreement is going to be based largely on trust, and the pilot ABS agreements to date have not included shared IPRs for example.
	Efficiency
Efficiency **Satisfactory**	**Efficiency Rating – Satisfactory** The project was efficient
	Relevance
Relevance **Relevant**	**Relevance Rating – Relevant** The project remained relevant
	Implementation - Execution
Implemen-tation **Satisfactory**	**Project Implementation:** According to the given five categories (Implementing Agency - IA or Executive Agency - EA coordination & operational matters, partnership arrangements & stakeholder engagement, finance & co-finance, M&E systems (see next), and adaptive management (work planning, reporting & communications) **Overall Rating: Satisfactory** **IA and EA Coordination & Operational Management**

	UNDP were the GEF Implementing Agency (IA), with MWLNR as the Executing Agency (EA) and government counterpart. MWLNR delegated government support to their DBFM. The project was under National Implementation Modality (NIM), however the Combined Delivery Reports (CDRs) indicate direct payments by UNDP to a number of service providers and for works and goods. This method would be more akin to Direct Implementation Modality (DIM). The project was internally agreed in July 2013 by the UNDP Local Project Appraisal Committee (LPAC). The project was implemented for five years from January 2014 until January 2019. It was extended in 2017. During the project, the government changed and the MoNRE ministry was re-structured into MWLNR. Personnel were changed with a partial loss of institutional knowledge. The consequent delay in new appointments and project activities necessitated a project extension. UNDP Operational Management - **Satisfactory** During the course of the project, UNDP changed their programme (i.e. project) manager three times, with the latter taking over in 2016. PMU / DBFM Operational Management– **Satisfactory** A PMU was established and met formally every two months. It was chaired by the National Project Director (NPD). A National Steering Committee (NSC) was established. The PMU originally consisted of a National Project Director (NPD) with two officers / assistants (for accounts and activities). Prior to August 2016, the PMU (DBFM / NCA) had focused on drafting the ABS law, but other local project activities were not being implemented or coordinated effectively. This was because DBFM staff were not assigned to the PMU except for an Assistant Coordinator. A Project Coordinator (PC) who was experienced in implementing UNDP projects was installed (hired by UNDP) within the PMU in August 2016 (i.e. 31 months after project start) in order to 'get the project on track'. The PC's role partly was to coordinate the activities at the project pilot sites. A number of actions were then instigated. The PC re-established project links with SaBC, with SaBC also hiring a dedicated project assistant, which improved communication. The PMU / PC hired a consultant to implement the pilot activities in Sabah. **Partnership Arrangements & Stakeholder Engagement** Division of Biodiversity & Forest Management (DBFM) – is under the Ministry of Water Lands & Natural Resources (MWLNR). DBFM is responsible for the National Biodiversity Centre (NBC, est. 2005) who now act as the National Competent Authority (NCA) for the coordination of regulations and procedures on ABS. National Competent Authority (NCA) NCA has yet to be formally established or have staff appointed. An advisory committee under NCA has also yet to be established. The regulations regarding Act 795 (draft as of July 2019) outline the role of the advisory committee under NCA. The NCA is to be chaired by the secretary general of MWLNR. The line management of 13 'state level' Competent Authorities (CAs) is through the NCA. The functions of the NCA are: to fulfill the requirements under the NP and its ABS stipulations; maintain a register of permits issued by CAs; support customary laws & practices of ILCs, and the development of community protocols and ABS agreements; act as the national representative under the NP and ABS and maintain the national Clearing House Mechanism (CHM); and where the collection of biological resources (e.g. ex-situ and / or of unknown original) doesn't fall under the remit of any of the 13 state CAs, then to act as the CA. Competent Authorities (CAs) - For nine out of ten peninsular states, the designated CAs are their respective state Economic Planning Units (EPUs). For the other CA in Negeri Sembilan State it is their Forestry Department. For the federal territories of Kuala Lumpur, Labuan and Putrajaya, the CA is the Ministry of Federal Territories. For Sabah State, the CA is the Sabah Biodiversity Council (SaBCo), and for Sarawak State, the CA is their Ministry of Urban Development & Natural Resources (SMUDNR). The CAs act as advisory bodies to process applications for research and commercial work in ABS, TK documentation and utilization of biological resources. The process includes issuing access permits to biodiversity areas. The CAs are also responsible for compliance and record-keeping. The CAs report annually to MWLNR including any non-compliance offenses. The CA advisory bodies should include representatives of ILCs. The functions of the 13 CAs are to follow their role as described in the ABS Act (2017). The draft regulations under Act 795 outline the role of the advisory bodies under the CAs (see Annex 5). Roles are also outlined in the 'User's Guide to the Access to Biological Resource and Benefit Sharing Act 2017.' Malaysia receives ~200 applications / year for research (Vilm ABS Dialogue, 2018), although the actual figure is likely to be significantly higher.

	The readiness of CAs is varied. Perak CA (who are holding the FRIM ABS agreement), are not fully aware of ABS. They have the Act, but have not seen the draft regulations and are unsure of the federal – state jurisdiction. However, they have a biodiversity officer within their EPU unit. Kedah CA didn't appear to be aware the application for approval of the ABS agreement between FRIM, their state government and the Kensiu ILC for the development of 'KaHerbs'. Forest Research Institute Malaysia (FRIM) - were a designated implementing partner, under project contract 2014-18, mainly to provide services under Outcome 3. Sabah Biodiversity Centre (SaBC) - SaBC (est. 2008) are an entity under the Natural Resources Office of the Sabah Chief Minister's Department. They have five officers. Their mandate is encapsulated under the Sabah Biodiversity Enactment (2018). As of June 2019, the ensuing regulations are in draft form. Sabah Biodiversity Council (SaBCo) are the state CA, who oversee SaBC re. laws / procedures, and report to the NCA. SaBC are the secretariat to SaBCo. SaBC processes and issues ~80 licences / year for research through the auspices of the Natural Resource Office of the Chief Minister's Department. Sarawak Ministry of Urban Development & Natural Resources (SMUDNR) / Sarawak Biodiversity Council (SBCo) - SMUDNR is the Competent Authority (CA) for the state of Sarawak, and is a member of the Sarawak Biodiversity Council (SBCo). Under state law, SBC reports to MUDNR as the state CA on ABS, however SBC also report to the SBCo who meet quarterly. SBCo membership includes the state departments for forest, agriculture, SMUDNR, and education. There is also a research & development council that oversee SBCo. SMUDNR report to the NCA. The overall licensing of access is undertaken by the Sarawak State Planning Unit (SSPU) on behalf of SMUDNR. Sarawak Biodiversity Centre (SBC) - SBS focus on bio-prospecting with R&D mainly of plant kingdom materials with scientific / TK documentation. They have an extensive Natural Product library of extracted compounds. The SBC modus operandi is to function as a modern research facility with a legal system established for biological resources development. SBC issue licences (permits) for bio-prospecting research whilst conducting such research themselves. This potential 'conflict of interest' is somewhat reconciled with their dual positions as outlined under SBC Ordinance (1997, 2003, 2014) as well as being required to comply with Nagoya Protocol (NP), and its ABS approach. They are also a commercial 'product developer', thus again a slight 'conflict of interest' exists in being biodiversity gatekeeper and bio-prospector. Sarawak State Planning Unit (SSPU) - SSPU is the overall coordinator of access permits. It owns (hosts) the Sarawak Online Research Application System (SORAS). In comparison, Sabah have an access control system, whereas nationally or on the peninsular, DBFM / NCA and the state CAs lack such a system). **Financial Management** Spending & accounting was based on the approved AWPBs, with invoicing against its activities with reimbursement thereafter. Combined delivery reports (CDRs) were produced. The annual expenditures (US$) were 85,913 (2014); 316,770 (2015); 443,225 (2016); 598,893 (2017); 280,605 (2018); Total 1,725,405; Balance 244,595. In 2017, $24,000 and $16,000 was spend on printing / publications and promotional materials; In 2015, $31,000 was spent on office supplies, excluding office machines / computer equipment. This seemed excessive in a digital age and when tree supply for paper is an issue The PMU maintained a spreadsheet with ~20 worksheets to track GEF finances and disbursement. For contractual services, the Project Coordinator tracked payments in particular to the three sub IPs – FRIM, SaBC and SBC. The funding commitment for ABS has been high during the project, especially in terms of co-financing in comparison to the GEF funding volume. This has been matched at the same time by the volume of work that the project partners have put in to develop an institutionalized and frame-worked ABS system and demonstrated its operation through pilots in four states. The PMU kept a record of co-financing by government department which amounted to $6.53m in comparison to the $2m from GEF and UNDP. **Adaptive management (work planning, reporting & communications)** Annual Workplan & Budgets (AWPBs) were produced for 2015-18. They were signed by the government (EPU, Prime Minister's Office), IP (DBFM, MWLNR), and UNDP Resident Representative. The AWPBs were endorsed at NSC meetings Reporting included Mid-year Progress Reports (MYPRs) which were produced 2014-17 and were distributed to partners including the EPUs. 2017 gradings were: Objective / Outcomes – MS; Implementation – MU Project Implementation Reports (PIRs) ran from 'start-July to end-June' and were produced for: 2014-15; 2015-16; 2016-17; 2017-18. The 2017-18 grading: Implementation was MS

	Annual Progress Reports (APRs) were produced were produced 2014-17 and were distributed to partners Project management was not effective until the PC was engaged. This meant that coordination and communications were affected which in turn had a clear impact on the slow delivery of the project for the first 2.5 years. As late as 2017, UNDP was still investing time in standardising reporting from the pilot projects, which indicated that the system was lacking, which was in part due to government, institutional and personnel changes and a high loss of institutional and project memory.
	Monitoring & Evaluation
M&E **Moderately Satisfactory**	**M&E Systems – Design & Implementation** The overall rating is **Moderately Satisfactory** M&E at Design – **Moderately Unsatisfactory**; M&E Implementation – **Moderately Satisfactory** The prodoc outlined the expected M&E activities which included a mixture of standard reporting and an expectation that the Project Manager would oversee the monitoring of progress (outputs) and achievement of targets against indicators. The list included Inception workshop / report, APR, PIR, Quarterly progress, CDRs, Risk log, Lessons learned log, MTR, ESSP review, TE, Final Report (not seen) and Audit. In addition, the UNDP Capacity Development Scorecard was prepared at baseline and end-term, with the results reported under the 1st indicator for Outcome 2. A mid-term review was not required as the GEF project fund was <$2m. A separate 'exit strategy' was not developed, but would have been useful. Other aspects of M&E were included as part of the project design and consultant deliverables. This included two 'Knowledge, Attitudes and Practices (KAP)' surveys. It targeted ILCs, researchers and relevant industries that use or benefit from ABS transactions in order to determine the project's impact on awareness of the national ABS law, CBD and the Nagoya Protocol; as well as on the value of biological resources among ILCs.
	Sustainability
Sustainability **Moderately Likely**	Sustainability**:** According to the four risk categories (financial, socio-economic, institutional & governance and environmental), present status, and towards the future is assessed. **Overall Rating: Moderately Likely -** There are moderate risks, but expectations are that at least most of the outcomes will be sustained. **Financial Risks to Sustainability – Moderately Likely** The on-going civil service staffing allocation of the NCA is of concern, as is the ability of MWLNR (DBFM) to now fund and oversee a national ABS database and monitoring system. Project funding was allocated for this, but the task was far from completed. Some TK research is being undertaken by universities. Funding proposals are being made within the remit of the 12th Malaysia Plan. These include FRIM for further TK documentation across the peninsular, and they have a proposal for a R&D plantation for extracted plants. Sabah is said to rely mainly on state funds. Sarawak are preparing a state master plan for biodiversity (State MYR 2m, UNDP MYR 1m). SBC is expected to significantly expand its commercialisation of biological resources. A state-funded bio-industrial park associated with SBC is planned and is in the early design stages. **Socio-economic Risks to Sustainability – Moderately Likely** The 12th Malaysia Plan should reduce pressure on biodiversity, especially if the value of biodiversity begins to increase (e.g. under TK documentation and plant compound development). However, as yet ABS is not providing much socio-economic benefit in a local context. In terms of the status of the 12th MP, preparation is due to start in August 2019. **Institutional & Governance Risks to Sustainability - Likely** The NCA is new entity within the ABS unit of DBFM. It is established under ABS Act 795, but its ability to develop itself with a new team now that the project has finished is unknown. The NCA wasn't effectively established at project start (2014), but rather waited until the ABS Act was passed (2017), and was then only set up at the end of 2018, at the end of the project. The result of this is was limited institutional capacity at national level, partly because the project had difficulty to target its ABS training at the national level. Governance of ABS is good, but the awaited national ABS regulations are still impacting on the CAs (mostly the EPUs) and the checkpoints. However, the EPUs were part of the consultations on ABS structures and were included in the ABS Act. SaBC and SBC were established prior to the project and were able to be much more proactive in developing their state-level legislation, institutions, and (on-line) procedures for research permits, PIC and ABS.

	Environmental Risks to Sustainability – Moderately Likely In some cases, ex-situ (off-site) plantation is being undertaken which reduces pressure on important biological resources / biodiversity, but this is being undertaken for commercial reasons by product developers. i.e. away from the village, on the researchers / developer's land. However, it is in-situ (on-site) biodiversity resource conservation that needs attention, not only to maintain the integrity of these ecosystems, but also to support nursery production / plantation at village level (near-site) with the ILCs in order to maintain equitable benefit-sharing from production. Two examples of *ex-situ* plantation include: FRIM's proposal for a R&D plantation of Pengloy Semai, and SBC's Dragon's Blood plantation. These external plantations are essentially for commercial supply. Environmental sustainability issues and solutions are captured within NBSAP to 2030, although the political willpower and governmental effectiveness in implementation is not assessed here.
	Impact
Impact **Minimal**	**Impact**: According to the three categories (Significant, Minimal or Negligible), present status and towards the future **Rating: Minimal** <u>Reduction in stress on ecological systems</u> The reduction in ecological stress (ecosystem integrity) is slight at present, but could significantly increase in localised areas if extraction of resources are not monitored and controlled. The CAs on the peninsular are not yet in a position to do this. SBC as a major Access Party collecting TK and biological resources are in a privileged position and need to set the conservation standard, not least because they control the research licensing process on Sarawak. In the future, marine resource extraction (mangrove, seaweed) from territorial waters (12 nautical miles) is likely to increase and may need to come under ABS. <u>Regulatory & policy change</u> Regulations are virtually in place and are having an impact on bio-prospecting / research which is now under ABS licensing. However, at the national level, the ability to provide technical leadership and coordination to the peninsular states is limited as is the national ability to track and monitor bio-prospecting research. Awareness of regulations outside of dedicated research institutions is also limited. The new ABS systems are not benchmarked internationally, but could provide valuable lessons learned <u>Catalytic Effect</u> The project provided a limited window to support the development of ABS from effectively 'on paper' to effectively 'in practice'. There is the opportunity now for Malaysia to lead regionally. At the regional level, there is an effort to harmonise regional guidelines on ABS (1st draft), which is being undertaken by the ASEAN Biodiversity Centre. Replication is mainly being achieved via TK documentation. FRIM is working with 18 ethnic groups, concerning TK documentation and with eight other communities on ABS. SBC have a clear TK documentation programme and are working with a significant number of ILCs on Sarawak. The project has provided a clear demonstration that has been very successful. The demonstration has been achieved at the following levels: legislative; institutional mechanisms; user guidelines, implementation systems (e.g. research application procedures), and not least pilot PIC (and / or CP) and ABS agreements. The demonstration now needs to be finished off, with the passing of the national regulations on ABS and government commitment to sustaining a national ABS unit / NCA with an on-line system for national / peninsular research. New technologies and modern equipment are being utilized by two research institutes – FRIM and SBC. However, approaches to bio-resource conservation *in-situ* or at village level (near-site nurseries and plantation), by the research institutes need greater commitment. Putting the conservation onus on the villagers within the extraction and / or ABS agreements, is not acceptable. Indeed, under the draft regulations it is the permit holder (Access Party's) responsibility to ensure biodiversity conservation and ecological system integrity.

Conclusions

ABS is now largely embedded within a legal and institutional framework. A number of pieces of legislation have been passed, primarily ABS Act 795 with the national regulations expected to be approved by end of 2019. The project also produced user guidelines with further information on PIC, MAT, and ABS. For Sabah and Sarawak,

Access Parties (commercial or non-commercial researchers), now apply on-line for permits, with the various permissions including now ABS required integrated into single systems.

TK work started in Sabah in 2006-7, in Sarawak in 2001 and by FRIM on the peninsular in 2007, and has been developing since. It was given a boost after Malaysia joined the NP and also due in part to the UNDP projects ABS I and II. However, the younger generation are not sufficiently involved in TK or ABS and need to be more effectively engaged. TK is being lost at a village level.

There were clear differences in approaches by the three implementing partners (FRIM, SaBC, SBC). FRIM's approach to ABS was on the cautious or steady side in seeking PIC on a number of occasions. SaBC established themselves primarily as an administrative body. In the field they put most effort into making community protocols, which had a focus on community rights and management of biological resources and the methods for working with researchers (PIC and TK documentation). SBC focused much more on moving towards an end product with an ABS agreed to underpin it. SBC have already developed products for market. They have been able to achieve this having a dynamic international standard research facility (with a modern bio-assaying laboratory, plant material storage unit and database).

For FRIM on the peninsular, prior to project, they were only screening plants, whereas now they concurrently screen for associated TK. They have been able to further TK documentation, develop two prototypes for two communities, and develop two ABS agreements. They also have modern laboratories and maintain herbarium collections. In Sabah, their Biodiversity Enactment passing into law (2018) was their key project outcome. Two community protocols were developed by SaBC in Sabah. In Sarawak, SBC were able to put distillation equipment on-site at the village level, and to move to product development, thus securing a higher forest income for five communities. SBC has ABS agreements with five villages and has demonstrated a product value-chain with benefit to these ILCs.

The project has achieved many if not most of its objectives, and in some cases had gone beyond them. The volume of work that went into the project in comparison to the level of (GEF) project funding was high. The three national IPs – FRIM, SaBC and SBC have all achieved an extremely high level of national ownership of the project. There is an increased awareness with regard to ABS.

Lessons Learned

Greater national leadership on ABS is required (and training delivered) if the progress of the UNDP project is going to be maintained. The national ABS unit needs to be legally mandated with dedicate staff and capacity. The ABS regulations are now around two years behind the ABS Act and need technical support to be finalized and passed by the government. An on-line one-stop access permit system is urgently needed for biological resource and TK research on the peninsular. At present, the national level and the 11 states (including the federal territories) rely on the old system of multi-layer permissions which do not incorporate the requirements under the ABS Act (2017). There is also a need to build the capacity of government to support specific ABS provisions relating to ILCs including an enhanced understanding of their customary laws and practices.

There is a lack of understanding of the ABS framework, mainly by the 11 peninsular state EPUs who are the designated CAs. ABS is complex and a detailed knowledge is required such as for issuing permits, reporting, enforcement, and expected or guideline royalty payments / revenues within ABS agreements for products developed. This is not helped by the subsidiary ABS regulation (to ABS Act 795), yet to be passed into law. Until the regulations and guidelines become approved, the peninsular states lack direction or power to act effectively. There are also some communication issues with peninsular states not being made aware of nationally issued permits for researchers entering their state territories, in part due to the NCA not yet being fully functional.

The CAs have concerns over IPR ownership (owned by state, firm or by a community?), data sharing and confidentiality – again with the national user's guideline not yet approved for use. The peninsular state CAs also have concerns over the present multi-level access licensing requirements, which is discouraging researchers.

At present, pilot project stakeholders are aware of biodiversity value, but 'trusting', when it comes to 'known' Access Parties, who have built up long-term relationships. Concerning the drafting of ABS agreements, FRIM and SBC have their own lawyers for PIC and ABS, but to date villagers with TK & / or traditional forest user rights, have had to rely on the project legal consultant, which is now a post-project issue for the future.

Product prototypes are being 'branded' with community names which increases local ownership and suggests more equitable sharing of future benefits. However, ABS project ownership by ILCs on the peninsular was very low. The TE suggested their empowerment through the establishment of local cooperatives, which was taken up by the state authorities in Kedah and Perak in requesting FRIM / DIPD to accomplish such an action, so that the

ILCs could be a legal entity in the registration of products under ABS agreements (e.g. 'Kensiu village TK plants cooperative'). For such ILCs, such empowerment is important for their future development.

At present biological resource extraction is not sustainable. SBC have some small conflicts of interest, in being effectively able to issue research licences for themselves. They have a close relationship with their CA (the SMUDNR), but the latter's ability to independently monitor sustainable use is limited. SBC need to practice better biodiversity conservation themselves, if they are going to be the effective licensing authority for all bio-prospecting research in Sarawak, and in directing other researchers towards the inclusion of bio-resource conservation measures within respective extraction and ABS agreements.

Ex-situ propagation is being practiced by the project implementation partners – which is not always allowing equitable benefit-sharing of income generation. i.e. benefits already moving away from the communities. FRIM and SBC both have established plantations without the resource provider, the ILCs involved. At present these plantations are being established under the label of 'for R&D' which is step towards 3rd party production for increased supply. Thus, communities are not being supported to create a reasonable supply for commercial sale and therefore equitable benefit-sharing.

The ABS regulations and ordinances don't stipulate any methods for bio-resource conservation, yet CBD and NP are directly underpinned by such. Thus, this leaves it for any regulations still in draft, or especially to ABS guidelines still being developed to promote such conservation. This can be on two levels – *in-situ* or *ex-situ* conservation. The former means to promote on-site conservation (e.g. in the forest through managing natural regeneration, mother tree seed supply, controlling access and NTFP harvesting volumes to sustainable levels). Off-site conservation traditionally means maintaining genetic resources at a different location, typically a zoo or plant breeding station, which ultimately is less cost effective and lacks overall protection of the ecosystem integrity / biodiversity on-site.

Under ABS, where the biological resource supply needed is high, there may be a case for off-site plantation, but ultimately, if the ILCs are not empowered to be the local guardians with *in-situ* conservation, then it won't happen. Thus *in-situ* conservation is preferred, plus 'near-site' conservation with propagation / cultivation in the first instance to be undertaken by the communities with support from the researcher / developer.

Technical support by FRIM and SBC for in-situ conservation or village-based local propagation / cultivation is weak. It is a significant failing of the project and ABS implementation process so far. Continued extraction and off-site plantation is being preferred. This begs the question whether ABS agreements are 'biodiversity conservation friendly'.

There is a need to continuously engage and empower the communities through capacity building on the topics of: sustainable harvesting; propagation; and understanding ABS (SBC Implementation Report November 2018). Thus, SBC understand the issue, but not necessarily practice the needed solutions. The ILCs lack the modern skills for *in-situ* conservation in the face of high resource pressure, or for production on their farm when particular horticulture techniques are needed. The TE was asked at every village visited (~10) if the project could supply plant nursery expertise to help the ILCs grow the particularly important plants. This was also partly because they knew stocks would diminish with continued collection, but also due to the dangers and difficulties of forest collection.

Recommendations

Exhibit 4: Key Recommendations Table

The recommendations are listed with the responsible party identified in brackets.

1. The national ABS unit within the DBFM needs to be legally mandated with dedicated staff and capacity. It needs to show leadership as the NCA [MWLNR]
2. The ABS regulations need technical support to be finalized and passed by the government [MWLNR to commission]
3. An on-line one-stop access permit system is urgently needed for biological resource and TK research on the peninsular [the in-house MWLNR software designers need to be assessed for competency – the designers of the Sabah and Sarawak systems could be engaged]
4. The peninsular CAs require a training programme based on the ABS regulations, the ABS User Guidelines (both to be approved), and national one-stop research permitting system (to come on-line) [DBFM]

5. SBC need to develop a stronger ethical wall between being both researcher and research licenser [SBC]
6. FRIM and SBC need to establish propagation nurseries at village level for the main products being developed (Pengloy and KaHerbs; *Litsea* and Dragons Blood) [FRIM, SBC]
7. FRIM and SBC need to establish near-site village plantations of ULG004 and Dragon's Blood respectively to ensure equitable sharing of benefits [FRIM, SBC]
8. Under the draft ABS regulation, the legal obligation for biodiversity conservation is with Access Parties (~researchers, permit holders), i.e. FRIM and SBC. They both need to establish biodiversity conservation officers to implement on-site measures (in the forest and village propagation). [FRIM, SBC / SMUDNR]
9. The project communities that FRIM are working with on the peninsular need to be empowered. FRIM need identify an NGO (with horticulture skills) who can work with them to develop village nursery and plantations and create an institutional set-up (e.g. cooperative committee) [FRIM / DIPD]
10. DIPD to establish cooperatives for the ILCs working with FRIM [DIPD of Perak and Kedah]
11. The peninsular CAs need to establish financial accounting / Trust Fund accounts for the royalties of ABS [peninsular CAs]
12. The national NCA and Ministry of Federal Territories need to establish Trust Fund accounts for the royalties of ABS [NCA, MFT]
13. ILCs need independent legal advice when making PIC and ABS agreements. [The CAs need to ensure that this is provided]

1. INTRODUCTION

1.1. The project

The UNDP-supported, GEF-financed project was titled 'Developing and Implementing a National Access & Benefit-Sharing Framework in Malaysia (ABS II) (PIMS 5191)'. The project started in January 2014 and ended in January 2019[1]. The Terminal Evaluation (TE) was conducted May - August 2019, including preparatory activities, inception report, desk review, field mission (June 2019), and completion of this TE report.

The UNDP-GEF project was under National Implementation Modality (NIM) implemented through the Ministry of Water, Land & Natural Resources & Environment (MWLNR), i.e. MWLNR was the Executing Agency and main Implementing Partner (IP). Their designated office was their Division of Biodiversity & Forestry Management (DBFM). There were three sub-IPs / Responsible Parties (RPs): Forest Research Institute of Malaysia (FRIM); Sabah Biodiversity Centre (SaBC); and Sarawak Biodiversity Centre (SBC). UNDP and the project were supported by a National Steering Committee (NSC).

1.2. Purpose of the evaluation and report structure

This is the TE of the project. The objective was to gain an independent analysis of the achievement of the project at completion, as well as to assess its sustainability and impact. The report focuses on assessing outcomes and project management. The TE also considered accountability and transparency, and provided lessons-learned for future UNDP-supported GEF-financed projects, in terms of selection, design and implementation. The report is in six sections - introduction, description, findings, sustainability, impact and conclusions / recommendations. The UNDP-GEF rating scales are described in section 1.5. These are the required scales for GEF financed projects. The findings (section 3) are additionally divided into strategy and design, implementation and management, and results. With regard to results, the TE was looking for progress towards outcomes and their achievement, which was mainly guided by the Strategic Results Framework (logframe), its indicators and their targets (~Effectiveness). Overall, the TE focused on the relevance, effectiveness, efficiency, results, sustainability and impact of project actions.

1.3. Scope and Methodology

Approach

The approach and methodology of the evaluation followed the guidelines outlined in the UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported GEF-financed Projects (2012). The TE was an evidence-based assessment and relied on feedback from persons who were involved in the design, implementation, and supervision of the project. The TE team reviewed available documents (**Annex 7**), conducted interviews with a full range of stakeholders at national, state, district and village level including holding focus group discussions in a number of villages (**Annex 6**). The international consultant was the team leader and responsible for quality assurance, consolidation of the findings, and the TE report. Close support was provided by the National Consultant throughout the process. The field mission took place from 16th June – 5th July 2019, according to the itinerary presented in **Annex 11**. The agreed upon agenda included a UNDP briefing / debriefing on 17th June and 4th July 2019, with a stakeholder workshop on 3rd July 2019. There were no security issues which affected the TE. Usual precautions were undertaken.

Methods

The TE determined if the project's building blocks (technical, financial, management, institutional) were put in place and then, if together these were catalysed sufficiently to make the project successful. The TE method was to utilise a 'multi-level mixed evaluation[2]', which is useful when evaluating delivery of a new service or approach, being piloted either directly by a multi-lateral organisation or by state institutions. The method allows for cross-referencing and is suitable for finding insights which are sensitive and informative[3]. The rating scales are provided in **Annex 10.** Pro-forma questions on key themes such as those provided by the UNDP GEF guideline were updated

[1] 4-year project + 1 year no cost extension (7 Jan 2014 to 31 Dec 2017 + no cost extension till 6 Jan 2019)

[2] UNDP Innovations in Monitoring & Evaluating Results, 2013

[3] i.e. The TE team used a triangulation approach in comparing field observations and informant information with documentation

by the TE (**Annex 13**).

Gender was considered by various means including: request for all training information to be gender disaggregated; TE bias towards meeting women / women's groups with TE meetings' register indicating gender; assessment of the gender-related aspects at project design (i.e. sufficient women-friendly interventions) and if / how they had been followed through during implementation; assessment of the project's M&E system with respect to gender; and assessment of the project policies (e.g. recruitment, national steering committee, other new institutional structures) with respect to gender balance.

Main partners and stakeholder feedback

The TE interacted with the Project Management Unit (PMU), the UNDP Country Office as well as with technical staff in the relevant government departments. The TE also visited the project regions to discuss the interventions with local administrators, technical staff and beneficiaries. Gaining a representative view from stakeholders was only limited by time. Additional telephone / email interviews with the stakeholders were arranged as necessary. **Annex 6** provides a list of the persons that the TE met and **Annex 11** is the mission schedule.

Ethics

The review was conducted in accordance with the UN Ethical Guidelines for Evaluators, and the reviewers signed the Evaluation Consultant Code of Conduct Agreement (**Annex 15**). The TE team ensures the anonymity and confidentiality of individuals who were interviewed. In respect to the UN Declaration of Human Rights, results are presented in a manner that clearly respects stakeholders' dignity and self-worth.

2. PROJECT DESCRIPTION

2.1. Development Context

What was the ABS project about?

GEF provides financial & technical resources to implement the United Nations (UN) Convention on Biological Diversity (CBD, Earth Summit Rio, 1992), which is the world's policy to conserve biodiversity. The three objectives of CBD were expressed in its Article 1: conservation of biological diversity; sustainable use of its components; and the fair & equitable sharing of the benefits arising out of the utilization of genetic resources (including by appropriate access to genetic resources, and the transfer of relevant technologies and funding). The CBD convention includes the Nagoya Protocol (NP, 2010) as a legal framework that targets this 3rd objective of CBD - i.e. the access to and benefit-sharing of biological resources (ABS).

Project Alignment

The project is aligned with GEF Biodiversity Focal Area Outcomes:

- GEF 5 BD 4 Focal Area objective – Build capacity on access to genetic resources & benefit sharing, contributing directly towards Outcome 4.1
- GEF 6 BD 3-8 - Implementing the Nagoya Protocol on Access to & Benefit Sharing of Biological Resources (ABS)
- GEF 7 BD 3-9 - Development of biodiversity policy & institutional frameworks through the Implementation of the Nagoya Protocol on ABS.

Sector-wide linkage with the International Community

- The project contributed to enhancing biodiversity governance in Malaysia with a dedicated focus on the 3rd objective of the CBD - the fair and equitable sharing of the benefits arising out of the utilization of genetic resources, including by access to genetic resources, transfer of relevant technologies, and funding
- The project helped Malaysia to fulfil its legal obligation to implement Article 15 (Access to Genetic Resources) of the CBD, leading towards readiness for accession to Nagoya Protocol 2010, and enabling it to meet the goals and target of the Strategic Plan for Biodiversity 2011-20 (e.g., Strategic Goals D, E) and relevant global Aichi Biodiversity Targets (e.g. Targets 16, 18)
- The project contributed to mainstreaming of UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender as outlined in the UNDP Strategic Plan 2018-21

Project linkage to National Planning

- 11th Malaysia Plan 2016-20 (pp330) aims to steer Malaysia to become a developed nation by 2020 in a sustainable and

inclusive manner. It underscores the importance of harnessing biological resources as a new source of wealth creation
  - 2018 Mid-term Review of the 11th Malaysia Plan called for empowerment of indigenous and local communities (ILCs) in generating additional income through the enforcement of the ABS Act 2017 (Strategy B3)
- 12th Malaysia Plan is under development and is expected to include the further development of ABS
- National Policy on Biological Diversity 2016-25 provides a strategic framework for Malaysia to manage its biological resources and to fulfil its obligation under the CBD. The policy is for the country to have an operational ABS framework that is consistent with the Nagoya Protocol (Target 14).
- In Peninsular Malaysia, the National Forestry Act 313 (1984, amended Jan 2006, pp92) provides for the administration, management and conservation of forests and forestry development. A permit is required for prospecting in the forest under the Act. Researchers are required to apply for a Use Permit under section 34 of the Act. The Act helps to regulates the collection of resources from the forest but it does not deal with fair and equitable sharing of benefits arising from the utilisation of the resources and associated TK.
- Enforced by the Federal Economic Planning Unit, the 1999 General Circular No. 3 on Regulations for the Conduct of Research in Malaysia serves to expedite and co-ordinate research conducted in Malaysia by foreign researchers and Malaysian nationals from institutions and/or organisation overseas.
- Sabah Forestry Policy (2018, pp 60) outlines long-term strategies to strengthen the participation of local communities in the implementation of forest management activities. Effort will be made to prepare ABS procedures related to carbon project, REDD+ and climate change related payments. Approved by State Cabinet. Updated from the 1954 policy. Plan to maintain: 50% of land under forest cover; 30% of land as protected.
- Sarawak has established its state-level ABS regulatory framework, i.e. through the enactment of the Sarawak Biodiversity Centre Ordinance 1997 (amended in 2003, 2014) and Sarawak Biodiversity Regulations 2016. Similarly, the Sabah Biodiversity Enactment 2000 provides a state-wide ABS regulatory framework for the state of Sabah.
- This project is implemented in accordance to the UNDP's Country Programme (CP) to mainstream environmental management into economic development
- 5th National Report to CBD (pp99, 2014, MoNRE) – provides some background on ABS & Traditional Knowledge (TK). 6th national report to CBD is under final drafting

Linkage to National and Other Donor Projects

- UNDP Policy & Regulatory Framework for Access to & Benefit Sharing of Biological Resources (2010-13) a.k.a. 'ABS I' was a UNDP national-level project that laid the foundation for the development of the ABS Act 795. The Implementing Partner of ABS I was the Environmental Conservation Division of the MoNRE. The project had 3 parts: National Policy & Regulatory Framework for ABS; Institutional Arrangement for Implementing ABS Law & its subsidiary regulations; Platform to create awareness on ABS
- Traditional Knowledge (TK) – all three government IPs (FRIM, SaBC, SBC) have on-going TK documentation projects
- Traditional Ecological Knowledge in Sabah: A consolidation of experiences related to biodiversity conservation and sustainable resource management (2009–10) is a collaboration between the Global Diversity Foundation, and Bornean Biodiversity & Ecosystems Conservation programme (Japan International Cooperation Agency). The project contributes towards the implementation of the CBD in Sabah
- Other biodiversity projects – UNDP Biodiversity Conservation in Multiple-use Forest Landscapes in Sabah (with Sabah Forestry Dept); Enhancing effectiveness and financial sustainability of Protected Areas in Malaysia (with the Department of Wildlife & National Parks); Improving Connectivity in the Central Forest Spine Landscape (with the Peninsular Forestry Department)); Mainstreaming of Biodiversity Conservation into River Management (DID)
- MWLNR's DBFM through the Department of Biosafety also manage a Cartegena project / administration under CBD
- GEF is financing a Protected Area (PA) financing project
- MWLNR (DBFM) a regional leader in ABS and chairs a regional working group
- ASEAN Biodiversity Centre – harmonizing regional guidelines (1st draft)
- Rhino genetic breeding material – MoU Sabah with Indonesia
- ABS research in universities – various

2.2. Problems the project sought to address

The specific problem that the project sought to address was the lack of a functioning national legal, institutional and financial framework that would enable the equitable sharing of benefits from the exploration and utilization of biological resources and traditional knowledge (TK), between national / state governments, commercial interests, and the owners / custodians of these resources and their TK. The unclear jurisdiction of indigenous and local communities' (ILCs) land resources has hindered the traditional management of their biological resources.

