



Investing in rural people

FINAL Aide Memoire

Indonesia

Sustainable Management of Peatland Ecosystems in Indonesia (SMPEI)

Mid-term Review Mission: 31 May-23 June 2021

A. Introduction¹

1. Peatlands provide critical social, environmental and economic benefits, particularly for their ecological and hydrological values, timber and non-timber forest products, water supply, and flood control. However, increasing pressures for land development has converted peatlands in Indonesia for agricultural purposes. Building on the successful GEF4-IFAD ASEAN Peatland Forests Project (APFP, 2009 – 2014), IFAD designed the GEF5-funded *Sustainable Management of Peatland Ecosystems in Indonesia* (SMPEI) Project with a 4-year implementation period, which was approved by GEF Secretariat on 16 May 2016, started in July 2017, and was launched in March 2018. Its approved financing comprises a GEF grant of US\$ 4.76 Million, and co-financing amounting US\$ 21.75 Million, mainly from the Government of Indonesia.

2. The objective of the SMPEI is "to promote sustainable peatland management, secure carbon stocks, and conserve biodiversity while improving the living standards of local communities". The project focuses on: i) capacity building and institutional strengthening for implementation of policies and regulations for sustainable peatland management; ii) monitoring peatland degradation, fires and greenhouse gas (GHG) emissions; and iii) functioning landscape level sustainable management of peatlands in the Sungai Kampar – Sungai Gaung and Sungai Gaung – Batang Tuaka Peatland Hydrological Units (KG & GB PHUs), which encompass 3 districts: Indragiri Hilir, Indragiri Hulu and Pelalawan, in Southern Riau, Sumatra.

3. The SMPEI is in line with the government's commitments to protect Indonesia's peatlands and to control haze pollution as shown in the issuance of peatland regulations: The Government Regulation or Peraturan Pemerintah (PP) No 71 year 2014 as amended by PP No 57 year 2016 on the Protection and Management of Peatland Ecosystems. The Project is supporting government actions both in Riau province and nationally. The Government of Indonesia (GoI) also committed in 2009 to reduce its national GHG emissions by 26% below the Business as Usual (BAU) scenario by 2020 (or by 41% with international support). Considering that peatlands contribute over 60% of Indonesia's GHG emissions,

¹ Mission composition: Mr. Ivan Cossio, Indonesia Country Director; Mr. Faizal Parish, Senior Peatland Management Specialist; Ms. Dilva Terzano, IFAD Environment and Natural Resource Management Specialist; Ms. Evi Wulandari, IFAD Environment and Climate Officer; Ms. Lew Siew Yan (Serena), Social, Livelihood and M&E Specialist; Ms. Ilaria Firmian, IFAD Knowledge Management Officer; Mr. Shankar Achuthan Kutty, IFAD Senior Procurement Specialist; Mr. Fabrizio Vivarini, IFAD Regional Finance Officer; Mr. Mohammad Kemal Pasha, Procurement Specialist; Ms. Nurul Mutmainnah, Financial Management Specialist; and Mr. Mulyadi, Local Peatland Consultant (based in Riau)

fundamental changes are necessary with regard to peatland conservation and management to meet its commitments.

Project goals and objectives

4. **The overall goal** of the SMPEI is to enhance sustainable peatland management and reduce GHG emissions from target peatland areas. **The development objective** of the Project is to sustainably manage at landscape level for improving local livelihoods and to reduce peat fire and GHG emissions. This will be achieved by: (i) capacity building for sustainable peatland management; (ii) reducing peatland degradation and fires; and (iii) adopting best practices for integrated, sustainable management of peatlands at a landscape level through enhanced engagement of the private sector and local communities.

5. The SMPEI project is subdivided into 3 components and 7 outputs, namely:

Component 1. Capacity and institutional framework enhanced for implementation of National Peatland Regulations (PP71) and National/ASEAN Peatland Management Strategy at all levels;

- 1.1. Strengthen policy, regulations and institutional mechanisms for sustainable peatland management;
- 1.2. Strengthen capacity and knowledge management for sustainable peatland management;
- 1.3. Develop Peatland Hydrological Unit (PHU) maps for management and zoning in selected provinces.

Component 2. Community-based integrated fire management approach demonstrated in Riau and GHG emission reduction monitored;

- 2.1. Strengthen national peatland fire prediction, monitoring and warning systems;
- 2.2. Assessment of GHG emission reductions from targeted peatlands.

Component 3. Functioning multi-stakeholder partnerships established for integrated sustainable management of KG & GB PHUs and enhanced community livelihoods.

- 3.1. Develop and implement an integrated sustainable management plan for KG & GB PHUs;
- 3.2. Community livelihood from sustainable peatland management enhanced.

6. In order to support SMPEI and provide co-financing to the GEF grant, IFAD prepared an Indonesia Country Grant of the value of USD 495,000 entitled Haze Free Sustainable Livelihood Project (HFSLP), implemented by the Centre for International Forestry Research (CIFOR) to identify and promote alternative sustainable livelihoods for the communities living in peatland areas of the Riau Province, Indonesia. The HFSLP project, which was linked as sub-component 3.2 of the SMPEI project, and covered 9 villages out of 14 SMPEI target villages in the Riau province, completed on 18 March 2019.

7. The SMPEI Project is executed by the Directorate of Peatland Degradation Control (DPDC) in the Directorate General of Pollution and Environmental Degradation Control (DG-PEDC) in the Indonesian Ministry of Environment and Forestry (MOEF). During the launch of the SMPEI project in Jakarta on 19 March 2018, initial findings from the HFSLP were presented to SMPEI key stakeholders. Subsequently, from 20 to 23 March 2018, an IFAD Supervision Mission was held to review the implementation and the progress of the HFSLP. An Implementation Support/Supervision Mission visited Indonesia from 24 July to 2 August 2019. Agreed actions and recommendations were compiled in the mission's Aide Memoire, which was signed by MOEF and IFAD in August 2019. The subsequent supervision mission planned in 2020 was postponed due to the COVID-19 pandemic.

8. Following MOEF's request dated 26 August 2020, IFAD agreed to a 9-month no-cost extension due to COVID-19 impacts on project implementation. An amendment letter dated 26 November 2020 was issued with the new completion date being 30 June 2022.

Mid-Term Review Mission

8. A Mid-Term Review (MTR) Mission took place in Jakarta and Riau Province from 31 May to 23 June 2021. The Mission operated in a hybrid nature with some members physically present in Indonesia and making visits to the project field locations in Riau (31 May – 04 June) and other mission members who were present only on-line interacting through a series of Zoom meetings and online discussions between 07 – 23 June.

9. The objectives of this Mid-Term Review (MTR) Mission were the following:

(i) Review Project performance in achieving project outputs and outcomes; (ii) Assess Overall project management and institutional set up; (iii) Financial management, procurement and compliance with legal covenants; (iv) Monitoring & Evaluation (M&E) and knowledge management; and (v) Recommendations and implementation support for further improvements and adjustments of the project on all above aspects.

10. The mission began with a field visit to the project target landscape in southern Riau province between 31 May 2021 and 4 June 2021. The mission comprised two representatives of IFAD (IFAD Country Director and the local consultant from Riau), who travelled together with four representatives of the SMPEI project (Project Manager, M&E Officer, Project Assistant and the Provincial Coordinator). The mission visited the three project districts of Indragiri Hilir, Indragiri Hulu and Pelalawan and met with local government officials (including the Bupati of Indragiri Hilir District), District Project Coordinators, Village Facilitators and local communities in four of the 14 targeted villages. The team visited project sites and facilities including canal blocks, livelihood demonstration plots and water treatment facilities and interviewed local community members and leaders. An impact assessment survey was undertaken through interview and online feedback with responses being received from 152 participants from 12 of the 14 target villages received during the course of the mission (See **Appendix 17** for specific information gathered during the field mission).

11. A kick-off meeting was held on 7 June 2021 at MOEF, which was attended by the Project Director, Project Management Office (PMO), Provincial PMO (PPMO), GEF Operational Focal Point (OFP) representative, and representatives of the DG-PEDC. A series of more than ten zoom meetings were held on institutional, management, technical, finance and procurement issues between the Mission and the project team between 8-19 June 2021. An interview was held with the GEF OFP on 16 June. A pre-wrap up meeting was held on 21 June and the mission wrap-up meeting was held on 23 June online. A copy of the Mission Schedule is in **Appendix 10**. A list of key stakeholders met is in **Appendix 11**.

12. The mission's findings and recommendations are detailed in this Aide Memoire, which was presented, discussed and agreed with the Government of Indonesia, during the wrap-up meeting on 23 June 2021. The Mission team wishes to thank the PMO, MOEF, Riau Provincial and District Agencies as well as targeted communities, for their hospitality, collaboration and contribution to the mission.

13. Progress has been evaluated following IFAD's standard review scoring system which evaluates projects and key aspects from unsatisfactory (1) to highly satisfactory (6)[1].

[1] (6) **Highly satisfactory**. Targets/requirements met or exceeded. Considered as best practice.

(5) **Satisfactory**. Targets/requirements met with only minor delays or set-backs.

(4) **Moderately satisfactory**. Most targets/ requirements met but delays or set-backs experienced.

(3) **Moderately unsatisfactory**. Some targets/ requirements met but issues/constraints have negatively affected implementation.

(2) **Unsatisfactory**. Few targets/requirements met. Issues/constraints remain unresolved. Delays have seriously undermined implementation.

(1) **Highly unsatisfactory**. Almost no targets/ requirements met. Consideration should be given to cancellation/suspension.