Added to this, ILCs are also increasingly having to face outside commercial interests with seemingly higher economic values for land use, than from biodiversity conservation and sustainable use. The perceived lack of biological value has also meant that the younger generation has little or no interest in the TK associated with biodiversity utilization.

The solution is to make the biological resources generate economic benefits for the country and key stakeholders including ILCs, in the form of business through the discovery and development of new biochemical products such as pharmaceuticals, nutraceuticals, and agro-chemicals. The project will focus on supporting a national regulatory and institutional framework for ABS, which is needed to support the development of the bio-prospecting industry.

Key barriers that needed to be addressed

Differences in national and state jurisdictions regarding the management / extraction of biological resources complicate their governance. The government carries responsibility for CBD and therefore the conservation of biological resources and their sharing. However, the states have jurisdiction to manage land resources. Furthermore, the east Malaysian states of Sabah and Sarawak have separate legislation on biodiversity and ABS to the ABS Act.

Within the biotech industry, scientific research will be most directly affected by ABS. To ensure full participation and compliance of the law, awareness raising activities is needed, targeting research institutions and biotech companies. They need to understand their obligation to obtain permits from CAs whenever there is research / bio-prospecting, and to obtain PIC from resource providers. Bio-prospectors must be informed of their obligation to share benefits equitably with the resource providers, including possible technology transfer (non-monetary benefits).

2.3. Project Description and Strategy

The objective was to 'Strengthen the conservation & sustainable use of biological & genetic resources in Malaysia through developing the national framework for the implementation of Access & Benefit Sharing (ABS) under the UN Convention on Biological Diversity (CBD)'. The project was designed with three outcomes:

1. An operational national regulatory and institutional framework on ABS
2. Strengthened national institutional & stakeholder capacity for implementation of a national ABS framework
3. Best practice ABS processes demonstrated recognizing the principles of Prior Informed Consent (PIC) & Mutually Agreed Terms (MAT) including the access to and fair & equitable sharing of benefits (ABS)

Project Location and Demographics

The project was implemented in Peninsular Malaysia, Sabah and Sarawak in:

State	District	Village	Indigenous People	Activity
Kedah	Baling	Ulu Legong	Kensiu	TK provider + prototype 'KaHerb' developed by FRIM
Perak	Gopeng	Ulu Geroh	Semai, Kintak	TK provider + prototype 'Pengloy Semai' developed by FRIM
Sabah	Sipitang	Long Pasia & Long Mio	Lundayeh	Lundayeh Community Protocol
	Kota Belud	Melangkap	Melangkap	Melangkap Community Protocol
Sarawak	Betong	Bukit Sadok	Iban	Litsara oil
	Padawan	Kampung Kiding	Bidayuh	Litsara oil
	Bario	Pa'Ukat & Pa'Lungan	Kelabit	Litsara oil
		Ba'kelalan	Lun Bawang	Litsara oil
	Lawas	Long Kerebangan & Long Telingan	Lun Bawang	Litsara oil

Project Area Map

See **Annex 12**

Project Duration & Milestones

The project timing was from January 2014-19. The project document only mentions benchmarks in stating that they would be developed during inception and that the NSC would have the authority to suspend disbursement if the benchmarks were not met.

Comparative Advantage

UNDP had a comparative advantage in capacity building, provision of technical support in the design and implementation of the project. UNDP also had an advantage working with government especially in strengthening institutional mechanisms, in undertaking risk assessments, in mainstreaming biodiversity into development and harnessing best practices and community-based approaches across the thematic areas for biodiversity conservation.

2.4. Implementation Arrangements

Project Management Structure

The project was overseen by UNDP and a National Steering Committee (NSC), which was chaired by the Secretary General of MWLNR. The project was implemented via a Project Management Unit (PMU) which was housed within the MWLNR's Division of Biodiversity & Forest Management (DBFM). The PMU included a National Project Director (as a leading member of DBFM), Assistant National Project Director, a Project Coordinator (PC, position created, and hired through public competition) and an Assistant PC (hired by the Ministry). The project was supported by three Implementing Partners (IPs) – FRIM, SaBC and SBC, as well as a number of other service providers (consultant firms or individuals). The latter included a legal consultant[4] to develop the ABS Act. The project was nominally under NIM, however effectively and especially for financial management purposes it was under DIM. There was no M&E officer, and a technical working group was only utilised during project preparation. Monitoring of service contracts and tracking of deliverables and payments was undertaken by the PC.

2.5 Key Partners & Stakeholders

A full description of stakeholders – those who are responsible for implementation of the project and those associated with the project, is provided as **Annex 9**. See also section 3.2.2 - Partnerships / Institutional Mechanisms / Stakeholder Engagement.

3. FINDINGS

3.1. Project Strategy

3.1.1 Project Design

This project was to support fulfilment of Malaysia's obligations under the CBD and its Nagoya protocol (2010)[5]. The project was designed to generate economic / social benefits for indigenous & local communities (ILCs) from biodiversity / biological resources. Conservation and sustainable use of the biological resources (or genetic material) is to be achieved with the application of traditional knowledge (TK) and via the access and benefit-sharing principles associated with the Nagoya Protocol. The basic design:

- Outcome 1 concerned putting the policy and legislation in place for joining the Nagoya Protocol and implementing it
- Outcome 2 concerned capacity building in ABS
- Outcome 3 concerned three main ABS demonstration projects:
  - Identification, with associated TK of phytochemicals (alkaloids, saponins, flavonoids) and essential oils from aromatics – for use in medicine, herbal remedies and cosmetics
  - An ABS agreement for ILCs for selected products[6]
  - An ABS agreement in operation through a product's value chain. The product chosen was *Litsea cubeba* from which aromatic oil for soaps and perfumes can be produced

Whist the identified products may be produced commercially (e.g. *Litsea* in China), it is the conservation of the genetic resources *in-situ* that is important, together with ILC sustainable management and economic utilization.

Project Formulation

The project objective was clear and feasible. In order to implement the project, MWLNR's DBFM set up a new unit to become the National Competent Authority (NCA) with its functions outlined in the ABS Act and draft

[4] formerly listed as CEBLAW

[5] https://absch.cbd.int/countries/MY

[6] Including Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT)

regulations. The unit was also assigned to coordinate and implement the project. The capacity of DBFM needed to be developed as ABS was a new commitment under the NP with new national and state policies, guidelines and legal requirements to be developed under the project. The capacities of the three responsible parties (who became effectively three Implementing Partners (IPs) with direct contracts, reporting, management and invoicing to UNDP) was strong. However, in terms of their roles, SBC wore two hats in being both a bio-prospecting research institute and the administrator for issuing research licences.

Local Project Appraisal Committee (July 2013)

The prodoc was approved in principle subject to a list of minor changes. The participants were informed that the Implementing Partner (MWLNR) would sign individual agreements with the three responsible parties (FRIM, SaBC and SBC). The LPAC endorsed the environmental and social screening report that was undertaken during project preparation.

3.1.2 Design Assumptions & Risks

Selected Assumptions and Risks from the results framework and inception report that proved to be correct / incorrect:

Risk / Assumption	TE Comment
Objective	
- 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.	- Partly correct, in that the delay in approval of the ABS regulations following on from the ABS Act, affected the NCA, CAs and checkpoints' ability to fully understand or enact procedures - Re. ABS proceeds funding conservation – it was not clear in the prodoc regarding the TF method, nor was any TF method clear in the ABS legislation[7] - Re. ABS financing – limited funds to date to re-invest into conservation. However, one example is funds from Litsea oil to SBC's ABS fund, although these are being used for administration of SBC's ABS activities, and not focused on conservation
Outcome 1	
- 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.	- The prodoc text (p27) only required the project to conduct a study on ABS funding mechanisms, including the proposed National Conservation Trust Fund (which was developed by the EPU, with support from Danida). The prodoc did not include any stipulations for any share of profits from ABS to be bequeathed to biodiversity conservation, either at national or state level. However, the strategic results framework (SRF) required (Outcome 1 indicator and Output 1.3) required that a fund was to be established.
Outcome 2	
- nc	- nc
Outcome 3	
- Commercial confidentiality restrictions may limit information sharing on development process?	- Proved correct in the case of SBC's ABS agreements having non-disclosure clauses. FRIM also did not share their ABS agreements
- Active compounds in pilots fail to show promise as prototypes preventing completion of ABS agreements with benefit-sharing	- Incorrect – final products and prototypes were developed. The concern is now more towards 'what is an equitable share of benefits for the ILCs especially if R&D costs and medicinal trials / licensing costs are high – which they are.
Inception Report	-
- ABS laws / procedures would hinder research	- Proving correct with FRIM on the peninsular, where access permits are only issued for one year. The lead-in time with project proposals for funding, procedures for ABS and then conducting research with international partners now needs to be two years, thus one-year permit timeframes are too short. The CAs on the peninsular are not ABS ready.
- Sustainability of the project and its long-term objectives	- The mitigation measure was to get ABS parties institutionalized early on – e.g. establishing an NCA. This was only achieved later on in the project, resulting in a short-fall in the NCA capacity, skills and leadership uptake needed
- CEBLAW sustainability /	- CEBLAW was established as a cooperation between MoNRE and UM (9th Malaysia

[7] ABS Law only indicated under section 22 (Benefit-sharing agreement): 22.4 – Any monetary benefits shall be deposited into a fund 'as may be' set up by the Federal or State Government; and 22.5 – The CA shall use the payment towards conservation and other expenses. The draft regulations only reiterate section 22.4.

continuity	Plan). CEBLAW was supposed to be institutionalized with appropriate funds / staffing, however at the time of inception, it consisted only of a director and assistant. As this issue was not solved, the project instead hiring individual consultants to bring forward the legislation

Nc – no comment

A further risk log was maintained by UNDP under their Atlas Risk & Management Response system (**Annex 8**).

3.1.3 Results Framework Indicators & Targets

Within the Strategic Results Framework (SRF, logframe), there were 14 indicators. At the objective level, there were two indicators. At the outcome level 1 there were four indicators; at the outcome level 2 there were three indicators, including the UNDP Development Capacity scorecard; and at outcome 3 level, there were five indicators. There were 17 outputs. The indicators were mostly logical, practical and feasible and were mostly SMART (Specific, Measurable, Attributable, Realistic/Relative, Timebound).

3.1.4 Gender Design

In the prodoc, women are mentioned a number of times and nearly always in connection with ILCs and equitable participation in project activities, however they are not mentioned in connection with equitable representation on the NSC or other project structures such as the PMU. The prodoc included a stakeholder involvement plan that emphasizes the involvement of women in any negotiations concerning ABS[8]. This would include PIC, Community Protocols (CPs), MAT, and ABS agreements. Women and gender are discussed in the gender analysis section.

3.2. Project Implementation

3.2.1 IA and EA Coordination & Operational Management

Coordination & Operational Management by the Implementing Agency (UNDP) and the Executing Agency (PMU with support from the government counterpart, DBFM)

UNDP were the GEF Implementing Agency (IA), with MWLNR as the Executing Agency (EA) and government counterpart. MWLNR delegated government support to their DBFM. The project was under National Implementation Modality (NIM), however the Combined Delivery Reports (CDRs) indicate direct payments by UNDP to a number of service providers and for works and goods. This method would be more akin to Direct Implementation Modality (DIM).

The project was internally agreed in July 2013 by the UNDP Local Project Appraisal Committee (LPAC). The project was implemented for five years from January 2014 until January 2019. It was extended in 2017. During the project, the government changed and the MoNRE ministry was re-structured into MWLNR. Personal were changed with a partial loss of institutional knowledge. The GEF Focal Point was also moved to MESTECC from MWLNR (was MoNRE). The consequent delay in new appointments and project activities necessitated a project extension. The original organizational structure is presented in **Annex 5**.

During the course of the project, UNDP changed their programme (i.e. project) manager three times, with the latter taking over in 2016.

PMU operational management

A PMU was established and met formally every two months. It was chaired by the National Project Director (NPD). A National Steering Committee (NSC) was established[9]. The PMU originally consisted of a National Project Director (NPD)[10] with two officers / assistants (for accounts and activities). Prior to August 2016, the PMU (DBFM / NCA) had focused on drafting the ABS law, but other local project activities were not being implemented or coordinated effectively. This was partly because staff from within the DBFM were not solely undertaking project work.

A Project Coordinator (PC) who was experienced in implementing UNDP projects was installed (hired by UNDP) within the PMU in August 2016 (i.e. 31 months after project start) in order to 'get the project on track'. The PC's role partly was to coordinate the activities at the project pilot sites.

[8] Gender was not mentioned within the Strategic Results Framework

[9] A technical working group was established for project preparation only

[10] And Assistant NPD

A number of actions were then instigated. The PC re-established project links with SaBC, with SaBC also hiring a dedicated project assistant, which improved communication. The PMU / PC hired a consultant to implement the pilot activities in Sabah. One of the reasons for the SaBC loss in direction, was that in 2016-17, SaBC re-structured which meant there was a loss of staff and institutional knowledge. In fact, the project was already slow with SaBC only receiving approval from Sabah Biodiversity Council (SaBCo) in February 2015 to implement Output 1.4. i.e. one year into the originally 4-year project.

Inception Workshop & Report (November 2014, 76pp)

The inception workshop was held in November 2014, 10 months after project start. The inception report contained a passage on expected project management which should have raised UNDP alarm bells in terms of the lack of experienced or dedicated PMU staffing proposed within it[11]. The issue was only addressed 2.5 years later with the appointment of a PC as mentioned above. The changing of UNDP staff probably also contributed to the lack of management at this time. The consequence after five years is that the ABS regulations remain in draft format[12].

National Steering Committee (NSC) [13]

The attendence and membership of the NSC included the chair is in **Annex 5**.

History of selected decisions by the PSC

Date	Key Points	TE Comment
Q1, 2014	- TOR of NSC is accepted with amendment to the membership list - Recommendation for a dedicated project website. MWLNR informed that an ABS Clearing House Mechanism (CHM) website would also be developed	- CHM website not created
Q3, 2014	- ABS Technical Working Group to recommend on a standardised PIC form for project - Project activity report template to be provided by the ABS secretariat (DBFM) to ensure uniformity from all partners - Application of SBC for project allocation changed from direct payment to cash advance - Recommendations to create a pool of experts on ABS as expertise on ABS is very limited - TOR for the Study on Knowledge, Attitude and Practices (KAP) accepted - UNDP started to recruit	-TWG was not really utilized during the project, although an ABS Core Group (~TWG) did discuss PIC
Q4, 2014	- SaBC to have discussion on how to accept project funds as cash advance for Output 1.4-only as the Implementing Entity for this - MWLNR to provide a clear timeline to finalize the ABS Bill and sign the Nagoya Protocol - Inception Report adopted - Deliberation of the Annual Work Plan (AWP) - Funding & payment arrangements; Consultancies under the Project - UNDP to re-advertise the study KAP	- Payments to SBC and now SaBC indicate UNDP control of finances, not MWLNR. I.e. the project effectively under DIM
Q2, 2015	- Implementing Entities that are recipients of cash advances to submit their expenditure report to MWLNR and UNDP within 3 months of receiving the allocation - Recruitment of Project Manager to be advertised - Approved FRIM's application of RM37,100 for repair of spectrophotometer to facilitate the implementation of Outputs 3.1 & 3.2	- UNDP could not find a suitable PM, instead a Project Coordinator was hired
Q4, 2015	- Aligning community protocols to ABS rules – MWLNR to consult stakeholders re. if CPs should form part of ABS rules - Approved the AWP 2016 (US$225,372)	- NSC acknowledged potential delay in implementation
Q2, 2016	- To ensure the sustainability of prototype product UGG004, FRIM intends to plant 1 ha in the Sakai Reserve by the sub-ethic of Semai in Ulu Geroh, Perak. Also with attention of Kampar District Office, Perak. NSC – reject this plantation of UGG004 as outside the scope of the project	-NSC maintained the agreed project scope by rejecting FRIM's proposal for a plantation (TE

[11] Regarding project management, the inception report indicated the PMU, would be chaired by a NPD working on a daily basis and be supported by an assistant (to be hired). The Head of Biodiversity Section of the DBFM would take the project role of NPD (with a nominated deputy to support mainly when away). The inception report went on to indicate that a project manager was not required as the project was being implemented by four partners (FRIM, CEBLAW, SaBC and SBC) and that project managers hired from outside didn't build capacity as they left once projects ended.

[12] Also due in part to changing AG Chamber staff and the complexity of the regulations

[13] The name of ministries where they have changed, has been transposed to the latest official names

	- KAP's report: highlights that ILCs have no written community protocol. Requests for access are usually referred to community leaders / village heads; and lack of ABS awareness. MWLNR request partners develop programme - FRIM can continue to provide MYR100 / day to ILC resource person - SaBC can provide a daily allowance of MYR25 for ILC involving in the awareness building activities, MYR5 / hour for involvement in TK sharing workshops, and MYR5 / hour for research assistants. - SaBC to submit an application with an overall workplan for Output 1.4 to MWLNR - SBC does not give allowance to the local community, instead it buys raw materials from 'them' - The appointment of legal expert to be discussed separately	comments later in report) -The legal expert was the former director of CEBLAW
Q1, 2017	- UNDP will hold a workshop to discuss the reporting and documentation of pilot projects - FRIM must keep Perak State EPU informed about the status / outcome of its ABS activities - SBC must submit a proposal to MWLNR / UNDP explaining its intention to expand its ABS pilots - SBC will circulate soft copy of the Sarawak ABS regulations to the NSC members - Sarawak SPU + a consultant will conduct market research on Litsara - Suggestion for NSC to have its next meeting in July 2017 (actually held Oct 2017)	- FRIM realized that commercializing a prototype product takes time
Q4, 2017	- The ABS bill was approved by the Parliament in August 2017 - All IPs must spend within the workplan budget and any additional spending must be approved by MWLNR. All IPs requested to provide their detailed budget up to November 2017 and estimated budget for the year 2018 and to include any proposed expansion of activities for discussion of PMU and the upcoming Workplan Preparation Workshops 2018 - FRIM is recommended to absorb additional costs incurred for the year to date as already exceeded the approved allocation for 2017. - SBC to re-evaluate its planned activities to not exceed the approved budget for this year - MWLNR to meet with UNDP re. over-spending by IPs and to review the allocations for 2017 - FRIM has informed Perak & Kedah EPUs on the status of TK documentation and benefit sharing agreements - SBC does not pay income loss allowance to the ILC, instead it pays them MYR25 / day for sustenance. It also pays MYR60 / day to informants and porters during village visits for purposes of the project's implementation. - SaBC plans to improve the Community Protocol by inserting relevant ABS elements such as PIC and MAT	- Overspending issues by Implementing Partners were flagged
Q1. 2018	- UNDP has been granted a no-cost extension till 6 Jan 2019 with an allocation of US$453,791 but all major activities by the three IPs shall be completed before July 2018 - Total project expenditures from 2014 to March 2018 was US$ 1,471,869 (75%), out of the total project allocation of US$ 1,970,000 - NSC agrees to conduct further discussions on the development of the ABS Clearing House Mechanism Portal and issues related to server rental and data storage - A meeting with CAs / EPUs will be held to further discuss the recommendation to channel the ABS proceeds to a sub-fund created under the NCTF during the interim phase - UPM will advance its proposals on the KAP study with a matrix on the method to raise ABS awareness – to distribute to MWLNR - The Secretary General of MWLNR has agreed to officiate the TK Seminar to be organised by FRIM tentatively on 3 July 2018	- NSC was aware that State Governments prefer to keep the portion of the ABS revenues that is due to them. Further consultation with the EPUs is necessary to reach a solution
Q4. 2018	- Project expenditure from 2014 to the end November 2018 was USD1,658,085 ~84% of the total project allocation (USD1,970,000) - The project balance of USD311,915 will be used to cover the costs of printing Act 795, ABS User's Guide, ABS video, and the TE. Estimated USD100,000 left. The Chairman proposed that the balance be utilized for holding of ABS seminars in the Peninsular Malaysia, Sabah and Sarawak. - MESTECC, as the GEF Focal Point stated that any balance must be returned to GEF with financial records - MWLNR will hold discussions with UNDP on activity planning for the remaining period - MWLNR will cooperate with UNDP to draft an application for the GEF-7 funds under the enabling activity for implementation of the Nagoya Protocol - CVs of Terminal Evaluators will be submitted by UNDP to MWLNR - The proposal to channel ABS proceeds to a sub-fund under the NCTF was discussed with the State Governments on 9-10 August 2018, but on-going - The ABS CHM portal & online ABS permit application system are being developed in-house. Malaysia Biodiversity Information System server rental is funded under the Malaysia Plan	- At its final meeting, NSC focused its attention on ensuring the long-term sustainability of the ABS Project

3.2.2 Partnerships / Institutional Mechanisms / Stakeholder Engagement

The key institutional mechanisms are described below with a full list of stakeholders presented in **Annex 9**.

Division of Biodiversity & Forest Management (DBFM)

The DBFM is under the Ministry of Water Lands & Natural Resources (MWLNR)[14]. DBFM is responsible for the National Biodiversity Centre (NBC, est. 2005) who are to act as the National Competent Authority (NCA) for the coordination of regulations and procedures on ABS.

National Competent Authority (NCA)

NCA nominally have five staff with funds available for particular sub-projects / requirements[15]. An advisory committee under NCA has yet to be established[16]. The regulations regarding Act 795 (draft as of July 2019) outline the role of the advisory committee under NCA (see **Annex 5**). The NCA is chaired by the secretary general of MWLNR. The line management of 13 'state level' Competent Authorities (CAs) is through the NCA.

The functions of the NCA are: to fulfill the requirements under the NP and its ABS stipulations; maintain a register of permits issued by CAs; support customary laws & practices of ILCs, and the development of community protocols and ABS agreements; act as the national representative under the NP and ABS and maintain the national Clearing House Mechanism (CHM); and where the collection of biological resources (e.g. *ex-situ* and / or of unknown original) doesn't fall under the remit of any of the 13 state CAs, then to act as the CA.

Competent Authorities (CAs)

For nine out of ten peninsular states, the designated CAs are their respective state Economic Planning Units (EPUs). For the other CA in Negeri Sembilan State it is their Forestry Department. For the federal territories of Kuala Lumpur, Labuan and Putrajaya, the CA is the Ministry of Federal Territories. For Sabah State, the CA is the Sabah Biodiversity Council (SaBCo), and for Sarawak State, the CA is their Ministry of Urban Development & Natural Resources (MUDNR).

The CAs act as advisory bodies to process applications for research and commercial work in ABS, TK documentation and utilization of biological resources. The process includes issuing access permits to biodiversity areas. The CAs are also responsible for compliance and record-keeping. The CAs report annually to MWLNR including any non-compliance offenses. The CA advisory bodies should include representatives of ILCs. The functions of the 13 CAs are to follow their role as described in the ABS Act (2017). The draft regulations under Act 795 outline the role of the advisory bodies under the CAs (see **Annex 5**). Roles are also outlined in the 'User's Guide to the Access to Biological Resource and Benefit Sharing Act 2017.' Malaysia receives ~200 applications / year for research (Vilm ABS Dialogue, 2018), although the actual figure is likely to be significantly higher.

The readiness of CAs is varied.[17] Perak CA (who are holding the FRIM ABS agreement), are not fully aware of ABS. They have the Act, but claimed not to have seen the draft regulations and are unsure of the federal – state jurisdiction[18]. However, they have a biodiversity officer within their EPU unit. Kedah CA didn't appear to be aware the application for approval of the ABS agreement between FRIM, their state government and the Kensiu ILC for the development of 'KaHerbs'[19].

Some CAs suggested that all peninsular permit applications could be directed through the Ministry of Economic Affairs (MEA), which would be more efficient. For national-level permits for research to be undertaken in the peninsular states, MEA currently only send a very short summary of the activity, but not details if the research is for internationals, for the pharmaceutical industry or otherwise. Melaka CA have not been involved in any research permitting to date, and has no monitoring set-up, which is due to the regulations remaining in draft format. Pahang CA (Economic Planning Division) at present is not in control of research permitting or collecting

[14] Formerly Ministry of Natural Resources & Environment (MoNRE)

[15] Under MWLNR, the DBFM have five core staff who were originally from the Natural History Museum, who in addition to some residual NHM duties now act as the NCA. The NBC despite establishment in 2005, is not particularly active. DBFM commented that the NCA as yet is not formally operating.

[16] Formal establishment has not taken place, thus there were no recorded minutes of meetings. The reasoning was that the regulations of Act 795 had not been finalised.

[17] CA units met included: EPUs of Perak, Kedah, Pahang, Melaka + Department of Forestry – Negeri Sembilan (state CA)

[18] Draft regulations were circulated to the states with consultations made, however it appears that institutional memory has been lost here in Perak EPU as well as in Kedah EPU mentioned next

[19] FRIM separately mentioned that the CAs they were dealing with had a tendency to not be informed of ABS procedures and lose applications for research

fees for issuing permits, with researchers going direct to the forestry department.

The Negeri Sembilan CA (who are the Department of Forestry), had not been involved in an ABS meeting since 2017, so attending the TE workshop was useful. They indicated that most permits for forest research were issued via their forest headquarters office for the whole peninsular, and that they only issued low-level university student permits. Selangor Department of Forestry (of behalf of the state CA – EPU), indicated that at present, they receive research applications (for within forest reserve), and are unclear of the CA role. For large applications, they refer the researchers to the national level.

Forest Research Institute Malaysia (FRIM)

FRIM were a designated implementing partner, under project contract 2014-18, mainly to provide services under Outcome 3.

Sabah Biodiversity Centre (SaBC)

SaBC (est. 2008) are an entity under the Natural Resources Office of the Sabah Chief Minister's Department. They have five officers. Their mandate is encapsulated under the Sabah Biodiversity Enactment (2018). As of June 2019, the ensuing regulations are in draft form. Sabah Biodiversity Council (SaBCo) are the state CA, who oversee SaBC re. laws / procedures, and report to the NCA. SaBC are the secretariat to SaBCo.

SaBC processes and issues ~80 licences / year for research through the auspices of the Natural Resource Office of the Chief Minister's Department. Permission is also needed from the Sabah Forestry Department and District Officer (DO), but not from the local village committee. Thus, the Sabah Biodiversity Enactment (2018) and draft regulations appears to bypass the ABS 'standards', in this respect. Furthermore the 'Guidelines on Access Licence Application, SaBC (17pp, 2019)' do not mention PIC, MAT or ABS, although 'native and community land rights' are listed, with the ILC (native) community described as a resource management authority[20]. Those requiring licences involve all who wish to enter biological areas for research or trade. They include: individuals or groups (national, int'l); researchers; students; NGOs; university / educational & research institutions; and corporate entities.

Sarawak Ministry of Urban Development & Natural Resources (SMUDNR) / Sarawak Biodiversity Council (SBCo)

SMUDNR is the Competent Authority (CA) for the state of Sarawak, and is a member of the Sarawak Biodiversity Council (SBCo). Under state law, SBC reports to SMUDNR as the state CA on ABS[21], however SBC also report to the SBCo who meet quarterly. SBCo membership includes the state departments for forest, agriculture, SMUDNR, and education. There is also a research & development council that oversee SBCo. SMUDNR report to the NCA. The actual licensing of access is undertaken by the Sarawak State Planning Unit (SSPU) on behalf of SMUDNR.

Sarawak Biodiversity Centre (SBC)

SBC was established in 1998, but largely developed from 2003 turning from 'a garage distillation to a modern biochemistry laboratory facility.' SBS focus on bio-extraction mainly of plant kingdom materials with scientific / TK documentation. They have an extensive Natural Product library of extracted compounds.

SBC is a government agency, incorporated under the Sarawak Biodiversity Centre Ordinance (1997, Chpt 24, Laws of Sarawak). It describes itself as the leading research organisation in Sarawak.[22] It is governed by Sarawak Biodiversity Council (SBCo), with public servants as council members[23]. The SBC *modus operandi* is to function as a modern research facility with a legal system established for biological resources development[24]. It has a high technical capacity and institutional drive with the aim to create revenue for itself and Sarawak State. SBC check patents for bio-piracy, for which there have been cases[25].

Research applications are made online and depending on the land ownership or tenure, the relevant body is

[20] In the future, there may be cases of those with issued licences, believing in a diminished need for PIC and ABS, especially where the village does not wish to engage with the 'researcher or bio-prospector'.

[21] However, SBC is under Sarawak Ministry of Education, Science & Technological Research (SMESTR) for funding and policy direction.

[22] www.sbc.org.my/

[23] Thus, it does not issue shares or dividends or allow private investment (though public-private partnership programs are usually encouraged in Malaysia).

[24] To reduce 'technology-rich countries gaining advantage over biodiversity-rich countries' e.g. int'l researchers can use facilities (e.g. DNA analysis) on-site. So there is no need for Sarawak to be a supplier-only of biological resources to other countries. SBC don't share TK with outside researcher as it is unregistered IPRs. FRIM is not established with the same mandate and SaBC has nothing comparable, except research facilities at state universities.

[25] E.g. Tarantula bio-piracy – named after the collector's children – A picture was put on facebook with GPS, then others collected, illegally killed and took to US and published in a scientific journal.

directed to assess the application for a permit: SBC issue the permits for research & development (R&D) collection; the Forest Department issue for Protected Areas; the Land & Survey Department issue for Native Customary Rights (NCR) land; and the SSPU co-ordinate applicant back-ground checks for visa approvals. If the research is only for *in-situ* identification of species and not damage or extract plant material, then only a permit from the Forest Department is needed.

SBC issue licences (permits) for bio-prospecting research whilst conducting such research themselves. This potential 'conflict of interest' is somewhat reconciled with their dual positions as outlined under SBC Ordinance (1997, 2003, 2014) as well as being required to comply with Nagoya Protocol (NP), and its ABS approach. They are also a commercial 'product developer' (with SBCo approval), thus again a slight 'conflict of interest' could be construed in being biodiversity gatekeeper and exploiter, especially as SBC sit on the SBCo, they are able to enjoy a close / slightly overlapped relationship.

SBC maintains a webpage.[26] There is a section on the PIC approach with a flowchart. SBC have a 'general collaboration agreement' template (for working with research partners). Any TK work begins with SBC checking their documentation database. At the village level, there is voluntary documentation of TK to see if the villagers are using such plants with TK. Thus, the research partner collaboration agreement and the caution regarding 'not informing' the villagers about the use of particular plants, emphasizes the business approach on the part of SBC. Once these steps are completed, then the standard consultative meetings (for PIC etc) with the village leaders begin. SBC Organogram is presented in **Annex 5**.

The SBCo was established in February 1998, followed by the establishment of the SBC in the same year to assist the Council with the implementation of the legislation (Ordinance from 2007, since amended 2014)

SBC's Natural Product Library is extensive: >25,000 plant extracts (note there are ~5,000 plant species on Sarawak); ~500 essential oil extracts; ~650 algal strains[27]; ~21,000 microbe strains with ~30,000 extracts; ~10 plant / fungal / bacterial genomes mapped; and 15 compounds characterised. The NPL consists of the cold storage unit and the scientific / TK database of knowledge[28].

SBC holds two intellectual property right (IPR) patents, two trademarks and two geographic indications, of which LitSara is registered under Class 3, 5, 16 and 21 as a Trademark; and Sarawak Litsara (Class 3) as a geographic indication (2011) (SBC Annual Report, 2017).

Sarawak State Planning Unit (SSPU)

SSPU oversee research in Sarawak. SSPU is the overall coordinator of access permits. It owns (hosts) the Sarawak Online Research Application System (SORAS).[29] All applications to conduct research or study in the State of Sarawak must be made online via SORAS. This includes the permits that SBCs has received itself for *Litsea* and Dragon's Blood development for example. SORAS took three years to develop and went on-line March 2019. It receives ~60 applications / year. It is a one-stop system with three main agencies involved – SSPU, SBC and Sarawak Forest Department Sarawak (SFD). SPU see comments from all three on applications made, then SPU determine which of the three bodies to allocate the research to oversee. To note, access to marine research is under SFD control if a marine Protected Areas (PAs), or within territorial waters (12 nautical miles). SSPU also provide permits for socio-economic research and conduct all immigration and police record background checks. On-line payment is the only remaining part of the system yet to be completed. (In comparison, Sabah have an access control system, whereas nationally or on the peninsular, DBFM / NCA and the state CAs lack such a system[30]).

Centre of Excellence for Biodiversity Law (CEBLAW, University of Malaya)

The drafting of the ABS Act and regulations were commissioned to CEBLAW under the UNDP ABS I project. Under UNDP ABS II, they were designated as one of the implementing partners, however under ABS II, their director was independently engaged by UNDP.

[26] www.sbc.org.my/ and www.sbc.org.my/programmes/access-benefit-sharing-abs - with annual reports to 2017 available

[27] Many algae categorised – for enhance fish food, biofuels, drugs, animal feed – have an algal production plant running

[28] https://www.sbc.org.my/programmes/natural-product-library

[29] https://soras.sarawak.gov.my/soras/

[30] National on-line ABS permit application system is planned for in-house development by the MyBIS technical team

Land tenure system and ILCs customary land ownership[31]

There are five designated types of land:[32]

- State-land - land areas which are owned by the state government and not developed for any specific purpose, managed by State Lands and Surveys Department / Land Offices
- Alienated land - land areas which have been alienated under tenure under Country Lease, Town Lease, Native Title, Provisional Lease, etc. The tenure may be 99 years or shorter. They are administered by State Lands and Surveys Department / Land Offices.
- Land areas set aside as parks and wildlife reserves, managed by state agencies such as SFD / Sabah Parks / State Parks Corporation / State Wildlife Department
- Forest production land as Forest Reserve, managed by State Forestry Departments
- Other land areas yet to be utilised by the government as future land bank, managed by State Lands and Surveys Department / Land Offices

On the peninsular, aboriginal peoples have a legal right to own aboriginal reserves and to take forest produce from these reserves under the Aboriginal Peoples Act (1954, revised 1974).[33] [34]. Indigenous reserve lands also include lands given by state governments to the ILCs (they are often interpreted as gifted allocations; a practice that is more common in Peninsular Malaysia – e.g. Ulu Legong village, Kedah State - Indigenous reserve land (428 ha) [so they have land for planting medicinal plants]. However, the commonly held view by government and politicians is that the ILCs own neither the land nor the resources that they contain, despite this Act.

Whereas, ILCs in Sabah and Sarawak are protected by their respective native customary land enactments / ordinances. These are Native Customary Rights (NCR) lands that are heritages passed on or inherited from generation to generation. This term is more commonly used in Sabah and Sarawak. Under Sarawak Land Code (Amendment, 2018), the term 'native territorial domain' is used for ILCs (Ibans and other communities) and land title certificates are issued. The right to land is based the Land Code (Section 5), if the 'usufruct rights' were exercised by the ILC prior to 1958, and now also includes access areas to this land[35].

Sabah and Sarawak are also the only states with the legal power to decide on cadastral land survey and native & customary law. In Sarawak, Native Customary Right (NCR) land is under Sarawak SMUDNR whose survey department issue land title certificates[36]. Out of the five pilot sites in Sarawak, one has an NCR land title certificate. A land survey has been undertaken by the SMUDNR land survey office[37]. However, based on Sarawak Biodiversity Ordinance / Regulations, all land-based natural resources are owned by the state government, which appears somewhat in contradiction to Sarawak Land Law (1958), with respect to NCR land.

3.2.3 Gender Analysis

The TE would note that the participation and leadership by women from the PMU and the three IPs – FRIM, SaBC and SBC was exceptionably high. Within the PMU, the women to men ratio was 4:1. The persons met by the TE is also an indication of the interest and positioning of women in ABS actions (see **Annex 6**). Gender-disaggregated capacity-building / training events are presented in **Annex 5**. Gender disaggregated data was collected for the two 'Knowledge, Attitudes & Practices' surveys (2015-17), however the analysis didn't appear to disaggregate KAPs by gender. The project encouraged women's participation during engagement with ILCs, with the no significant gender difference in participation. (PIR 2018). The TE would confirm this based on the attendance during field mission meetings.

[31] Hon. J. & Shibata. S. (2013) A Review on Land Use in Malaysian State of Sarawak, Borneo & Recommendations for Wildlife Conservation inside Production Forest Environment, Borneo Journal of Resource Science & Technology (2013) 3(2): 22-35 (file:///C:/Users/User/Downloads/244-Article%20Text-499-1-10-20160629%20(2).pdf - Table 3); & Natural Resource Office, Sabah (2010) Technical Report of Sabah Land Utilization Policy 2010-20 (unpubl.)

[32] There is often a difference between land classification (state or people's ownership), land tenure (land use certificate / title) and land management right / land use contract (e.g. for forest farming use by a third party)

[33] www.commonlii.org/my/legis/consol_act/apa19541974255/; and www.malaymail.com/news/malaysia/2019/07/30/no-orang-asli-ancestral-land-perak-mb-shouldve-asked-legal-advisor-first-sa/1776126

[34] The Aboriginal Peoples Act 1954 and the Recognition of Orang Asli Land Rights" was published in the UUM Journal of Legal Studies 2015 Vol 6 No 1. (www.uumjls.uum.edu.my/)

[35] www.nst.com.my/news/nation/2018/07/390061/ncr-lands-be-given-legal-recognition

[36] https://landsurvey.sarawak.gov.my/

[37] WWF have been working with SMUDNR re. advocating using the Marxam spatial conservation planning tool for generating the state level land use plan – have a technical working group

3.2.4 Financial Management & Co-financing

Financial Management

- Spending & accounting was based on the approved AWPBs, with invoicing against its activities with reimbursement thereafter
- Combined delivery reports (CDRs) were produced. The annual expenditures (US$) were 85,913 (2014); 316,770 (2015); 443,225 (2016); 598,893 (2017); 280,605 (2018); Total 1,725,405; Balance 244,595. This was against annual planned expenditures of 214,000 (2014), 342,460 (2015), 515,000 (2016), 872,726 (2017) and 453,795 (2018). The figures indicate that the project struggled to spend up to planned budget in 2017 and 2018.
- In terms of cost-effectiveness, spending on budget lines was kept within 10%. Cumulative delivery against the prodoc budget was 88%.
- In 2017, $24,000 and $16,000 was spend on printing / publications and promotional materials; In 2015, $31,000 was spent on office supplies, excluding office machines / computer equipment. This seemed excessive in a digital age and when tree supply for paper is an issue
- The PMU maintained a spreadsheet with ~20 worksheets to track GEF finances and disbursement. For contractual services, the Project Coordinator tracked payments in particular to the three sub IPs – FRIM, SaBC and SBC. However, despite this the HACT Audit (2017), found that the tracking system needed attention (see next)
- UNDP internal HACT Audit (2017) was undertaken of MWLNR (formerly MoNRE as the IP):

UNDP Finding	MoNRE Response	TE Comment
The lead IP (MoNRE) is not tracking procurement or invoices (with evidence of spending) by the three sub-IPS (FRIM, SaBC, SBC)	MoNRE has requested for this to be changed	This issue is not uncommon, when UNDP is directly responsible for payments to the other IPs / partners and not the lead IP
Evidence of selection / evaluation criteria for competitive bids missing	MoNRE will now apply	Nc
Employing family members without following appropriate procurement process	Case in concerned a safety issue of travel on a logging road	Nc

Nc no comment

- As mentioned in the operation management section, including in the history of the PSC section, it was clear that financial control was maintained by UNDP.

Co-financing

The funding commitment for ABS has been high during the project, especially in terms of co-financing in comparison to the GEF funding volume. This has been matched at the same time by the volume of work that the project partners have put in to develop an institutionalized and frame-worked ABS system and demonstrated its operation through pilots in four states. The PMU kept a record of co-financing by government department which amounted to $6.53m in comparison to the $2m from GEF and UNDP. (**Annex 3**)

3.2.5 M&E Systems – Design & Implementation

The overall rating is **Moderately Satisfactory**

The prodoc outlined the expected M&E activities which included a mixture of standard reporting and an expectation that the Project Manager would oversee the monitoring of progress (outputs) and achievement of targets against indicators. The list included Inception workshop / report, APR, PIR, Quarterly progress, CDRs, Risk log, Lessons learned log, MTR, ESS review, TE, Final Report (not seen) and Audit – these are all considered within their relevant 'reporting' sections of this TE. In practice, reporting also included NSC meetings, mid-year progress reports (MYPRs) and mission reports. However, there wasn't a spreadsheet system to track output progress *per se*, leaving the numerous text reports (with overlapping dates and information) being used to identify progress. This was less than ideal. With respect to monitoring progress and achievement of targets, the PC completed the two tables for the TE (see **Annex 1 and 2**).

In addition, the UNDP Capacity Development Scorecard was prepared at baseline and end-term, with the results reported under the 1st indicator for Outcome 2. A mid-term review was not required as the GEF project fund was <$2m. A separate 'exit strategy' was not developed, but would have been useful.

Other aspects of M&E were included as part of the project design and consultant deliverables. This included two 'Knowledge, Attitudes and Practices (KAP)' surveys (Output 2.5). It targeted ILCs, researchers and relevant

industries that use or benefit from ABS transactions in order to determine the project's impact on awareness of the national ABS law, CBD and the Nagoya Protocol; as well as on the value of biological resources among ILCs. The ESS risks as listed in the prodoc were reported in 2018 (PIR) as remaining relevant, with mitigation including regular engagement with ILCs concerning PIC, MAT and ABS.

3.2.6 Adaptive Management (Work planning, Reporting & Communications)

Work planning

Annual Workplan & Budgets (AWPBs)

- AWPBs were produced and signed-off for 2015-18[38]. They were signed by the government (EPU, Prime Minister's Office), IP (DBFM, MWLNR), and UNDP Resident Representative. The AWPBs were endorsed at NSC meetings

Reporting

Mid-year Progress Reports (MYPRs)

- These were produced 2014-18 and were distributed to partners including the EPUs
- 2017 gradings were: Objective / Outcomes – MS; Implementation – MU

Project Implementation Reports (PIRs)

- These ran from 'start-July to end-June' and were produced for: 2014-15; 2015-16; 2016-17; 2017-18;
- The 2017-18 grading: Implementation was MS
- There was no PIR to cover the last 7 months of the project

Annual Progress Reports (APRs)

- These were produced 2014-17 and were distributed to partners
- There was no APR to cover the last 13 months of the project

There was no project final report produced (by August 2019) which would have indicated the cumulative achievement of the project.

Communications

As mentioned, project management was not effective until the PC was engaged. This meant that coordination and communications were affected which in turn had a clear impact on the slow delivery of the project for the first 2.5 years. As late as 2017, UNDP was still investing time in standardising reporting from the pilot projects, which indicated that the system was lacking, which was in part due to government, institutional and personnel changes and a high loss of institutional and project memory.

3.3. Project Results

Three levels of the project results framework were assessed - Objective, Outcome and Output. This was guided by the indicators and targets set at each level. Success is also built upon achievement of the Outputs, according to 'framework logic.' The Objective and Outcome levels include a rating according to UNDP GEF guidance as described in **Annex 10**. The PMU provided two tables:

- Progress towards Objective and Outcomes (Indicator-based) which is described in **Annex 1**, and
- Progress towards Outputs which is described in **Annex 2**

According to TE guidance, these tables were rated and commented on. The main ratings are provided in the Executive Summary (Exhibits 2 and 3). A detailed result-level analysis follows of the Objective, Outcomes and their indicators, which continues through to the Outputs. Training is presented separately at the end of the section.

3.3.1 Overall Result – Achievement of Objective

Effectiveness - Objective at the Objective Indicator Level (Overall Result)

Strengthen the conservation & sustainable use of biological & genetic resources through developing a national framework for the implementation of Access & Benefit Sharing (ABS) under CBD (two indicators)

The overall rating for achievement of the project objective is **Satisfactory**

National ABS law, regulations & institutional framework will enable Malaysia to accede to the Nagoya Protocol

[38] AWPB 2014 was not assessed

(Baseline - No national law, regulations or institutional framework; state legislation on ABS only exists for Sabah & Sarawak; Target - National law & implementing regulations on ABS come into force and applied by national and state CAs)

The rating is **Satisfactory**

Result against the indicator

Malaysia is a now a party to the CBD's Nagoya Protocol with accession in November 2018 and entered into force in February 2019.

Summary List of Legislation

- ABS Act 795 (2017) - output from ABS I (UNDP project 2010-13) through to ABS II (2014-19)
- National Regulations (draft status)
- Sabah Biodiversity Enactment (2000), Amended 2017, passed into Law 2018 – (reference copy April 2018)
- Sabah Access to Biological Resources & Benefit-Sharing Regulations (Draft, 2018)
- Sarawak Biodiversity Centre Ordinance (1997, Amendments, 2003, 2014)
- Sarawak Biodiversity Regulations (2016)

The Access to Biological Resources & Benefit Sharing Act 2017 (Act 795) was adopted by government in August 2017 and published in the Gazette in October 2017. The Act consists of 10 parts (63 sections) and two schedules that cover provisions on permits to access biological resources, benefit sharing agreement, prior informed consent (PIC), mutually agreed terms (MAT), monitoring, and payment into fund.

A draft of the Access & Benefit Sharing Regulations was reviewed by the Attorney General's Chamber (AGC) in November 2018 with comments to now be incorporated. The enforcement of the Act and its regulation will only take effect once the regulation is approved by the AGC and the Minister.

Analysis of the overall result

The draft regulation has been with the AGC for the last nine months (as of August 2019). This lack of an approved regulation has held up the development of ABS to a certain extent, in particular in terms of the competent authorities (CAs) and checkpoints to fully discharge their duties. An institutional framework (as described within Act 795) and its draft regulations has been established. Notably the CAs are beginning to function. E.g. in the issuance of licences to access biological resources.

Financial and funding mechanism(s) for the management of ABS monetary benefits

(Baseline – No mechanism exists; Target - Funding mechanism(s) established and operational for the reinvestment of proceeds from ABS agreements into conservation)

The rating is **Moderately Satisfactory**

Result against the indicator

A consultant study on ABS funding mechanisms and ABS / TK proceeds (~50pp) was completed in October 2017 and approved by the NSC in March 2018[39]. The study indicated that only two dedicated ABS biodiversity conservation trust funds (TF) exist at state level: Sarawak – administered by SBCo for the proceeds of ABS to be used for biodiversity; and Sabah administered by SaBCo for the administration costs of ABS.

The study assessed the compatibility of using the National Conservation Trust Fund (NCTF, established in 2014) for ABS funding, indicating that it was. However, in a feedback workshop, the 'federal versus state' management issue arose from the respective jurisdictions.

The consultancy notably indicated that for any 'local' ABS fund, its operating method would be that of a 'revolving fund' with a percentage of ABS proceeds being able to be used by others for bio-resource development (for other products to be identified by the ILC or for use by the developer in testing / marketing a new product). It also pointed out that under the ABS Act, fees and penalties are directed to government.

Analysis

The NCTF is currently not replenished, and is not managed to handle ABS investments and disbursements. The Sabah fund appears to be for recurrent administrative costs. Thus, only Sarawak appears to have a fund directly set up for ABS investments to be used for biodiversity conservation, although at present it also uses incoming

[39] The report did assess ABS funding mechanisms from a number of countries (presented in prose) but failed to tabulate or compare with pros / cons in order to identify the best features needed for such a fund and to furthermore draft a concept for the design and management of one.

funds for ABS administration. The ABS Act 795 includes funding which indicates that the national or state governments may establish a fund for biodiversity conservation (para 22), with the draft regulations reiterating the Act. Thus, the Act left this issue open.

The FRIM ABS agreements are also of note, under which future royalties are divided four ways (community, government CA, FRIM (developer), and a trust fund for R&D). For these TFs, FRIM has a 'research, development, commercialization management committee' including: FRIM, state government and ILC members. Having a TF proportion is considered necessary due to the high R&D costs of product development. If medicinal products are to become fully licenced (and not just listed as traditional medicine), then the cost of pre-clinical trials alone are MYR700,000 / product. However, with this focus on R&D, it appears that this 25% TF portion of the royalty is not really 'ear-marked' for village cultivation or biodiversity conservation.

3.3.2 Effectiveness – Achievement of Outcomes & Outputs

Effectiveness - Outcome 1 at the Outcome Indicator & Output Level

Outcome 1: National regulatory & institutional framework for ABS (4 indicators and 7 outputs)

The overall rating for this outcome is **Satisfactory**

National law and implementing regulations on ABS come into force

(Baseline - No national law; state legislation on ABS only exists for Sabah and Sarawak; Target - National law and implementing regulations on ABS come into force)

The rating is **Satisfactory**

Result against the indicator & Analysis

See Objective Indicator 1 and Output 1.1

National & State Competent Authorities (CAs) identified and operational for implementation of national law and regulations on ABS

(Baseline - No national CA; state CAs only exist for Sabah and Sarawak (SaBC; and SBC); Target - National and State Cas identified for all 13 states and operational for full implementation of national law and regulations on ABS)

The rating is **Moderately Unsatisfactory**

Result against the indicator

A National Competent Authority (NCA) has been established. Fourteen CAs representing the 13 states and federal territories have been identified. They are the EPUs of all the peninsular states of: Johor, Melaka, Pahang, Selangor, Perak, Kedah, Perlis, Kelantan, Penang and Terengganu, plus the Forestry Department of Negeri Sembilan State. In east Malaysia, Sabah's CAs is the Sabah Biodiversity Council (SaBCo), and the Sarawak CA is the Sarawak Ministry of Urban Development & Natural Resources (SMUDNR). The CA for the Federal Territories (Kuala Lumpur, Labuan, Putrajaya) is the Ministry of Federal Territories.

Analysis

The capacity of the NCA to maintain its skills and staffing is of concern, especially in their need to 'lead' and liaise with the 13 state-level CAs. The evidence includes a lack of functioning webpage, lack of up to date information for the CBD / Nagoya Protocol's ABSCH; lack of informing state CAs when national access permits have been issued for research in particular states. Most of the EPUs of the peninsular states believe that they require further training and that their responsibilities are not yet clear, which in part is due to the ABS regulations remaining in draft form.

Institutional framework for local systems for protection of TK and customary uses of biological resources developed under the auspices of SaBC and used to inform national framework development

Baseline - No institutional framework for local systems for protection of TK and customary uses of biological resources; Target - Institutional framework established for Sabah and used to inform national framework development)

The rating is **Satisfactory**

Result against the indicator

Two community protocols (CPs) were developed. Melangkap Community Protocol (English / Malay) has been published by SaBC. The CP consists of seven chapters which cover: village TK, PIC, MAT procedures to access the community resources and TK. The community 'ownership' of the CP is very high. The first complete draft of the Long Pasia / Mio Community Protocol (Malay) was completed in July 2018.

The CPs together with the experiences in the peninsular states (FRIM pilots in Perak and Kedah states), SBC in

Sarawak and studies by project consultants have been used to inform and as a reference for procedures when working with communities. Although CPs *per se* are not mentioned in the draft ABS regulation.

Analysis

The Melangkap Community Protocol stands as a good demonstration of community management of natural resources, however to date the 'community protocol' approach has not been replicated by the other states which have more directly followed the national guidelines on PIC, MAT and ABS. This is partly because the Sabah CPs only cover PIC and expected access procedures, whereas the models on the peninsular (FRIM) and Sarawak (SBC) have developed further into actual ABS agreements for particular bio-resources.

Funding mechanism at federal and state levels to receive and reinvest proceeds from ABS agreements towards the biological conservation and its sustainable use

(Baseline – No government financial mechanism exists for reinvesting proceeds from ABS agreements towards biodiversity conservation and its sustainable use; Target - Funding mechanism established at federal and state levels to receive and reinvest proceeds from ABS agreements towards biodiversity conservation and its sustainable use)

The rating is **Moderately Satisfactory**

Result against the indicator and Analysis

This is a repeat indicator - See Objective Indicator 1 and Output 1.1

Results against the outputs -

Laws & regulations on ABS (Output 1.1)

Result

ABS Act 795 (2017)

The development of the ABS Act 795 has progressed from UNDP ABS I project (2010-13) through to this UNDP ABS II project (2014-19). The passing of the ABS law and continued TK documentation efforts will contribute significantly to Aichi Biodiversity Target 18. The Act seeks to protect biodiversity through regulating access to bio-resources and associated TK as well as the sharing of benefits arising from the use of these resources[40]. The Act covers genetic / biological resources (in natural habitat or where they are found or grown) and their derivatives as well as TK with a view to regulate research & development (R&D). The Act has paved the way for the development of a national regulatory framework on ABS. Act 795 indicates that a template benefit sharing agreement will be made available as a reference.

Two types of permit (commercial or non-commercial research) can be applied from, and issued by, the relevant CA which are the statutory bodies specified in the First Schedule of the Act, with one CA designated for each State and a NCA overseeing the general implementation of the Act. Permits for commercial purposes require an ABS agreement with the land owner, including and particularly ILCs, (who may also hold TK) with PIC of that owner / ILC already obtained.

Any person who accesses a bio-resource or TK for commercial purposes without a permit will be liable to, in the case of an individual, a maximum fine of MYR500,000 and / or imprisonment for a maximum term of 10 years; and in the case of a body corporate, a maximum fine of MYR5,000,000, In the case of access without a permit for non-commercial purposes, an individual will be liable to a maximum fine of MYR100,000 and / or imprisonment for a maximum term of seven years; whereas a body corporate will be liable to a maximum fine of RM1,000,000. Thus the ABS Act 795 is partly to protect states and ILCs from bio-piracy.

Under Act 795 (Provision 23) - PIC for access to biological resources needs to be granted by the ILC (resource provider) in cases where the ILC have a right to the land as established by law or have TK associated with the resources on the land. In Sarawak, PIC is granted by community leader; In Sabah, it is the representative, organization, or body in accordance with customary laws and practices, protocols, procedures of the ILC. Note, overall when ILCs are not involved, PIC is not required, the permit would be based on MAT only.

Regarding the issuance of ABS permits, as Act 795 is not enforced yet, no ABS permits have been issued in Peninsular Malaysia. i.e. FRIM ABS agreements remain with Perak and Kedah EPUs (as the state CAs). In Sarawak, R&D permits and export licences have been issued, and in Sabah, access and export licenses have been issued.

National Regulations

[40] Historically, corporations and researchers would learn of the medicinal / health benefits of local bio-resources from the ILCs and then exploit the bio-resources, without concern to conservation or equitable sharing of financial or other benefits to the state or ILCs

The ABS National Regulations (2018) remain in draft status. They include: Authorities - NCA & CA; role of advisory committee; Permit to access biological resources - issuance of permit; confidential business information; Benefit sharing - benefit sharing agreement; ILCs - PIC; Late claims; Enforcement - notification of application for a patent; Monitoring and tracking the biological resources accessed; Access without permit; and Fees

Sabah Biodiversity Enactment (2000, Amended 2017, passed into Law 2018)

The legal basis for ABS in Sabah. It lists the membership and roles of the SaBCo and SaBC.

Sabah Access to Biological Resources & Benefit-Sharing Regulations (Draft, 2018, 33pp)

The regulations are in seven parts: Authorities (CA may establish committee, membership of advisory committee, advisory body for ILCs); Permit to access biological resources (permit application & issuance); Benefit sharing agreement; ILCs (PIC, late claims); User measures & enforcement (notification of application for a patent, measures for preventing use of products without permit, monitoring / tracking biological resources accessed); Access without permit (public research institutions maintaining a register; public researcher to record particulars); and Fees. With two schedules

Sarawak Biodiversity Centre Ordinance (1997, Amendments, 2003, 2014)

It addresses issues related to biodiversity including ABS and TK. The ordinance mandates SBC to among others, to initiate intensive biotech-based R&D on the state's biological resources, particularly those that have been utilised by ILCs, to authorize access to Sarawak's protected resources and to negotiate sharing of benefits derived there from, and to facilitate the documentation of the fast disappearing TK of ILCs in relation to the utilisation of biological resources.

Sarawak Biodiversity Regulations (2016)

Regulate access to biological resources which are declared by the SBCo as protected resources and knowledge supplied by ILCs.

Analysis

A national ABS Act has been passed. and Sabah and Sarawak have also established state legal frameworks in relation to ABS. Thus, a comprehensive regulatory system is almost completely in place, but is being held back by the national ABS regulations remaining in draft format.

Output 1.1 and 1.2 two were packaged for a legal consultant to deliver seven deliverables – see **Annex 5.** The signing-off report (November 2018) indicated one or two main challenges (see lessons learned section).

Institutional framework for implementation of the ABS law at federal and state levels (Output 1.2)

Result

An ABS institutional framework has been established at both national and state levels. It includes the NCA with an advisory committee (yet to be established), 13 CAs (12 states and one for federal territories) with an advisory body to represent ILCs (yet to be established), and the higher-level state authorities. (see **Annex 5** - Summary table)

National Competent Authority

MWLNR's Division of Biodiversity & Forest Management (DBFM) is responsible for the National Biodiversity Centre (NBC, 2005) who are to act as the National Competent Authority (NCA) for the coordination of ABS regulations and procedures. The NCA will be chaired by the Secretary General of MWLNR and should be advised by an Advisory Committee, although this has also yet to be formally established. The NCA should establish monitoring and tracking bio-resources or TK, including the designation of checkpoints where permits must be presented. The NCA are to be responsible for the ABS Clearing House Mechanism, which is not yet functioning. The five NBC personnel now partly focused to act in the role as NCAs, were largely supported by the project, however future staffing is less clear.

Competent Authorities

In addition to the NCA, 13 'state' CAs have been established – 12 states and one for federal territories. The CAs are responsible for issuing ABS access and research licences for applicants within their state territories. List of CAs (to which access permit applications must be sent) are prescribed in the 1st schedule of Act 795, includes Sarawak MUDNR and Sabah Biodiversity Council.

Checkpoints

Ten designated checkpoints have been established: Ministry of Energy, Science, Technology, Environment & Climate Change (MESTECC); Intellectual Property Corporation of Malaysia (MyIPO); National Pharmaceutical Regulatory Agency (NPRA); National Institutes of Health (NIH); Department of Higher Education; Universiti Malaya (UM); Universiti Sains Malaysia (USM); Universiti Kebangsaan Malaysia (UKM); Universiti Teknologi Malaysia (UTM); Universiti Putra Malaysia (UPM)

Checkpoints include authorities dealing with applications for patents - Malaysia Intellectual Property Corporation (MyIPO)[41]. The MyIPO should inform the NCA of any patent application which involves a bio-resource or TK, and the NCA should investigate its source of origin. Other checkpoints also have an obligation to inform NCA[42].

The draft regulations state:

> (2) The checkpoints referred to in sub-regulation (1) shall require any person dealing with them to provide any relevant information relating to the utilization of a biological resource or TK associated with a biological resource including—
>
> (a) the country where the biological resource or TK associated with a biological resource has been accessed;
>
> (b) the resource provider of the biological resource or TK associated with a biological resource;
>
> (c) where a consent for access is required by the law of the country where the biological resource or TK associated with a biological resource was accessed, the evidence of consent of the country in any form such as permit, certificate or its equivalent; and
>
> (d) where the benefit sharing agreement is required by the law of the country where the biological resource or TK associated with a biological resource was accessed, the evidence of the establishment of the agreement.
>
> (3) Any person who fails to comply with sub-regulation (2) commits an offence and shall, on conviction, be liable to a fine not exceeding MYR 10,000 or to imprisonment for a term not exceeding one month or to both.

There remain a number of awareness, capacity and implementation issues with the checkpoints.[43] For example, the NPRA who register new and traditional medicine products: said they had no ToR or specific guidelines for their ABS role, despite the draft ABS regulations stating that they needed to inform the NCA where biological resources and / or TK were involved. They indicated that they had no reporting (communication) method with the NCA and were not yet providing NCA with any information, nor were they asking for, or collecting the required ABS information (see box above). They do however work with the MyIPO who for example send their medicine patent applications to be checked if they already have generic status. The Institute for Medical Research, have been designated as a checkpoint, but also conduct product research, which could indicate a conflict of interest, however they are in two separate units, which would constitute an ethical wall. For research they are aware that access permission needs to be sought, but as ABS is not legally enforced yet (without the regulations approved, and lack of guidelines from DBFM), they as yet don't provide information to NCA.

Analysis

The 'competent authority' system for ABS is only in operation in Sabah and Sarawak. For national and state level research, the preceding methods remain in place. For example, applying for access permits from MWLNR, the peninsular Forestry Department and / or at a peninsular state level, depending on the usual practice according to existing legislation. This appears not only because the NCA and CAs are not ABS-ready, but also because the ABS regulations outlining their functions in more detail, remain in draft format at the Attorney General's office.

The TE found little evidence of the checkpoint system in operation, with the oft cited excuse that the ABS regulations remain in draft. For example, whilst LitSara is registered with MyIPO, it should also be in an NCA database.

Funding from ABS for biodiversity conservation, its sustainable use and for ILCs (Output 1.3)

Result

National Conservation Trust Fund for Natural Resources (NCTF)[44] was set up and managed by MWLNR in 2015, with an initial MYR 10m (max $70,000 / application with guidelines, pp18), but as of August 2019, NCTF applications were closed. However, it is not a fund dedicated to ABS and biodiversity conservation.

[41] MyIPO briefly attended the workshop meetings 2nd July, but disappeared before the TE team could talk to them

[42] Further, any person applying for a patent in relation to a bioresource or TK accessed is required to notify the NCA in writing within 30 days from the date of the application. Failure to do so amounts to an offence.

[43] In particular the TA team discussed issues with the National Pharmaceutical Regulatory Agency (NPRA) and Institute of Medical Research, however the patent office left the meeting

[44] www.kats.gov.my/en-my/biodiversity/nctf/Pages/default.aspx

The project study on developing funding mechanisms for ABS of biological resources and TK was focused on fund establishment and the use of proceeds from ABS to be used for biodiversity conservation. It recommended to create an ABS sub-fund under the NCTF, although it lacked a clear argument as to why this was the best option, accepting that Sabah and Sarawak have already gone ahead and established such TFs.

Analysis

As part of the consultancy to identify ABS funding mechanisms, two workshops were held. Three technical approaches / preferred directions were discussed[45], but there appeared to be no further follow up on an agreed action plan to develop an ABS funding mechanism. The participants were mainly from the EPUs of the peninsular states with part of the discussion bogged down with the 'federal vs state management' issue. Also, the project output only really concerned 'proceeds' from ABS agreements where there are virtually none at present except from Litsea oil product on Sarawak, where a TF has already been established. See also the 'Financial sustainability' section for other ABS funding sources.

What the consultancy and workshops should have done is costed ABS administration and implementation on a national and state level and matched it with federal and state budgets for the next 5 years. i.e. the financing side of such a fund. The proceeds to date from issuing permits, which are relatively small, could then be factored in.

Furthermore, the ABS agreements coming out of Perak and Kedah (FRIM) were interesting in maintaining a 25% share of royalties for R&D of ABS, whereas in contrast the percentage of royalties from Litsea oil production going directly back to the ILCs was limited. More could have been made of this 'ABS agreements' avenue in the discussions. Also, what is not talked about so much, are the direct payments to ILCs (usually individual villagers) for bio-extraction of plants from the forest and / or for the distilled products of these plants. These direct payments by both FRIM and SBC, fuel the loss of biodiversity without commensurate management investment in ensuring biodiversity conservation[46].

Institutional framework for local systems for protecting TK & customary uses of biodiversity (Output 1.4)

Result

The institutional framework at a 'local resources level' includes a series of procedures. Initially a PIC beneficiary framework is followed[47] (**Annex 5**). The ABS Regulations (Part 4 – ILCs) include the PIC procedure, with templates for PIC and MAT found in the ABS User's Guide. FRIM for example have developed a standard PIC approach, which is in use and has informed development through to draft ABS agreements. Sarawak SBC have demonstrated PIC and ABS within five villages (TE visited Kiding village) for the production of *Litsea* oil. Sarawak's PIC beneficiary framework (2014) is aligned to the national framework as reflected in Sarawak's ABS Enactment and Regulations[48].

Sabah SBC has demonstrated recognizing local systems together with PIC and MAT through the development of two pilot community protocols (CPs). These CPs include *sui generis* (of their own tradition) ILC rules for TK documentation and biological resource development, (leading to future ABS agreements). In the case of Sabah, without a direct developer of extracted products identified, SaBC focused on such CPs with PIC and inclusion of local / customary rules in two villages.

Analysis

PIC and MAT requirements were demonstrated within the two CPs – Melangkap and Long Pasia / Mio. Melangkap CP in particular is comprehensive in terms of PIC and future ABS rules of engagement. See next output. See also Outcome 1, 3rd indicator

Community protocols constitute the basis for clarifying PIC and MAT requirements between users and providers of TK and biological resources (Output 1.5)

Result

There were two pilots undertaken by SaBC, which were the development of two community protocols (CPs).

Melangkap Community Protocol (Kota Belud, Sabah)

Melangkap CP is comprehensive in terms of ABS rules of engagement. It is basically a community natural resources

[45] ABS funding to be within the NCTF, or a sub-fund of it, or to create a separate ABS funding instrument for biodiversity conservation.
[46] This is because such payments are incentives to extract 'as much as possible' particular biological resources from the forests
[47] Not just in Sabah, but nation-wide in Sarawak and on the Peninsular as well
[48] SBC used the service of the ABS I and ABS II's legal consultant (i.e. CEBLAW) to review & update its ABS Enactment and Regulations.

management agreement. It was agreed locally in 2016 and was approved by Sabah State Council in 2018. It has an emphasis on community rights.[49] The CP is signed by the Village Head, Head of Village Development & Security Committee (VDSC~JKKK), and Head of the Melangkap Biodiversity or Cultural Committee under VDSC. The community received close support from SaBC. Whilst the CP is a strong document, the community has not managed to move on towards developing an ABS agreement with local guidelines remaining in draft format. This was essentially because there wasn't a party at present to develop particular products from their local biological resources. However, the desire to begin documentation of TK starting with the CP was begun.

The CP has very high village ownership and has been used effectively as a legal document to stop unwanted activities. These include: having a road re-routed away from a cultural hill; having a zip-wire 'flying fox' development stopped in native court; used to chase away bird hunters; and according to the headman 'it makes my job easier as I don't need to explain time after time to outsiders coming in to take our forest resources.'

Long Pasia Community Protocol

The project had some difficultly to develop the Long Pasia / Long Mio Protocol, with the Lundayeh community initially requesting funds for activities as opposed to understanding ABS and beginning with PIC. Thus, activities only really began in April 2016 (Source PIR 2017). A series of workshops were conducted by SaBC (via the service provider / consultant) to provide knowledge of ABS, PIC, MAT and the skills to write a CP. A local bio-committee (AJK Bio-komuniti) was set up to ensure transparent and collective decision-making. Community researchers (Penyelidik Komuniti) were trained to conduct activities to produce the CP. However, by June 2019, the CP remained in draft form.

Analysis

For Melangkap, there is a loss of TK locally as the younger generation can't recognise forest plants, thus this is probably the last generation who can provide TK before it is lost. The older generation wish to share their TK, but this may come at the price of future exploitation of products without equitable sharing of benefits. The TE supported the idea that the CP could be endorsed / signed by the District Officers to add legal weight to it.

For the future, it would be useful to support nursery propagation of selected plants with TK and practice growing from seed. Mother trees also need to be protected. There are opportunities for primary processing of plant material (drying for example).

Ethical research guidelines on TK and genetic resources (Output 1.6)

Result

Ethical research guidelines were not separately produced as the requirement for such were inherent / intrinsic to the Nagoya Protocol, and largely encapsulated within the ABS regulations and procedures for developing an operational ABS system in the country. Ethical research with PIC was particularly prominent and encapsulated within the Sabah CPs.

On an ethical level, there were discussions (TE workshop) on what constitutes 'common property' for the common good versus 'intellectual property' or 'traditional knowledge' for the 'ILC – product developer'-only benefit. An example given was the medical research on pathogens or parasites provided to the WHO, to prevent it being patented. Universities have in the past tended to publish information for the common good as they are not developers and are state funded. ABS also has the potential to 'catch' the big corporate companies illegally exploiting biological resources, and / or to regulate them with better benefit-sharing at both state and local level[50]

Analysis

The prodoc design was referring to the CBD-recognized 'Code of ethical conduct on respect for cultural / intellectual heritage of ILCs relevant for the biodiversity conservation[51]. However, in terms of biodiversity conservation *per se*, in the light of bio-prospecting, the ABS II project needed to have included this in its awareness and regulatory procedures more prominently.

Accession to the Nagoya Protocol (Output 1.7)

[49] It was initially supported by the NGO – Natural Justice, but evolved to NGO BCI support and UNDP project legal expert)

[50] Companies that make products from plant derivatives not keen on the Nagoya Protocol

[51] www.cbd.int/traditional/code.shtml – 10th meeting, the COP finalized the negotiation of and adopted the Code of Ethical Conduct on Respect for the Cultural & Intellectual Heritage of ILCs relevant for the Conservation & Sustainable Use of Biological Diversity.

Result

Malaysia is a party to the CBD's Nagoya Protocol with accession in Nov 2018 and entered into force in Feb 2019. The 6th report to CBD is near publication.

Analysis

On the CBD Access & Benefit Sharing Clearing House webpage[52], the data for Malaysia is not up to date, with only an ABS National Focal Point stated as appointed. The Malaysia Clearing House Mechanism (CHM) is linked via the Malaysia Biodiversity Information System[53], however no webpage exists at present[54].

Effectiveness - Outcome 2 at the Outcome Indicator & Output Level

Outcome 2: Strengthened institutional & stakeholder capacity for implementation of the ABS framework (three indicators and 5 outputs)

The overall rating for Outcome 2 is **Moderately Satisfactory**

Improved capacities of Competent Authorities (NCA, CAs) for ABS implementation

The rating is **Satisfactory**

(Baseline - Capacity Scorecard baselines: MWLNR: 33%; Sabah: 35%; Sarawak: 31%; Other states: 0%; Other agencies: 0%. Targets: MWLNR: 75%; Sabah: 75%; Sarawak: 75%; Other states: 30%; Other agencies: 30%)

Result against the indicator

UNDP Capacity Development Scorecard results: MWLNR: 51%; Sabah / SaBC: 77%; Sarawak / SBC: 68%; FRIM: 43%. The discussion on improved capacities is under Output 2.1

Analysis

The scorecard is somewhat subjective, although with the scoring system it is fairly clear. In this case it perhaps indicates that at a national level and on the peninsular, capacities are somewhat lacking, especially in comparison to Sabah and Sarawak. This was largely confirmed by the peninsular CAs (~EPUs). For the national level capacity (MWLNR as the focal agency for ABS), a summarised scorecard is presented in **Annex 5**, with a few highlights below:

- The national ABS law was adopted on 17 October 2017 and is not in force pending finalization of its subsidiary legislations
- There is an overall policy and commitment under the national ABS law, however, getting buy-ins from all states to implement the federal law is taking time. There is official and political commitment at the top level within MWLNR
- The CAs and Checkpoints have been identified under the national ABS law. However, other institution for ABS such as the NCA's Advisory Committee are yet to be established. The complete ABS institutional set up is yet to be in place
- A dedicated ABS institution to oversee / coordinate implementation of ABS at the national (federal) level is not yet in place. The officers involved in ABS are from the civil service and so are transferable and do not necessarily have biodiversity background or training. Hence, a dedicated ABS institution is urgently needed
- DBFM (MWLNR) oversee ABS implementation. The unit will be strengthened as a National Biodiversity Centre (NBC) which will act as the NCA at the national level
- The understanding on ABS is adequate but financial resources, personnel and expertise are limited to address the issues
- The motivation level of the ABS focal point is high as the personnel have the interest. There is a need to develop technical skills on ABS. Trainings at the national and regional level have been undertaken
- MWLNR is developing a national ABS CHM which is a platform to disseminate information on ABS requirements
- No monitoring has been done as the national ABS law is still not operational

NCA, state CAs and related agencies trained to facilitate implementation of the national ABS framework

(Baseline - No staff have been trained; Target - 100 staff from the NCA, 13 state CAs and related agencies are trained)

The rating is **Moderately Unsatisfactory**

Result against the indicator

Three national capacity building workshops were conducted:

[52] https://absch.cbd.int/countries/MY

[53] www.mybis.gov.my/one/

[54] CHM & Mybis may be interchangeable for now, until such time when ABS products is traded and the issuance of internationally recognized certificates of compliance (IRCC) are required. 'IRCCs provide internationally recognized evidence that the genetic resources which they cover were accessed in accordance with national ABS requirements, and are essential instruments to facilitate legal certainty and compliance management, both from the point of view of a user and an authority.' (source: https://iccwbo.org/publication/first-assessment-review-effectiveness-nagoya-protocol-business-views/)

- Workshop for CAs & enforcement officers (March 2016 & Aug. 2018 with 43 & 46 participants respectively)
- Workshop for researchers, NGOs, and stakeholder (October 2018 with 51 participants)

For state level training by the three IPs see '3.3.3 Training' at the end of this results section.