B. Overall Assessment of SMPEI Project Implementation

14. Some significant achievements have been made in 2017-2021 through the implementation of the project activities with both IFAD-GEF and government co-finance, including: i) finalisation and approval of twelve (12) government regulations and sub-regulations for the sustainable use of peatland ecosystems and additional ten (10) regulations and/or technical guidance in relation to peatland management; ii) functional classification of all PHUs in Indonesia including zoning of all PHUs into protection and utilisation zones; iii) development and adoption of a National Plan for Protection and Management of Peatland Ecosystems (RPPEG) for the period 2020-2049; iv) mapping and assessment of more than 40 PHUs; v) establishment of enhanced national systems for peatland water management, monitoring and reporting to support peatland management and fire prevention; vi) a methodology for assessing the GHG emission reduction from enhanced water management in peatlands; vii) development of a web-based peatland information system integrating data of water level, soil moisture and vegetation cover covering all of Indonesia; and viii) implementation of community-based peatland management measures in 14 villages in the targeted landscape in Riau province.

15. GEF-financed activities at the provincial level were initiated in 2018 and significant progress has been made in undertaking participatory diagnostic assessment in the 14 target villages; formulation of annual Village Action Plans (Rencana Kerja Masyarakat/RKM, in 2019 and 2020); implementation of the plans including establishment of 49 sustainable livelihood activities at demonstration sites in 14 villages; construction of canal blocks to raise water in drainage canals through peatland areas to reduce risk of subsidence and fire and enhance sustainable peatland management options. To implement the RKM, 21 livelihood activities were undertaken in 2019 and 22 activities implemented in 2020, in demonstration plots covering 57.5ha of land; a total of 202 canal blocks were constructed of which 76 blocks were installed in 2019 and 126 blocks in 2020. As a result of the actions, the frequency and extent of peatland fires in the targeted villages has been reduced, GHG emissions have been reduced and sustainable livelihoods enhanced. In addition, work with private sector plantation companies in nearby portions of the same landscape have led to enhanced water management in more than 400,000ha of oil palm and forest plantations. Further work is needed to develop an overall integrated management strategy for the targeted peatland landscape and establish mechanisms for scaling up and sustainability of the community-level interventions.

16. Since the previous Supervision Mission in mid-2019, the project has faced significant challenges from the COVID-19 Pandemic. In particular, this has affected the smooth development and supervision of the programme, prevented planned training and field assessments and affected activities of project partners and stakeholders. In November 2020, a 9-month no-cost extension was granted in lieu of delays related to COVID-19, but the second and third waves of COVID-19 in 2021 have caused further disruptions and these are expected to continue with the targeted province of Riau currently having one of the highest infection rates of Indonesian provinces.

17. The COVID-19 pandemic combined with delays in appointment of PMO personnel and a temporary staff change in IFAD also affected the interaction between IFAD and the PMO and this has contributed to slow progress and some mis-communication on important recommendations from the previous Implementation Support Mission in 2019. The progress against recommendations from the previous mission (in July-August 2019) are described in **Appendix 8**. While the majority of recommendations were implemented, there has been limited progress on several key recommendations as well as lack of development of the project M&E and KM plans.

18. Forty-eight (48) out of 54 planned project personnel have been recruited or appointed (see **Appendix 12** for positions and status). However, the overall Project Management Coordinator position remains vacant since January 2019, despite strong encouragement from IFAD and the position being advertised at least two times. This has had an impact on the overall coordination and management, requiring significant additional inputs from staff of the DPDC and contributing to implementation and reporting delays. There have also been challenges with procurement, with a lack of personnel in the

PMO with expertise in procurement and the project fully reliant on the independent procurement unit (ULP) of MOEF which is not familiar with either IFAD or the project requirements. MOEF internal procurement regulations also limit interactions between the PMO and the Ministry's procurement unit. These factors have led to non-compliance of the provisions of Letter to Recipient (LTR) and resulted in a significant case of failed procurement in 2020, delaying one component of the project.

19. A summary of the ratings given to the SMPEI Project are given in Table 1 below. There has been an improvement in six of the ratings (component 1, compliance with grant covenants, procurement, implementation progress, disbursement, financial management), compared to the last mission in August 2019. The one indicator that has declined is for component 3. Three ratings have remained the same.

Table 1: Summary of the ratings given to the SMPEI Project

Evaluated aspects	Score previous mission July-August 2019	Score current mission May-June 2021
Output of SMPEI Component 1	Satisfactory (5)	Highly Satisfactory (6)
Output of SMPEI Component 2	Moderately Satisfactory to Satisfactory (4-5)	Moderately Satisfactory to Satisfactory (4-5)
Output of SMPEI Component 3	Satisfactory (5)	Moderately Satisfactory (4)
Implementation progress	Moderately Satisfactory (4)	Satisfactory (5)
Quality of Financial Management	Moderately Unsatisfactory (3)	Moderately Satisfactory (4)
Disbursement	Moderately Unsatisfactory (3)	Moderately Satisfactory (4)
Counterpart funds	Moderately Satisfactory (4)	Moderately Satisfactory (4)
Compliance with grant covenants	Moderately Unsatisfactory (3)	Satisfactory (5)
Procurement	Moderately Unsatisfactory (3)	Moderately Satisfactory (4)
Audit	Moderately Satisfactory (4)	Moderately Satisfactory (4)
Overall Rating	Moderately Satisfactory (4)	Satisfactory (5)

20. Taking into account both the achievements and the challenges, the project has been given an Overall Rating of **Satisfactory (5)**.

21. Although there are only 12 months remaining before the project closing date (June 2022), there are still a lot of actions to undertake to meet the overall project targets and 44% of the IFAD-GEF financing has yet to be spent. Although the expenditure rate in the first 5 months of 2021 has been low, the PMO has given an assurance that the procurement is being expedited and most planned activities for 2021 can be implemented. However if there are still challenges moving forward it will be important to make a formal review of progress by October and if necessary modify planned activities or transfer resources

to the AWPB for 2022, to enable adequate lead time for approval of the AWPB 2022 before the end of 2021.

22. In order to help ensure the timely completion of the project and to enhance the project management and reporting, the appointment of the Project Management Coordinator and Procurement Officer need to be expedited. However, given the earlier challenges in recruitment it is proposed that the appointment could be expedited through a direct appointment or intermittent expert contract.

23. The MTR has identified a number of elements of the project that need to be strengthened in order to meet the overall project targets and support sustainability. These include developing a strategy or plan for the integrated sustainable management of the targeted PHU/landscape in Riau; a Replication and Sustainability Strategy/Plan for the community based peatland management; and development of outreach and knowledge products to share the project results. These aspects need to be incorporated into the 2021-2022 AWPB and implemented in a timely manner.

24. The project was seriously impacted by the COVID-19 pandemic in 2020 and many planned workshops and assessments had to be postponed. Although the project has adapted through use of local partners and using hybrid training options, there are still potential risks to the project implementation given the low current vaccination rate in Indonesia and also the start of a third wave of COVID-19 in June 2021, driven by the dominant presence of the highly infectious Delta variant. Appropriate safeguards to minimise the risk to project personnel and beneficiaries from COVID-19 should be maintained and contingency plans should be developed in case further working and travel restrictions are imposed.

Agreed action	Responsibility	Agreed date
B1. Develop clear timetable and workplan to the closing date to ensure timely completion	DPDC	July 2021
B2. Expedite the recruitment of a) Project Management Coordinator on direct appointment or a project management specialist on short term/intermittent contract until project closing;	DPDC, ULP, PMO	August 2021
B3. Expedite the procurement of SIPPEG system components and other critical procurement items.	DPDC, ULP, PMO	August 2021
B4. Undertake a review of progress in implementing the 2021AWPB in order to determine the likely utilisation of resources by the end of 2021 and the transfer of likely unused resources to the 2022 AWPB.	DPDC, PMO, IFAD	October 2021
B5. Adjust the 2021 AWPB to include priority activities identified by the MTR for completion before the end of the project	DPDC, PMO, IFAD	July 2021
B6. Develop or update a COVID-19 Contingency plan and update every 2 months based in the COVID-19 situation in the country and project sites	PMO	July 2021 and ongoing

B7 Organise Implementation Support Mission to review and assist progress with MTR actions in October and Supervision Mission to guide closing of the Project in February 2022	PMO, IFAD	October 2021 and February 2022
---	-----------	--------------------------------

C. Outputs and outcomes

25. The progress against project outcomes, outputs and activities are described below for each component.

Component 1 – Capacity building and institutional strengthening for implementation of policies and regulations for sustainable peatland management.

26. The project has delivered beyond expectations under Component 1 since project approval in 2016 with a combination of project funds and co-funding from the government. Related to the strengthening of the policy, regulatory and institutional framework for sustainable peatland management (output 1.1), a total of ministerial 12 ministerial regulations, sub-regulations and/or guidelines for implementation of the PP71/2014 as revised by PP57/2016, and 10 additional regulations or technical guidelines were developed, approved and under implementation since project start, namely:

- 2017 (with government co-funding): PP 71/2014 revised through PP57/2016 with sub-regulations of P.14/2017 on Procedure for Inventory and Determination of Peat Ecosystem Functions; P.15/2017 on Procedures for Measuring Groundwater Levels in Peat Ecosystem at Designated Monitoring Points; P.16/2017 on Technical Guidelines for Functions Recovery of Peat Ecosystem; P.17/2017 on revision of P.12/2015 Development of Industrial Forest Plantations (emphasize on peat-related matters including definitions and additional requirements to protect/conservate peatland areas within plantation concession); SK129/2017 on Determination of National Peatland Hydrological Units Map; SK130/2017 on Determination of Map of National Peatland Ecosystem Function; SK295/ 2017 concerning the Designation of Peat Ecosystem Function Map on a scale of 1: 50,000 on the PHU of Bengkalis island, Tebing Tinggi Island, the Kampar River - Gaung River, the Gaung River PHU - the Batang Tuaka River, and the Kapuas River - Terentang River;
- 2018 (with GEF-IFAD/co-funding): DG of PPKL Regulation No. P.3/2018 regarding Guideline for Monitoring of Peat Ground Water Level and Subsidence in Community Area, and Guidelines for Infrastructure Development for Peat Ecosystem Recovery; MOEF Regulation No. 10/2018 regarding Determination, Stipulation and Management of Peat Dome Based on Peatland Hydrological Unit; DG of PPKL Regulation No. P. 5/2018 regarding Technical Guidelines for Preparation of Peat Ecosystem Recovery; and DG of PPKL Regulation No. 9-10/2018 Standard for Wetting Infrastructure Development for Peat Ecosystem Recovery; Director General Decree on Pollution and Environmental Damage Control Number SK.40 of 2018 concerning the Designation on the Status of Peat Ecosystem Damage.
- 2019 (with GEF-IFAD/co-funding): DG Regulation on the Pollution and Environmental Damage Control Number P.1/2019 concerning Guidelines for Implementing the Regulation of the Minister of Environment and Forestry Number P.14/2017 concerning Procedures for Inventory and Designation of Peat Ecosystem Functions; DG of PPKL Regulation No.3/2019 on Determination of Monitoring Points for Water Levels and subsidence on community land; Technical guidance and supervision on water management and monitoring of re-vegetation, field verification, observation of recovery and monitoring of the implementation of peatland ecosystem restoration; Minister of Environment and Forestry Regulation Number P.10/2019 concerning designation, establishment and peat dome peaks management based on Peat Hydrological Units; Minister of Environment and Forestry Regulation Number P.11/2019 concerning Amendments to the Regulation of the Minister of Forestry Number P.30/2014 concerning Periodic Comprehensive Forest Inventory and Work Plan on Business to Utilize Forest Timber in Industrial Plantation Forest; DG Regulation on the Pollution and Environmental Damage Control Number P.18 of 2019 concerning Technical Guidelines for Spatial Data Processing on Peat Ecosystem Characteristics; Minister of Environment and Forestry Regulation Number P.60/2019 concerning Procedures for the Preparation, Designation and Amendment of Peat Ecosystem Protection and Management Plans; SK296/2019 concerning the Designation of the Peat Ecosystem Function Map on a scale of 1: 50 000 at PHU Krueng Matee - Krueng Tumiye, PHU Krueng Surin - Krueng Muling, PHU

Krueng Tripa - Krueng Seuneuam, PHU Aek Maraitgadang, PHU Sungai Kanopan - Sungai Kuala, PHU Sungai Kuala - Sungai Kuo, PHU Aek Lunang - Aek Sidang, PHU Aek Ubar - Aek Lunang, PHU Batang Ampu - bah Mandiangin, PHU Sungai Kedangyantau - Sungai Sabintulung, PHU Sungai Kelinjau - Sungai Kedangyantau; SK938/ 2019 concerning the Designation of Peat Ecosystem Function in PHU Krueng Meureubo - Krueng Matee, PHU Krueng Wonki - Krueng Gubon, Aek Musi - Aek Upang, and PHU Sungai Dada - Sungai Sikan;

- 2020 (with GEF-IFAD funding): regulation SK.246/2020 on National Plan for Protection and Management of Peatland Ecosystem (RPPEG, 2020-2049) which replaced the National Peatland Strategy; SK446/2020 concerning the Function of Peat Ecosystems in 21 PHUs; Technical guidance on the enhancement of peatland recovery plan for HTI business area based on a corrected map at a scale of 250,000. In addition in 2020, with the support from UNDP, DPDC developed one provincial RPPEG for Central Kalimantan and one district RPPEG for Pelalawan.

27. Under sub-component 1.2 related to the strengthening capacity and knowledge management (KM) for sustainable peatland management, the project has made good progress on the capacity strengthening and some progress on the KM, but more could be made to increase the project's visibility and to showcase the lessons learned and achievements.

- Capacity building for national peatland monitoring: The National Media Control Room was established in MOEF and launched in 2020, which will serve as an early warning system for peatland fire prevention and monitoring, based on groundwater level (TMAT) and soil/peat moisture monitoring through data loggers in the field. The 0.4-meter Peat Groundwater Information System, known as SIMATAG-0.4m was developed in 2018 and enhanced in 2020, which aims to support peatland ecosystem restoration activities through the collection of groundwater level (TMAT) monitoring database and rainfall in peatlands. SIMATAG-0.4 ultimately informs peatland fire prevention, as the level of TMAT on peatlands also describes the level of moisture in the peatland itself (soil moisture), which is one of the indicators that can be used to anticipate or prevent fires on peatlands. In addition, the grand design of the SIPPEG (Information System for the Protection and Management of Peat Ecosystems) was finalised in 2019, with the aim to incorporate SIMATAG-0.4 and Sipongi systems into one. Implementation of this system was delayed due to challenges in completing procurement in 2020 (primarily due to differences between MOEF and IFAD procurement systems and procedures).
- Capacity Building in Indonesia: The Directorate of Peatland Degradation Control (DPDC) has organised 18 training workshops and events with the participation of 750 participants between 2018-2020 (see Table in **Appendix 19**)
- Knowledge sharing beyond Indonesia: DPDC has participated in many high-level international and regional dialogues and events with support from SMPEI GEF-IFAD funding, including GEF Assembly, Viet Nam (2018), UNFCCC COP24, Poland (Dec 2018) and COP25, Spain (Dec 2019); Environment and Forest Exhibition in 2019 in Korea; the 21st Meeting of the Technical Working Group (TWG) and the 21st Meeting of Sub Regional Ministerial Steering Committee (MSC) on Transboundary Haze Pollution in Brunei Darussalam (August 2019); 15th ASEAN Ministerial Meeting on the Environment and 15th Meeting of the COP to the ASEAN Agreement on Transboundary Haze Pollution in Siam Reap, Cambodia (October 2019); ASEAN Task Force on Peatlands (ATFP) annual meetings in Brunei Darussalam (2018), Myanmar (2019), Virtual meeting 2020; ATFP members at the 1st and 2nd Regional Programme Steering Committee (PSC) meetings of the ASEAN-IFAD Measurable Action for Haze Free Sustainable Land Management in Southeast Asia (MAHFSA) programme, the EU-GIZ Sustainable Use of Peatland and Haze Mitigation in ASEAN (SUPA) project, and the GEF6-IUCN Sustainable Management of Peatland Ecosystems in Mekong Countries (Nov 2019 in Thailand and Dec 2020 - Virtual). DPDC has also actively participated in meetings of the Task Force for the Review of the ASEAN Peatland Management Strategy 2006-2020 in July and November 2020.
- Information on SMPEI and DPDC and related work on peatland management has been shared in numerous national and international webinars including:
 - 20 November 2020. Unlocking Climate Smart Agricultural Innovation Opportunities on peatland. MOEF/BRG/Kemitraan
 - 22 December 2020. Webinar on Tropical peatland GHG Emissions and Measuring Reporting and Verification. GIZ/MOEF/Greifswald Mire Centre.
 - 19 January 2021. Workshop on Peatland Management and Wet Livelihood Opportunities in Indonesia. Global Peatlands Initiative.
 - 18 March 2021. Workshop on Peatland Management in Indonesia. FAO.

- 18 June 2021. Technical Meeting of Parties on Definition and Identification of Peatland Typology. Ministry of Environment and Sustainable Development, Republic of Congo.
- Knowledge products developed related to the promotion and dissemination of sustainable peatland management include:
 - ❖ 4 videos: (i) with general information on the Media Center room which was showcased at the Launch in 2020; (ii) on the SIMATAG-0.4m Information System; (iii) on MOEF's activities related to Peat Ecosystem Recovery in Indonesia (Pemulihan Ekosistem Gambut di Indonesia) activities (available in english at <http://pkgppkl.menlhk.go.id/v0/pemulihan-ekosistem-gambut-di-indonesia/>), and on (iv) on Community Empowerment in the Management of Peatland Ecosystem in Indonesia (Pemberdayaan Masyarakat dalam Pengelolaan Ekosistem Gambut) (available in English at <http://pkgppkl.menlhk.go.id/v0/community-empowerment-on-peatland-ecosystem-recovery/> - with IFAD logo). The purpose of the latter was to showcase the progress of SMPEI Project, on peatland restoration, alternative livelihoods cultivation activities by TK-PPEG Community Groups, as well as sharing regarding the local community perspectives on project impacts and outcomes.
 - ❖ 2 documentary videos on SMPEI project: (i) one focussed on challenges faced by peatland ecosystems in Indonesia (and especially Riau) and their importance as well as the village TK-PPEG establishment, IMAS and RKM development process (made in 2019 in Bahasa not disseminated yet), and (ii) one focussed on the establishment of demonstration plots and canal blocks and reactions from the community on initial results. (made in 2020 in Bahasa not disseminated yet). The mission team notes that these videos could form the basis for developing a short video in English for COP26. IFAD COM divisions could support and guide the development of such a KP.
 - ❖ 2 books on (i) Corrective Action on Peatland Management in Indonesia – Towards Sustainable Peatlands Ecosystems (available in English at: <http://pkgppkl.menlhk.go.id/v0/corrective-action-tata-kelola-gambut/>); (ii) Community Self-reliance-Based Peat Ecosystem Restoration (Pemulihan Ekosistem Gambut Berbasis Pemandirian Masyarakat – made in 2019 in Bahasa and not yet disseminated)

While there has been progress in developing capacity and in outreach, there is a need to enhance further the documentation of experience and lessons learned and improve the dissemination of reports, materials and videos developed by the project. In addition, the web page DPDC needs to be further enhanced and updated materials made available in English and Indonesian (such as updated regulation/guidance/directives, updated PHUs map on 1:50.000 scale, updated soil moisture map from satellite imagery, area of restoration, desa mandiri peduli gambut, etc. These will be useful for other countries, students/university, researchers around the world to get lesson learns from Indonesia as well as stakeholders at the national level.