Analysis

At the national level, training was conducted for 140 participants over three events.

Targeted researchers, ILCs & industry aware of the ABS Act and ABS / TK documentation procedures

(Baseline – 0%; Target – 80%)

The rating is **Moderately Satisfactory**

Result against the indicator

Findings of the 2nd KAP study with 1,149 respondents (550 institutional, 599 ILCs), in November 2017:

- Institutional stakeholders - the knowledge of the existence of ABS regulations was good, however <1/3rd understood the policies, law or procedures / practices under ABS (e.g. licences, PIC, and equitable sharing of benefits)
- ILCs - knowledge on ABS regulations was low, although the principles of ABS were generally understood, however a number of ILCs were concerned that the ABS law would restrict resource collection for local use, which it does not.

Analysis

The range of institutional respondents was good including: government 295; research institutions / universities 130; companies 75; and NGOs 50 (~total of 550). However, the 2nd KAP survey indicated that whilst most respondents were aware of ABS, less than 33% of them understood the ABS law and ABS requirements.

<u>Protection of Community Traditional Knowledge (TK) as Intellectual Property Rights (IPRs)</u>

A TE concern was the level of protection of community TK as their IPR. For example, where do the laws or regulations control researchers who make PICs / ABSs, but by then will have taken the TK, taken the plants, grown them commercially and extracted active compounds, and thereafter applied for patents, without the need to either go back to the village or share the patent.

The ownership of community TK and any link to IPRs isn't present in Act 795, however, ABS draft regulations (Part 3) provide the expected IPR protection stating 'recognition or co-ownership of IPRs'. But furthermore, in its 'Form 3', with regard to IPR (patent) application 'to the NCA'[55], the form requires details from the Access Permit (originally issued by the CA) of the IPR clause in the ABS agreement; and the IPR clause in the Permit. This is confusing as the Access Permits would have been granted long before any PIC and ABS and secondly would not likely have referred to any possible future IPRs arising.

With respect to the ABS draft user's guideline, IPRs are in the template PIC and ABS annexes:

Annex 1 of the User's Guideline – PIC provides a template for initially protecting the IPRs of the ILCs' TK:

> The community –
>
> We are providing such resource and/or information to the User on the basis that we will retain all our IPRs as recognised by law, unless otherwise agreed to in a benefit sharing agreement. There will be no assumption of transfer of ownership rights in any such intellectual property to the User or any of its partners, agents or members as a result of any contribution by us of such resource and/or information to the User.
>
> This PIC does not give the User the right to access our resource and/or information until a benefit sharing agreement has been concluded and entered into with the Community, in accordance with the ABS Act 2017 and our customary laws and practices, protocols and procedures.
>
> Any transfer of our resource and/or information or any data in relation to or derived from our resource and/or information or the results of research to a third party is strictly prohibited unless and until a written confirmation has been granted by the Community and that the interest of the Community is fully protected by the User.
>
> And
>
> A Resource Provider may not hold the resource or provide the physical material. For example, the resource taken from the Resource Provider may be housed in an ex situ collection and be accessed from this collection.

An ABS agreement can only come into effect, if a prior PIC was agreed and if a prior Access licence (from the CA) was issued.

[55] It is assumed here that the MyIPO is informing the NCA of such

Annex 3 of the User's Guideline - ABS agreement template (in its schedule 3) – has suggested clauses

Technology transfer
The Access Party must provide the following to the Provider and its members:
(d) Transfer technologies relating to the research and development of the biological resources accessed to the provider, including technology protected by IPRs and/or relevant to conservation and sustainable utilization of biological diversity;
Intellectual Property Rights (IPRs)
(a) The Access Party agrees to joint ownership of IPRs with the Provider arising out of the utilisation of the Biological Resource and associated Traditional Knowledge accessed.
(b) The Access Party must notify the Provider before applying for IPRs.

The meaning of co-ownership or joint ownership of IPRs, in the Malaysia context has not been examined by the TE. Thus, in answer to the TE's question, it would appear that until the ABS regulations are approved in their present form, IPRs of local communities with TK are not safeguarded.

Neither the FRIM nor SBC PIC documents have such IPR provisions highlighted. The FRIM PIC agreement letter with the Kensiu community to grant FRIM permission for further study on prototype development indicated only benefits in the future to be discussed[56]. The terms in the SBC PIC documents are quite basic, more an outline of tasks for the community to carry out. Neither FIRM nor SBC shared their ABS agreements with the TE.

Results against the outputs

Improved capacities of the Competent Authorities (NCA, CAs) and agencies (Output 2.1)

Result

This output is a repeat of Outcome 2's 2nd and 3rd indicator. The requirement was for training 100 staff on: processing access applications, negotiating ABS agreements and monitoring / tracking to ensure compliance.

Analysis

With legislation in place and institutional systems mostly operating, capacity was able to be built. As described earlier (see scorecard section), the limitations concern the lack of dedicated staff who could be trained at national level and the retention of those staff. For the staff in place, their capacity is high, but they lack the resources to be fully effective. i.e. they lack: an effectively and separately funded and staffed ABS unit within DBFM to act as the NCA; an advisory committee to the NCA; a national monitoring & tracking system for bio-prospecting[57]; an ABS CHM system webpage; and coordination with the CAs and designated checkpoints. Capacity building was also to be built from within the 'MyCEPA' programme, however this never really materialised.

Procedures on research & commercialization of bio-prospecting with a training program delivered (Output 2.2)

Result

Procedures have been stipulated in the legislation produced (see Output 1.1), although in some cases, the subsidiary regulations are still in draft. Thereafter a number of guidelines have been produced. Furthermore, the procedures are now in some cases via on-line applications and communications. Some examples:

Guidelines

- User's Guide to the Access to Biological Resource & Benefit Sharing Act 2017 (Act 795, pp117)
  - Includes: Overview of the Act; Access and Benefit Sharing process; Scope of the Act; PIC; Mechanisms for Benefit Sharing; System of obtaining permit; Monitoring and tracking, Reporting, Compliance and Enforcement; Offences; Annexes 1-4: CAs; PIC Protocol; Model ABS Benefit Sharing Agreement; Statutory Declarations (See TE **Annex 5** for flow diagram of the process)
  - It remains in draft format, as presented to the NSC, until the draft regulations are approved
- The role of the NCA under the ABS Act (Draft, 2018, pp8)

[56] 'I understand that this advanced study can lead to the development of standard extracts and the production of prototype products. Therefore, I agree that in the future there will be benefits from this follow-up study so that a fair and equitable partnership between the stakeholders will be determined through further discussion.'

[57] A consultant TOR for 'Monitoring & Tracking System for Bio-prospecting & Biological Resource' was presented within the Inception report. The work was subsequently provided to the in-house MWLNR data management / software development team, but stalled due to their own lack of capacity

- The role of the CA under the ABS Act (Draft, 2018, pp9)
- Sabah - draft guidelines (based on Enactment, Section 15, pp14)

On-line Procedures Access Licence applications

- Sarawak procedures / regulations / access licence called SORAS is accessible via weblink[58]
- Sabah Access License application (2019) is online[59] - called 'Access and Transfer Application'

Analysis

An ABS User's Guide has been prepared. The national ABS web (intra and external) portals remain under development. For training – see section 3.3.3 and **Annex 5**.

Data management for information & compliance under the national law and the NP (Output 2.3)

Result

Under Nagoya Protocol commitments, a national ABS Clearing-house Mechanism (ABS CHM) should be developed with certain data provided for the NP ABS CHM. In addition, it was expected that a national or central ABS data management system would be developed. At the time of the TE, neither was in place. MWLNR does have a webpage for biodiversity (MyBIS - www.mybis.gov.my/one/), but the link to any further ABS system is not there.

Analysis

The inception report included a TOR for a national consultant to prepare the CHM webpage and database design (under Output 1.2 & 2.3), but the TE found little evidence of this having been accomplished.

Awareness on the ABS - targeting researchers, ILCs & industry (Output 2.4)

Result

This is a repeat of Outcome 2, 3rd indicator, although the output is described here.

Concerning awareness, six sessions were delivered. Visualisation of the ABS procedure has been undertaken for Sabah and Sarawak, but remains in preparation at the national and peninsular states level. Communication materials such as information leaflets and posters have been printed and distributed to relevant agencies. MWLNR has participated in a number of exhibitions[60]. The NCA went on a study visit to Bhutan.

Concerning awareness in Sarawak, each tribe (28) has leadership group who are aware of the ABS process, including the VDSC representative heading decisions on how to spend ABS / government funds. Where there are ABS agreements, VDSC have signed with SBCo. To date, 28 out of 30 committees have been covered by SBCs awareness training, but not in all geographic locations.

FRIM training included: 79 participants in an awareness workshop; 49 in a TK documentation workshop; 1 seminar; 1 technology presentation.

Feedback and comments obtained from communities have been used in developing ABS guidelines, regulations and model ABS agreement

Communication, education & public awareness (MyCEPA)

MyCEPA is a government programme undertaken by government and NGOs. Action 1.1 of the National Policy on Biological Diversity (2016-25) aims to 'create awareness across all segments of our society'. MWLNR is the lead agency for the Action, with key partners including: Sarawak Natural Resources & Environment Board, Sabah Environmental Protection Department, civil society & private sector. For delivery, a national CEPA action plan is expected to be embedded under the NBSAP revision which is ongoing. The MWLNR Strategic Plan 2011-15 had a component on CEPA[61]. The CEPA webpage is not active although some activities have been conducted – e.g. Sarawak Natural Resources & Environment Board indicated that SBC took part in a promotion activity in Miri, Sarawak in January 2016, called 'One Live One Rhythm'.

Analysis

[58] www.sbc.org.my/our-services/research-permit-application

[59] sabc.sabah.gov.my/?q=content/access-license-application-form

[60] ASEAN Senior Officials on Forestry - Regional Seminar on Forest Landscape & Central Forest Spine Seminar July 2017; World Indigenous Day, Sabah, August 2017; 10th Kuala Lumpur Eco Film Festival, October 2017; Asia Pacific Conference on Food Security, October 2018; and Malaysia Agriculture, Horticulture and Agrotourism Show November 2018.

[61] www.kats.gov.my/ms-my/pustakamedia/Penerbitan/Pelan%20Strategik%20NRE%202011-2015.pdf

Refresher training especially to local government is needed now the ABS systems are largely in place.

Knowledge, attitudes & practices (KAP) surveys (targeting researchers, ILCs, & industry that may use / benefit from ABS transactions) to assess awareness on national ABS law, CBD & Nagoya Protocol (Output 2.5)

Result

Two KAP surveys were undertaken, a baseline and a second survey. Key points included:

KAP Assessment on Awareness of ABS – Baseline Report 2015-16, 99pp, 910 respondents.

- Awareness raising programs would need to focus on how the National ABS Law would affect the use of biological resources and TK for institutional stakeholders and ILCs, and addressing their different concerns
- The policies / processes regarding ABS need to be clarified and explained to both the giver and receiver of TK or biological resources, and to ensure that both stakeholders would be on the same platform during ABS agreement negotiations
- To reach out to ILCs in rural areas, it is of importance that the awareness programs identify an effective medium and mode of delivery

KAP Assessment on Awareness of ABS – Interim / Final Report (2017, 186pp), 1149 respondents

- ILCs are not aware that resources for their own use are not considered as 'access to a biological resource' or prohibited by national law
- Almost half of the ILCs felt that the ABS law may restrict the use of biological resources to exercise their community's traditional and customary practices.
- One-third of the ILCs also felt unsure that implementation of ABS law can help them in getting benefits from the utilization of their TK

Analysis

Awareness of ABS remains limited.

Effectiveness - Outcome 3 at the Outcome Indicator & Output Level

Outcome 3: Best practice in ABS piloted with biodiversity conservation, Prior Informed Consent (PIC), Mutually Agreed Terms (MAT), and Equitable sharing of benefits (five indicators and 5 outputs)

The overall rating is **Satisfactory**

Number of ABS pilot agreements negotiated for initial commercialization of prototypes with fair and equitable benefit sharing provisions

(Baseline - No ABS agreements that comply with CBD; Target - Two ABS pilot agreements negotiated for initial commercialization of prototypes with fair and equitable benefit sharing provisions)

The rating is **Highly Satisfactory**

Result against the indicator

Sarawak Biodiversity Centre (SBC) successfully signed an ABS benefit-sharing agreement with five communities involved in the *Litsea cubeba* oil production in March 2019. The oil extracted is an aromatic oil used to develop personal care products and perfumes. The pilot project demonstrated a complete value chain from biological resource (raw material) collection, through primary oil extraction to secondary product processing (soap, air freshener) to marketing and sales. The communities benefited from skills development in seed / leaf collection and oil extraction (distillation), leading to sale to SBC and a return in 'royalty' benefit-sharing monies according to the ABS agreement thereafter. The individual collectors / distillers of Litsea oil also benefited from direct payments for the oil SBC.

Forest Research Institute Malaysia (FRIM) produced two prototypes traditional medicines named 'Pengloy Semai' and 'KaHerbs', based on the ILC TK of these medicinal plants in Kedah and Perak State. FRIM has negotiated two ABS agreements with the Semai and Kensiu communities for initial commercialization of these prototypes. The ABS agreements are with the respective CAs, namely Kedah and Perak EPUs, awaiting approval to move to signature.

Analysis

Under the project, five signed and two draft ABS agreements have successfully been developed.

Number of PIC processes with ILCs implemented in accordance with the planned PIC / Community Protocol

(Baseline - Some developmental work in Sabah and Sarawak on PIC processes; Target – Three PIC processes with ILCs implemented in accordance with the planned PIC/community protocol)

The rating is **Satisfactory**

Result against the indicator

A national standard PIC template has been developed based on the experiences drawn from the pilot projects conducted by FRIM, SBC and SaBC. It is included in the ABS regulation (draft) and ABS User's Guide. FRIM and SBC both gained PIC during the engagement with their respective communities, in the lead up to creating ABS agreements. In the case of SaBC, the PIC stage was encapsulated within the two Community Protocols (CPs) that were developed.

Analysis

Under the project, the PIC processes were piloted in nine communities.

Number of best practice pilot ABS agreements and PIC processes disseminated at regional level

(Baseline - Malaysia participated in UNEP-GEF ASEAN ABS project, but has limited experience to date; Target - Best practice pilot ABS agreements and PIC processes presented at international workshop for ASEAN countries, published in workshop proceedings and made available through MWLNR website

The rating is **Moderately Satisfactory**

Result against the indicator

The requirements for ABS and PIC have legal status in-country, with supporting procedures developed for the licensing of research (commercial or otherwise) of biological resources. The required supporting ABS regulation to the ABS Act, has not to date been finalised, with the government view that until done so, the ABS Act 795 can't be promulgated. This also means that the rights of the ILCs are not yet fully protected, such as concerning the sharing of IPRs. These would probably be protected under Schedule 1 of the draft regulations. Additionally, as a result of this, an ABS User's guideline (based on Act 795) also remains in draft, which is the location (Annexes 1-3) of template PIC and equitable ABS template agreements. Further PIC process information is in **Annex 5**.

Analysis

The ABS agreements of the 'FRIM communities' have not been approved by the respective CAs so far, and the ABS agreements of the 'SBC communities' include non-disclosure clauses and so are not open for dissemination. The TE only had limited access to either. The TE briefly assessed both types and found that the FRIM ABS agreements appeared more balanced towards ILCs and biodiversity conservation and would serve better for 'best practice' dissemination. The SaBC Community Protocols provide a different approach where a community wish to document TK, establish and update their natural resource management methods (new or customary) and set up engagement procedures for outside interests (bio-prospectors, product developers, researchers etc).

Additionally, SBC and SaBc have established ABS Trust Funds, although how these will benefit biodiversity conservation is not yet clear.

Number of ABS agreements arising from the pilot projects that specify conservation measures to ensure the security of the concerned biological resources

(Baseline - No ABS agreements that comply with CBD or include specified conservation measures for related biological resources; Target – Two ABS pilot agreements that include in situ and/or ex situ conservation measures to ensure the security of the concerned biological resources)

The rating is **Moderately Unsatisfactory**

Result against the indicator

Analysis

The Act 795 states 'the Access may not result in adverse environmental impact which may be difficult to control and mitigate. The draft regulations state that 'the permit holder shall undertake to take all reasonable measures, (a) for conservation and its ecosystem; (b) to control, mitigate or remedy any adverse environmental impacts.'

The draft ABS User's Guideline (ABS template agreement in Annex 3) re. biodiversity conservation indicates that it is the Access Party's (and not the Resource Provider's) obligation to ensure 'no adverse environmental impact', and that any possible impacts should be listed.

In biodiversity conservation terms, these legal statements are somewhat weak. They assume that resource extraction under ABS is fairly benign. In areas with high biodiversity value, any permit applications need to state the likely impacts, and how they are going to be avoided, minimised, or the ecosystem integrity restored

thereafter. If the impacts are going to be residual then a discussion of whether a permit should be issued in the first place, or if such residual impacts can be offset in a 'like for like' capacity[62].

See Outcome 3, 1st indicator

ILCs in the pilot projects are aware of the use and value of the biological resources under their stewardship

(Baseline - 0%; Target - 80%)

The rating is **Moderately Satisfactory**

Result against the indicator

Through the pilot projects, a number of ILCs have improved knowledge of the value of 'their' biological resources and associated TK. Development potential has been outlined for two prototype products in Kedah and Perak, one aromatic oil in Sarawak, and within two CPs in Sabah (listing biodiversity and TK of value).

Analysis

It is however the 'Access Parties' e.g. the researchers who are also the developers (i.e. FRIM and SBC) who having collected the plant specimens and associated TK, who are now effectively the sole holders of this biological material, its chemical compound data, and local knowledge of its traditional value. The ILC TK in many cases is expected to die out with this generation[63]. The access parties also have the advantage of the plant and TK accumulated and confirmed across many ILCs, making the access parties combined TK much stronger. The ILCs are in a position of trust, relying on the access party informing them of the value of particular biological resources to develop in partnership or with a third party. The ILCs awareness of the value of a potential product at this stage is likely to be far less than the access party (and their developer if not themselves), so equity in negotiating any ABS agreement is going to be based largely on trust, and from the pilot ABS agreements so far have not included shared IPRs for example.

Results against the outputs -

Documentation of TK associated with biological resources of Kensiu (Kedah) & Kintak (Perak) ILCs leading to a prototype product for commercialization (Output 3.1) and

ABS agreement with Semai ILC (Perak) for a prototype healthcare product for commercialization (Output 3.2)

Result

Summary Project Outputs

Bio-prospecting data

- Data on Medicinal & Aromatic Plants (MAPs) used by Kintak & Kensiu ILCs; Data on socioeconomics of ILC; Database (BRAHMS)
- Herbarium specimens on MAPs by Kintak & Kensiu ILCs

Technique & prototype

- Standardization of extract UGG 004 - Pengloy Semai (balm, cream, spray)-anti-gout
- Standardization extract KLL 092 - (invention registered) – 2 products - KLL092 (anti-diabetic), and 'KaHerbs' (anti-oxidant capsule, 2018
- Plantation of UGG 004 in SPL Selandar Melaka as a product replication / trial plot

Other

- Implementation of ABS Act 795
- Draft ABS Agreement with 3 parties (Knowledge owner, Resource Owner & Technology owner)
- Publications (six technical books on TK ILCs, three proceedings)
- Information dissemination

Traditional knowledge documentation

- TK documentation is on-going to safeguard TK - Kensiu ILC in Kedah State – 90 species; Kintak ILC in Perak State – 111 species[64]. In total, FRIM have 200 herbarium collections, with 176 species having had their

[62] The benchmark is the IFC Performance Standard No. 6 for Biodiversity & Living Natural Resources (2012) - www.ifc.org/wps/wcm/connect/topics_ext_content/ifc_external_corporate_site/sustainability-at-ifc/policies-standards/performance-standards/ps6

[63] Confirmed by the TE in all village meetings / focus group discussions

[64] From the 111 sp. documented for initial medicinal potential for Kintak ILC in Perak State, five were focused on, with one exhibiting multiple potential. This indicates the volume of work needed in ethno-botany, and scientific plant material assay. FRIM engagement with the Semai ILCs has been since 2010, so the project is an extension of this.

Medicinal & Aromatic Plants (MAPs) identified

- FRIM is working with three ILCs. For PIC to begin with, there was an MoU between JAKOA and FRIM. FRIM now have three main products in prototype form. In the process, the three species were identified and two 2 standardized extracts developed
- Based on PIC, TK, species mapping and compound extraction prototyped developed:
  - one herbal product prototype KLL092 named 'KaHerbs' (anti-diabetic)[65] based on the TK of the Kensiu communities of Kedah (2018) [66]
  - a herbal medicinal product prototype UGG004 (anti-gout – stops uric acid build up) called 'Pengloy Semai' based on the TK of the Semai in Perak (2016)[67]
- FRIM is finalizing the ABS agreements with the two communities with a view to commercialization of prototypes. The Perak community ABS agreement was drafted by FRIM lawyers and UNDP's legal consultant[68], however it remains (as of July 2019) with the Perak EPU / Attorney General Office. Under the ABS agreements, future royalties are divided equally four ways (community[69], government CA, FRIM (developer), and a trust fund for R&D).
- The FRIM and by extension, state view is that the state own the biological resources, thus any patent / IPRs would belong to the state (and resource developer), however royalties could in part be for the ILC. The commercial agreement between the state / FRIM and product market company would also override the ABS. These views are not really compatible with the principles of the Nagoya Protocol and ABS.
- Further information – FRIM Research Report No. 6; July 2017 (B/Rep P/8.4) – Project title - Developing and implementing a national access and benefit sharing framework (GOM-GEF/UNDP) (pp19) – it also details the PRA, awareness activities etc.
- Plant specimen collection is paid for by FRIM (MYR1 per seedling to Perak Forestry Department + 4 MYR to the collector), which is said to be for biodiversity conservation, but obviously as with SBC, these payments do not equate with any conservation, which is an issue.
- FRIM have a research site for cultivation / vegetative propagation (of UGG004 at Selandar, Melaka), to reduce reliance on forest extraction or dependence on village support / payments. Ten companies are now interested in the development of Pengloy Semai, hence also the reason FRIM wish to create their own plantation, however any plant breeding and selection trials could be within the Ulu Geroh village land.
- Another prototype ABP016 has been developed based on the same TK of eight communities. As there are eight ILCs, the ABS agreement is with Perak state as one party. At present these ILCs are not represented by any overall committee, nor are registered as a cooperative, thus they lack any control of the product development, or knowledge sharing for in-situ conservation and near-site cultivation.

Analysis (of the pilot villages)

Lubuk Legong Village

In Lubuk Legong village (Kedah, Kensiu ILC), the 'KaHerb' species is from wild collection only, without a propagation nursery created[70]. This is needed for supply to FRIM and for enrichment planting back in the forest. The Ulu Legong village have indigenous reserve land (428 ha), and have in the past planted rubber within this area, so establishing a medicinal plant nursery and plantation shouldn't be objected to. However, the village capacity to manage such a nursery / plantation is very low[71]. Long-term local institutional capacity building and technical support would be needed from FRIM, related agencies and an NGO[72]. (see **Annex 5** for further socio-economic

[65] Local name Hubet Hopp or Pakuk Lata – it is a fern – roots and stem boil and drink

[66] In Kedah, 90 species with a medicinal value were documented, which were narrowed down to five from which one was selected and developed in one prototype product - KaHerb (anti-diabetic, was launched July 2018)

[67] Pengloy Semai and KaHerbs were named by the ILCs, with the former registered as a traditional medicine (2016). At present FRIM do not register the IPRs of the products they have developed. Traditional medicines only need to be registered with the state / national authorities, and not undergo testing by health authorities, which means they are not necessarily safe.

[68] Together with inputs from stakeholder consultations (ILCs, NGOs, government agencies) and support from DBFM

[69] In comparison, the ABS agreements in Sarawak piloted under the project have a reduced royalty proportion for the community

[70] FRIM do not consider this nor enrichment planting as their responsibility, which is exactly the problem that those purchasing the specimens do not wish to be responsible for biodiversity conservation

[71] As plant fresh to dry weight is only 10% and village income generation needed, another value chain step would be from cultivation to primary processing (drying) to then sell to FRIM or in market

[72] The ILC at present are highly dependent on state welfare aid and need socio-economic livelihoods / income-generating support

information). The village also has TFs (from Department for Indigenous Peoples Development (DIPD~JAKOA at both state and Prime Minister's level) held by the District officer (DO), with access controlled by the state. The village has a committee, but is heavily supported by the DIPD office, not the forestry department. The village with NGO support could prepare a proposal for medicinal plant propagation nursery, create a sub-committee, register name of cooperative and apply for funds.

The village at present don't hold a copy of the draft ABS, which indicated their lack of empowerment. FRIM / DIPD have been requested by the CA in Kedah (June 2019) to register the ABS village party as a cooperative under the ABS agreement, which was a move advocated by the TE Team. DIPD are able to support ILCs to register as cooperatives.

Ulu Geroh village

The Ulu Geroh village (Gopeng, Perak State, Semai ILC) is situated within the Kinta Forest Reserve which is a biodiversity-rich protected area (PA)[73]. The village has 696 acres of land which is mostly oil palm, surrounded by orchard, before the Kinta forest reserve begins. However, the ILCs claim customary user rights of the PA with ownership of TK. So, gaining permission / managing the removal of biological resources (e.g. plant for UGG004) from the PA is an issue.

What is required is respecting 'best practice net gain biodiversity conservation', which could include mother tree protection special protection, limited seed collection, with propagation and then enrichment (resource replacement) planting. At present bark is 'harvested' from the UGG004 trees which is not sustainable. This is one reason FRIM is trying to gain funding and permission to establish their own plantation of this species, however, this would take away benefit-sharing, and reduce empowering the community to protect the forest. What is needed is a plantation of UGG004 within the 696 acres of village land and managed by the UGG community. Proposals for funding a village nursery and plantation are needed as it is not easy to propagate this species from seed. An NGO would be needed to provide the technical support for both as well as for village institutional support.

The lack of awareness by government officials regarding biodiversity conservation and ABS benefit-sharing was starkly evident when discussing income generation.[74]

Use of genetic resources associated with TK for the development of health / personal care products in Sarawak (Output 3.3)

Result

SBC has set up a TK Documentation Programme – which is one of its designated functions - 5,924 plants have been documented under the TK programme, of which 1,320 species have been identified. These have been collected from 77 villages (17 ethnic groups). As an example, 530 plants documented from Kiding village (SBC Annual Report, 2017). However, the number of such species which are also logged with associated TK is not stated. The communities are encouraged to establish the community nurseries and gardens of useful plants, however Kiding where the TE visited was not a good example of this, and needed technical support.

The main pilot project for Sarawak was to develop aromatic oil products from *Litsea cubeba* trees. SBC signed ABS agreements with five communities involved in Litsea oil production in March 2019. SBC ABS agreements were signed by the chairman of SBCo and checked by the state Attorney General.

Intellectual Property Rights for LitSara products are registered, i.e. the name 'Litsara' (derived from Litsea and Sarawak) oil is trademarked under the Intellectual Property Corporation of Malaysia[75]. The Sarawak State Government are named as 'service provider', with the ILCs are recognized as the TK providers (www.litsara.com). The geographic location of Sarawak Litsea is also registered. There is no legal precedence for IPR trademark versus Nagoya Protocol ABS agreement, but one would suspect that the IPRs would come first in most cases, and not least because LitSara is nationally registered and as belonging to the State of Sarawak. This is in part due to other *Litsea cubeba* tree populations existing elsewhere (e.g. China, Nepal, Vietnam) having differing chemical profiles[76].

Litsea was and is traditionally used across the region as a cooking oil and it leaves for massage. With its high value

[73] The giant Rafflesia plant grows there

[74] JAKAO officials (sitting in the middle of a famous protected area in the interpretation centre with pictures of the door-step biodiversity all round) suggested more oil palm plantation

[75] Under various classes – 5 as the trademark and as a insect repellent, 3 for the geographic range, soaps, toothpaste, handwash

[76] For example, Litsea oil from Sarawak is citral-free, which is important as other populations contain citral which is listed as a skin allegen by the European Union.

to the beauty care industry, it is now more commonly sold. Compounds are identified using gas chromatography mass spectrometry. *Litsea* aromatic oil was tested - Material Safety Data Sheet (MSDS) – Lethal Dose (LD) tests were conducted on mice and rats to establish safe concentrations for health / beauty / cosmetic purposes (fragrance as a spray, soap)

Field

Litsea fruits from April – September, whereas its leaf is usually collected during the other times of the year. Leaf oil volumes sometimes higher from lowland areas. Propagation is beginning to be encouraged for Litsea (cuttings of young shoots, seed germination), although its success to date is variable depending on the skill of the propagating groups. The idea is to develop contract farming. A total of five oil distillation sets were supplied with the communities building the housing. SBC has a 'good wild craft practices code'[77], which is taught to communities that collect plants. It includes how to collect and health and safety. To date it has been directed mainly towards *Litsea* leaf and fruit collection. However, the TE found that *Litsea* trees were often damaged during fruit collection and that saplings (wildlings) were sometimes removed and relocated to localized plantation areas. Additionally, for the rattan Dragon's Blood, whole plant removal was being undertaken. Thus, biodiversity conservation and sustainability are far from being addressed effectively by SBC, despite a so-called 'good practices guide.'

Analysis

Despite legislation, SBC are in a *de facto* 'conflict of interest'. SBC are a regulatory body with a mandate for R&D. They are able to issue research licenses (to themselves), without being directly responsible or monitored concerning their actions to conserve biodiversity.

SBC spent ~two years (2017-18) working with and in dialogue with selected communities on gain trust, agreeing PIC and eventually making ABS agreements (only signed March 2019). This indicated the very high time and human resources input, which wouldn't have been possible without the specific UNDP project. SBC checked VDSC head was officially designated by district government, before the ABS agreements were signed. The ABS agreements contain a confidentially clause (~Non-disclosure agreement), which is unfortunate for the project as these were expected to be shared regionally as 'best practice demonstration designs' (Output 3.4). It would have been better to have the basic agreement as open with a 'private' annex concerning the financial contract aspects. Also, one could take the view that this is a restrictive practice by SBC placed on the ABS villages. The ABS agreements also include a '3rd party production' clause which allows SBC to create or source outside (*ex-situ*) production, which whilst understandable for supply and demand reasons, it doesn't engender great trust, as *in-situ* or village level production can be replaced and therefore the need to share benefit with the villages. It would be better to support village-level supply via village-level propagation and managed cultivation (plantation) on village lands. (See **Annex 5** for further information)

Best practice ABS agreement and PIC available to national / regional audiences (Output 3.4)

Result and Analysis

See Outcome 3, 3rd indicator

Awareness of stakeholders in pilot projects increased (- value of biological resources their stewardship by ILCs) (Output 3.5)

Result and Analysis

See Outcome 3, indicator

3.3.3 Training

A number of training events were undertaken (see also particular outputs), but were not completely planned on a project level. Training for CAs and checkpoints on the peninsular was only undertaken twice with a 2.5-year gap in between, thus they were somewhat left behind[78]. Even the two states Kedah and Perak where FRIM were working were struggling to understand ABS procedures. Sabah and Sarawak conducted their own training, but again it appeared mostly directed within the circle of primary stakeholders. So for example, the Padawan District

[77] Wildcrafting is American language for 'foraging' – and according to Wikipedia 'is the practice of harvesting plants from their natural, or 'wild' habitat, primarily for food or medicinal purposes. It applies to uncultivated plants, and is not necessarily limited to wilderness areas. Ethical considerations are often involved, such as protecting endangered species, potential for depletion of commonly held resources, and in the context of property rights, preventing theft of valuable plants

[78] The training was in part contingent on the adoption of the ABS law

government responsible for Kiding village in Sarawak, were last visited by SBC two years ago and had not received the ABS Act, nor the state ABS Ordinance / regulations, thus were in need of refresher training. See **Annex 5.**

3.3.4 Efficiency

Efficiency is rated as **Satisfactory.** The cost-effectiveness of the project was very high, in terms of both the high ratio of government to GEF funds, but also in terms of the NP ABS before-project position compared with that of now post-project. All project partners targeted effectively remote ILCs, including those marginalised. The project was designed as a pilot, with a limited budget, thus only a limited number of ILCs became part of the project. However, project partners were also in the process, before and after the project, of scaling-up and replicating activities to reach more ILCs. (see also Impact Section)

3.3.5 Relevance

The project remained relevant, as it was direct based on CBD's Nagoya Protocol and its member countries to comply with it. The project was a direct follow-on of an earlier ABS project, and was clearly in line with national policies.

3.3.6 Country Ownership & Mainstreaming

The level of country ownership and mainstreaming was high, especially in terms of creating the necessary legislation and institutional structures.

4. SUSTAINABILITY

The overall rating for sustainability is that it is **Moderately Likely**

4.1. Financial Risks to Sustainability

The on-going civil service staffing allocation of the NCA is of concern, as is the ability of MWLNR (DBFM) to now fund and oversee a national ABS database and monitoring system. Project funding was allocated for this, but the task was far from completed. Some TK research is being undertaken by universities. Funding proposals are being made within the remit of the 12th Malaysia Plan. These include FRIM for further TK documentation across the peninsular, and they have a proposal for a R&D plantation for extracted plants. Sabah is said to rely mainly on state funds.

Sarawak are preparing a state master plan for biodiversity (State MYR 2m, UNDP MYR 1m). SBC receive state funds. SBC is expected to significantly expand its commercialisation of biological resources. A state-funded 'bio-industrial park' associated with SBC is planned and is in the early design stages (State funded). As of August 2019, a tender for the production of a study to prepare a master plan for this infrastructure development was launched.[79] SBC also expect to make some revenue from LitSara sales with Pullman hotels as a new potential buyer for products.

4.2 Socio-economic Risks to Sustainability

The 11th Malaysia Plan (2016-20) requires Malaysia to become a developed nation by 2020 in a sustainable and inclusive manner. It underscores the importance of harnessing biological resources as a new source of wealth. The mid-term review of the plan (2018) reiterated this via the empowerment of ILCs in generating income through enforcement of the ABS Act 2017 (Strategy B3) – this is an example of mainstreaming.

Three dimensions of 12th Malaysia Plan:

- New sources of growth including Industrial Revolution 4.0, digital economy, integrated regional development as well as growth enablers such as sustainable energy and infrastructure connectivity
- Environmental Sustainability - includes the blue economy, green technology, renewable energy as well as adaptation and mitigation of climate change
- Social Re-engineering – included enhancing societal values, improving purchasing power, strengthening social security networks and improving the well-being of people

These dimensions should reduce pressure on biodiversity, especially if the value of biodiversity begins to increase

[79] www.sbc.org.my/ms/berita/muat-turun/fail-tender/643-masterplan-study-for-bioindustrial-park-in-sarawak-1

(e.g. under TK documentation and plant compound development). However, as yet ABS is not providing much socio-economic benefit in a local context. In terms of the status of the 12th MP, preparation is due to start in August 2019.