28. Under sub-component 1.3 related to the development of PHU maps for management and zoning in selected provinces, the progress has also delivered beyond the expected target, with 55 PHU mapped at 1:50000 scale with the support of SMPEI GEF-IFAD funding in Riau, Central and West Kalimantan, Jambi and South Sumatra (32 PHUs mapped in 2019 and 23 in 2020). A total of 122 PHUs have been mapped by DPDC with co-funding (see **Appendix 20** for list of PHUs mapped by project and co-funding).

29. This component is rated as **Highly Satisfactory (6)** as a result of the excellent progress on policies and regulations, developing of the IMATAG-0.4 monitoring system, capacity building on the new regulations and development of the numerous PHU maps and development and promotion of the RPPEG.

Agreed actions	Responsibility	Agreed date
C1. Develop a capacity development plan specifying the proposed capacity development activities in the remainder of the project period (Ref: KPI 9 Capacity development plan developed and implemented)	PMO	August 2021
C2. Allocate/appoint at least one person with IT (-web/GISbase specialist) to develop and manage the DPDC website and enhance content development and sharing.	PMO	August 2021 and ongoing

Component 2 – Monitoring peatland degradation, fires and GHG emissions.

30. Overall, good progress has been made under Component 2. For Sub-component 2.1, the groundwater level-based peatland monitoring system (i.e. SiMATAG-0.4m) which was developed/enhanced under Component 1 through co-financing from MOEF has been fully operational in providing groundwater level information including in project target sites. Such information has been utilized by stakeholders at the national, provincial, district/city and village levels. MOEF is also developing an integrated *Information System for Protection and Management of Peatland Ecosystems* (SIPPEG) with the funding support from the project (under Component 1), but not yet completed. Therefore, the usefulness of this system could not be assessed during this MTR mission. SIPPEG is targeted to be completed and operationalized by the end of 2021, and will serve as an integrated system for the existing monitoring systems developed by governments and partners (including SiMATAG-0.4m and Sipongi by MOEF, SIPALAGA by Peatland and Mangrove Restoration Agency (BRGM), SISULTAN by MOA, LAPAN Fire Hotspot, etc.).

31. For sub-component 2.2, the methodology for calculating greenhouse gas (GHG) emissions from Indonesia peatland has been identified and agreed for utilisation (drawing on the methodology as described in Hooijer et. al. 2010 “*Current and Future CO2 Emission from Drained Peat in Southeast Asia*”). The use of this methodology has been approved by the MOEF Minister, however it is still being reviewed by other panels. With this methodology, the project has made an initial calculation the baseline emission and annual emission level in 2020 in the targeted landscape in southern Riau. The MTR mission reviewed and supported the methodology used to calculate emission reductions linked to elevation of ground water levels. However, the MTR has proposed that the impacts of the project in raising the water levels in the village and other land need to be documented in more detail in particular to separate village land from oil palm and forest plantations that may have different baselines and final water levels. This also needs to tie back to the methodology used to estimate the emission reductions by the project in the Project design Document. Further information on the recommended approach is given in **Appendix 21**.

32. One issue under Component 2 is that MOEF is still awaiting formal confirmation on the methodology for calculating GHG emissions. The Directorate General for Climate Change has already accepted DPDC’s calculation (on peatlands) to be used for the National Determined Contribution (NDC) tracking, however the national level agreement on the methodology itself has not been achieved. The project shall expedite this approval of methodology in order to achieve the target of sub-component 2.2.

33. SIPPEG is also an important tool to support Component 2 (although the development of the system is being undertaken in Component 1). The concept for SIPPEG was developed in 2019, but the development of SIPPEG could not proceed in 2020 and the procurement size was very large and there

were challenge in complying with IFAD requirements. The project together with IFAD have devised a process to resolve this issue and it is hope that the system development can start by August 2021.

34. This component is rated **Moderately Satisfactory (4) to Satisfactory (5)** based on the progress in developing the system for monitoring real time peatland water levels and its use for fire prevention as well as the action to develop methodologies for GHG emission reduction monitoring and incorporation of peatland elements into the Environmental quality standard (IKEG). However further work is needed to put the systems in place and promote their use.

Agreed action	Responsibility	Agreed date
C3. Review and revise the data on the exact area with modified water management and levels in the targeted landscape in Riau in both village and plantation land and recalculate the estimates of emission reduction linked to the SMPEI project (in line with guidance in Appendix 21).	PMO	September 2021
C4. Expedite the development of SIPPEG and ensure capacity for operation and maintenance of the system	PMO	December 2021

Component 3 – Landscape level sustainable management of peatlands

35. The expected outcome of Component 3 is a functioning multi-stakeholder partnership established for integrated sustainable management of Sungai Kampar - Sungai Gaung and Sungai Gaung - Batang Tuaka PHUs (KG and GB PHUs, refer to the project landscape) and enhanced community livelihoods. It is expected that an Integrated Sustainable Management Plan (ISMP) is developed and implemented for the project landscape; a multi-stakeholder partnership established for ISMP implementation; community forums established for peer learning and knowledge sharing; at least 150,000 ha of peatlands within the project landscape being monitored with enhanced water management; Village Action Plans (RKM) developed and implemented at 14 project villages; fire prevention strategies developed and implemented at 3 project districts; and a Replication and Sustainability Strategy developed and implemented for sustainable livelihoods in villages and landscape.

36. Progress of Output 3.1: Draft RPPEG for Pelalawan District has been prepared since 2020 with support of UNDP with technical guidance from DPDC (as per mandate to lead on overall development of peatland related plans). Multi-stakeholder have been engaged through RKM exposure activities for socialising and coordinating activities on the ground. The agencies involved are: Village Government, Village Heads, Community Fire Brigade (Masyarakat Peduli Api/MPA), TK-PPEG members, Village Consultative Body (BPD), Bhayangkara Trustees of Community Security and Order (Bhabinkamtibmas), police representatives (Kapolsek), and Natural Resources Conservation Agency (BBKSDA), etc. The multi-stakeholder platform should be established to facilitate sharing of information and engage stakeholders within the project landscape to develop the ISMP. Community forums for the 3 project districts should also be established to facilitate peer learning and experience sharing amongst the project villages and other interested villages for better management of peatland.

37. Progress of Output 3.2: Under the IFAD-grant to CIFOR (IFAD co-financing to SMPEI) titled *Haze Free Sustainable Livelihood Project* (HFSLP, 2016-2019), supported livelihood for 300 beneficiaries in 9 villages in the landscape with fish processing, honey and other commodities. It also generated a number of knowledge products (KPs) and held training to identify and promote alternative sustainable livelihoods for the communities living in peatland areas of SMPEI (see **Appendix 7**). However, due to the delay in the start of the SMPEI Project, there was little or no overlap with the HFSLP and SMPEI

developed a new approach to sustainable peatland livelihood, based on Participatory Assessments (IMAS) and Participatory Village Action Plans (RKM). This approach is closely tied to enhancing community understanding of peatland management and encouraging rewetting and sustainable livelihoods more dependent on rewetted peatlands and is considered very successful and has been applied in other villages throughout Indonesia.

38. IMAS were prepared by the 14 project villages in 2019 with some updates in 2020. Village Action Plans (RKM) for 2019 and 2020 were prepared and implemented. However, some activities planned under RKM 2020 were not implemented due to COVID-19 pandemic. Therefore, the activities will be undertaken in 2021. Three clean water treatment plants were procured and have been installed in Desa Teluk Meranti of Pelalawan District, Desa Rambaian of Indragiri Hilir District and Desa Sialang Dua Dahan of Indragiri Hulu District. These have brought significant benefits by reducing the cost of clean water by 80% and saving significant time spent to purchase water from far away sources. In addition, a total of 14 portable water pump fire extinguishers (one per project village) were procured and delivered to the villages. Two sets of fire danger risk signboard with on-site water table monitoring systems per village were installed in fire prone peatlands. A survey was conducted in July-December 2020 with 208 TK-PPEG members with 75% of the members agreed that the Project has been supporting their economy through activities. However, the draft survey report has yet to be finalised and unclear on analysis as all questions with open answers. Based on reports, there were a total of 202 canal blocks were constructed and 57.5 ha of demonstrated plots developed, 6,060ha of rewetted peatlands with enhanced water management in the 14 villages, and estimated 7,326 direct beneficiaries for the project (including 6,486 with improved drinking water supply and 840 directly benefitting from livelihood demonstration plots).

39. The MTR mission visited four project villages from 1-3 June 2021 to verify some of the activities undertaken in the villages. An impact survey was conducted by the MTR mission team and 152 responses were received from 12 project villages. From the impact survey, there were 15.5% of women respondents, 10% respondents youth (age range from 16-30), 75% farmers, 49% owning land and the balance using land; 78% of respondents have been getting benefits from the canal blocks of which provide water source for agriculture and no more peat fires, and 28% stated that they have replicated activities on their own land for agricultural crops and zero burning practices (52 respondents but half did not specify crop). Additional training sessions for women groups would help to improve benefits, such as training on agricultural practices on peatlands, home-based industry for diversifying products from demonstration plots, and management practices of peatland ecosystems. As for youth, training related to business management and establishing a peat care group to enhance awareness were suggested. Overall, there were 150 respondents who think that the project has been effectively implemented to manage and protect the peatlands, and to involve village communities in enhancing fire-free livelihood activities. The respondents also provided recommendations to improve the project implementation, include: i) involve more parties; ii) provide training and share information on canal block construction and development of demonstration plots; iii) maintenance of the demonstration plots and canal blocks; iv) training on organisational management; and v) more canal blocks and demonstration plots. Detailed analysis of the impact survey is in **Appendix 17**.

40. This component is rated as **Moderately Satisfactory (4)** as a result of the excellent progress in working with the 14 targeted villages to facilitate sustainable peatland management including blocking canals, preventing fires and introducing sustainable livelihoods. Work was also undertaken with a range of plantation companies in the landscape to enhance water management and ensure monitoring and feedback on water management and rehabilitation measures. A higher score was not allocated as progress was not sufficient in developing the planned Integrated Sustainable Management Plan to cover the entire landscape linking the three districts, local communities and private sector.

Agreed action	Responsibility	Agreed date
C5. Establish a project landscape level platform for Pelalawan, Indragiri Hulu and Indragiri Hilir stakeholders (indicator 15 under Component 3)	PMO/PPMO/PDU	September 2021
C6. Develop an Integrated Sustainable Management Plan (ISMP) for the project landscape (building on the draft RPPEG for Pelalawan) (indicator 14 under Comp. 3)	PMO/PPMO/PDU	March 2022
C7. Establish community forums for the 3 project districts to share lessons learned and knowledge (indicator 16 under Comp. 3)	PPMO/PDU	September 2021
C8. Develop a Sustainability and Replication Strategy for livelihood and sustainable peatland management activities (indicator 20 under Comp. 3)	PMO/PPMO/PDU	September 2021
C9. Develop a fire prevention strategy for inclusion in RKM, ISMP and District RPPEG (indicator 19 under Comp. 3)	PMO/PPMO/PDU	August 2021

D. SMPEI implementation progress

41. The mission team noted the extent of technical progress made in achieving the outcomes and outputs of the project (see sections B and C), which is oftentimes not well communicated, reported or planned given the human resources gap in PMO. The following major project bottlenecks remain: (i) lack of recruitment of Project Coordinator (position vacant since Jan 2019); (ii) delays in AWPB-PPs preparation and submission to IFAD; (iii) lack of recruitment of certified Procurement Specialist (see section E); (iv) delays in preparation and submission of Semi-Annual Progress Reports (SAPRs) to IFAD with low level of details and quality; (v) No M&E Plan and Knowledge Management Plan prepared or implemented to date; (vi) poor planning of procurement packages (see section E); and (vii) overall insufficient communication with IFAD. All of these aspects had been already flagged in August 2019 supervision mission, as well as in the 2nd Project Implementation Report (PIR) compiled in July 2020 and submitted to the GEF Secretariat and GEF Indonesia OFP Secretariat. Meetings were convened between GEF Indonesia OFP Secretariat, PMO and IFAD on 19, 22 and 23 March 2021 to discuss these issues, and clear next steps and timeline on the above-mentioned points were agreed between PMO and IFAD on 22 March and 7 May 2021 (See **Appendix 22** for agreed actions). The mission team recommends for the remainder of the project PMO and IFAD must have bi-monthly meetings to update on the progress, and for detailed minutes and agreed action points to be circulated at the end of each meeting.

42. The 2021 AWPB-PP was shared on 22 March 2021 for IFAD review, and received IFAD No Objection on 6 April 2021 after some rounds of comments and requests for more details and revisions. The 2022 AWPB-PP will need to be received in a timely manner (by November 2021 to enable approval before the end of the year), in order to properly plan the remaining project activities and use of resources, prior to the project completion date (June 2022).

43. Progress report covering the period July 2017 – June 2019 was submitted in July 2019 with detailed information on the project progress status since the FA was signed, meaning that no progress reports were submitted to IFAD for the first 2 years of project implementation, even though many requests were made from IFAD. The SAPR covering July – December 2019 was submitted in November 2020 (9 months past the deadline set in PIM Table 8) together with the SAPR covering January – June 2020 (3 months past the deadline set in PIM), whereas the SAPR covering July – December 2020 was submitted in March 2021 (2 weeks after deadline set in PIM). The mission team noted an improvement in submission timeliness, also due to the recruitment of M&E and KM Specialist, and recommends for the PMO to submit from now on detailed semi-annual progress reports (SAPR) in satisfactory quality, as specified in the section 6.7.2 and Table 8 (page 24) of revised PIM, and following the SAPR template in revised PIM (page 90-91) and the revised Indicators as in Appendix 2 of this report. Similarly, the PMO also drafted the 1st (2019) and 2nd (2020) annual Project Implementation Reports (PIRs) for submission to GEF Secretariat which needed substantial work from IFAD as they did not provide enough technical information and detail about the implemented activities, although it was noted that the latest PIR (2020) was of better quality than the 1st (2019). It is recommended that detailed PIR are to be provided to IFAD as per deadline in section 6.7.3 and Table 9 (page 25) of the revised PIM, following the template in page 92-97 of the revised PIM.

44. The PMO has also submitted a budget reallocation request on 26 March 2021 due to COVID-19 and best use of the remaining project implementation period and resources, which was discussed by the mission and the PMO and may need to be further adjusted on the basis of the prioritisation of immediate tasks.

45. **M&E:** Despite the initial M&E plan being given in Appendix 4 of the Project Design Report (PDR) prepared in 2016, and clear guidance from the ISM in 2019 for the project to develop this plan by September 2019, the project by June 2021 had still not developed an M&E Plan. In addition, the project did not follow the clear guidance from the 2019 ISM to adjust the indicators from those approved before the project start in 2017 to fit the actual implementation situation and activities. Although the project hired an M&E officer in July 2020, the person did not receive necessary guidance or training on what tasks should be undertaken. The project continued to submit reports in 2019 and 2020 following the original (2017) indicators. In addition, the project has failed to set up a clear internal monitoring system to track beneficiaries and participants in training and other programmes. As a result, there is no gender disaggregated data available for analysis of project results and detailed information on activities conducted need to be reconstructed based on scattered information. No baseline report was prepared when the project started, and although a budget for a consultant to prepare the baseline has been included in the AWPB 2020 and 2021, work has yet to be initiated. It is no longer useful to undertake a baseline survey as the project is ending soon. Instead, the Project should compile available baseline information required for tracking the final project indicators and prepare a summary report.

46. The mission has reviewed in detail the Project Logical Framework and Indicators and has made some recommendations for minor adjustment to enhance clarity and ease to collect related information given the lack of baseline and Monitoring being undertaken by the project. The revised indicators are given in **Appendix 2**. An initial assessment of progress in project implementation against the indicators has been prepared by the MTR based on information provided by the project and this is included in **Appendix 4**. Guidance on the nature and format for the required M&E plan is given in **Appendix 18**.

47. Given the remaining project implementation period, the Mission team recommends for PMO to rapidly develop the M&E Plan including a summary baseline report related to each indicator in logical framework as agreed with MTR mission in June 2021 (including early warning system, GHG emissions methodology, peatland areas with improved practices of SPM, and number of beneficiaries, etc.) for submission to IFAD. There has been no proper tracking of participants with gender segregation and age group (at least youth and adults) either for training/workshops/meetings/implementation at villages that made it a challenge to analyse the proportion of women and youth engaged in the project. There should also be enhanced communication between PMO, PPMO and PDU on project implementation and M&E issues.

48. **Coherence with AWPB:** The first AWPB2020 for USD 2,021,713 was submitted on 26 May and received a No Objection Letter (NOL) from IFAD one day later. Subsequently in light of the COVID-19 outbreak, the AWPB was revised downwards to USD 1,386,587 on 1st September and again to USD

991,980 on 21 October. The final expenditure for 2020 was USD 935,058. The total was in line with the approved AWPB, although there were some adjustments of certain line items as specified in a letter from the PMO to IFAD on 14 January 2021. For 2021, a draft AWPB2021 was prepared and submitted to IFAD on 22 March and the draft was revised and sent to IFAD on 5 April, IFAD provided a No-Objection on 6 April 2021 to the AWPB2021 for the project amounting IDR 29,627,261,467 or equivalent to USD 2,116,233. Between January to May 2021, expenditure was USD 145,958 or 7.5% of the approved AWPB – leaving 92.5% of the budget to be spent in the seven months till the end of the year. Concerns were raised by the MTR of the feasibility for the project to implement all the planned activities and procurement in the remaining six months of the year – but the Project Manager and Director gave assurance that they would be expediting implementation and expected to complete most of the actions.