4.3. Institutional & Governance Risks to Sustainability

The NCA is new entity within the ABS unit of DBFM. It is established under ABS Act 795, but its ability to develop itself with a new team now that the project has finished is unknown. The Act only mentions a chairman and who the chairman wishes to appoint. The director of the PMU remains as director of the Biodiversity Section (under DBFM), so the institutional knowledge remains at present. Other PMU positions, such as the PC were dissolved at the end of the project. MWLNR is the focal point for CBD and NP. For the project, on the ground, most workshops were attended by the Principal Assistant Secretary to DBFM, not designated NCA staff for example. Also, the NCA wasn't effectively established at project start (2014), but rather waited until the ABS Act was passed (2017), and was then only set up at the end of 2018, i.e. at the end of the project. The result of this is also limited institutional capacity at national level, partly because the project had difficulty to target its ABS training at the national level.

Governance of ABS is good, but the awaited national ABS regulations are still impacting on the CAs (mostly the EPUs) and the checkpoints. However, the EPUs[80] were part of the consultations on ABS structures and were included in the ABS Act. SaBC and SBC were established prior to the project and were able to be much more proactive in developing their state-level legislation, institutions, and (on-line) procedures for research permits, PIC and ABS.

At present research institutions, and particularly universities, are not so good in ABS compliance. They tend to collect biological resources and publish plant compound knowledge without IPRs or patent, so competitors / companies can just take the knowledge to exploit without benefit to resource providers and TK holders.

4.4. Environmental Risks to Sustainability

In some cases, *ex-situ* (off-site) plantation is being undertaken which reduces pressure on important biological resources / biodiversity, but this is being undertaken for commercial reasons by product developers. i.e. away from the village, on the researchers / developer's land. However, it is *in-situ* (on-site) biodiversity resource conservation that needs attention, not only to maintain the integrity of these ecosystems, but also to support nursery production / plantation at village level (near-site) with the ILCs in order to maintain equitable benefit-sharing from production. Two examples of *ex-situ* plantation include: FRIM's proposal for a R&D plantation of Pengloy Semai, and SBC's Dragon's Blood plantation. These 3rd party plantations are essentially for commercial supply.

Sarawak is planning for state-wide certification of palm oil plantations, which would include small growers. Thus, further conversion to oil palm by small holders is unlikely to be economic due to compliance and certification costs. This change in environmental sustainability methods could have a large impact in reducing further land conversion to palm oil[81].

Environmental sustainability issues and solutions are captured within NBSAP to 2030, although the political willpower and governmental effectiveness in implementation is not assessed here.

5. IMPACT & CATALYTIC EFFECT

5.1. Impact

Reduction in stress on ecological systems

The reduction in ecological stress (ecosystem integrity) is slight at present, but could significantly increase in localised areas if extraction of resources are not monitored and controlled. The CAs on the peninsular are not yet in a position to do this. SBC as a major Access Party collecting TK and biological resources are in a privileged

[80] i.e. the Federal EPU (now named the Ministry of Economic Affairs) and the 13 State EPUs

[81] There is already a case of 40,000 ha of forest with agarwood that has become more economic with the agarwood and ecotourism, than the opportunity cost of conversion to and certification cost of a new palm oil plantation.

position and need to set the conservation standard, not least because they control the research licencing process on Sarawak. At present their organisational structure lacks any biodiversity conservation section (See **Annex 5**)

In the future, marine resource extraction (mangrove, seaweed) from territorial waters (12 nautical miles) is likely to increase and may need to come under ABS. Another area of interest may be the Luconia shoals Marine Protected Area which cover 1m ha of reefs[82]. As a result of SBC training in PIC, the Bario highland villages are now aware of illegal bio-prospecting (including by eco-tourists) without permission.

Regulatory & policy change

Regulations are virtually in place and are having an impact on bio-prospecting / research which is now under ABS licensing. However, at the national level, the ability to provide technical leadership and coordination to the peninsular states is limited as is the national ability to track and monitor bio-prospecting research. Awareness of regulations outside of dedicated research institutions is also limited. The new ABS systems are not benchmarked internationally, but could provide valuable lessons learned (see also the lessons learned section of this report)

Concerning the links between ABS and patent / IPR laws, the Geneva-based Intellectual Property Watch reported (Nov 2018) that 'there are very few links between IPRs and ABS.'[83] A 2012 paper on TK stated 'The IPR law (i.e. Malaysian Patents Act 1983) does not explicitly protect TK, but it seeks to prevent acts of misappropriation of TK by inventors' and 'furthermore, the IPR system [international under Trade-Related Aspects of IPRs Agreement - TRIPS Agreement and in Malaysia] does not have requirements for benefit-sharing as provided in the CBD'.[84] The Trademarks Act (1976) also protects against appropriate representation of parties to a trademark.[85] The representative of MyIPO expressed the same opinion at the TE Workshop (JW Marriot Hotel, 3 July 2019). There have been efforts by the WTO and WIPO to bridge IPR laws and CBD's ABS requirements, although particular incompatibilities have not been identified to date.[86]

5.2. Catalytic Effect

Theory of Change

'Theory of change' (ToC) was not described as such within the prodoc, thus TE has re-constructed one here with a pathway discussion from basic problem through to intervention and on to outcome and then impact[87]. The comparison then is 'has or hasn't the project / national partner achieved this desired change?[88]' ToC should also consider 'change in behaviours'. As is more common, the prodoc does describe threats, root causes, and solutions to barriers. It also describes risks and assumptions, as well as having a logframe with its inherent logic flow from output to outcome to achieving its overall objective.

Parameter	Pathway
Concept	The Nagoya Protocol is designed to conserve biodiversity through better 'access to, and benefit-sharing of' biological resources, with an expected enhanced value of such resources from better use of TK and product development of particular resources, thus in turn increasing the intrinsic value of these biodiversity resources.
Root causes & threats	Pressures on the biological resources – land, business, government, lack of enforced protection system, lack of perceived value
Solution (Input to Output)	Establish an ABS legal system and enforce it
Outcome required	New institutional mechanisms, increased capacity in government, political willpower, and change in behaviours

[82] There are at least 44 marine parks in Malaysia (www.mybis.gov.my/one/pamaps.php?search=&type=3&state=0&iucn=0&org=0). The biological resources of Luconia are not well documented (it is a fairly new park). Marina Parks in Sabah have among the highest biodiversity in Southeast Asia

[83] www.ip-watch.org/2018/11/29/economically-sound-fair-global-genetics-benefit-sharing-system-possible-panellists-say/

[84] ISSN: 0128-7702 - Pertanika J. Soc. Sci. & Hum. 20 (S): 11 - 22 (2012) Traditional Knowledge Documentation: Preventing or Promoting Biopiracy R Nordin, K Halili Hassan and Z A. Zainol
www.pertanika2.upm.edu.my/Pertanika%20PAPERS/JSSH%20Vol.%2020%20(S)%20Jun.%202012/02%20Pg%2011-22.pdf

[85]www.wipo.int/edocs/mdocs/mdocs/en/wipo_ip_grtkf_bra_12/wipo_ip_grtkf_bra_12_topic_2_presentation_lim_heng_gee.pdf

[86] www.wto.org/english/tratop_e/trips_e/art27_3b_e.htm

[87] 'Guidelines for GEF Agencies in Conducting Terminal Evaluations for Full-sized Projects (2017).' – require a Theory of Change discussion

[88] Theory of Change is a similar development tool to 'Logical Framework Analysis' where underlying problems (root causes and threats) are directly responded to through the logical framework itself – i.e the implementation of the project design, to ultimately achieve the goal and development objective, which in turn should lead to the desired impact.

Result	Institutional and legal system partially in place, but not fully operational. Behaviours not sufficiently changed in favour of biodiversity conservation being paramount as per Nagoya and ABS
Impact	The pilot schemes have demonstrated that biodiversity conservation still needs to be protected from all parties (researchers, developers, ILCs, government), and that ILCs are not in a position to ensure that they gain equitable benefits nor protect the biological resources (from all parties, including themselves)

Scaling-up

The project provided a limited window to support the development of ABS from effectively 'on paper' to effectively 'in practice'. The implementation of a national ABS system has largely been achieved, thus there is the opportunity now for Malaysia to lead regionally. At the regional level, there is an effort to harmonise regional guidelines on ABS (1st draft), which is being undertaken by the ASEAN Biodiversity Centre. Sarawak Biodiversity Centre Ordinance (1997) was the 1st legislation regionally, so can be used as a template. Bhutan is said to be following the Malaysia – Sarawak model.

Replication

Replication is mainly being achieved via TK documentation. FRIM is working with 18 ethnic groups, concerning TK documentation and with eight other communities on ABS. Under the project they work with two ILCs. SBC have a clear TK documentation programme and are working with a significant number of ILCs on Sarawak. Under ABS, SBC has expanded Litsea oil production from five to seven communities in 2017 (Bukit Sadok and Bakelalan with ILCs of Iban and Lun Bawang peoples).

Demonstration

The project has provided a clear demonstration that has been very successful. The demonstration has been achieved at the following levels: legislative; institutional mechanisms; user guidelines, implementation systems (e.g. research application procedures), and not least pilot PIC (and / or CP) and ABS agreements. The demonstration now needs to be finished off, with the passing of the national regulations on ABS and government commitment to sustaining a national ABS unit / NCA with an on-line system for national / peninsular research.

Production of new technologies /approaches

New technologies and modern equipment are being utilized by two research institutes – FRIM and SBC. However, approaches to bio-resource conservation *in-situ* or at village level (near-site nurseries and plantation), by the research institutes need greater commitment. Putting the conservation onus on the villagers within the extraction and / or ABS agreements, is not acceptable. Indeed, under the draft regulations it is the permit holder (Access Party's) responsibility to ensure biodiversity conservation and ecological system integrity.

6. CONCLUSIONS AND RECOMMENDATIONS

6.1 Conclusions

ABS is now largely embedded within a legal and institutional framework. A number of pieces of legislation have been passed, primarily ABS Act 795 with the national regulations expected to be approved by end of 2019. The project also produced user guidelines with further information on PIC, MAT, and ABS. For Sabah and Sarawak, Access Parties (commercial or non-commercial researchers), now apply on-line for permits, with the various permissions including now ABS required integrated into single systems.

TK work started in Sabah and Sarawak in 2006-7 and by FRIM on the peninsular in 2010, and has been developing since. It was given a boost after Malaysia joined the NP and also due in part to the UNDP projects ABS I and II. However, the younger generation are not involved in TK or ABS and need to be engaged. TK is being lost at a village level.

There were clear differences in approaches by the three implementing partners (FRIM, SaBC, SBC). FRIM's approach to ABS was on the cautious or steady side in seeking PIC on a number of occasions. SaBC established themselves primarily as an administrative body. In the field they put most effort into making community protocols, which had a focus on community rights and management of biological resources and the methods for working with researchers (PIC and TK documentation). SBC focused much more on moving towards an end product with an ABS agreed to underpin it. SBC have already developed products for market. They have been

able to achieve this having a small dynamic international standard research facility (with a modern bio-assaying laboratory, plant material storage unit and database).

For FRIM on the peninsular, prior to project, they were only screening plants, whereas now they concurrently screen for associated TK. They have been able to further TK documentation, develop two prototypes for two communities, and develop two ABS agreements. In Sabah, their Biodiversity Enactment passing into law (2018) was their key project outcome. Two community protocols were developed by SaBC in Sabah. In Sarawak, SBC were able to put distillation equipment on-site at the village level, and to move to product development, thus securing a higher forest income for five communities. SBC has ABS agreements with five villages and has demonstrated a product value-chain with benefit to these ILCs.

The project has achieved many if not most of its objectives, and in some cases had gone beyond them. The volume of work that went into the project in comparison to the level of (GEF) project funding was high. The three national IPs – FRIM, SaBC and SBC have all achieved an extremely high level of national ownership of the project. There is an increased awareness with regard to ABS.

6.2. Lessons Learned

Greater national leadership on ABS is required (and training delivered) if the progress of the UNDP project is going to be maintained. The national ABS unit needs to be legally mandated with dedicate staff and capacity. The ABS regulations are now around two years behind the ABS Act and need technical support to be finalized and passed by the government. An on-line one-stop access permit system is urgently needed for biological resource and TK research on the peninsular. At present, the national level and the 11 states (including the federal territories) rely on the old system of multi-layer permissions which do not incorporate the requirements under the ABS Act (2017). There is also a need to build the capacity of government to support specific ABS provisions relating to ILCs including an enhanced understanding of their customary laws and practices.

There is a lack of understanding of the ABS framework, mainly by the 11 peninsular state EPUs who are the designated CAs. ABS is complex and a detailed knowledge is required such as for issuing permits, reporting, enforcement, and expected or guideline royalty payments / revenues within ABS agreements for products developed. This is not helped by the subsidiary ABS regulation (to ABS Act 795), yet to be passed into law. Until the regulations and guidelines become approved, the peninsular states lack direction or power to act effectively. There are also some communication issues with peninsular states not being made aware of nationally issued permits for researchers entering their state territories, in part due to the NCA not yet being fully functional.

The CAs have concerns over IPR ownership (owned by state, firm or by a community?), data sharing and confidentiality – again with the national user's guideline not yet approved for use. The peninsular state CAs also have concerns over the present multi-level access licensing requirements, which is discouraging researchers.

At present, pilot project stakeholders are aware of biodiversity value, but 'trusting', when it comes to 'known' Access Parties, who have built up long-term relationships. Concerning the drafting of ABS agreements, FRIM and SBC have their own lawyers for PIC and ABS, but to date villagers with TK & / or traditional forest user rights, have had to rely on the project legal consultant, which is now a post-project issue for the future.

Product prototypes are being 'branded' with community names which increases local ownership and suggests more equitable sharing of future benefits. However, ABS project ownership by ILCs on the peninsular was very low. The TE suggested their empowerment through the establishment of local cooperatives, which was taken up by the authorities in Kedah and Perak in instructing FRIM / DIPD to accomplish such an action, so that the ILCs could be a legal entity in the registration of products under ABS agreements (e.g. 'Kensiu village TK plants cooperative'). For such ILCs, such empowerment is important for their future development.

At present biological resource extraction is not sustainable. SBC have some small conflicts of interest, in being effectively able to issue research licences for themselves. They have a close relationship with their CA (the SMUDNR), but the latter's ability to independently monitor sustainable use is limited. SBC need to practice better biodiversity conservation themselves, if they are going to be the effective licensing authority for all bio-prospecting research in Sarawak, and in directing other researchers towards the inclusion of bio-resource conservation measures within respective extraction and ABS agreements.

Ex-situ propagation is being practiced by the project implementation partners – which is not always allowing equitable benefit-sharing of income generation. i.e. benefits already moving away from the communities. FRIM and SBC both have established plantations without the resource provider, the ILCs involved. At present these plantations are being established under the label of 'for R&D' which is a step towards 3rd party production for

increased supply. Thus, communities are not being supported to create a reasonable supply for commercial sale and therefore equitable benefit-sharing.

The ABS regulations and ordinances don't stipulate any methods for bio-resource conservation, yet CBD and NP are directly underpinned by such. Thus, this leaves it for any regulations still in draft, or especially to ABS guidelines still being developed to promote such conservation. This can be on two levels – *in-situ* or *ex-situ* conservation. The former means to promote on-site conservation (e.g. in the forest through managing natural regeneration, mother tree seed supply, controlling access and NTFP harvesting volumes to sustainable levels). Off-site conservation traditionally means maintaining genetic resources at a different location, typically a zoo or plant breeding station, which ultimately is less cost effective and lacks overall protection of the ecosystem integrity / biodiversity on-site.

Under ABS, where the biological resource supply needed is high, there may be a case for off-site plantation, but ultimately, if the ILCs are not empowered to be the local guardians with *in-situ* conservation, then it won't happen. Thus *in-situ* conservation is preferred, plus 'near-site' conservation with propagation / cultivation in the first instance to be undertaken by the communities with support from the researcher / developer.

Technical support by FRIM and SBC for in-situ conservation or village-based local propagation / cultivation is weak. It is a significant failing of the project and ABS implementation process so far. Continued extraction and off-site plantation is being preferred. This begs the question whether ABS agreements are 'biodiversity conservation friendly'.

There is a need to continuously engage and empower the communities through capacity building on the topics of: sustainable harvesting; propagation; and understanding ABS (SBC Implementation Report November 2018). Thus, SBC understand the issue, but not necessarily practice the needed solutions. The ILCs lack the modern skills for *in-situ* conservation in the face of high resource pressure, or for production on their farm when particular horticulture techniques are needed. The TE was asked at every village visited (~10) if the project could supply plant nursery expertise to help the ILCs grow the particularly important plants. This was also partly because they knew stocks would diminish with continued collection, but also due to the dangers and difficulties of forest collection.

6.3. Recommendations

The recommendations are listed with the responsible party identified in brackets.

1. The national ABS unit needs to be legally mandated with dedicate staff and capacity. It needs to show leadership as the NCA [MWLNR]
2. The ABS regulations need technical support to be finalized and passed by the government [MWLNR to commission]
3. An on-line one-stop access permit system is urgently needed for biological resource and TK research on the peninsular [the in-house MWLNR software designers need to be assessed for competency – the designers of the Sabah and Sarawak systems could be engaged]
4. The peninsular CAs require a training programme based on the ABS regulations, the ABS User Guidelines (both to be approved), and national one-stop research permitting system (to come on-line) [DBFM]
5. SBC need to develop a stronger ethical wall between being both researcher and research licenser [SBC]
6. FRIM and SBC need to establish propagation nurseries at village level for the main products being developed (Pengloy and KaHerbs; *Litsea* and Dragons Blood) [FRIM, SBC]
7. FRIM and SBC need to establish near-site village plantations of ULG004 and Dragon's Blood respectively to ensure equitable sharing of benefits [FRIM, SBC]
8. Under the draft ABS regulation, the legal obligation for biodiversity conservation is with Access Parties (~researchers, permit holders), i.e. FRIM and SBC. They both need to establish biodiversity conservation officers to implement on-site measures (in the forest and village propagation). [FRIM, SBC]
9. The project communities that FRIM are working with on the peninsular need to be empowered. FRIM need to identify an NGO (with horticulture skills) who can work with them to develop village nursery and plantations and create an institutional set-up (e.g. cooperative committee)
10. DIPD to establish cooperatives for the ILCs working with FRIM, especially in cases where the stage moves on from specimen testing towards plant seedling / material multiplication [DIPD of Perak and Kedah]
11. The peninsular CAs need to establish financial accounting / Trust Fund accounts for the royalties of ABS

[peninsular CAs]

12. The national NCA and Ministry of Federal Territories need to establish Trust Fund accounts for the royalties of ABS [NCA, MFT]
13. ILCs need independent legal advice when making PIC and ABS agreements. [The CAs need to ensure that this is provided]

7. ANNEXES

Annex 1: Delivery of Project Objective & Outcomes against Performance Indicators

Assessment Key:

Green: Completed / Achieved	**Yellow:** On target to be completed / achieved	**Red:** Not on target to be completed / achieved

Extracted from project document (IP indicate if there have been approved changes)			IP to fill out this column with detail text on achievement	TE team	TE team fills out
Indicator	**Baseline**	**End of Project target**	**2018 End term Level & Assessment**	**Rating**	**Justification for Rating**
Objective: Strengthen the conservation & sustainable use of biological & genetic resources in Malaysia through developing the national framework for the implementation of Access & Benefit Sharing (ABS) under CBD					
1. National ABS law, regulations and institutional framework in place which will enable Malaysia to accede to the Nagoya Protocol	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	The Malaysian Access to Biological Resources and Benefit Sharing Act 2017 [ACT 795] was adopted by the Parliament on 15 August 2017 and then published in the Gazette on 17 October 2017. The Act consists of 10 parts (63 sections) and 2 schedules that cover key provisions on the requirement for permit to access biological resources, benefit sharing agreement, prior informed consent (PIC), mutually agreed terms (MAT), measures for monitoring and tracking, user measures, payment into fund and transitional provisions. The final draft of the Access and Benefit Sharing Regulations is currently being reviewed by the Attorney General's Chamber (AGC). The enforcement of the Act and its regulation will take effect once the draft regulation is approved by the Attorney General's Chamber followed by the Minister, and its implementation mechanism is in place.	S	The Act 795 was passed in 2017. The ABS regulations as of August 2019 remain in draft format.
2. Financial and funding mechanism(s) for the management of ABS monetary benefits	No mechanism exists	Financial / funding mechanism(s) established and operational for the reinvestment of proceeds from ABS agreements into conservation	The final report on financial and funding mechanism(s) for Access and Benefit Sharing proceeds has been completed in October 2017 and approved by the National Steering Committee for ABS on 12 March 2018.	MS	Sabah and Sarawak have established ABS bank accounts. Although at present funds are being used for the administration of ABS, not conservation per se. FRIM have established an R&D account as a portion of the royalties. The NCA and peninsular states lack any TF

Outcome 1: An operational national regulatory & institutional framework on ABS					
National law and implementing regulations on ABS 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	The Malaysian Access to Biological Resources and Benefit Sharing Act 2017 (Act 795) was adopted by the Parliament on 15 August 2017 and then published in the Gazette on 17 October 2017. The draft ABS regulation is currently being reviewed by the Attorney General's Chamber (AGC).	S	
National and State Competent Authorities identified and operational for full implementation of national law and regulations on ABS	No national competent authority; state competent authorities only exist for Sabah and Sarawak (Sabah Biodiversity Centre; and Sarawak Biodiversity Centre and Sarawak Forestry Corporation)	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	13 Competent Authorities (CA) representing all States in Malaysia have been identified: 1. Johor – Johor Economic Planning Unit (EPU) 2. Melaka – Melaka Economic Planning Unit (EPU) 3. Pahang – Pahang Economic Planning Division (EPD) 4. Selangor – Selangor Economic Planning Unit (EPU) 5. Perak – Perak Economic Planning Unit (EPU) 6. Kedah – Kedah Economic Planning Unit (EPU) 7. Perlis – Perlis Economic Planning Unit (EPU) 8. Kelantan – Kelantan Economic Planning Unit (EPU) 9. Terengganu – Terengganu Economic Planning Unit (EPU) 10. Negeri Sembilan - Negeri Sembilan State Forestry Department 11. Sabah - Sabah Biodiversity Council 12. Sarawak – Sarawak Ministry of Urban Development and Natural Resources 13. Federal Territories (Kuala Lumpur, Labuan, Putrajaya) - Ministry of Federal Territories. The agencies appointed as official checkpoints are: 1. Intellectual Property Corporation of Malaysia (MyIPO) 2. Ministry of Science, Technology and Innovation (MOSTI) 3. Clinical Research Centre (CRC) Ministry of Health 4. Ministry of Higher Education (MoHE) 5. National Pharmaceutical Regulatory Agency (NPRA), 6. Universiti Putra Malaysia (UPM) 7. Universiti Teknologi Malaysia (UTM) 8. Universiti Sains Malaysia (USM) 9. Universiti Malaya (UM) 10. Universiti Kebangsaan Malaysia (UKM).	MU	NCA and CAs of peninsular states are not fully functioning, despite being established under the Act 795. The checkpoints are listed in the ABS regulation, with the main two being MyIPO and NPRA. They communicate formerly with each other, but not with the NCA – until such time that the ABS regulation is passed by government
Institutional framework for *sui generis* systems for	No institutional framework for sui generis systems for	Supportive institutional framework for sui	Two community protocols have been produced during the project implementation. Melangkap Community Protocol (English and Malay) has been completed and published by Sabah Biodiversity Centre. The protocol is	S	2 CPs produced

protection of traditional knowledge and customary uses of biological resources developed under the auspices of SaBC and used to inform national framework development	protection of traditional knowledge and customary uses of biological resources exist for Malaysia	generis 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.	written by the community themselves with the guidance from the Bio-Community Initiative (BCI) as project facilitator. The community protocol consists of 7 chapters which covers the documentation of history and traditional knowledge of the villages, the Prior Informed Consent (PIC) and Mutually Agreed Terms (MAT) procedures to access the resources and traditional knowledge of the community. First completed draft of the Long Pasia/Mio Community Protocol (Malay version) has been completed in July 2018. These protocols alongside with the previous studies and lesson learned by The Centre of Excellence for Biodiversity Law (CEBLAW), Ministry of Natural Resources and Environment, FRIM, SBC has been used as the reference in developing the standard community protocol template in the ABS regulation.		
Financial and funding mechanism(s) 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	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	The final report on financial and funding mechanism(s) for ABS proceeds has been completed in October 2017 and approved by the National Steering committee on 12th March 2018. The summary of the recommendations are as follows: • The decision-making process for disbursement of the funds should include representative from Indigenous and Local Communities or Non-Governmental Organisations for inclusive decision making. • The capacity to manage the fund at the federal and state level needs to be assessed and a fulltime management need to be created to manage and administer the ABS fund. • Competent Authorities/State Economic Units to discuss on the interim setup before the enforcement of National ABS Act.	MS	Despite, there being no national ABS fund, Sabah and Sarawak have established Trust Fund accounts. For FRIM ABS proceeds, they have royalties for the state and royalties for R&D. It is yet to be seen if funds are directed towards biodiversity conservation
Outcome 2: Strengthened national institutional and stakeholder capacity for implementation of the national ABS framework					
Improved capacities of national and state competent authorities for ABS implementation as shown by an increase of at least 30% in the draft ABS Capacity Development Scorecard	ABS Capacity Scorecard baselines NRE: 33% Sabah: 35% Sarawak: 31% Other states: 0% Other agencies:0%	Targets NRE: 75% Sabah: 75% Sarawak: 75% Other states: 30% Other agencies: 30%	KATS (NRE): 51.28% Sabah/SaBC: 77.27% Sarawak/SBC: 68.33% FRIM: 42.86%	S	The capacity of MWLNR (DBFM and its ABS Unit and NCA) remains limited and lacks leadership. The capacity and leadership of FRIM and SBC is exceptional. SaBC is functioning well within its administrative design / role

Number of NCA, state and related agencies trained on ABS and bio-prospecting related subjects to facilitate implementation of the national ABS framework. [1]	No staff have been trained	100 staff from the NCA, 13 state CAs and related agencies (see footnote) are trained	The capacity workshop conducted: 1. 21 Mar 2016 - ABS Capacity Building Workshop for Competent Authority and Enforcement Officer: 43 Participants (23 Male; 20 Female). 2. 9-10 Aug 2018 - ABS Capacity Building Workshop for Competent Authority and Enforcement Officer: 46 Participants (24 Male; 22 Female) 3. 12 October 2018: ABS Capacity Building Workshop For Researches, NGOs, and other Stakeholder: 51 Participants (21 Male; 30 Female)	MU	National level and peninsular state level training has been insufficient, bearing in mind this is a new piece of legislation defined within an Act.
Percentage 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) among stakeholders including researchers, public, ILCs and industries	0%	80%	The second phase of the Knowledge, attitude, and practices (KAP) second phase study has been completed and the final report was submitted in November 2017. A total of 1149 respondents participated in the Phase 2 of the study from March to October 2017 (550 institutional stakeholders, and 599 Indigenous and Local Communities). The findings of the study: • Overall, the knowledge on regulations related to ABS among institutional stakeholders were good. Knowledge on access to genetic resources and benefit sharing arising from their utilization among institutional stakeholders was high. • Knowledge on regulations related to ABS remain low among the ILCs. Compared to phase 1, there was a small increase in the percentage of ILCs who had heard either one of the Convention of Biological Diversity, Nagoya Protocol and Malaysian ABS Bill. A majority of the Indigenous and Local Communities (ILCs) appeared to understand the principles of the ABS. Most ILCs were positive in terms of their attitude towards Access & Benefit Sharing. Access and Benefit Sharing practices among ILCs were low, and if any form of procedure or process existed, they were mostly informal. Among the ILCs, there was no clear procedure about access to traditional knowledge or the fair and equitable sharing of benefits by non-members of the communities. • There was no formal procedure in place although a few communities had some form of informal procedures or protocol. • ILCs were concerned whether the implementation of the Access to Biological Resources and Benefit Sharing law in Malaysia could restrict their use of resources in performing their traditional and customary practices.	MS	The ILCs that FRIM, SaBC and SBC have been working with have good knowledge as do the other ILCs that they work with. SaBC and SBC have informative webpages and on-line application systems to support ABS awareness and processes. In contrast, this is lacking at a national level (no webpage or permitting system that includes ABS)

[1]Potentially staff in MOSTI in charge of public research grants, university staff in charge of research grant administration, product approval under MOH and MyIPO

Outcome 3: Best practice ABS processes piloted recognizing the principles of biodiversity conservation, Prior Informed Consent (PIC) & Mutually Agreed Terms (MAT) inc. fair & equitable sharing of benefits					
Number of ABS pilot agreements negotiated for initial commercialization of prototypes with fair and equitable benefit sharing provisions	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	Sarawak Biodiversity Council (SBC) successfully signed a benefit sharing agreement with 5 communities involved in the Litsara pilot project on Mar 2019. The project demonstrated the complete value chain which involved 7 villages across the Sarawak State. Community involved benefited from capacity building in sustainable essential oil production skills, extra income from selling the raw essential oil as well as the loyalty generated from the marketing of Litcea oil products by SBC. Forest Research Institute Malaysia (FRIM) produces 2 prototypes named "Pengloy Semai' and "KaHerbs" from the medicinal plant from the Traditional Knowledge of the indigenous community in Kedah and Perak State. FRIM is in the final process of negotiating 2 ABS agreements with both the Semai and Kensiu communities for initial commercialization of the 2 prototypes.	HS	7 ABS agreements have been developed
Number of PIC processes[1] with ILCs implemented in accordance with the planned PIC/community protocol	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	Both SBC and FRIM conducted full PIC practices during the engagement with the communities. The standard Prior Informed Consent (PIC) template has been developed based on the experiences drawn from the pilot demonstration project conducted by the Forest Research Institute Malaysia (FRIM), Sarawak Biodiversity Centre (SBC) and Sabah Biodiversity Centre (SaBC). It is included in the ABS regulation and user guide.	S	All 7 ABS agreements underwent a prior PIC process as did preparation of the 2 CPs in Sabah. The CPs include TK There is a standard PIC template
Number of best practice pilot ABS agreements and PIC processes disseminated at regional 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, published in workshop proceedings and made available through NRE website	A website www.abs.mybis.gov.my. dedicated for Malaysia ABS has been set up under the existing platform of Malaysia Biological Information System (MyBIS). The webpage is serving as ABS clearing house mechanism (ABS CHM) to enable better public engagement. The online permit application system is being developed to assist the permit application process after the law enforcement.	MS	7 ABS agreements, although unfortunately they are not open to public access / dissemination. The national website has no ABS information on it. It doesn't function either as a portal for the ABS CHM or as a portal for on-line research applications
Number of ABS agreements arising	No ABS agreements in Malaysia that fully	At least 2 ABS pilot agreements	Sarawak Biodiversity Council successfully signed a benefit sharing agreement with 5 communities involved in the Litsara pilot project on Mar 2019.	MU	The agreements made by FRIM and SBC (7 in total)

[1] These would be the processes leading up to the signing of ABS pilot agreements above.

from the pilot projects that specify conservation measures to ensure the security of the concerned biological resources	comply with CBD requirements or include specified conservation measures for related biological resources	negotiated that, when necessary, include *in situ* and/or *ex situ* conservation measures to ensure the security of the concerned biological resources	Total 7 communities around Sarawak have been participated in the Litsara project. They were benefited from the capacity building activity in how to sustainably harvest the forest product and produce the essential oil by using modern equipment. they also manage to generate extra income form the selling of essential oil. Now with the benefit sharing agreement signed, the community involved managed to receive loyalty from the commercialisation of the Litsara Product by SBC. Forest Research Institute Malaysia (FRIM) produces 2 prototypes named "Pengloy Semai' and "KaHerbs" from the medicinal plant from the Traditional Knowledge of the indigenous community in Kedah and Perak State. FRIM is in the final process of negotiating 2 ABS agreements with both the Semai and Kensiu communities for initial commercialization of the 2 prototypes.		are weak in terms of the Access Party's (i.e. themselves as the researchers) obligations towards biodiversity conservation (including any monitoring stipulations as per the draft ABS regulation The Sarawak good wild practices guide is not fit for CBD purposes.
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.	0%	80%	The general awareness on ABS among the stakeholders has increased during the implementation of ABS Project in Malaysia since 2014. The government sectors are now more aware of ABS concept through participation in a series of workshops and promotional activity organized by the Ministry. In community level, through the pilot projects carried out by Forest Research Institute Malaysia (FRIM), Sarawak Biodiversity Centre (SBC), and Sabah Biodiversity Centre (SaBC), the communities have achieved the following: 1. All communities involved are aware of the importance of fair & equitable sharing of benefits. 2. Communities are empowered with the knowledge in sustainable harvesting and the skills in essential oil distillation technique. 3. Traditional Knowledge of the community involved has been documented. 4. Groups of community researches have been trained in the ABS concept which enable them to produce the community protocol by their own. 5. The strong knowledge capacity of the community enables them to safe guard their Traditional Knowledge and associated biological resources from being illegally exploited. Feedback and comments obtained from communities on ABS framework and mechanism via field documentation have been used in developing ABS guidelines, regulation and model ABS agreement.	MS	The KAP survey was well targeted. The TE would dispute the idea that the ILCs sustainable harvest – they get paid by the researcher to take plants from the forest without any conservation understanding

Annex 2: Delivery of Outputs

Comment here may be limited to stating 'on target', 'partially on target' or 'not on target'. Details are reported under section 3 'Findings'

Outputs	Achievements Reported by IP	TE Comment
Project Objective: Strengthen the conservation & sustainable use of biological & genetic resources in Malaysia through developing the national framework for the implementation of Access & Benefit Sharing (ABS) under CBD		
Outcome 1: An operational national regulatory & institutional framework on ABS		
1.1: National law and implementing regulations on ABS developed with stakeholder participation.	▪ The Access to Biological Resources and Benefit Sharing Act 2017 [ACT 795] was adopted by the Parliament on 15 August 2017 and then published in the Gazette on 17 October 2017. The Act is anticipated to come into operation by the end of December 2018 or in January 2018 subject to approval of the ABS regulations by AGC and after all implementation mechanisms are in place. ▪ The revised draft of ABS regulations along with AGC's comments was received on 2nd November 2018. A session with AGC will be conducted to review all feedbacks and comments received before the draft regulations can be finalized.	On target
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.	Thirteen Competent Authorities (CA) representing all States in Malaysia have been appointed: • Johor – Johor Economic Planning Unit (EPU) • Melaka – Melaka Economic Planning Unit (EPU) • Pahang – Pahang Economic Planning Division (EPD) • Selangor – Selangor Economic Planning Unit (EPU) • Perak – Perak Economic Planning Unit (EPU) • Kedah – Kedah Economic Planning Unit (EPU) • Perlis – Perlis Economic Planning Unit (EPU) • Kelantan – Kelantan Economic Planning Unit (EPU) • Terengganu – Terengganu Economic Planning Unit (EPU) • Negeri Sembilan - Negeri Sembilan State Forestry Department • Sabah - Sabah Biodiversity Council • Sarawak – Sarawak Ministry of Urban Development and Natural Resources • Federal Territories (Kuala Lumpur, Labuan, Putrajaya) - Ministry of Federal Territories The agencies appointed as official checkpoints are: • Intellectual Property Corporation of Malaysia (MyIPO) • National Pharmaceutical Regulatory Agency (NPRA), • Ministry of Science, Technology and Innovation (MOSTI) • Clinical Research Centre (CRC, MoH) • Ministry of Higher Education (MoHE)	On target, The weakness is the capacity of DBFM to act as the NCA and lead the process to get the national regulation passed by the AG's office and then the Ministry / parliament The draft regulations – state the following as checkpoints: MyIPO; NPRA; and any public research body, public university or public institution funding research and development in relation to biological resource and TK may be determined by the NCA

	• Universiti Putra Malaysia (UPM); Universiti Teknologi Malaysia (UTM); Universiti Sains Malaysia (USM) • Universiti Malaya (UM); Universiti Kebangsaan Malaysia (UKM).	
1.3: Funding mechanisms at federal & state levels to utilise proceeds from ABS agreements towards the conservation of biological diversity & sustainable use of its components.	The final report on financial and funding mechanism(s) for ABS proceeds was completed in October 2017 and approved by the National Steering committee on 12 March 2018. The summary of the recommendations are as follows: ▪ In the initial stage, for a period of 5 years, between 2018 and 2023, the ABS proceeds from the ABS agreements are channeled into the National Conservation Trust Fund (NCTF) for effective management due to the uncertainty in the quantum of the proceeds that could be generated in immediate near future. ▪ Beyond, 2023, based on the development of bioprospecting and generation of ABS proceeds, decision can be made to form the funds at the State level. ▪ The eligibility of the ABS fund in all circumstances in the above recommendation should be made to only clearly identified stakeholders of the ABS framework and priority should be given to ILCs. This is to ensure the ownership and incentive for the protection of TK and the biological resources. ▪ The decision-making process for disbursement of the funds should include representative from ILCs or NGOs for inclusive decision making. ▪ The capacity to manage the fund at the federal and state level needs to be assessed and a fulltime management needs to be created to manage and administer the ABS fund. ▪ Monitoring and evaluation of the fund is important to ensure its efficiency and effectiveness in meeting the objective. ▪ As recommended from the study, KATS will have a discussion with State Authorities/State Economic Planning Units on the proposal to channel ABS proceeds into a sub-fund under the NCTF.	Not on target, except for Sabah, Sarawak and for two FRIM States The focus should have been on the peninsular states and not the national level
1.4: Institutional framework for sui generis (~of their own kind) systems for protecting traditional knowledge, innovations and practices and customary uses of biological resources in Sabah	▪ Melangkap Community Protocol is completed. SaBC has agreed to publish the protocol using the state publication fund. This protocol was written by the community themselves with guidance from facilitator (BC Initiative). The community protocol consists of 7 chapters which covers the documentation of history and traditional knowledges of the villages and the PIC and MAT procedures to access the resources and traditional knowledge of the community. ▪ Long Pasia/Mio Community Protocol (first edition) is completed. However, the document is yet ready for publish as the community wish to further enhance the inputs in the details of the document. This protocol was written by the community themselves with guidance from facilitator (BC Initiative). Like the Melangkap community protocol, the Long Pasia/Mio community protocol consists of 7 chapters which covers the documentation of history and traditional knowledges of the villages and the PIC and MAT procedures to access the resources and traditional knowledge of the community. ▪ These protocols along with previous study conducted by The Centre of Excellence for Biodiversity Law (CEBLAW) & Ministry of Natural Resources and Environment on community protocols for communities involves in Sarawak	On target

	and Peninsular Malaysia (Perak and Pahang) will be used as a reference/lessons learnt in developing the standard community protocol template that highlighting the minimum standard and procedures.	
1.5: Community protocols constitute the basis for clarifying PIC and MAT requirements between users and providers of traditional knowledge and biological resources	▪ This is the collective output together with output 1.4. Community Protocol of Melangkap and Long Pasia/Mio in output 1.4 captures the chapters specifically for PIC and MAT requirement. Meanwhile, there is a template of PIC and MAT has been included in the ABS Regulations and User's Guide.	On target
1.6: Ethical code of conduct or guidelines for research on traditional knowledge and genetic resources	▪ This is a collective output component included in output 1.4. The community protocols in output 1.4 consists of chapter on PIC procedures that will be the guidelines for researchers to do research on traditional knowledge and genetic resources. The Standard PIC Protocol is attached in the ABS User's Guide for reference.	On target
1.7: Consultation completed with all states and paper on accession to the Nagoya Protocol developed for Cabinet's approval	▪ The Cabinet had approved the proposal for Malaysia to become a party to the Nagoya Protocol on 26 October 2018. Malaysia deposited its instrument of accession to the Nagoya Protocol to the UN Treaty Section on 5 November 2018 and the protocol will enter into force for Malaysia on 3 February 2019.	On target
Outcome 2: Strengthened national institutional and stakeholder capacity for implementation of the national ABS framework		
2.1: Improved capacities of state & national competent authorities and related agencies through training of 100 staff on processing access applications, negotiating ABS agreements and monitoring / tracking to ensure compliance.	The capacity workshop has been conducted with more than 100 personnel trained: ▪ 21 Mar 2016 - ABS Capacity Building Workshop for Competent Authority and Enforcement Officer: 43 Participants (23 Male; 20 Female). ▪ 9-10 Aug 2018 - ABS Capacity Building Workshop for Competent Authority and Enforcement Officer: 46 Participants (24 Male; 22 Female) ▪ 12 October 2018: ABS Capacity Building Workshop For Researches, NGOs, and other Stakeholder : 51 Participants (21 Male; 30 Female)	Partially on target
2.2: Training programme & modules on bio-prospecting & research procedures developed / made available to federal / state research institutions	▪ The ABS Users' Guide, guidelines on the National Competent Authority and Competent Authorities roles and responsibilities as well as ABS training modules have been prepared to ensure effective implementation of Act 795.	Partially on target – user's guide yet to be finalised
2.3: Mechanisms institutionalized to facilitate access to information and support compliance under the national law and the NP.	▪ The ABS Clearing-house Mechanism is in the initial phase of development and will be incorporated into the existing Malaysian Biological Diversity Clearing House Mechanism (MyBIS). ABS online permit application will be developed in-house by MyBIS technical team. ▪ The ABS portal has been developed and can be accessed via www.abs.mybis.gov.my by public.	ABS CHM portal not on target nor national permit application system

2.4 Campaign to raise awareness on the ABS law, CBD and Nagoya Protocol targeting researchers, local communities, and relevant industry	▪ The concepts of ABS have been instilled among the Indigenous and Local Communities with the implementation of pilot projects for output 1.4, 3.1, 3.2, 3.3 in Sabah, Sarawak, Perak, and Kedah. ▪ Communication materials such as information leaflet, bookmark, and posters have been printed and being distributed to all relevant agencies. ▪ To promote ABS, KATS has also participated in public engagement exhibitions such as: ▪ ASEAN Senior Officials on Forestry (ASOF) - Regional Seminar on Forest Landscape Seminar on 26 July 2017 ▪ Central Forest Spine (CFS) Seminar on 27-28 July 2017 ▪ World Indigenous Day 8-10 August 2017 at Kota Kinabalu Sabah and the 10th Kuala Lumpur Eco Film Festival (KLEFF) 2017 in 23-29 October 2017 ▪ Asia Pacific Conference on Food Security 2018 (ARCOFS18) on 30-31 October 2018; ▪ Malaysia Agriculture, Horticulture and Agrotourism Show (MAHA) 2018 from 22 November – 2 December 2018.	On target
2.5 Knowledge, attitudes & practices (KAP) surveys targeting groups (researchers, communities, & industry that may use / benefit from ABS transactions) to assess enhanced awareness about national ABS law, the CBD and Nagoya Protocol.	▪ The first phase of the assessment survey (baseline) for the Knowledge, Attitudes and Practices (KAP) on Awareness of ABS among the institutional stakeholders and the indigenous and local communities (ILC) has been conducted from July 2015-April 2016. A total of 910 respondents participated in the survey (336 institutional stakeholder; 574 ILCs) ▪ The second phase of the Knowledge, attitude, and practices (KAP) second phase study has been completed and the final report was submitted in November 2017. A total of 1149 respondents participated in the Phase 2 of the study from March to October 2017 (550 institutional stakeholders, and 599 Indigenous and Local Communities).	On target
Outcome 3: Best practice ABS processes piloted recognizing the principles of biodiversity conservation, Prior Informed Consent (PIC) & Mutually Agreed Terms (MAT) inc. fair & equitable sharing of benefits		
3.1: Pilot 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	▪ FRIM had developed an herbal medicine product prototype based on the medicinal Traditional knowlege of the Semai community of Perak named “Pengloy Semai” in 2017; and an herbal product prototype based on the the medicinal Traditional knowlege of the Kensiu community of Kedah named “KaHerbs” in July 2018. ▪ FRIM is in the stage to finalize the benefit sharing agreement with the Semai Community in Perak, and the Kensiu Community in Kedah.	On target
3.2: Pilot 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	▪ FRIM is finalizing the benefit sharing agreement with the both Semai and Kensiu Community for initial commercialization of prototypes while ensuring fair and equitable sharing of benefits.	On target

3.3: Pilot project on the utilization of genetic resources associated with TK for the development of health and personal care products in Sarawak	▪ Total 7 villages across Sarawak involved in the Litsara project. 5 villages participated in the project since 2014 (Kg Kiding, Long Kerebangan, Long Telingan, Pa'Ukat, Pa'Lungan), SBC upscaled and expanded the Litsara project to 2 more villages in 2017 – Bukit Sadok and Bakelalan which involve more community group of Iban and Lun Bawang. ▪ Community benefited from extra income generated from selling the essential oil processed in the village with a competitive contracting amount set by SBC. ▪ Sarawak Biodiversity Council successfully signed a benefit sharing agreement with 5 communities involved in the Litsara pilot project on Mar 2019. With the agreement, community will earn extra loyalty benefit from the marketing of Litsara products. ▪ From series of capacity building conducted by SBC, communities involved have been empowered by sustainable harvesting method Good Wild Craft Practices (GWCP) to ensure the population of *Litsea cubeba* plant is maintained and prevent over-harvesting, propagation of the *Litsea cubeba* plants to ensure continuous contract farming; Distillation of the essential oil at respective villages in a sustainable manner; Total of 5 distillation shed equipped with 4 sets of the hydro-distillation equipment have been constructed in 5 villages.	On target
3.4: Best practice pilot ABS agreement and PIC processes in Malaysia are made available to regional audiences	▪ A website www.abs.mybis.gov.my. dedicated for Malaysia ABS has been set up under the platform of Malaysia Biological Information System (MyBIS). The webpage is serving as ABS clearing house mechanism (ABS CHM) to enable better public engagement. The online permit application system is being developed to assist the permit application process after the law enforcement	Partially on target
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	Through participation in a series of workshops and capacity building activities organized by FRIM, SBC, and SaBC, the communities have achieved the followings: ▪ All communities involved are aware of the importance of fair and equitable sharing of benefits ▪ Communities are empowered with the knowledge in sustainable harvesting and the skills in essential oil distillation technique ▪ Traditional Knowledge of the community involved has been documented. ▪ Groups of community researches have been trained in the ABS concepts and knowledge capacity built which enable them to produce the community protocol by their own. ▪ The knowledge capacity provided empowered the community to safe guard their Traditional Knowledge and associated biological resources from being illegal exploitation. ▪ Feedbacks and comments obtained from communities on the ABS framework and mechanisms via field documentation have been used in developing the ABS guidelines, regulations and a model ABS agreement.	On target

Annex 3: Co-financing Table

	Co-financing							
Sources of Cofinancing[1]	**Name of Co-financer**	**Description of Co-financing**	**Type of Cofinancing[2]**	**Confirmed at CEO Endorsement (US$)**	**Amount Contributed at Stage of MTR (USD)**	**Expected Amount by Project Closure USD**	**New Investment Mobilised or Recurrent Expenditure**	**Actual % of Expected Amount USD**
GEF / Partner Agencies	**GEF**	GEF-5	Grant	1970000	n/a	1970000	n/a	
	UNDP	UNDP TRAC Fund	Grant	33000		33000	dd	
			UNDP & Partner Sub-Total	**$2003000**		**$2003000**		**100**
National Government	**Ministry of Water Land & Natural Resources**		In-Kind	5800000		6534557	dd	
			Government Sub-Total	**$5800000**		**$6534557**		**113**
Total				**$7803000**		**$8537557**		**109**

1. Sources of Co-financing may include: Bilateral Aid Agencies, Foundation, GEF Partner Agency, Local Government, National Government, Civil Society Organization, Multi-lateral agencies, Private Sector, Other
2. Type of Co-financing may include: Grant, Soft Loan, Hard Loan, Guarantee, In-Kind, Other
3. Government funding was not audited by the project
4. Excludes PPG

N/a – not applicable
Dd – data deficient

Annex 4: Planned Budget and Expenditures at End-term

Outcome	2014 USD	2015 USD	2016 USD	2017 USD		Total USD
Indicative Breakdown of Project Budget in Project Document:						
Component 1: Legal and Institutional Framework	115200	144700	96000	22000		**377900**
Component 2: Capacity Building	71000	147000	135000	117500		**470600**
Component 3: Pilot ABS Agreement	258500	336000	279500	76500		**950500**
Project Management	54200	56342	59700	758		**171000**
Total	**498900**	**684042**	**570300**	**216758**		**1970000**
Outcome	**2014 USD**	**2015 USD**	**2016 USD**	**2017 USD**	**2018 USD**	**Cumulative Totals at 31 DEC 2018**
Annual Work Plan Budgets and Actual Expenditures Incurred through Endterm:						
Component 1: Legal and Institutional Framework						
Annual Work Plan	73000.00	49088.00	125423.00	268000.00	26904.76	
Disbursed	36382.57	27371.08	39264.59	262355.79	26239.27	**391613.30**
Balance (AWP-Disbursed)	36617.43	21716.92	86158.41	5644.21	655.49	
Component 2: Capacity Building						
Annual Work Plan	30000.00	27500.00	64800.00	130000.00	255125.01	
Disbursed	8193.16	15114.52	75104.76	38428.36	104664.29	**241716.86**
Balance (AWP-Disbursed)	21806.84	12385.48	-10304.76	91571.64	150460.72	
Component 3: Pilot ABS Agreement						
Annual Work Plan	65000.00	251024.00	251477.00	228726.00	88542.68	
Disbursed	24578.46	247023.77	294303.61	270252.33	86486.28	**922644.45**
Balance (AWP-Disbursed)	40421.54	4000.23	-42826.61	-41526.33	2056.40	
Project Management						
Annual Work Plan	46000.00	14848.00	73300.00	246000.00	83222.45	
Disbursed	10832.10	11816.57	37291.84	27865.10	63215.03	**151011.64**
Balance (AWP-Disbursed)	35167.90	3031.43	36008.16	218134.90	20007.42	
Grand Totals:						
Annual Work Plan	214000.00	342460.00	515000.00	872726.00	453794.90	
Total Disbursed	**85912.51**	**316769.79**	**443225.14**	**598892.58**	**280604.87**	**1725404.95**
Balance (AWP-Disbursed)	**128087.49**	**25690.21**	**71774.86**	**273833.42**	**173190.03**	

Annex 5: Sectoral plans, Technical reports & Miscellaneous

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NSC Attendance

Entity	Q1, 2014	Q3, 2014	Q4, 2014	Q2, 2015	Q4, 2015	Q2, 2016	Q1, 2017	Q4, 2017	Q1, 2018	Q4, 2018	Attend (%)
Biodiversity & Forestry Management Division (BFMD), MWLNR	√	√	√	√	√	√	√	√	√	√	100
Ministry of Finance	√	√	√	√			√				50
Ministry of Agriculture and Agro-based Industry	√	√	√	√		√		√	√	√	80
Ministry of Energy, Science, Technology, Environment & Climate Change (MESTECC)	√	√	√		√	√	√	√		√	80
Ministry of Economic Affairs (MEA)	√	√	√	√	√	√	√	√	√	√	100
Department of Indigenous People Development (JAKOA)	√	√		√	√	√	√		√	√	80
Ministry of Primary Industries		√	√	√	√	√	√				60
Forestry Department of Peninsular Malaysia	√	√	√	√	√	√	√	√	√	√	100
Department of Wildlife and National Parks Peninsular Malaysia	√	√	√	√	√	√	√	√	√	√	100
Marine Park Department of Malaysia		√	√	√	√	√	√	√	√		80
Forest Research Institute of Malaysia (FRIM)	√	√	√	√	√	√	√	√	√	√	100
Sarawak Biodiversity Centre (SBC)	√	√	√	√	2	√	√	√	√	√	100
Sabah Biodiversity Centre (SaBC)	√	√	√	√	√	√	√	√	√	√	100
Third World Network	√	√	√	√		√		√			60
Perak State Economic Planning Unit		√	√		√	√	√		√	√	100
Kedah State Economic Planning Unit						√	√	√	√		40
Indigenous Peoples Network of Malaysia (JOAS)				√			√	√			30
UNDP	√	√	√	√	√	√	√	√	√	√	100
Perak State Park Corporation (3)										√	10
Putra University of Malaysia (UPM) (3)						√			√		20
WWF Malaysia (3)					√						10
Chairman											
Deputy Secretary General (Environment), Ministry of Water, Land and Natural Resources (MWLNR)	√	√	√	√							
Secretary General, MWLNR					√	√	√	√	√		
Under Secretary, Biodiversity & Forestry Management Division (BFMD), MWLNR										√	

1 MRD at 1st meeting, then declined the NSC membership. DIPD took over MRD's place
2 Ministry of Urban Development & Natural Resources Sarawak (MUDNR) stood in for SBC
3 Non NSC member

Training

Title	Date	Topics	Participants	TE comment
Capacity Building Workshop for Kintak Community Phase 1 & PIC 2	5-8 Aug 2014	Output 3.1	24 (18 m, 6 w)	Low female participation
Capacity Building Workshop for Kintak Community Phase 2	2-4 Sept 2014	Output 3.1	dd	
Capacity Building Workshop for Kensiu Community Phase 1 & PIC 2	28-30 Oct 2014	Output 3.1	25 (20 m, 5 w)	Low female participation
Capacity Building Workshop for Kensiu Community Phase 2	25-27 Nov 2014:	Output 3.1	dd	
Workshop on ABS Bill with competent authority and enforcement officer	21 Mar 2016	Output 1.2	40 (18 m. 20 w)	Workshop report not seen
1st Community Researcher Training, Long Pasia/Long Mio	20 May 2016	Outputs 1.4 & 1.5	dd	Workshop report not seen
2nd Community Researcher and Community Leaders Training, Long Pasia/Long Mio	18 Jan 2017	Outputs 1.4 & 1.5	4 (3 m, 1 w)	4 out of the total 7 community researchers were in attendance
3rd Community Workshop on FPIC, Long Pasia/Long Mio	19 Jan 2017	Outputs 1.4 & 1.5	Session 1: 23 (13 m, 10 w) Session 2: 19 (10 m, 9 w)	Only 2 participants from Long Mio
4th Community Workshop on International Law, Community and TK and Ecosystem, Long Pasia/Long Mio	20 Jan 2017	Outputs 1.4 & 1.5	Session 1: 21 (12 m, 9 w) Session 2: 10 (12 m, 8 w)	Only 2 participants from Long Mio
ABS Funding	27 Feb 2017	Output 1.3	37 (13 m, 24 w)	All EPUs attended
1st Community Workshop Community Mapping, Melangkap	19 Jun 2017	Outputs 1.4 & 1.5	31 (17 m, 14 w)	Two more experienced village elders were not in attendance
2nd Community Workshop on PIC Workshop and Community Participatory Mapping Meeting, Melangkap	12-13 Aug 2017	Outputs 1.4 & 1.5	Day 1: 19 (12 m, 7 w) Day 2: 14 (13 m, 1 w)	4 of the 5 villages in Melangkap sent representatives; No person from Melangkap Kapa
3rd Community Workshop Access and Benefits Sharing Mutual Agreed Terms, Melangkap	14 Oct 2017	Outputs 1.4 & 1.5	13 (10 m, 3 w)	Low turnout as communities were busy with tourism over the weekend
Participatory 3 Dimension Mapping Workshop, Long Pasia/Long Mio	15-16 Nov 2017	Outputs 1.4 and 1.5	Day 1, Session 1: 43 (15 m ,28 w); Day 1, Session 2: 21 (9 m, 12 w); Day 2, Session 1: 41 (11 m, 30 w)	High female participation rate. No participants from Long Mio
Capacity Building Training on the implementation of Act 795 - with CA&EO	9-10 Aug 2018	Output 2	46 (24 m, 22 w)	Workshop report not seen
ABS Capacity Building Workshop with Researchers	12 Oct 2018	Output 2	51 (21 m, 39 w)	Workshop report not seen
Capacity building program on farm establishment and distillation with community at Kpg. Kiding	Apr-Oct 2018	Output 3.3	Dd	
Capacity building program on farm establishment and distillation with community at Long Kerebangan	Apr-Oct 2018	Output 3.3	Dd	
Capacity building program on farm establishment and distillation with community at Long Telingan	Apr-Oct 2018	Output 3.3	Dd	
Capacity building program on farm establishment and distillation with community at Pa Lungan	Apr-Oct 2018	Output 3.3	Dd	
Capacity building program on farm establishment and distillation with community at Pa Ukat	Apr-Oct 2018	Output 3.3	Dd	

Capacity building program on farm establishment and distillation with community at Bukit Sadok	Apr-Oct 2018	Output 3.3	Dd	
Capacity building program on farm establishment and distillation with community at Bakelalan	Apr-Oct 2018	Output 3.3	Dd	

Dd data deficient

Awareness Activities for Sarawak Biodiversity Centre Ordinance 1997, Sarawak Biodiversity Regulations, 2016 and Access and Benefit Sharing (2015 – 2018)

No.	Program	Date	Venue
2015			
1.	Joint Awareness Briefing on the SBC Ordinance 1997, Wildlife Protection Ordinance 1998 & Forests Ordinance 2015 with Customs officers, Custom Department, Kuching.	26 November 2015	56 Hotel, Kuching
2.	Joint Awareness Briefing on the SBC Ordinance 1997, Wildlife Protection Ordinance 1998 & Forests Ordinance 2015 with Malaysia Airport Berhad & Sarawak Tourism Association	27 November 2015	56 Hotel, Kuching
2016			
1.	Joint Awareness Briefing on the SBC Ordinance 1997, Sarawak Biodiversity Regulations 2016, Wildlife Protection Ordinance 1998 & Forests Ordinance 2015 with Customs, Malaysia Airport Berhad, Jabatan Laut Sibu in Sibu & Sarikei	24 August 2016	Premier Hotel, Sibu
2.	Joint Awareness Briefing on the SBC Ordinance 1997, Sarawak Biodiversity Regulations 2016, Wildlife Protection Ordinance 1998 & Forests Ordinance 2015 with Customs, Malaysia Airport Berhad, Jabatan Laut in Limbang & Lawas	25 August 2016	Purnama Hotel, Limbang
3.	Joint Awareness Briefing on the SBC Ordinance 1997, Sarawak Biodiversity Regulations 2016, Wildlife Protection Ordinance 1998 & Forests Ordinance 2015 with Aviation Security (AVSEC) for Kuching International Airport	29 August 2016	Kuching Int'l Airport
4.	Joint Awareness Briefing on the SBC Ordinance 1997, Sarawak Biodiversity Regulations 2016, Wildlife Protection Ordinance 1998 & Forests Ordinance 2015 with UPM Bintulu Campus	19 September 2016	UPM Bintulu
2017			
1.	Joint Awareness Briefing on the SBC Ordinance 1997, Sarawak Biodiversity Regulations 2016, Wildlife Protection Ordinance 1998 & Forests Ordinance 2015 with Aviation Security (AVSEC) Sibu Airport, Custom & DCA in Sibu Aiport	09 May 2017	Sibu Airport Meeting Room
2.	Joint Awareness Briefing on the SBC Ordinance 1997, Sarawak Biodiversity Regulations 2016, Wildlife Protection Ordinance 1998 & Forests Ordinance 2015 with DOA, JPJ, NREB, SFD, SFC, PDRM, Sarawak Tourist Guide Association, District & Municipal Council and UCTS College in Sibu	09 May 2017	Premier Hotel, Sibu
3.	Joint Awareness Briefing on the SBC Ordinance 1997, Sarawak Biodiversity Regulations 2016, Wildlife Protection Ordinance 1998 & Forests Ordinance 2015 with Aviation Security (AVSEC) Miri Airport	28 July 2017	Miri Airport Meeting Room
4.	Joint Awareness Briefing on the SBC Ordinance 1997, Sarawak Biodiversity Regulations 2016, Wildlife Protection Ordinance 1998 & Forests Ordinance 2015 with DOA, JPJ, NREB, SFD, SFC, PDRM, District & Municipal Council and CURTIN University in Miri	28 July 2017	Mega Hotel, Miri
5.	Joint Awareness Briefing on the SBC Ordinance 1997, Sarawak Biodiversity Regulations 2016, Wildlife Protection Ordinance 1998 & Forests Ordinance 2015 with UNIMAS	10 August 2017	Dewan Kristal, UNIMAS
2018			
1.	Awareness Briefing on the SBC Ordinance 1997 and Sarawak Biodiversity Regulations 2016 for the Conservation Internship Program under the Forest Management Certification, RIMBA Sarawak	04 May 2018	Sarawak Forestry Corp. (SFC) Kuching
2.	Awareness Briefing on the SBC Ordinance 1997 and Sarawak Biodiversity Regulations 2016 for Swinburne Sarawak Undergraduate students	12 October 2018	SBC Lecture Theatre

Draft ABS Regulations

Part 1 of the draft ABS Regulations provide an indication of the organisational structure of the Advisory Committee & Advisory Body

"PART I AUTHORITIES

Advisory Committee

2. (1) The Advisory Committee established under subsection 11(1) of the Act shall consist of not less than seven and not more than fifteen members.

(2) The National Competent Authority shall appoint a Chairman of the Advisory Committee from amongst the members of the Advisory Committee.

(3) The National Competent Authority may, at any time, revoke the appointment of any member of the Advisory Committee.

(4) Any member of the Advisory Committee may, at any time, resign by giving a one month written notice to the National Competent Authority.

(5) All meetings of the Advisory Committee shall be presided by the Chairman or, in the absence of the Chairman, any members of the Advisory Committee.

(6) The Advisory Committee may invite any person with relevant expertise to attend any meeting of the Committee for the purpose of advising the Committee on any matter under discussion, but that person shall not be entitled to vote at the meeting.

(7) The Advisory Committee may regulate its own procedure relating to the meetings of the Committee.

(8) The Advisory Committee shall be responsible to the National Competent Authority.

Advisory body

3. (1) The representatives of indigenous community and local community referred to in subsection 9(2) of the Act shall be the members of the advisory body and nominated by the indigenous community and local community.

(2) The advisory body may elect a chairman from amongst its members.

(3) The advisory body may regulate its own procedure.

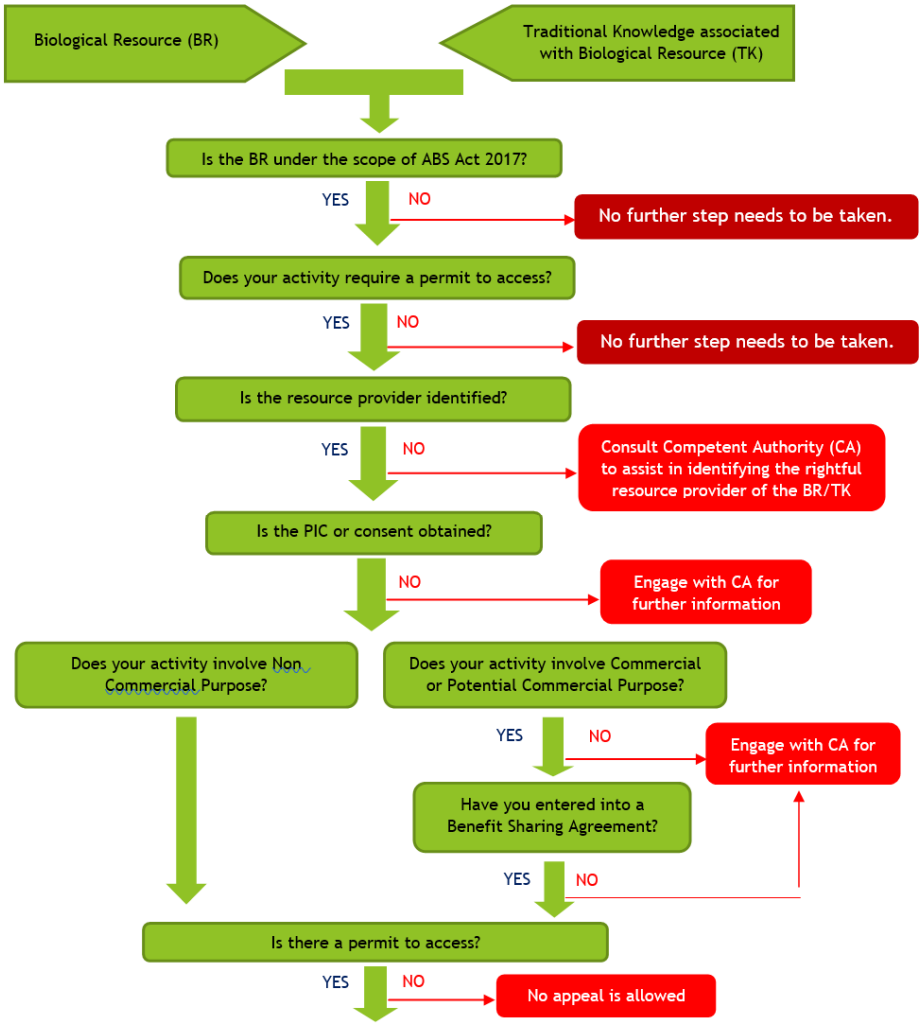
(4) The advisory body may invite any person to attend any meeting of the advisory body for the purpose of advising the advisory body on any matter relating to indigenous community and local community.

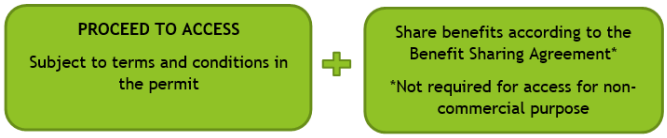
(5) A member of advisory body shall, unless he resigns or vacates his office or his appointment is revoked, hold office for such term as may be specified in his instrument of appointment and shall be eligible for reappointment.

(6) The Competent Authority may, at any time, revoke the appointment of any member of the advisory body.

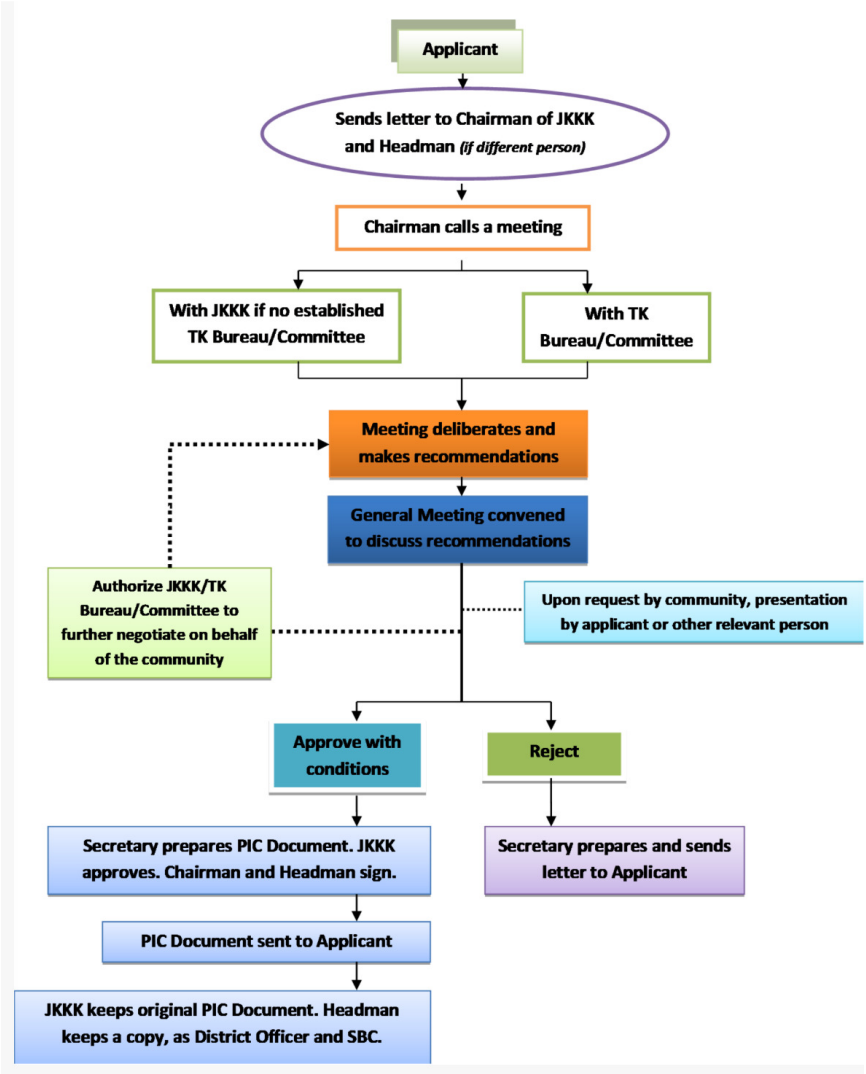
(7) Any member of advisory body may, at any time, resign by giving a one month written notice to the Competent Authority."

User's Guide to ABS – Draft - An overview of ABS (p14)

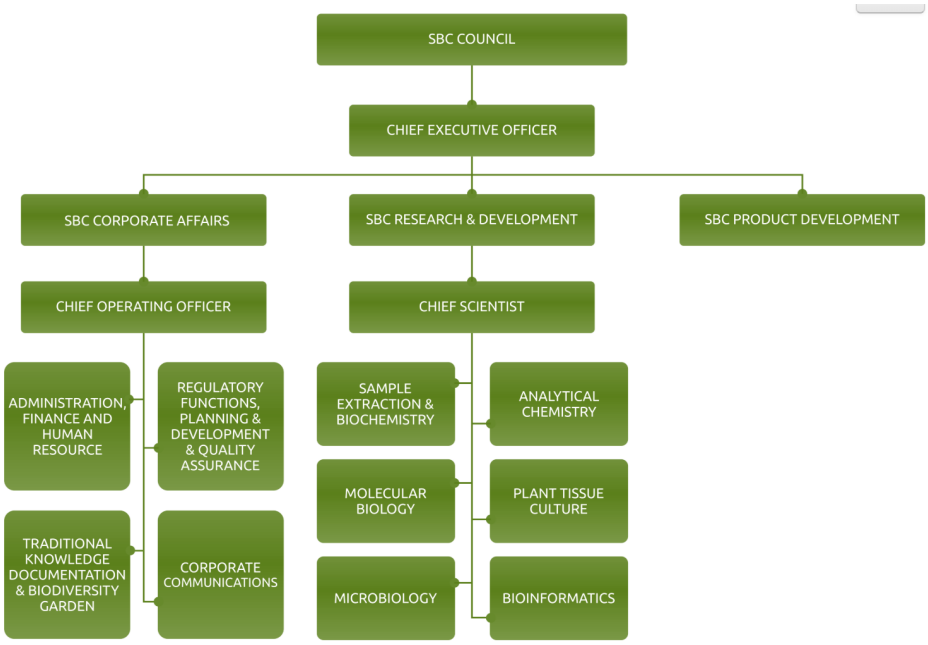




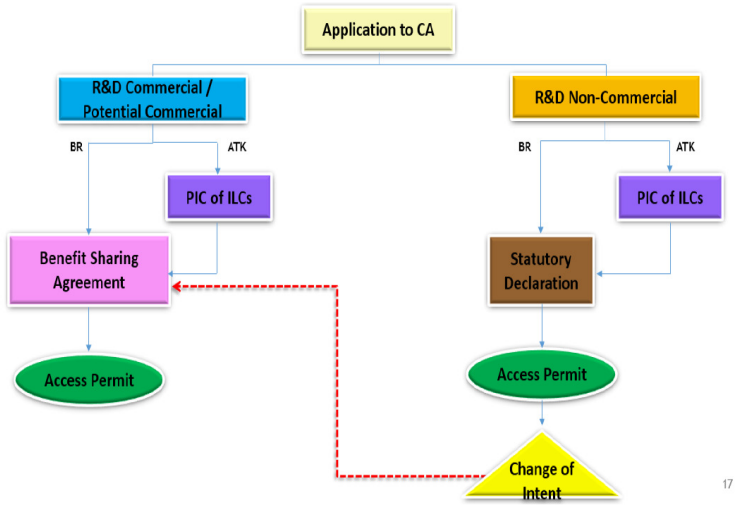
PIC Beneficiary Framework (in use nation-wide, Sarawak example given)



Sarawak Biodiversity Centre Organigram

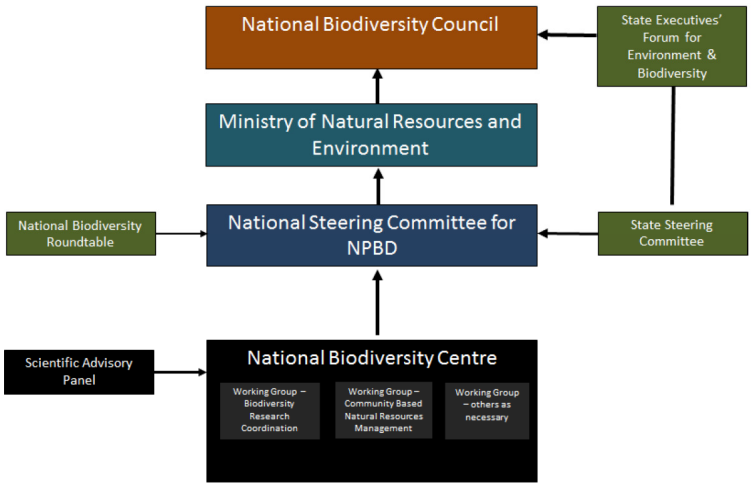


Steps to Access BR / TK



Source - Vilm ABS Dialogue 2018 – Informing about Domestic Measures for Access to Genetic Resources (BfN-Skripten 524, 2019, Suhel al-Janabi, U. Feit, E. Fenster, T. Greiber and P. Schauerte (Eds.)