49. **Gender/Youth focus:** Results from impact survey conducted by the MTR between 2-8 June 2021, with responses from a total of 152 respondents from 12 project villages of which 15.5% were women (i.e. 24 person) and 10% were from youth group (i.e. 15 person, age range 16-30 year old as per the Youth Law for Indonesia). From the survey, 76.5% of the respondents think that the project is benefiting women groups in the villages, and 83.7% think the project is benefiting the youth group. On involvement of women groups at site based activities, they have been engaged for activities in the demonstration plots such as planting, monitoring and maintenance, and harvest of crops. They are also involved in harvesting fish in canal blocks. The respondents suggested that in future the women group can have improved benefit from the project by more training sessions such as farming on peatlands, home-based industry to process products from the demonstration plots, and enhance awareness and knowledge on peatland ecosystem management. The youth group in the project villages have been participating in canal blocks construction, development of the demonstration plots, and participating in protecting fire prone peatlands. The respondents suggested that a peat care youth group should be formulated and training on peatland ecosystem management and business management to be conducted. While the project has engaged women in the project – the percentage of women participating in the community peatland management groups (TKPPEG) is rather small and needs to be enhanced. The project also needs to take a more proactive approach in the remaining 12 months to ensure that additional resources and support is provided to women to enhance the proportion of direct female beneficiaries.

50. **Innovation & Learning:** The Project has developed innovative national monitoring systems (SIMATAG-0.4m and SIPPEG) with a combination of remote-sensed data and ground-level data collection, and established Indonesia's first National Media Control Room for fire prevention. Another key aspect is that PMO/DPDC is proposing to IPCC to use the Hooijer *et al.* (2010) calculation and methodology to estimate the amount of GHG mitigated at national level via MOEF peatland restoration activities. The project has developed and implemented sub-regulations and guidelines for the roll-out of PP71 – which is an innovative national policy in itself on sustainable peatland management and restoration. Most importantly, the project has developed and initiated the implementation of the new National Peatland Strategy i.e. RPPEG which was developed for implementation until 2049. It is the first time a national peatland strategy is developed covering such a long period of time in Southeast Asia. In addition to this, the project pioneered the application of the landscape-level approach i.e. the PHUs in the national regulatory and planning frameworks.

51. Given the level of innovation that the project is, not only piloting, but scaling-up at national level, the mission team highly recommends the project to dedicate efforts on pulling lessons from the projects activities and showcasing these lessons learned in the appropriate format (videos, books, scientific journal articles) and at high-level policy dialogues and events such as the UNFCCC COP26. Lessons learned from the project will be useful not only for Indonesia or Southeast Asian countries but in all other peatland countries of the Congo basin for example and Latin America. Dissemination of knowledge and lessons learned through platforms such the International Tropical Peatland Center (ITPC), the Global Peatland Initiative (GPI), etc. are also recommended. IFAD, including Communication Division, can support the conceptualisation of these KPs as needed as well as guide on the use of IFAD Logo and options of promotion through IFAD communication channels.

Agreed action	Responsibility	Agreed date
D1. Appoint a short term consultant to help develop knowledge products to showcase lessons learned to wider audience and high-level forums	PMO	July 2021
D2. Improve communication and reporting with IFAD on all aspects through bi-monthly meetings and monthly tracking of action on MTR recommendations	DPDC, PMO, IFAD	July 2021 and ongoing
D3. Prepare a KM plan for the remaining project implementation period for submission to IFAD, to increase project visibility (see Appendix 7 for guidance/Table of Contents)	PMO	July 2021
D4. Prepare draft M&E Plan for submission to IFAD, including summary baseline report on indicators in logical framework and set up clear tracking systems for project activities and gender disaggregated data (see Appendix 18 for guidance /Table of Contents)	PMO	July 2021
D5. Take proactive measures to enhance the engagement of women and youth in the activities in the target communities	PMO/PPMO/DPU	July 2021 and ongoing
D6. Update the PIM (English and Indonesian Versions) with the various changes in M&E Indicators, fund flow arrangements, staffing etc.	PMO	August 2021
D7. Enhance internal communication between PMO, PPMO and DPU to keep all updated on project implementation and M&E issues	PMO,PPMO,PDU	July 2021 and ongoing

E. Fiduciary aspects

Financial management. Moderately Satisfactory (4)

52. Following MOEF's request dated 26 August 2020, IFAD agreed to (i) eliminate the opening of the bank account at provincial level, and for the project to have one designated account at national level, and for eligible expenditures to be paid directly to the service providers/ suppliers when Advance Withdrawal arrangement is applied; and (ii) to revise the procurement thresholds and reduce the procurement prior review process. These changes were reflected in the amended FA dated 26 November 2020 and in revised PIM dated 29 September 2020 – both of which were issued to PMO.

53. The quality of FM is assessed as **moderately satisfactory (4)**. The Mission is pleased to notice that the project followed-up on several issues raised in the last SM, especially under the flow of funds mechanisms and internal controls. Bank accounts have been opened at community level; while provinces and districts receive activities' tagged advances in cheques. The control over the flow of funds

ensures that cash balances at provinces and districts are maintained relatively low; however, the review revealed that the system can be further improved and the use of cash further reduced as some payments to vendors (especially hotels) could be executed directly from PMO. Accounting and financial reporting are the areas of major weakness and in need of improvement; this affected the overall FM rating which would be otherwise satisfactory, considering the marked improvements compared to the previous supervision mission.

Main issues

54. Organization. Currently, the finance team assigned to the project at central level consists of one government officer (treasurer) and two consultants. The PMO will hire an additional finance staff in 2021. The Mission provided on-the job training during the MTR; additional training, especially on financial reporting will be conducted in the coming months.

55. Flow of Funds. The Mission is pleased to note that the project has improved the flow of fund's mechanisms, in respect of the recommendations raised in the last SM and the new provisions included in the revised FA and LTR (see **Appendix 9**).

- As per the national rules on the off-treasury system (i.e. payment not done through MOF's cash treasury – KPPN), the project has not been allowed to open separate bank accounts at provincial and district level. Funds are disbursed to provinces and districts according to activity tagged advances in line with quarterly AWPB allocations (from USD 9,000 to USD 17,000 on average). Quarterly advances are disbursed in two tranches of 50% each, by cheques. The second tranche is released upon the submission of expenditures reports and deducted of any balance available from the first tranche. At the end of the fiscal year, any remaining cash balance is transferred back to the DA.
- At the community level, funds are transferred from the PMO to the dedicated community group's bank accounts which were opened as a condition for signing the contract with MOEF. Funds are disbursed in two tranches of approximately USD 5,000 and USD 10,000 or 30% and 70% of the community action plans. The 2nd tranche is transferred upon the submission of the accountability report. The current mechanism at the villages ran well in the years 2019 and 2020; funds were timely spent and the balance at all community's bank accounts by the end of 2020 was zero. No expenditures were reported from provinces, districts, villages in the year 2021 as community action plans are yet to be finalized, and contracts are not yet signed between communities and MOEF.

56. Internal Controls. Internal controls are well established at PMO, and ensure adequate payments' order verification and control over transfer of funds to vendors and communities. The control over flow of funds ensures that cash balances at provinces and districts are maintained relatively low; however, the review revealed that the system can be further improved and the use of cash reduced as some payments to vendors (especially hotels) could be executed directly from PMO. The Mission reiterates "eligible expenditures are to be paid directly to the service providers/suppliers when Advance Withdrawal arrangement is applied", as a key internal control mechanism set out in the revised FA. The project urges to update the financial manual to reflect the current flow of funds mechanisms.

57. The Mission conducted an expenditure review for payments made at national, province, district, and community level. The review confirms that supporting documentation are generally well maintained, although some expenditures missed the work acceptance certificate (documentary video production); quotations and detailed description of expenditures in the receipt (community procurement for canal block construction).

58. Accounting. Accounting is done through the national system. Since the government system is not tailored to accommodate expenditures as per project's component/category, the PMO maintains excel spreadsheets to categorize expenditures by components/categories. The review of project's accounts revealed an unreconciled balance (>USD 100,000) which was due to the incorrect use of the First-In-First-Out (FIFO) method for the computation of exchange rates, resulting in an over-estimation of bank balance and WA #7 amount. The Mission also noted an incorrect entry of an old WA for justification of expenditures which results in an under-reporting of the Initial Advance. As a result, the correct initial advance received by the project is USD 1,040,579 instead of USD 936,655. The Mission prepared a

detailed analysis of the accounts which will be reviewed by the project for further validation in IFAD books (see **Appendix 13 and 14**). The project has not submitted the unaudited financial statement of the FY2020; while the Interim Financial Reports (IFRs) for the period ending December 2020 were submitted during the MTRM.

Disbursement. Moderately satisfactory (4)

59. The disbursement is rated as being **moderately satisfactory**. As of June 13, 2021, the project has disbursed USD 2,927,433 or 61.4% of the total allocation. However, the disbursement would increase to USD 3,694,793 or 78% of the total financing, if we include the WA #7 (USD 613,680) submitted to IFAD in April 2021 (to be revised as explained in the paragraph above) and not yet processed and funds spent and not yet claimed (USD 153,680). The relatively low disbursement rate is mainly due to the delay in initial project establishment and procurement of project key consultants, goods, and equipment, as well as slow implementation rate at community level.

Main issues

60. Expenditures. The cumulative expenditures up to May 2021 amount to approximately USD 2.6 million (56% of the total grant). The expenditure trend shows a significant improvement from the SM 2019 when the cumulative expenditures amounted to USD 346,584. The expenditures incurred in the year 2021 are relatively low at approximately USD 150,000 or 7% of the total 2021 AWPB of USD 2.12 million, and this is mostly explained by the adverse implementation conditions under the COVID outbreak and delay in submission of the AWPB. The Mission emphasises the importance of early disbursement of funds to province, districts and village levels. No expenditures were reported from provinces, districts and villages in the year 2021 as community action plans are yet to be finalized and contracts have not been signed between communities and MOEF; funds were transferred to province and district only in May 2021.