National Policy on Biological Diversity 2016 – 25 (Draft Framework, 2015)



Forest Ownership

Region	Forest	Functions	Ownership & management*
Peninsular Malaysia	Permanent Forest Estate	Protection Forest, Production Forest, Amenity Forest Research and Education Forest	Forestry Department Peninsular Malaysia
	National parks	National parks	Department of Wildlife & National Parks Peninsular Malaysia
	State parks	State parks	State Park Corporations
	Wildlife sanctuaries & reserves	Wildlife sanctuaries & reserves	Department of Wildlife and National Parks Peninsular Malaysia
	State-land forests	Multiple**	State Governments
Sabah	Permanent Forest Reserves	Class I: Protection Forest (totally protected area (TPA)) Class II: Commercial Forest Class III: Domestic Forest Class IV: Amenity Forest Class V: Mangrove Forest (TPA) Class VI: Virgin Jungle Reserve (TPA) Class VII: Wildlife Reserve (TPA)	Sabah Forestry Department (SFD). Sabah Foundation manages 3 areas under Class 1, namely Danum Valley, Maliau Basin & Imbak Canyon
	Parks	There are currently 7 parks gazetted under the Parks Enactment, 1984. Three areas are Terrestrial Parks and 4 are Marine Parks	Sabah Parks
	Conservation Areas, Wildlife Sanctuaries and Wildlife Hunting Areas	Wildlife /Bird / Marine Sanctuary	Sabah Wildlife Department
	State-land forests	Multiple**	State Government of Sabah
Sarawak	Permanent Forest Estate	Forest reserves, Protected forests,	Forest Department of Sarawak

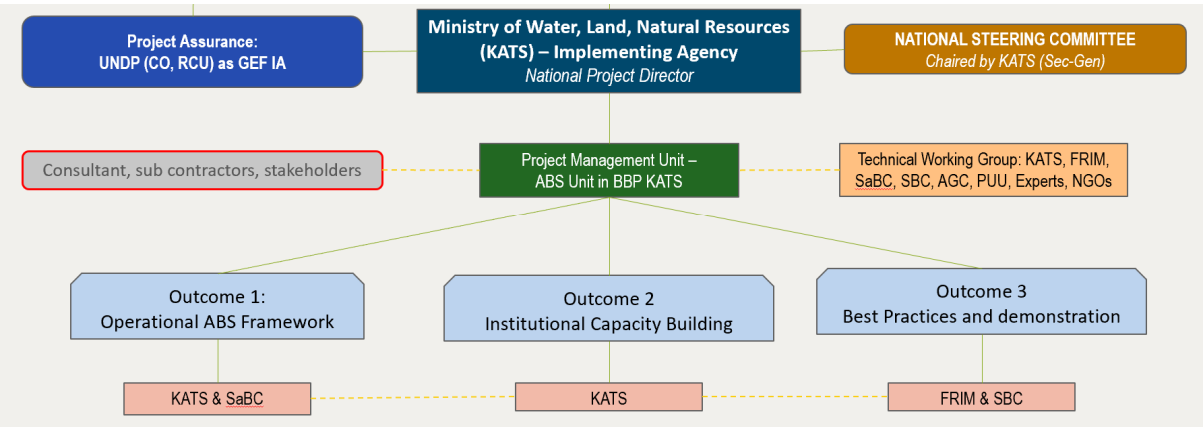
		Communal forests & Government reserves	
	Totally Protected Area	National Parks Wild Life Sanctuary Nature Reserves	Forest Department of Sarawak
	State-land forests	Multiple**	State Government of Sarawak

* In accordance with Malaysia's Federal Constitution, the legislative control of land and forests is a state matter and the state governments have complete jurisdiction over their respective forest resources. However, the federal government (through Forestry Department Peninsular Malaysia (& for wildlife matters, through Department of Wildlife & National Parks Peninsular Malaysia) does provide technical advice on forest management and development, undertakes research and education, and promotes industrial development of wood-based industries and trade.

**State-land forests are not under any of the national or state forestry and protected area laws. They can be alienated and converted to other uses such as agricultural, industrial and timber harvesting.

NB – The TE has not conducted an analysis of customary law of natural resources

The project organizational structure:



NB – The TWG was only active during project preparation

Output 1.1 and 1.2 Package

- The development of national ABS law and implementing regulations with full stakeholders' participation.
- The establishment of the institutional framework including the designation of national and state competent authorities and supporting measures - to enable the implementation of the national ABS law at federal and state levels.
- The establishment of the Prior Informed Consent (PIC) Protocol which constitutes the basis for clarifying PIC and MAT requirements between users and providers of associated traditional knowledge (ATK) and biological resources has been established.
- The completion of consultations with all stakeholders and the finalisation of the paper on accession to the Nagoya Protocol for approval by the Cabinet.
- Training provided to enhance the capacities of the state Competent Authorities (CA), National Competent Authority (NCA) and related agencies with regard to processing access applications, negotiating ABS agreements and monitoring and tracking measures to ensure compliance.
- The development of training programme, modules and relevant tools which were made available to the above authorities.
- The conduct of awareness-raising campaigns on the ABS law, CBD and Nagoya Protocol targeting researchers, indigenous and local communities, and relevant industries.

Summary of ABS institutional arrangement

Authorities		Functions	Established by
National Competent Authority (NCA)	Ministry of Water, Land and Natural Resources (KATS)	Overall coordinating body for ABS law, functions as national focal point, CA for specific ex-situ collection	The Act
Competent Authority (CA)	14 CAs: 13 for States 1 for F. Territories	Named by States to implement ABS in States.	The Act
State Authority (SA)	13 States	Decision making authority in States. Also resource provider.	-
Advisory Committee	To be established under NCA	To provide advice on scientific, technical, ethical and other relevant matters	NCA
Advisory Body (ILCs)	To be established under each CA	To provide advice on ILCs and TK matters	CA

UNDP Capacity Development Scorecard – 2019 edit for National Capacity i.e. MWLNR

Scorecard	Assessment Question	2019 MWLNR Answer
1. Capacity to formulate policies, laws, strategies and programmes	The ABS agenda is being effectively championed / driven forward	KATS is the focal agency on ABS and there is an overall policy and commitment to have a national ABS law. However, getting the buy-ins from all states to implement the federal law could take some time.
	A legally designated institution(s) responsible for ABS with the capacity to develop a national ABS framework (i.e., laws, policies and/or regulations)	Malaysia has expertise on ABS. At KATS level, the understanding on ABS issues is adequate but the financial resource, personnel and expertise are limited to address these issues efficiently.
2. Capacity to implement policies, legislation, strategies and programmes	There is a designated ABS institution(s) responsible for ABS that can facilitate the implementation of the national ABS framework.	KATS has established a specific unit under the Biodiversity and Forestry Management Division to oversee ABS implementation. The unit will be strengthened as a National Biodiversity Centre (NBC) which will act as the National Competent Authority at the national level.
	The ABS institution (s) is effectively led	There is official and political commitment at the highest level at KATS.
	Human resources for ABS management are well qualified and motivated	The motivation level of the ABS focal point is high as the personnel involved have passion for this issue. Nevertheless, in the long term there is a need to develop understanding and technical skills of personnel on the implementation of the Nagoya Protocol and the national ABS law.
	The ABS institution(s) is audited and publicly accountable	A dedicated ABS institution to oversee and coordinate the implementation of ABS at the federal level is yet to be in place.
	Enforcement of ABS regulations	The national ABS law was adopted on 17 October 2017 and is not in force pending finalization of its subsidiary legislations.
	Individuals are able to advance and develop professionally	Trainings at the national and regional level are in place.
	Individuals are appropriately skilled for their jobs	KATS is the focal point for the CBD and the Nagoya Protocol. Currently, the officers involved in ABS are from the Diplomatic and Administrative Scheme (common service) which are transferable and the replacement officer does not necessarily have prior biodiversity background or training. Hence, the setting up of a dedicated institution on ABS is urgently needed.
	There are appropriate mechanisms of training, mentoring, and learning in place to maintain a continuous flow of new staff	No official mechanism is in place. In the current set up, training are done through mentoring and capacity building workshop by KATS.
3. Capacity to build consensus among all stakeholders	ABS has the political commitment	As explained above.
	Degree of public support on ABS issues	There is a lack of public awareness and exposure on ABS based on the conducted survey.
	The ABS institution(s) is mission oriented	ABS institution mission is yet to be in place.

Scorecard	Assessment Question	2019 MWLNR Answer
	The ABS institution(s) can facilitate the partnerships needed to achieve its objectives	The national ABS law is not operational.
4. Capacity to mobilize information and knowledge	The ABS institution(s) has the information it needs to enforce the national legal/policy ABS framework and to facilitate ABS deals	The complete ABS institutional set up is yet to be in place. KATS is currently developing a national ABS CHM which is a platform to disseminate information on ABS requirements in Malaysia.
	Individuals from the ABS institution(s) work effectively together as a team	The complete ABS institutional set up is yet to be in place
5. Capacity to monitor, evaluate, report and learn	There is a legally designated institution(s) responsible for ABS and able to update the ABS national framework	The Competent Authority and Checkpoints have been identified under the national ABS law. However, other institution for ABS such as the National Competent Authority, Advisory Committee are yet to be established.
	ABS policy or law is continually reviewed and updated	No monitoring has been done as the national ABS law is still not operational. Policy: National Policy on Biological Diversity 2016-2025; Act 795
	Society monitors ABS projects	There is limited public intervention on ABS project.
	Institutions are highly adaptive, responding effectively and immediately to change promoted by implementation of the national ABS framework (i.e., laws, policies and/or regulations).	
	The ABS institution(s) has effective internal mechanisms for monitoring, evaluation, reporting and learning on ABS projects	
	Individuals from ABS institutions are adaptive and continue to learn	

Sarawak - Research by SBC

Kiding Village, Padawan District (notes)

- As products develop JKKK role important - 1st point of call is village JKKK – if dispute, then district gov't resolution
- Headman recruited by gov't – to JKKK committee Head of Village Development & Security Committee (JKKK) – gets allowance
- Kiding village (Padawan District) - Committee – 2 out of 10 women – have TK sub-committee. Difficult to get new members to produce litsea, despite distillation equipment working well on-site.
- If TK knowledge village with production – eco-tourists will come – and may be bigger part of income as time progresses – so more of a plan needed with younger generation involve – project needed / NGO / SBC support
- Kiding 1st ABS in Malaysia (1 of 5 villages – part of same agreement) – so a can be a showcase demonstration project for others – will come to see – raising profile of village – as a possible centre for TK / village forest plant cultivation – benefits both - village/ SBC
- **Dragon's blood rattan**[1] – what is the agreement on Dragon's Blood - a PIC - a draft ABS? As many plants ~300 were taken - this is a lot for research purposes - to identify active compounds. It looks more like establishing a plantation - so what do the villagers get? Many Dragons Blood plants are now not in the forest and the community has not had an opportunity or support to plant & propagate on their own land.
- Village has road, electricity, sewage system with septic tanks, internet coming, access now to get gas for burners and get oil out to SBC
- TK since 2006
- Forest is a water resources point – so logging not permitted. Near Kalimantan border (find google earth?)
- Field permission - introduction letter / formalities via (Padawan) district office

[1] What are they used for - internet (so easy to sell / market maybe?) https://en.wikipedia.org/wiki/Dragon%27s_blood. Dragon's blood resin is also produced from the rattan palms of the genus Daemonorops of the Indonesian islands and known there as jerang or djerang. It is gathered by breaking off the layer of red resin encasing the unripe fruit of the rattan. The collected resin is then rolled into solid balls before being sold. www.eaincense.com/daemonorops-draco.html

Need support to engage younger generation in this

Litsea bird fruit / seed dispersal – evidenced by pioneer (primary succession) species growth on old hill rice land (only use 1 year and shift – not sustainable) - Then enrich natural regen on old rice areas with wildlings – not sustainable without next generation of mother trees. Forest collection is not sustainable due to high demand from SBC and opportunities for litsea collectors to make money. Trees often damaged in collection of fruit – need more plantations (forest gardens) established and use bamboo pole with v-shape to strip fruit - - less damage. Can make forest garden nurseries – have such nurseries already but not for litsea seed or cuttings – need to collect seed to also plant. – need SBC support to develop nursery techniques - Exchange visits needed village to village (others better at production but not confirmed by TE) – SBC to facilitate. Black ants infest trees – need solution. Tops die out due to what? Ants?

Collection not sustainable – bottleneck to supply and demand – environmental risk to sustainability still medium to high.

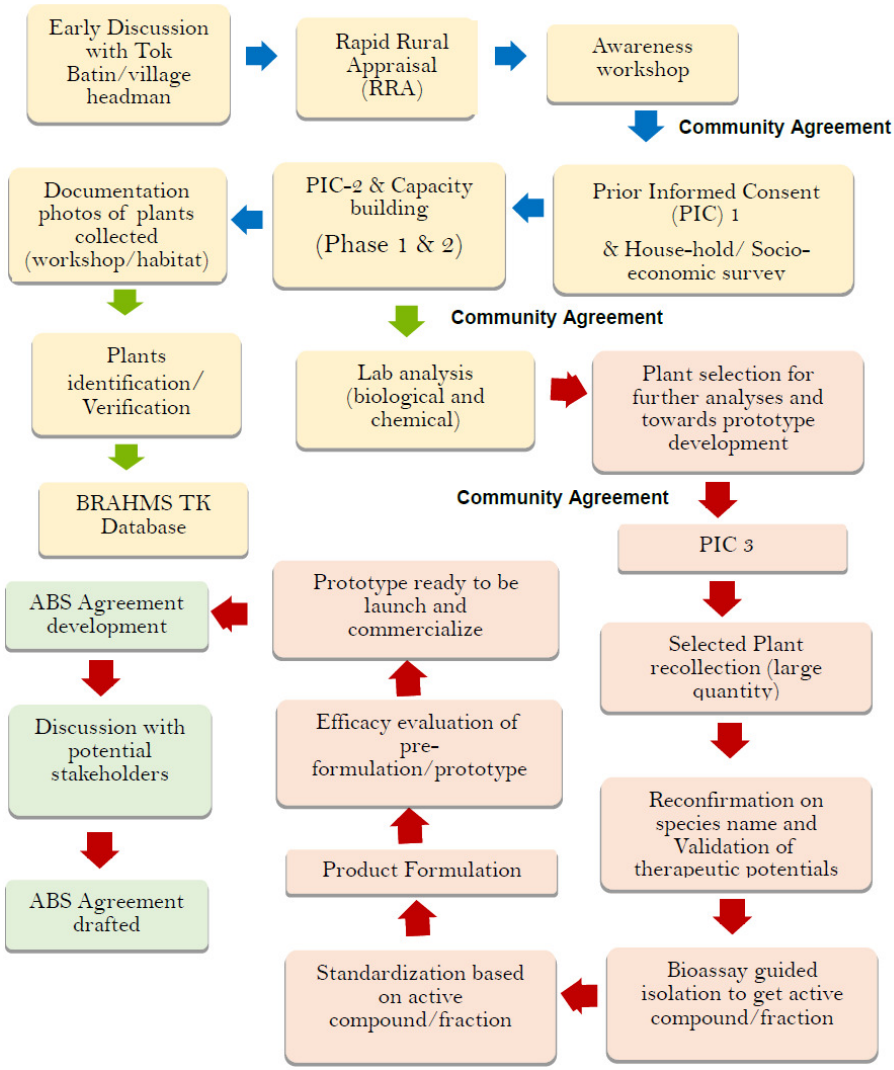
Nursery needed to get production up – propagation – raise off ground for drainage, check holes not clogged – drill more – propagators – poor soil content (heavy clay – more mix) – need compost or sieve topsoil – now have clay + air – lower saturated – so root hairs can't function – either drown or in air – little access to soil nutrients – clay also holds nutrients tightly – plastic cover – sweating (evp. Too high) cuttings that have no roots – so dehydrating only. – need airflow – leader changed to net cover. Put in stones, sand layers for drainage, then compost.

Village need to practice propagating and cultivating other plants (herbal, cosmetic, medicinal, health) – with SBC to pre-select 10-20 to screen for active compounds – select down to 5-10 based on TK / useful properties and learn to grow. Because took 10-12 years to develop litsea, so if next plant takes 6-8 years too slow. Start with dragonblood village propagation – demand already

<u>DIPD - meeting was held in Gerik Town, Hulu Perak District, Perak</u>

- Dept. of Ethnic Affairs directly under the President's Dept.
- Key points of the JAKAO's Report on the socio-economic well-being of the Indigenous People (Kensiu) in Lubuk Legong, Ulu Legong, Baling, Kedah (published in May 2018; in Malay):
- There is the only indigenous people village in the State of Kedah. The total population in the village is 301, consisting of 80 households. This is the only Negrito ethnic group found in Peninsular Malaysia. They live in an indigenous people reserve land (428 acres) since 1958.
- Most of them work as rubber tappers & general workers. A small percentage of the population collect medicinal plants from the forest for sales. Not many are interested to work in the farms in Lubuk Legong. Some work as factory workers in other districts.
- Between 2014-2018, the Federal Government had spent RM625,000 for the construction and upgrading of houses and basic infrastructure in the village.
- The Federal Govt also encouraged Kensiu in the rubber tree replanting projects in Lubuk Legong. The projects were implemented by private companies. They hired Kensiu as planters or rubber tappers.
- Most of the Kensiu children stop attending school after completing primary education. 41 of them are in primary schools and 2 in secondary school.
- Alcohol and drug abuse is common among the villagers.
- DIPD under Prime Minister's dept. – regional office cover 3 districts – then sub-district level – then RPS 'resettlement zone / village
- Regional HQ - the jurisdiction of the DIPD office in Ipoh, Perak includes the whole Perak State and Kedah State.
- Branch office - the jurisdiction of the DIPD branch office in Gerik Town covers Hulu Perak District in Perak and Baling District in Kedah (i.e. where the Kensiu village (Lubuk Legong) is located)

FRIM Process


Early Discussion with Tok Batin/village headman
Rapid Rural Appraisal (RRA)
Awareness workshop
Community Agreement
Documentation photos of plants collected (workshop/habitat)
PIC-2 & Capacity building
(Phase 1 & 2)
Prior Informed Consent (PIC) 1
& House-hold/ Socio-economic survey
Community Agreement
Plants identification/ Verification
Lab analysis (biological and chemical)
Plant selection for further analyses and towards prototype development
BRAHMS TK Database
Community Agreement
PIC 3
ABS Agreement development
Prototype ready to be launch and commercialize
Selected Plant recollection (large quantity)
Discussion with potential stakeholders
Efficacy evaluation of pre-formulation/prototype
Reconfirmation on species name and Validation of therapeutic potentials
ABS Agreement drafted
Product Formulation
Standardization based on active compound/fraction
Bioassay guided isolation to get active compound/fraction

Annex 6: List of Persons Interviewed

Opening Meeting with Project team members in Ministry of Water Land and Natural Resources 17 June 2019

No.	Name	Designation/Organisation
1.	Dato' Wan Mazlan Bin Wan Mahmood	Under Secretary, Biodiversity & Forestry Management Division (BFMD), Ministry of Water, Land and Natural Resources (MWLNR)
2.	Dr. Khairul Naim Bin Adham	Deputy Under Secretary, BFMD, MWLNR
3.	Chitdrakantan Subramaniam	Principal Assistant Secretary, BFMD, MWLNR
4.	Marhaini Binti Mat	Principal Assistant Secretary (Policy) Ministry of Energy, Science, Technology, Environment & Climate Change (MESTECC)
5.	Ange Tan	UNDP
6.	Nurshafenath Shaharuddin	UNDP
7.	Gan Chin Keong	UNDP

Meeting with Forest Research Institute Malaysia (FRIM), 18 June 2019

No.	Name	Designation/Organisation
1.	Dr. Norini Haron	FRIM, Team Leader
2.	Norbaiah Mat Yaacob	FRIM
3.	Intan Nurulhani Baharuddin	FRIM
4.	Firdaus Kamarulzaman	FRIM
5.	Tan Ai Lee	FRIM
6.	Nor Hasnida Hassan	FRIM
7.	Nik Musaadah Mustapha	FRIM
8.	Fadzureena Jamaludin	FRIM
9.	Nastrah Abdullah	FRIM
10.	Muhammad Fuad Bin Yahya	FRIM
11.	Iskandar Muhammad bin Masrukin	FRIM
12.	Mohd Rosli Haron	FRIM

Meeting with Kensiu Community at Kg. Lubok Legong, Baling, Kedah, 19 June 2019

No.	Name	Designation/Organisation
1.	Razali B. Kulim	Village Head
2.	Melor Bt Mualang	Community member
3.	Roslan Bin Jusoh	Community member
4.	Rajin Bin Keramik	Community member
5.	Zul Bin Panjang	Community member
6.	Ibrahim Bin Dalu	Community member
7.	Ghani Bin Jas	Community member
8.	Alang Bin Ham	Community member
9.	Fatimah Kassim	Community member
10.	Wati Binti Tero	Community member
11.	Acu Binti Gondang	Community member
12.	Abdul Jabar Kampung	Community member
13.	Biah Bt Kechapi	Community member
14.	Buloh	Community member
15.	Siti Aminah Bt Abdullah	Community member
16.	Ibrahim B. Kassim	Community member

Meeting with Department of Indigenous People Development (JAKOA), Hulu Perak & Baling Districts, Gerik, Perak, 19 June 2019

No.	Name	Designation/Organisation
1.	Mohd Amim	JAKOA Representative

Meeting with Semai Community at Kg. Ulu Geroh, Gopeng, Perak, 20 June 2019

No.	Name	Designation/Organisation
1.	Ngah Sidin A/L Hamzah	Village Head
2.	Long Delim	Community member
3.	Wah Ngah A/P Terikioe	Community member
4.	Bah Aew	Community member
5.	Wah Renggah	Community member
6.	Teh Binti Bahkupan	Community member
7.	Bah Azmi Bin Ng Pagi	Community member

8.	Mastura A/P Bah Ular	Community member
9.	Anjang Bin Bah Asin	Community member
10.	Ramli A/L Bah Kok	Community member
11.	Johari B. Zakaria	JAKOA Representative
12.	Mohd Haslin	JAKOA Representative
13.	Mohd ASri B. Dahaya	JAKOA Representative
14.	Mohd Khairul Izmar B. Moradi	JAKOA Representative
15.	Sadi A/L Melayan	National Education Advisory Council representative
16.	Bah Chong Weh	National Education Advisory Council representative

Meeting with SaBC, gov agencies and local NGOs, 21 June 2019

No.	Name	Designation/Organisation
1.	Gerald Jetony	SaBC Director
2,	Alessandra Markos	SaBC Officer
3.	Hani Sandra Binyi Musu	Sabc Officer
4.	Ken Kartina Binti Khamis	SaBC Officer
5.	Sabah State EPU representative	Sabah EPU
6	Ministry of Health representative	Ministry of Health
7.	Sabah Parks representative	Sabah Parks
8.	Kota Belud District Officer	Kota Belud District Office
9.	Partners of Community Organisation Trust, Sabah representative	PACOS
10.	Lanash Thanda	BC Initiative
11.	Dorothy Lim	BC Initiative

Meeting with Dusun Community at Kg. Tiong (Melangkap), Sabah, 22 June 2019

No.	Name	Designation/Organisation
1.	Domius Salindap	Melangkap Tiong community member
2.	Kundian Sumbi	Melangkap Tiong community member
3.	Sakimin Setan	Melangkap Tiong community member
4.	Kurupong	Melangkap Tiong community member
5.	Heiny Tingangan	Melangkap Tiong community member
6.	Latifah Dondoal	Melangkap Tiong community member
7.	Wicior Lankin	Melangkap Tomis community member
8.	Roubin Tingkai	Melangkap Tomis community member
9.	Minis Panis	Melangkap Tomis community member
10.	Revenue Minsin	Melangkap Tomis community member
11.	Fauziah Bt. Minsin	Melangkap Tomis community member
12.	Samiar Bin Sula	Melangkap Baru community member
13.	Awang Shahnu Firdaus	Community member
14.	Elfu Anthony	Community member
15.	Nursyafika Az Zahra Ajan	SaBC
16.	Afina Kirambura Bt Mazlan	SaBC
17.	Evance Yolanzio Sinel	SaBC
18.	Alessadra Markus	SaBC
19.	Lanash Thanda	BC Initiative
20.	Dorothy Lim	BC Initiative
21.	Tracy Patrick	BC Initiative

Meeting with Sarawak Biodiversity Centre, 24 June 2019

No.	Name	Designation/Organisation
1.	Yeo Tiong Chia	Chief Executive Officer
2.	Margarita Naming	Senior Research Officer
3.	Gilbert Lau Sei Kung	Research Officer/ Chief Information Officer
4.	Jovita Elderson Ak Ripen	Research Officer
5.	Cindy	Research Officer

Ministry of Urban Development and Natural Resource Sarawak, 25 June 2019

No.	Name	Designation/Organisation
1.	Kenny Poon	Principal Assistant Secretary, Biodiversity & Environment

Sarawak Forest Department, 25 June 2019

No.	Name	Designation/Organisation
1.	Mohamad Shahbudin Bin Sabki	Deputy Director, International Affairs Division

Sarawak State Planning Unit, 25 June 2019

No.	Name	Designation/Organisation
1.	Lo Sheau Sia	Principal Assistant Director, Environment
2.	Hamzah	

WWF-Malaysia, 25 June 2019

No.	Name	Designation/Organisation
1.	Jason Hon	Head of Conservation Sarawak

Meeting with Bidayuh Community at Kg. Kiding, Sarawak, 26 June 2019

No.	Name	Designation/Organisation
1.	Bakas Daneu	Village Head
2.	Bunga Jonyun	Community member
3.	Kusap Nuwang	Community member
4.	Sup Jonyun	Community member
5.	Puat Maid	Community member
6.	Ranya Ramen	Community member
7.	Hibun Bakas	Community member
8.	Romeo Butup	Community member
9.	Jane Francisca	Community member
10.	Butup Kadat	Community member
11.	Siut Tief	Community member
12.	Kupa Amelung	Community member

Meeting with Sub-District Office of Padawan, 28 June 2019

No.	Name	Designation/Organisation
1.	Rangen Anak Jamang	Sub-District Officer

Lunch Meeting with Ministry of Education, Science and Technological Research Sarawak, 28 June 2019

No.	Name	Designation/Organisation
1.	William Patrick Nyigor	Permanent Secretary

Meeting with Government and Other Stakeholders in Putrajaya, 2 July 2019

No.	Name	Designation/Organisation
1.	Syahirah binti Mohamad Ashahari	Ministry of Water, Land and Natural Resources (MWLNR)
2.	Siti Nurzaliana Mohd Safari	MWLNR
3.	Norsham binti Abdul Latip	Ministry of Energy, Science, Technology, Environment & Climate Change (MESTECC)
4.	Muhammad Firdaus bin Muhammad	Ministry of Economic Affairs (MEA)
5.	Long Kang Hui	Negeri Sembilan Forestry Department
6.	Nor Alimah Mohd Sanusi	Negeri Sembilan Forestry Department
7.	Tuan Marina binti Tuan Ibrahim	Forestry Department of Peninsular Malaysia
8.	Kamal bin Kormin	Intellectual Property Corporation of Malaysia (MYIPO)
9.	Zumi bin Yaakob	Department of Agriculture
10.	Ami Fazlin binti Syed Mohamad	Institute for Medical Research (IMR), Malaysia
11.	Elya Juliana binti Abd. Wahab	Melaka State Economic Planning Unit
12.	Subramaniam A/L Ayasamy	Pahang Economic Planning Division
13.	Mohd Khairul Nizam bin Abd Latif	Kedah State Economic Planning Unit
14.	Muhamad Amirul bin Kamalrul Badri	Perak State Economic Planning Unit
15.	Mohd Ridzuan Bin Tengku Ibrahim	Selangor State Forestry Department
16.	Nor Alimah Mohd Sanusi	Selangor State Forestry Department
17.	Long Kang Hui	Negeri Sembilan Forestry Department
18.	Albert Apollo Chan	Marine Park Department of Malaysia
19.	Siti Kamilah Malik	National Pharmaceutical Regulatory Agency (NPRA)
20.	Lim Li Lin	Third World Network
21.	Hari Ramalu Ragavan	Akar Asia Consulting
22.	Mariani Ho Nyuk Onn @ Ariffin	UPM Consultation & Services Sdn Bhd

Stakeholder Closing Workshop (on preliminary findings and feedback), 3 July 2019

No.	Name	Designation/Organisation

1	Arief Iskandar bin Mohamad	BFMD, MWLNR
2.	Syahirah binti Mohamad Ashahari	MWLNR
3.	Liew Pei Shi	MWLNR
4.	Nur Illyani binti Ibrahim	MWLNR
5.	Roslinawani binti Hashim	MWLNR
6.	Siti Nurzalianabinti Mohd Safari	MWLNR
7.	Muhammad Firdaus bin Muhammad	Ministry of Economic Affairs (MEA)
8.	Ami Fazlin binti Syed Mohamad	Institute for Medical Research (IMR), Malaysia
9.	Kamal bin Kormin	Intellectual Property Corporation of Malaysia (MYIPO)
10.	Elya Juliana binti Abd. Wahab	Melaka State Economic Planning Unit
11.	Subramaniam A/L Ayasamy	Pahang Economic Planning Division
12.	Mohd Khairul Nizam bin Abd Latif	Kedah State Economic Planning Unit
13.	Muhamad Amirul bin Kamalrul Badri	Perak State Economic Planning Unit
14.	Liong Kang Hui	Negeri Sembilan Forestry Department
15.	Ken Kartina Binti Khamis	Sabah Biodiversity Centre
16.	Magarita Naming	Sarawak Biodiversity Centre
17.	Jovita Elderson	Sarawak Biodiversity Centre
18.	Maizatun Mustaffa	International Islamic University Malaysia
19.	Noriah Binti Jamal	Malaysian Nuclear Agency
20.	Siti Kamilah Malik	National Pharmaceutical Regulatory Agency (NPRA)
21.	Fadzureena binti Jamaludin	Forest Research Institute Malaysia (FRIM)
22.	Noraini binti Haron	Forest Research Institute Malaysia (FRIM)
23.	Albert Apollo Chan	Marine Park Department of Malaysia
24.	Mohd Ridzuan Bin Tengku Ibrahim	Selangor State Forestry Department
25.	Ngadan Silla Datu	Forest Department Sarawak
26.	Nurshafenath Shahruddin	UNDP
27.	Tan Seok Ling	UNDP
28.	Gan Chin Keong	UNDP

Field mission visits & locations

Government & Peninsular Malaysia

- DBFM Division of Biodiversity & Forest Management
- FRIM Forest Research Institute Malaysia
- Ulu Legong village Kedah State (Kensiu ILC); JAKOA, Gerik Branch, Kedah State
- Ulu Geroh village, Perak (Semai ILC)
- Stakeholder workshop; UNDP Debriefing seminar (2nd - 3rd July, Marriot Hotel)

Sabah

- SaBC, State EPU, AG Chamber, Ministry of Health, Sabah Parks
- DO Kota Belud,
- NGOs - PACOS, BCI
- Melangkap village, Kota Belud

Sarawak

- SBC, MUDENR, SFD, SSPU, NGO – WWF
- Kiding village, Padawan District (Bidayuh people)
- Sub-DO of Padawan
- Permanent Secretary of MESTR
- SaBCo (lunch with representative)

Annex 7: List of Documents Reviewed

1. Project Identification Form (PIF) and GEF FA strategic program objectives
2. UNDP Initiation Plan and Implementing/Executing partner arrangements / contract
3. UNDP Project Document and Logframe revisions
4. CEO Endorsement Request
5. UNDP Environmental and Social Screening results
6. Project Inception Report
7. Project Performance Reviews (PPRs)
8. Annual Project Reports
9. Minutes of the Project Board Meetings and other meetings (i.e. Project Appraisal Committee meetings)
10. Atlas Risk Register
11. Quarterly progress reports and work plans of the various implementation task teams
12. Annual Work Plans
13. M&E Data management system
14. Audit reports
15. Tracking Tools
16. Oversight mission reports by the project manager, RTA, and others
17. Monitoring reports prepared by the project
18. Financial and Administration guidelines used by Project Team
19. Co-financing realized, itemized according to template provided by TE team
20. Financial expenditures, itemized according to template provided by TE team
21. Project operational guidelines, manuals and systems
22. Project Outputs – E.g. protocols
23. UNDP Development Assistance Framework (UNDAF) and Evaluation
24. UNDP Country Programme Document (CPD) and Country Programme Action Plan (CPAP)
25. Project site location maps
26. Project activity maps with management actions and intervention
27. Technical consultancy reports
28. Training materials (PPTs etc.)
29. News and Awareness materials / Photo library / Video films about the projects
30. Project Summary PowerPoint files for the TE

Annex 8: Risk Table

The Altas Risk table (edited) is taken from the UNDP management system. It identified 3 risks.

Risk Log

	Risk	Mitigation measures if risk occurs	TE Comment
May 2018	Delay in the approval of draft ABS regulation due to government restructuring involving new ministerial set up and line agencies (Political)	DBFM is working closely with the Attorney General (AG) to finalise the regulation by Q1, 2019. The capacity building and training activities are being conducted from August 2018 to June 2019 as soon as the regulation is approved. (July 2018, Critical flag – Yes)	The project ended in January 2019. As of August 2019, the regulations still had not been approved
July 2016	Delay in approval of the ABS draft bill by AG and delay on adoption by Parliament will affect the implementation of activities under Component 1 and 2 (Regulatory)	(Critical – No)	The Act was passed by government
January 2014	Difficulties in adopting the national ABS regulatory framework by stakeholders especially at the state level due to the federal-state constitutional structure (Regulatory)	The risk from state governments have been overcome with extensive dialogue between NRE and State AGs. At the start of 2015, it is noted that there is now additional comments from Research Institutions on some of the provisions in the draft ABS Act. NRE with CEBLAW is now in the process to make amendments to the Bill after the discussion with the Research Institutions. (May 2015, Critical No)	nc

Annex 9: Stakeholder List

Organisation	Role
Ministry of Water, Land and Natural Resources	Implementing partner; Chair of National Steering Committee
Federal Economic Planning Unit	National Steering Committee Member
Minister of Agriculture and Agro-based Industry	National Steering Committee Member
Department of Wildlife and National Parks (DWNP) Peninsular Malaysia	National Steering Committee Member
Department of Marine Parks	National Steering Committee Member
Forestry Department Peninsular Malaysia	National Steering Committee Member
Department of *Orang Asli* (Indigenous People) Development, Ministry of Rural Development	National Steering Committee Member
Forest Research Institute Malaysia (FRIM)	Implementing Entity; National Steering Committee Member
Sarawak Biodiversity Centre (SBC)	Implementing Entity; National Steering Committee Member
Sabah Biodiversity Centre (SaBC)	Implementing Entity; CA, NSC Member
Centre of Excellence for Biodiversity Law (CEBLAW)	Implementing Entity; Consultant of the Project on Developing the ABS Bill
UNDP	Enabling Partner; National Steering Committee Member
Perak State Economic Planning Unit	Competent Authority; National Steering Committee Member
Kedah State Economic Planning Unit	Competent Authority (CA); NSC Member
Ministry of Federal Territories	Competent Authority
Johor State Economic Planning Unit	Competent Authority
Kelantan State Economic Planning Unit	Competent Authority
Melaka State Economic Planning Unit	Competent Authority
Negeri Sembilan State Economic Planning Unit	Competent Authority
Pahang State Economic Planning Unit	Competent Authority
Penang State Economic Planning Unit	Competent Authority
Perlis State Economic Planning Unit	Competent Authority
Selangor State Economic Planning Unit	Competent Authority
Terengganu State Economic Planning Unit	Competent Authority
Ministry of Urban Development and Natural Resource, Sarawak	Competent Authority
Ministry of Energy, Science, Technology, Environment & Climate Change (MESTECC)	GEF Focal Point; Designated Checkpoint
Intellectual Property Corporation of Malaysia (MyIPO)	Designated Checkpoint
National Institutes of Health (NIH)	Designated Checkpoint
Department of Higher Education	Designated Checkpoint
National Pharmaceutical Regulatory Agency (NPRA)	Designated Checkpoint
Universiti Malaya (UM)	Designated Checkpoint
Universiti Sains Malaysia (USM)	Designated Checkpoint
Universiti Kebangsaan Malaysia (UKM)	Designated Checkpoint
Universiti Teknologi Malaysia (UTM))	Designated Checkpoint
Universiti Putra Malaysia (UPM)	Designated Checkpoint
SHELL Bhd	donor for community mapping in Melangkap pilot project
Natural Justice	Partner of the Melangkap pilot project
Kensiu	Local community at a pilot site in Kedah
Semai	Local community at a pilot site in Perak
Lundayeh & Melangkap	Local communities at pilot sites in Sabah
Kelabits, Lun Bawangs, Bidayuh, Iban	Local communities at pilot sites in Sarawak
UPM Consultancy & Services Sdn. Bhd.	Consultant for KAP Assessment Survey on ABS awareness
AkarAsia Consulting	Consultant of the Project on developing an ABS financing
Bio-community Initiative (BCI), Sabah	Consultant of the Project on developing Lundayeh Community Protocol & Melangkap Community Protocol

Annex 10: Rating Scales

The following UNDP-GEF grading scales were applied in the evaluation

Evaluation Criteria

Criteria	Definition
Effectiveness - Objective	- The extent to which an objective has been achieved or how likely it is to be achieved.
Effectiveness - Outcomes	- Results include direct project outputs, short to medium-term outcomes
Relevance	- The extent to which the activity is suited to local and national development priorities and organizational policies, including changes over time. - The extent to which the project is in line with the GEF Operational Programs or the strategic priorities under which the project was funded. (Retrospectively, relevance often becomes a question as to whether the objectives of an intervention or its design are still appropriate given changed circumstances.)
Efficiency	- The extent to which results have been delivered with the least costly resources possible; also called cost effectiveness or efficacy.
Sustainability	- The likely ability of an intervention to continue to deliver benefits for an extended period of time after completion - Projects need to be environmentally, as well as financially and socially sustainable
Impact	- The positive and negative, foreseen and unforeseen changes to and effects produced by a development intervention. - Longer term impact including global environmental benefits, replication effects and other local effects.

Rating Scale for Outcomes (Overall, Effectiveness & Efficiency)

Highly Satisfactory (HS)	The project had no shortcomings in the achievement of its objectives in terms of effectiveness (outcomes), or efficiency. The project is expected or has achieved its global environmental objectives. The project can be presented as 'good practice'.
Satisfactory (S)	There were only minor shortcomings The project is expected or has achieved most of its global environmental objectives.
Moderately Satisfactory (MS)	There were moderate shortcomings The project is expected or has achieved most of its relevant objectives but with moderate / significant shortcomings or modest overall relevance. The project isn't going to achieve some of its key global environmental objectives
Moderately Unsatisfactory (MU)	The project had significant shortcomings The project is expected to achieve its global environmental objectives with major shortcomings or is expected to achieve only some of its major global environmental objectives.
Unsatisfactory (U)	There were major shortcomings in the achievement of project objectives in terms of effectiveness, or efficiency The project is not expected to achieve most of its global environment objectives
Highly Unsatisfactory (U)	The project had severe shortcomings The project has failed to achieve any of its major environment objectives

Or Not Applicable (N/A); Unable to Assess (U/A)

Note

Overall Outcome: Achievement of the project objective will be rated HS to U.

Effectiveness: Each of the project's three outcomes will be rated HS to U. The colour coding of the individual indicator targets in **Annex 1** will partially help determine the grade. Each of the outcome indicators will also each be given a grade (in the justification column), however the final rating for each of the three outcomes will be due to appropriate weighting in terms of attaining project objectives. This means that professional judgement of the TE team will also be a key consideration.

Efficiency: An overall rating for cost-effectiveness will be provided

Rating Scale for Outcome (Relevance)

Relevant (R)	Not relevant (NR)

Rating Scale for Implementing Agency (IA) and Executing Agency (EA) Execution

Highly Satisfactory (HS)	The agency had no shortcomings in the achievement of their objectives in terms of quality of implementation or execution. Implementation of all five given management categories – IA or EA coordination & operational matters, partnership arrangements & stakeholder engagement, finance & co-finance, M&E systems, and adaptive management (work planning, reporting & communications, including update to project design) – has led to an efficient and effective project implementation. The agency can be presented as providing 'good practice'
Satisfactory (S)	The agency had only minor shortcomings in terms of the quality of implementation or execution. Implementation of most of the five management categories has led to an efficient and effective project implementation
Moderately Satisfactory (MS)	The agency had moderate shortcomings Implementation of some of the five management categories has led to a moderately efficient and effective project implementation
Moderately Unsatisfactory (MU)	The agency had significant shortcomings Implementation of some of the five management categories has not led to efficient and effective project implementation
Unsatisfactory (U)	There agency had major shortcomings in the quality of implementation or execution Implementation of most of the five management categories had not led to efficient and effective project implementation
Highly Unsatisfactory (U)	The agency had severe shortcomings with poor management leading to inefficient and ineffective project implementation

Rating Scale for Monitoring & Evaluation

Highly Satisfactory (HS)	The M&E system – its design and implementation had no shortcomings in the support of achieving project objectives. The M&E system was highly effective and efficient and supported the achievement of major global environmental benefits. The M&E system and its implementation can be presented as 'good practice'.
Satisfactory (S)	The M&E system – its design and implementation had minor shortcomings in the support of achieving project objectives. The M&E system was effective and efficient and supported the achievement of most of the major global environmental benefits, with only minor shortcomings
Moderately Satisfactory (MS)	The M&E system – its design and implementation had moderate shortcomings in the support of achieving project objectives. The M&E system supported the achievement of most of the major relevant objectives, but had significant shortcomings or modest overall relevance
Moderately Unsatisfactory (MU)	The M&E system – its design and implementation had major shortcomings in the support of achieving project objectives. The M&E system supported the achievement of most of the major environmental objectives, but with modest relevance
Unsatisfactory (U)	The M&E system – its design and implementation had major shortcomings and did not support the achievement of most project objectives. The M&E system was not effective or efficient
Highly Unsatisfactory (HU)	The M&E system failed in its design and implementation in terms of being effective, efficient or supporting project environmental objectives or benefits.

Rating Scale for Sustainability

Likely (L)	Negligible risks to sustainability with key Outcomes achieved by the project closure and expected to continue into the foreseeable future
Moderately Likely (ML)	Moderate risks, but expectations that at least some Outcomes will be sustained
Moderately Unlikely (MU)	Significant risk that key Outcomes will not carry on after project closure, although some outputs should carry on
Unlikely (U)	Severe risks that project Outcomes as well as key outputs will not be sustained

According to UNDP-GEF evaluation guidelines, all risk dimensions of sustainability are critical: i.e., the overall rating for sustainability is not higher than the lowest-rated dimension.

Ratings should take into account both the probability of a risk materializing and the anticipated magnitude of its effect on the continuance of project benefits.

Risk definitions:

a) Whether financial resources will be available to continue activities resulting in continued benefits
b) Whether sufficient public stakeholder awareness and support is present for the continuation of activities providing benefit
c) Whether required systems for accountability / transparency & technical know-how are in place
d) Whether environmental risks are present that can undermine the future flow of the project benefits.

Rating Scale for Impact

Significant (S)	**Minimal (M)**	**Negligible (N)**

Project Impact is rated as Significant; Minimal or Negligible, but also the positive or negative aspect of the impact will be stated.

Concerning impact, the TE will consider the extent of

a) Verifiable improvement in ecological status; and/or
b) Verifiable reductions in stress on ecological systems
c) Regulatory and policy changes at regional, national and/or local levels

Process indicators will be specified to demonstrate achievement of stress reduction and/or ecological improvement.

Part of the impact assessment, will concern catalytic effect. The TE will consider if the project exhibited

a) Scaling up (to regional and national levels)
b) Replication (outside of the project),
c) Demonstration, and/or
d) Production of a public good, such as new technologies /approaches)

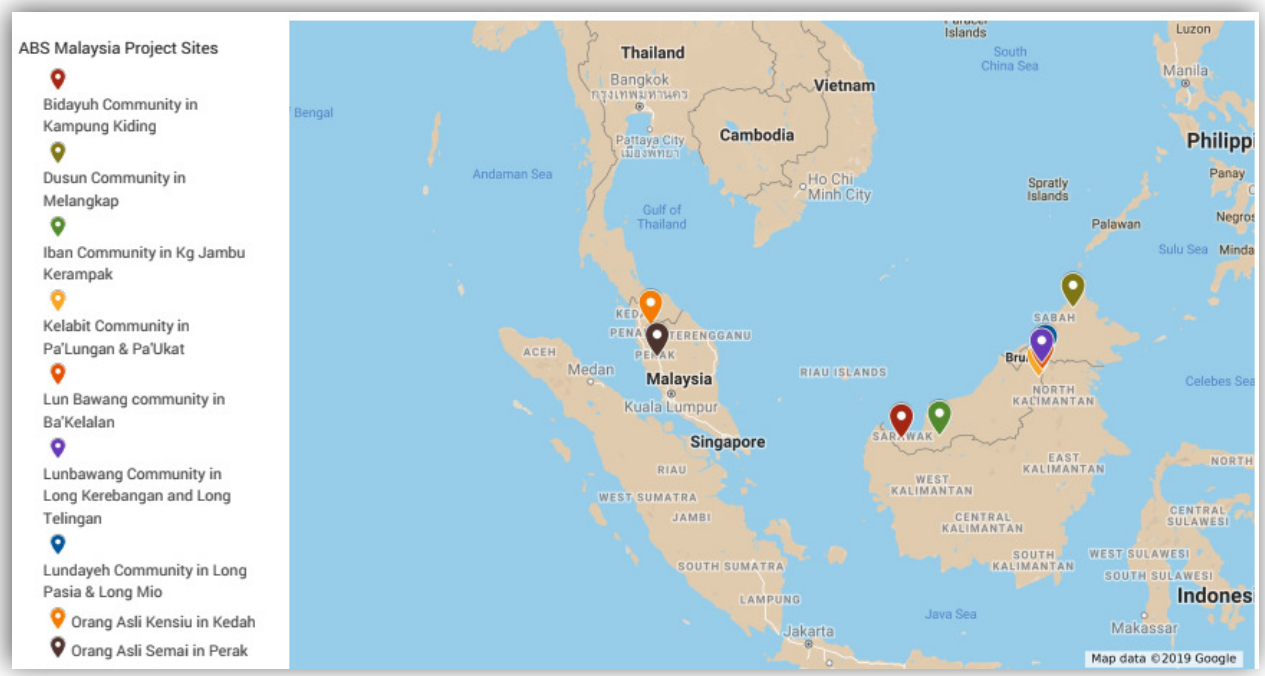
Annex 11: Mission Itinerary

Date	Day	Time		Activity	Location	Stakeholders	Purpose	Remarks
16-Jun	**SUN**			Int'l Expert - Mr Richard Sobey arrival EK346 14.25 PM				
17-Jun	**MON**	09:00	11:30	Introduction and brief meeting UNDP CO programme	UNDP Office	UNDP programme manager, M&E Officer	Intoduction of team members	
		12:00	17:00	Opening Meeting with Project team members in Ministry of Water Land and Natural Resources	Zamrud Meeting Room, BBP, KATS	Ministry of Water Land Resources (National project Director), MESTECC (GEF Focal Point)	to meeting with the ABS team in ministry including the National Project Director and GEF focal point	
		Recommend: Zenith Hotel Putrajaya						
18-Jun	**TUE**	09:00	10:00	Travel Putrajaya to FRIM				
		10:30	13:00	Meeting with FRIM	FRIM	FRIM ABS Team	FRIM is the implementing agency for output 3.1 & 3.2	
		14:00	19:00	Travel : FRIM to Pengkalan Hulu				5 hrs on road
		Hotel in Pengkalan Hulu						TBC
19-Jun	**WED**	09:00	10:00	Travel to Lubok Lengong				1 hr on road
		10:00	13:00	Meeting with community	Ulu Legong Community hall	Kensiu OA	Traditional knowledge provider + prototype named "KaHerb" developed by FRIM under output	
		14:00	17:00	Travel to Kampar				3 hrs on road
		Hotel in Kampar						TBC
20-Jun	**THU**	09:00	10:00	Travel to Ulu Geroh				1 hr on road
		10:00	14:00	Meeting with community	Ulu Geroh Community Hall	Semai OA	Traditional Knowledge provider + prototype named " Pengloy Semai" developed by FRIM	
		14:00	17:00	Travel to Kuala Lumpur				3 hr on road
		Recommend: Zenith Hotel Putrajaya						
21-Jun	**FRI**	09:00	12:30	Travel: KL to Sabah				2 hr 45 m via flight
		14:00	17:00	Meeting with SaBC, gov agencies and local NGOs	SaBC	SaBC ABS team, related ministries, local NGO	SaBC is the implemet agency for output 1.4	
		Recommend: Hotel Le Meridien in Kota Kinabalu						
22-Jun	**SAT**	08:00	11:00	Travel: Kota Kinabalu to Melangkap				3 hrs on road
		12:00	17:00	Meeting with Melangkap community	Melangkap Tiong Community hall	Dusun OA - Melangkap communities representative	interview with Melangkap communities re. community protocol - pilot project output 1.4	
		18:00	20:00	Dinner with community				
		Homestay in Melangkap						To be arranged with
23-Jun	**SUN**	09:00	14:00	Rest day - (propose site visit aroung Melangkap and Kundasang area)			threats to biodiversity losses due to unsustainable dev. (i.e. reason for community protocol).	
		14:00	17:00	Travel to Kota Kinabalu				3 hrs on road
		Recommend: Hotel Le Meridien in Kota Kinabalu						

24-Jun	**MON**	09:00	12:00	Travel Kota Kinabalu to Kuching				1 hr 30 mins via flight
		12:00	17:00	Meeting with SBC	SBC & MESTR	SBC ABS team & MESTR	SBC is the implemting agency for output 3.3	
		Recommend: Hilton Hotel in Kuching						
25-Jun	**TUE**	09:00	17:00	Meeting with State officers, local stakeholders/NGOs related to ABS in Sarawak	MUDENR, FDS, SPU, WWF & WCS	Sarawak local agencies	Output 3.3	
		Recommend: Hilton Hotel in Kuching						
26-Jun	**WED**	08:00	09:00	Travel Kuching to Kpg. Kiding			Kampung kiding is one of the 7 pilot sites for the output 3.3	1 hr on road
		10:00	12:00	Meeting with community		Bidayuh OA		Establised since 2015 with equipment
		14:00	17:00	LitSara oil production demonstration	Distillation Shed			
		Homestay in Kpg. Kiding						To be arranged with
27-Jun	**THU**	09:00	12:00	Site Visit to propagation site and farm			to understand Litsara tree cultivation and sustainable harvesting	
		12:00	14:00	Lunch with community		Bidayuh OA	Kampung kiding is one of the 7 pilot sites for the output 3.3	Establised since 2015 with equipment
		14:00	17:00	Interview session with community				
		17:00	18:00	Depart to Kuching				
		Recommend: Hilton Hotel in Kuching						
28-Jun	**FRI**	09:30	12:00	Discussion session with SBC	SBC			
		15:00	17:00	Travel Kuching to KL				
Recommend: JW Marriot Hotel Kuala Lumpur								
29-Jun	**SAT**			Rest Day				
		Recommend: JW Marriot Hotel Kuala Lumpur						
30-Jun	**SUN**			Rest Day				
		Recommend: JW Marriot Hotel Kuala Lumpur						
01-Jul	**MON**	09:00	17:00	Meeting with ABS project team to work on the evaluation questions	UNDP CO	ABS project team at BBP and UNDP		
		Recommend: JW Marriot Hotel Kuala Lumpur						
02-Jul	**TUE**	09:00	17:00	Meeting session with government or other direct invilved stakeholders (eg. CA, checkpoints, NGOs)	JW Marriot KL	Interview stakeholders	meeting in hotel so the stakeholder can stay and join the dialogue next day.	
		JW Marriot Hotel Kuala Lumpur						
03-Jul	**WED**	09:00	13:00	Stakeholder workshop - preliminary findings and feedback	JW Marriot KL	Presentations by TE Team, project unit and government partner	half day dialogue with stakeholders & lunch	
		Recommend: JW Marriot Hotel Kuala Lumpur						
04-Jul	**THU**	09:00	17:00	Debriefing Session	UNDP CO			
		Recommend: hotel Zenith Putrajaya						
05-Jul	**FRI**			Mr Sobey depart EK345 10.35 AM - leave hotel 7.30AM				

BBP	Biodiversity and Forestry Division, Ministry of Water, Land, and Resources Malaysia
FRIM	Forest Research Institute Malaysia; Sarawak Biodiversity Centre; Sabah Biodiversity Centre
TK	Traditional Knowledge; Orang Asli/Asal (indigeneous community); Competent Authority

Annex 12: Map


ABS Malaysia Project Sites
Bidayuh Community in Kampung Kiding
Dusun Community in Melangkap
Iban Community in Kg Jambu Kerampak
Kelabit Community in Pa'Lungan & Pa'Ukat
Lun Bawang community in Ba'Kelalan
Lunbawang Community in Long Kerebangan and Long Telingan
Lundayeh Community in Long Pasia & Long Mio
Orang Asli Kensiu in Kedah
Orang Asli Semai in Perak
Thailand
Bangkok
Vietnam
Cambodia
Pattaya City
Ho Chi Minh City
Andaman Sea
Gulf of Thailand
Malaysia
Kuala Lumpur
Singapore
Medan
ACEH
RIAU
WEST SUMATRA
JAMBI
SOUTH SUMATRA
LAMPUNG
Jakarta
Java Sea
Spratly Islands
Palawan
Sulu Sea
Manila
Luzon
South China Sea
SABAH
NORTH KALIMANTAN
RIAU ISLANDS
Celebes Sea
EAST KALIMANTAN
WEST KALIMANTAN
CENTRAL KALIMANTAN
SOUTH KALIMANTAN
CENTRAL SULAWESI
WEST SULAWESI
SOUTH SULAWESI
Makassar
Map data ©2019 Google

Annex 13: Indicative TE Evaluation Matrix

This questionnaire was used as a general aid during the field visit with the results described in section 3. (Note there is no further information to be presented in the blank boxes.)

Evaluation Question	Response / Finding	Conclusion/ Recommend
Relevance: How does the project relate to the main objectives of the GEF (LDCF) FA, and to the environment and development priorities at the local, regional and national levels?		
Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?		
Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?		
Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?		
Impact: Are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and / or improved ecological status		
Findings discussion – 3 areas - Project formulation, project implementation, and project results.		
Project Strategy		
Project Design Formulation		
To what extent is the project in line with national and local priorities?		
To what extent is the Project aligned to the main objectives of the GEF focal area?		
Have synergies with other projects and initiatives been incorporated in the design?		
Were lessons from other relevant projects properly incorporated into the project design?		
Decision-making processes: were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, taken into account during project design processes?		
Have issues materialized due to incorrect assumptions or changes to the context to achieving the project results as outlined in the Project Document?		
Were the project's objectives and components clear, practicable and feasible within its time frame? Were the capacities of the executing institution(s) and its counterparts properly considered when the project was designed? Were the partnership arrangements properly identified and roles and responsibilities negotiated prior to project approval? Were counterpart resources (funding, staff, and facilities), enabling legislation, and adequate project management arrangements in place at project entry? Were the project assumptions and risks articulated in the PIF and project document?		
Results Framework:		
Are the project objective / outcomes clear, practicable, & feasible within its time frame?		
Were the project's logframe indicators and targets appropriate? How "SMART" were the midterm and end-of-project targets (Specific, Measurable, Attainable, Relevant, Time-bound)? Any amendments?		
Progress towards Results		
Progress towards Outcomes Analysis:		
Review the logframe indicators against delivery at end-of-project targets using the Results Matrix (see Annex).		
Compare and analyse the GEF Tracking Tool at the Baseline, MTR and End.		
Which barriers hindered achievement of the project objective		
ASSUMPTIONS AND RISKS		
As per logframe - Logical and robust, and have helped to determine activities and planned outputs.		
Externalities (i.e. effects of climate change, global economics) which are relevant to the findings.		
Project Implementation & Adaptive Management		
GEF Partner Agency / Implementing Entity – UNDP		
Has there been an appropriate focus on results?		
Has the UNDP support to the Executing Agency/Implementing Partner and Project Team been adequate?		
Has the quality and timeliness of technical support to the Executing Agency/ Implementing Partner and Project Team been adequate?		
How has the responsiveness of the managing parties to significant implementation problems been?		
Has overall risk management been proactive, participatory, and effective?		
Are there salient issues regarding project duration, for instance to note project delays? And, how have they affected project outcomes and sustainability?		
Candor and realism in annual reporting		
Executing Agency/ Implementing Partner Execution		

Were the capacities of the executing institution(s) and its counterparts properly considered when the Project was designed?		
Were partnership arrangements properly identified and roles and responsibilities negotiated prior to Project approval?		
Were counterpart resources, enabling legislation, and adequate project management arrangements in place at Project entry?		
Have management inputs and processes, including budgeting and procurement been adequate?		
Has there been adequate mitigation and management of environmental and social risks as identified through the UNDP Environmental and Social screening procedure?		
Whether there was an appropriate focus on results and timeliness? Quality of risk management? Candor and realism in reporting?		
Government ownership (when NEX) or level of support if 'in cooperation with' the IP.		
Work Planning / PROJECT IMPLEMENTATION		
Effective partnerships arrangements established for implementation of the project with relevant stakeholders involved in the country/region, including the formation of a Project Board. Lessons from other relevant projects incorporated into project implementation.		
Feedback from M&E activities used for adaptive management.		
Has the project experienced delays in start-up and/or implementation? What were the causes of the delays? And, have the issues been resolved?		
Were work-planning processes results-based?		
Did the project team use the results framework/ logframe as an M&E and a management tool?		
Were there any changes to the logframe since project start, and have these changes been documented and approved by the project board?		
FINANCE & CO-FINANCE		
<u>Prodoc</u> Did the prodoc identify potential sources of co-financing as well as leveraged and associated financing? Prodoc include strong financial controls that allowed the project management to make informed decisions regarding the budget, allow for the timely flow of funds and for the payment of project deliverables Did the prodoc demonstrate due diligence in the management of funds, including periodic audits.		
Sufficient clarity in the reported co-financing to substantiate in-kind and cash co-financing from all listed sources. The reasons for differences in the level of expected and actual co-financing. The extent to which project components supported by external funders were integrated into the overall project. Effect on project outcomes and/or sustainability from the extent of materialization of co-financing. Evidence of additional, leveraged resources that have been committed as a result of the project. (Leveraged resources can be financial or in-kind and may be from other donors, NGOs, foundations, governments, communities or the private sector)		
<u>Cost-effective factors</u> Compliance with the incremental cost criteria and securing co-funding and associated funding. Project completed the planned activities and met or exceeded the expected outcomes in terms of achievement of Global Environmental and Development Objectives according to schedule, and as cost-effective as initially planned. The project used either a benchmark approach or a comparison approach (did not exceed the costs levels of similar projects in similar contexts)?		
<u>Standard Finance questions</u> Have strong financial controls been established allow the project management to make informed decisions regarding the budget at any time, and allow for the timely flow of funds and the payment of satisfactory project deliverables?		
Are there variances between planned and actual expenditures? If yes, what are the reasons behind these variances?		
Has the project demonstrated due diligence in the management of funds, including annual audits?		
Have there been any changes made to the fund allocations as a result of budget revisions? Assess the appropriateness and relevance of such revisions.		
Has pledged cofinancing materialized? If not, what are the reasons behind the cofinancing not materializing or falling short of targets?		
Project-level Monitoring and Evaluation Systems		
The quality of the Monitoring and Evaluation (M&E) plan's design and implementation: An M&E plan should include a baseline (including data, methodology, etc.), SMART indicators and data analysis systems, MTR, TE, and adequate funding for M&E activities.		
M&E plan at project start up, considering whether baseline conditions, methodology and roles and		

responsibilities are well articulated. Is the M&E plan appreciated? Is it articulated sufficiently to monitor results and track progress toward achieving objectives?		
Were sufficient resources allocated effectively to M&E?		
Were there changes to project implementation / M&E as a result of the MTR recommendations?		
Are the M&E systems appropriate to the project's specific context? - effectiveness of monitoring indicators from the project document for measuring progress and performance		
Do the monitoring tools provide the necessary information? Do they involve key partners? Are they aligned or mainstreamed with national systems? Do they use existing information? Are they efficient? Are they cost-effective?		
To what extent has the Project Team been using inclusive, innovative, and participatory monitoring systems?		
To what extent have follow-up actions, and/or adaptive management measures, been taken in response to the PIRs? Check to see whether APR/PIR self-evaluation ratings were consistent with the MTR and TE findings. If not, were these discrepancies identified by the project steering committee and addressed?		
Compliance with the progress and financial reporting requirements/ schedule, including quality and timeliness of reports		
The value and effectiveness of the monitoring reports and evidence that these were discussed with stakeholders and project staff		
The extent to which development objectives are built into monitoring systems: How are perspectives of women and men involved and affected by the project monitored and assessed?		
How are relevant groups' (including women, indigenous peoples, children, elderly, disabled, and poor) involvement with the project and the impact on them monitored?		
Has there been adequate mitigation and management of environmental and social risks as identified through the UNDP Environmental and Social screening procedure?		
STAKEHOLDER ENGAGEMENT		
Are the interactions as per the prodoc? Stakeholder interactions include information dissemination, consultation, and active participation in the project.		
Project management: Has the project developed and leveraged the necessary and appropriate partnerships with direct and tangential stakeholders?		
Participation and country-driven processes: Do local and national government stakeholders support the objectives of the project? Do they continue to have an active role in project decision-making that supports efficient and effective project implementation?		
Participation and public awareness: How has stakeholder involvement and public awareness contributed to the progress towards achievement of project objectives?		
Are there any limitations to stakeholder awareness of project outcomes or to stakeholder participation in project activities? Is there invested interest of stakeholders in the project's long-term success and sustainability?		
Reporting:		
How have adaptive management changes been reported by the Project Team and shared with the Project Board?		
How well have the Project Team and partners undertaken and fulfil GEF reporting requirements (i.e. how have they addressed poorly-rated PIRs?), and suggest trainings etc. if needed?		
How have PIRs been shared with the Project Board and other key stakeholders?		
How have lessons derived from the adaptive management process been documented, shared with key partners and internalized by partners, and incorporated into project implementation?		
Communication:		
Internal project communication with stakeholders: Is communication regular and effective? Are there key stakeholders left out of communication? Are there feedback mechanisms when communication is received? Does this communication with stakeholders contribute to their awareness of project outcomes and activities and long-term investment in the sustainability of project results?		
External project communication: Are proper means of communication established or being established to express the project progress and intended impact to the public (is there a web presence, for example? Or did the project implement appropriate outreach and public awareness campaigns?)		
Are there possibilities for expansion of educational or awareness aspects of the project to solidify a communications program, with mention of proper funding for education and awareness activities? What aspects of the project might yield excellent communications material, if applicable?		
ADAPTIVE MANAGEMENT		
Changes in the environmental and development objectives of the project during implementation, why these changes were made and what was the approval process. Causes for adaptive management: a) original objectives were not sufficiently articulated; b) exogenous conditions changed, due to which a change in objectives was needed;		

c) project was restructured because original objectives were overambitious; d) project was restructured because of a lack of progress; e) Other (specify).		
How these changes were instigated and how these changes affected project results: - Did the project undergo significant changes as a result of recommendations from the MTR? Or as a result of other review procedures? Explain the process and implications. - If the changes were extensive, did they materially change the expected project outcomes? - Were the project changes articulated in writing and then considered and approved by the project steering committee?		
PROJECT RESULTS		
A 'result' is defined as a describable or measurable development change resulting from a cause-and-effect relationship. In GEF terms, results include direct project outputs, short- to medium-term outcomes, and longer-term impact including global environmental benefits, replication effects, and other local effects. Assess the results based management (RBM) chain, from inputs to activities, to outputs, outcomes and impacts.		
Assess the project results using indicators and relevant tracking tools		
BROADER ASPECTS OF PROJECT OUTCOMES		
Country Ownership		
Project concept had its origin within the national sectoral and development plans?		
Have Outcomes (or potential outcomes) from the project have been incorporated into the national sectoral and development plans? Has the government enacted legislation and/or developed policies and regulations in line with the project's objectives?		
Relevant country representatives (e.g., governmental official, civil society, etc.) were actively involved in project identification, planning and/or implementation, part of steering committee?		
Was an intergovernmental committee given responsibility to liaise with the project team, recognizing that more than one ministry should be involved?		
The recipient government has maintained financial commitment to the project?		
Mainstreaming (Broader Development and Gender)		
Whether broader development and gender issues had been taken into account in project design and implementation?		
In what way has the project contributed to greater consideration of gender aspects, (i.e. project team composition, gender-related aspects of environmental impacts, stakeholder outreach to women's groups, etc). If so, indicate how.		
Did the MTR recommend improvements to the logframe with SMART 'development' indicators, including sex-disaggregated indicators and indicators that capture development benefits? - Were these taken up?		
1. Whether it is possible to identify and define positive or negative effects of the project on local populations (e.g. income generation/ job creation, improved natural resource management arrangements with local groups, improvement in policy frameworks for resource allocation and distribution, regeneration of natural resources for long term sustainability).		
2. If the project objectives conform to agreed priorities in the UNDP country programme document (CPD) and country programme action plan (CPAP).		
3. Whether there is evidence that the project outcomes have contributed to better preparations to cope with natural disasters.		
The mainstreaming assessment should take note of the points of convergence between UNDP environment-related and other development programming.		
Sustainability		
Risk Management		
Are the risks identified in the Project Document, Annual Project Review/PIRs and the ATLAS Risk Management Module the most important? And, are the risk ratings applied appropriate and up to date? If not, explain why.		
Financial Risks to Sustainability (of the project outcomes)		
What is the likelihood of financial and economic resources not being available once the GEF assistance ends? (This might include funding through government - in the form of direct subsidies, or tax incentives, it may involve support from other donors, and also the private sector. The analysis could also point to macroeconomic factors.)		
What opportunities for financial sustainability exist?		
What additional factors are needed to create an enabling environment for continued financing?		
Has there been the establishment of financial and economic instruments and mechanisms to ensure the ongoing flow of benefits once the GEF assistance ends (i.e. from the public and private sectors, income generating activities, and market transformations to promote the project's objectives)?		

Socio-Economic Risks to Sustainability:		
Are there social or political risks that may threaten the sustainability of project outcomes?		
What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that the project benefits continue to flow?		
Is there sufficient public/ stakeholder awareness in support of the project's long-term objectives?		
Have lessons learned been documented by the Project Team on a continual basis?		
Are the project's successful aspects being transferred to appropriate parties, potential future beneficiaries, and others who could learn from the project and potentially replicate and/or scale it in the future?		
Institutional Framework and Governance Risks to Sustainability:		
Do the legal frameworks, policies, governance structures and processes pose risks that may jeopardize project benefits?		
Has the project put in place frameworks, policies, governance structures and processes that will create mechanisms for accountability, transparency, and technical knowledge transfer after the project's closure?		
How has the project developed appropriate institutional capacity (systems, structures, staff, expertise, etc.) that will be self-sufficient after the project closure date?		
How has the project identified and involved champions (i.e. individuals in government and civil society) who can promote sustainability of project outcomes?		
Has the project achieved stakeholders' (including government stakeholders') consensus regarding courses of action on project activities after the project's closure date?		
Does the project leadership have the ability to respond to future institutional and governance changes (i.e. foreseeable changes to local or national political leadership)? Can the project strategies effectively be incorporated/mainstreamed into future planning?		
Environmental Risks to Sustainability:		
Are there environmental factors that could undermine and reverse the project's outcomes and results, including factors that have been identified by project stakeholders? E.g. climate change risk to biodiversity		
Impact - Progress towards the achievement of impacts		
Verifiable improvements in ecological status (or via process indicators to show it is likely in the future)? Verifiable reductions in stress on ecological systems (via process indicators)? E.g. as a result of the project, there have been regulatory and policy changes at regional, national and/or local levels? (Use tracking tools and indications from baseline to target)		
Identify the mechanisms at work (i.e. the causal links to project outputs and outcomes);		
Assess the extent to which changes are taking place at scales commensurate to natural system boundaries; and		
Assess the likely permanence (long lasting nature) of the impacts.		
On the basis of the outcome and sustainability analyses, identify key missing elements as that are likely to obstruct further progress.		
<u>Theory of Change</u> – Identify project intended impacts – verify logic – analyse project outcome to impact pathway		
Based on the theory of change (building blocks, catalysts etc), has the progress towards impact has been significant, minimal or negligible.		
<u>Catalytic role</u>		
Scaling up - Approaches developed through the project are taken up on a regional / national scale, becoming widely accepted, and perhaps legally required		
Replication - Activities, demonstrations, and/or techniques are repeated within or outside the project, nationally or internationally		
Demonstration - Steps have been taken to catalyze the public good, for instance through the development of demonstration sites, successful information dissemination and training		
Producing a public good – (a) Development of new technologies and approaches. (b) No significant actions were taken to build on this achievement, so the catalytic effect is left to 'market forces'		

Annex 14: Signed UNDP Code of Conduct Agreement Form

Evaluators:

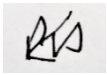
1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and: respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/ or oral presentation of study limitations, findings and recommendations.
7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

Evaluation Consultant Agreement Form

Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultants: Bernard Tai, Richard Sobey

We confirm that we have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed June 2019	Signed June 2019
	
Bernard Tai	**Richard Sobey**
National Consultant / Team Specialist	International Consultant, Team Leader

Annex 15: Signed TE Final Report Clearance Form

Terminal Evaluation Report Reviewed and Cleared By:	
Commissioning Unit	
Name:	
Signature:	Date:
UNDP-GEF Regional Technical Advisor	
Name:	
Signature:	Date:

Annex 16: Terms of Reference