61. Funds available. The amount available for the implementation of project activities until the project Completion Date (PCD) is high at USD 2.1million or 44% of the total allocation. This raises concern about the difficulty for the project to timely absorb the remaining financing, unless project execution is sharply expedited in the coming months. The project should also start planning for the year 2022 and timely submit the AWPB to IFAD by November 2021.

Proposal for adjustment of Budget

62. The PMO has submitted a budget reallocation request on 26 March 2021 to reallocate amounts between categories to augment the utilization of grant resources for the remaining project implementation period. The unallocated amount and balances in categories I (consultancies), IV (salaries and allowance), and V (training) are proposed to be reallocated to category II (equipment and material) and III (goods, services, and input). This needs to be discussed further in the context of the need to reprioritise expenditure which is feasible to make in 2021 and resources which will be needed in 2022 to cover remaining project activities. This may need to be revised based on the mission recommendations for some additional action to be undertaken.

63. Computation of FIFO. The project submitted the WA #7 of USD 636,418 in April 2021 to replenish the expenditure of the second semester 2021. However, the Mission noted that the project has not correctly used the FIFO method for the conversion of expenditures into USD, as explained in the paragraph above.

Counterpart funds. Moderately Satisfactory (4)

64. The counterpart financing from the government the project has to report against is USD 14,950,000 as per Government Co-financing Commitment letter dated 30 Oct 2015 (submitted to GEF Secretariat) reflected in the FA. During the mission the PMO has confirmed that the counterpart funds/co-financing provided directly through the budget of the DPDC between 2017-2020 was a total of USD20,280,056 (see table in **Appendix 5**) – thus exceeding the target of USD 14,950,000 (+136%), however the

information shared was mainly in the form of a budget allocation plus some technical report on results, rather than the actual expenditures. In addition, the PMO informed the Mission team that significant additional co-funding was channelled by the Ministry of Environment and Forests through the Peatland Restoration Agency (BRG) in 2018-2020; the Provincial, District and local governments; and the private sector (in particular the private sector plantation companies operating in the landscape). The Mission wishes to underline that co-financing contribution is an important condition set out in the GEF financing rules and in the FA; the co-financing, therefore, should be regularly captured, monitored and reported. It is of utmost important that co-financing actual expenditures is clearly disclosed in the Semi Annual Progress Reports (SAPRs) following template provided in revised PIM (version dated 29 Sept 2020) Annex VII table on page 91, which should form part of the SAPRs as specified, as well as in the Project Completion Report. The co-financing should also be highlighted in the AWPB.

Compliance with grant covenants. Satisfactory (5)

65. The project is generally compliant with the legal covenants of the FA and General Conditions (GC). There has been however a delay in submitting the Interim Financial Reports (IFR) as well as the yearly unaudited financial statement. Further work is also needed to ensure compliance with and tracking of the covenant on gender (with a need for gender disaggregated data and more proactive engagement of women at community level).

Procurement. Moderately satisfactory (4).

66. Moderate difficulties were experienced in procurement and in the submission of the procurement plan. Procurement was at times not in compliance with the approved plan; documentation and decisions are of moderate quality. Application of procurement procedures is in general transparent. While procurement plans are updated and upgraded in-line with the IFAD Procurement Framework, improving the quality of procurement planning process remains a challenge for NPMO. This is specifically in applying needs identification and procurement strategy that are an important part of presenting the 2021 procurement plan.

67. In November 2020, following a series of discussions with the Project, IFAD revised the Project Implementation Manual and the Letter to the Recipient (LTR) adopting and aligning procurement thresholds consistent with the provision of the National Procurement Regulations. In terms of risk management, the LTR was revised adopting higher prior review thresholds. Remaining challenges as a result of coordination in the absence of dedicated procurement professionals resulted in missed opportunities to identify strategic procurement risks and mitigation. It's critical the NPMO prioritizes its key strategic procurement activities early rather than waiting to initiate action toward the last quarter of 2021. A revised and updated procurement plan with estimated revised timelines for 2021 and 2022 should be submitted for IFAD review and no objection prioritising its strategic procurement.

68. Processes and Procedures from Pre-qualification to bidding, evaluation and contract award: During the mission, 6 randomly selected procurement packages were reviewed which include post review packages. The processes and procedure comply with the National Public Procurement law and regulations consistent with IFAD's Procurement Guidelines in general albeit the identification of risk flags. The review of these risk flags would be followed up in the event the 2020 Audit identifies similar risk occurrences or flags

69. Review of Contract Administration and Management: The Contracts Register (C10) and Individual Contract Information/Payment Monitoring Template (C11) were not available. Contracts reviewed were adequately managed, however the mission has identified red flags in the administration of contracts which include non-availability of justification or direct contracting; small variations in contract award value in comparison to the estimated price and price variation or contract amendment without adequate documentation.

70. Programme's procurement filing system and the ease of document retrieval: Physical filing system could not be reviewed due to remote mission. Consolidated filing system for the procurement records, which is available right up to the point of contract issuance as long as procurement is initiated by the department's ULP (procurement unit). Thereafter, the information is managed by several technical and

financial teams. The PMO should file all the deliverable reports, payments records copies with the endorsement of the technical team and finance team including copies of delivery orders, receipt of goods in satisfactory condition and clearance of the payment request for goods and the same for consultancy services. A working paper elaborating details of the mission's review and assessment of the project's procurement performance including more detailed recommendations is in **Appendix 16**.

Audit. Moderately satisfactory (4).

71. The project audit of FY2020 is currently carried out by BPKP and due to be submitted to IFAD by 30 June 2021. The audit reports of previous years did not include the Designated Account Reconciliation statement, WA statement and Statement of Expenditures. The project should ensure that all statements are included in the Financial Statement and duly reviewed by BPKP, as per IFAD requirements.

Agreed action	Responsibility	Agreed date
E1. Recruit a Procurement Officer/ Specialist <u>and other remaining PMO personnel</u> with a short-term contracts using Independent Consultant System (ICS)	PMO	July 2021
E2. Submit a revised Procurement Plan 2021 (National and Sub-national) and actively implement it	PMO, PP K (commitment maker)	1 July 2021 ongoing
E3. Improve monitoring and supervision of ongoing contracts; prepare and submit the contract register and improve record management	PMO, PP K (commitment maker)	31 July 2021 ongoing
E4. Finalize the budget reallocation proposal and update AWPB 2021	PMO	July 2021
E5. Start development of the draft 2022 AWPB preparation to enable submission to IFAD by November 2021	PMO	September 2021
E6. Complete the mandatory on-line IFAD FM training for all project's FM staff/participate in other FM training organised by IFAD.	PMO	31 August 2021
E7. Provide a detailed report on co-financing from GOI, stakeholders and beneficiaries in line with IFAD requirements and keep updated	PMO	September 2021
E8. Ensure that DA reconciliation, WA and SOE statements are included in the Financial Statement and duly reviewed by BPKP. Project and BPKP should always reconcile data with IFAD	PMO	Ongoing
E9. Maximise payments direct to service providers by the PMO for activities in province and district	PMO, PPMO, PDU	Ongoing

F. Sustainability

72. Component 1 and 2 of the project ensure the sustainability of SPM at national level through enhanced policy, regulatory frameworks (national peatland plan RPPEG and regulations to implement PP71), institutional capacity building (national peatland fire control systems, TMAT monitoring systems, GHG emissions estimation methodology), which will allow MOEF to operate at the best of its mandate for the sustainable use, management and restoration of peatland ecosystems in Indonesia. Component 3 and the piloting of alternative livelihoods and community-based peatland management approaches through demonstration plots will need to be complemented by the development of a sustainability and replication strategy. The implementation of this strategy will ensure the scaling-up and up-taking of project activities beyond the demonstration plots, which currently are used by the majority as a community garden-type approach, instead of a learning tool for replication in their land. Similarly, a fire prevention strategy will need to be developed, incorporated in the RKMs, ISMP and District RPPEG, and implemented at three project districts. Such a strategy will include for example the 28 Fire Danger Risk System signboards. For Component 2, the project will also need to develop a strategy for the operational and maintenance (O&M) of SIPPEG once the project is completed. This should ideally include proper training on the utilization of SIPPEG for the identified beneficiaries (national and local governments, other stakeholders) during the remaining period of the project, identification of budget for O&M once the project is completed, etc.

73. Given that the GEF6-IMPLI project is starting in 2021 and the many linkages, synergies that PMO will need to ensure between these 2 projects, as well as the many lessons learned from SMPEI, under component 3 especially, that will be replicated under IMPLI, the mission team recommends PMO to develop a detailed Exit Strategy.

74. The Exit Strategy should describe the key steps to be undertaken in the last year of the project to ensure an effective completion of the project and achievement of its targets. It should also specify the measures to be put in place at national and provincial and local levels to sustain the project impacts on the ground after project completion. It will also include lessons learned from the project implementation to date (which will be useful for GEF6-IMPLI and potentially for the upcoming GEF7 CoPLI project) as well as options for phasing in linkages with the IMPLI project in 2022 (such as peer-to peer learning between landscapes or support on market development for products). It should also guide on replication and scaling up of good practices or lessons learned from the project implementation and should link to the sustainability and replication plan being developed under Component 3 (indicator 20) and an action plan for the Operation and Maintenance of SIPPEG.

Agreed action	Responsibility	Agreed date
F1. Develop Project Exit Strategy	PMO	October 2021
F2. Prepare a clear plan for synergy and phasing in/out of activities between SMPEI and IMPLI project to ensure smooth transition and avoidance of gaps.	PMO SMPEI, IMPLI PMO, IFAD	October 2021

G. Other

Proposal for adjustment of LFA and targets.

75. The mission reviewed the logical framework approach (LFA) of the project at concept (in PDR) and later revised in August 2019 during the supervision mission. The mission team suggested further revisions to the LFA in line with project updates and to ensure each indicator can be tracked, which were agreed by the PMO. See **Appendix 2** for the revised logical framework to be used for M&E and reporting from now on.

Agreed action	Responsibility	Agreed date
G1. Use the revised LFA and Indicators (Appendix 2) to guide further project implementation and all future M&E and reporting	PMO, PPMO, DPU, IFAD	From June 2021 onwards

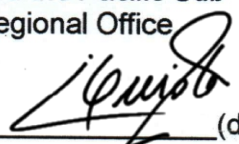
H. Conclusions

76. The main conclusions from the Mid-Term Review Mission are as follows:

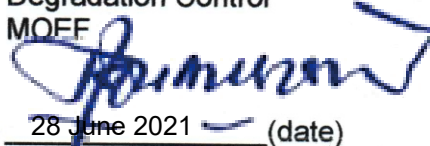
- a. There has been significant progress since the time of the previous Supervision mission in August 2019 and the project is fully operational and has been making positive technical progress in implementing planned activities and achieving a majority of its targets. National regulations on peatlands have been developed and actively promoted and implemented; widespread mapping of peatland hydrological units has taken place and active monitoring and improvement of water level management has been initiated. Problem assessments (IMAS) and Community Workplans (RKM) have been developed for each of the 14 target villages and Peatland Protection and Management Teams (TKPPEG) have actively worked to implement them. Water levels in peatlands in the targeted communities have been raised and the incidence of fires has significantly reduced. The sustainable livelihood demonstration plots have generated benefits for local community members but need to be scaled up. Fund disbursement and expenditure of the overall budget have improved from 28% and 7.3% respectively in August 2019 to 64 % and 56% respectively in May 2021, despite the challenges from the COVID-19 pandemic. The fund flow mechanisms and administration have also been enhanced since the previous mission. Despite the major challenges of the COVID-19 pandemic, the project team has continued to actively work and good results have been generated.
- b. However, there has been no success in recruitment of the long term Project Management Coordinator position which has been vacant since January 2019 and this has likely impacted on overall reporting and management efficiency. The M&E Specialist recruited in mid-2020 has not been well guided and M&E plans, systems and data collection are not in place. The positive work of the project needs to be better documented and knowledge management and outreach enhanced. The development of a national system for integration peatland water and fire management (SIPPEG) has been delayed by procurement challenges and needs to be expedited to enable completion of the system. Work on an Integrated Sustainable Management Plan (ISMP) for the targeted peatland landscape has yet to be initiated. IFAD country office need to maintain active interaction with the project to ensure it remains on track in the limited remaining time. With 44% of the budget remaining unspent and only 12 months of implementation remaining, there will be challenges to complete all activities in a timely manner. Therefore, management systems and personnel need to be enhanced to ensure smooth rollout of the 2021 AWPB and achievement of targeted outputs by the end of the project period. The Project Director and Manager have both given a strong commitment to complete the project in the remaining timeframe.
- c. As a result the overall rating is **Satisfactory (5)**

77. IFAD and the Government of Indonesia endorse the findings of the Mid-term Review Mission.

Ivan Cossio Cortez
Country Director
IFAD Southeast Asia
and the Pacific Sub
Regional Office


(date)
28 June 2021

SPM Budisusanti
Head
Directorate of Peatland
Degradation Control
MOFF


4 28 June 2021 (date)

Appendices	Title/Description
Appendix 1	Summary of SMPEI project status and ratings
Appendix 2	Updated LFA (as per 2021 MTR mission)
Appendix 3	List of MTR agreed actions to be taken within agreed timeframes
Appendix 4	Progress against revised indicators (2021)
Appendix 5	Financial: Actual financial performance by financier; by component and disbursements by category including Co-finance information
Appendix 6	Compliance with legal covenants: Status of implementation
Appendix 7	Knowledge Products and KM plan
Appendix 8	Progress in implementing actions from 2019 supervision mission
Appendix 9	Revisions to fund flow, institutional structure and procurement
Appendix 10	Mission Schedule
Appendix 11	List of stakeholders met during MTR Mission
Appendix 12	Status of project personnel
Appendix 13	Financial Management Assessment Questionnaire (updated) with mitigation measures
Appendix 14	Project Fiduciary Risk Assessment at implementation including recommendations (updated)
Appendix 15	GEF Tracking Tools – Land Degradation, Climate Change and Sustainable Forestry Management
Appendix 16	Working paper on findings and recommendations on procurement
Appendix 17	Findings from Impact Survey and Field Mission
Appendix 18	Guidance for preparing M&E Plan
Appendix 19	List of workshops and training organised by the project 2018-2020
Appendix 20	List of PHUs Mapped by project and DPDC
Appendix 21	Review and Guidance on Methodology for Calculation of Peatland GHG Emission Reduction
Appendix 22	Agreed actions for GEF5 SMPEI, GEF6 IMPLI and GEF7 CoPLI from earlier meetings

Appendix 1: Summary of SMPEI project status and ratings

Project Status Report SMPEI

A. Grant Basic Data

Grant Title:			ID No.	2%97 6	Window	Country
			Task Manager	Ivan Cossio, Country Director, Southeast Asia and Pacific Hub (i.cossio@ifad.org)		
Grant Recipient:			Recipient Contact	SPM Budisusanti, Project Director (spm_budisusanti@yahoo.com)		
				Muhammad Askary, Project Manager (2017askary@gmail.com)		
Date of Update		17 Jun 2021				
Date of GEF CEO Endorsement	16 May 2016	Original Closing date	31 March 2022	Last Amendment		26 Nov 2020
Date of Effectiveness	17 July 2017	Extended Closing date	31 Dec 2022	Last Audit		Audit period: Jan-Dec 2020
		Original Completion date	30 Sept 2021			
		Extended Completion date	30 Jun 2022			
		No. of extensions	1	Last Supervision /implementation support		ISM 24 July – 02 Aug 2019
	US\$			Disbursement		Percentage
Total financing	26,511,756					
GEF grant	4,766,756			2,927,433		61.4%
Gov co-financing	14,950,000			20,280,056		136%
Other co-financing	6,700,000					

Target group: The selected project area comprises PHUs between Sungai Kampar and Sungai Indragiri namely Sungai Kampar – Sungai Gaung and Sungai Gaung – Batang Tuaka (KG & KB) PHUs. The PHUs cover about 850,000 hectares (8,500 km²) which represent about 5% of the nation's peatlands and 20% of the 4 million hectares of peatlands in Riau, the province with the largest area of Indonesia's peatlands. The project area is part of the three administrative districts of Indragiri Hilir (approximately 50% of the PHUs); Indragiri Hulu (30%); and Pelalawan (20%). Fourteen target villages include: Teluk Meranti, Pulau Muda, Kerumutan, Mak Teduh (Pelalawan District); Redang, Sialang Dua Dahan, Tanjung Sari, Pulau Jumaat (Indragiri Hulu District); and Kerta Jaya, Bayas Jaya, Desa Sg Rabit, Simpang Gaung, Rambaian and Teluk Kabung (Indragiri Hilir District). The Project is targeted to directly benefit at least 10,000 beneficiaries through access to alternative livelihoods and indirectly benefit 20,000 beneficiaries through improvement of ecosystem services and reduced haze exposure.

Benefiting Countries: Indonesia

Benefiting Projects: GEF6 *Integrated Management of Peatland Landscapes in Indonesia* (IMPLI), IFAD regional grant *Measurable Action for Haze-Free Sustainable Land Management in Southeast Asia* (MAHFSA), GEF6 *Sustainable Management of Peatland Ecosystem in Malaysia* (SMPEM), and upcoming GEF7 *Strengthened Systems for Community-based Conservation of Forests and Peatland Landscapes in Indonesia* (CoPLI)

Grant Goal and Objectives

The overall goal of the SMPEI is to enhance sustainable peatland management and reduce GHG emissions from target peatlands areas. The development objective of the Project is to sustainably manage at landscape level for improving local livelihoods and to reduce peat fire and GHG emissions. This will be achieved by: (i) capacity building for sustainable peatland management; (ii) reducing peatland degradation and fires; and (iii) adopting best practices for integrated, sustainable management of peatlands at a landscape level through enhanced engagement of the private sector and local communities.

B. Grant management and performance

Indicator	Last	Current
Performance of grant recipient	4	5

Considering the number of activities specified in the project logical framework that have been initiated and achieved (several of which exceeding the indicator target) with both the GEF-IFAD funds and national co-funding since the project was approved by the GEF (June 2016), and considering the progress made since the last Mission (Aug 2019) on activities at district and village levels (e.g. 14 RKMs, village-level demplots, TK-PPEG establishment) and the substantial progress made at national level (SIPPEG design, SIMATAG enhancement the implementation progress is rated as Satisfactory (5). The mission team recommends to resolve the issues identified related to procurement and financial management (detailed in below section on fiduciary aspects) as well as enhance focus on developing an Integrated Sustainable Management Plan for the project landscape.

Coherence between AWPB and implementation	4	4
--	----------	----------

There is in general a good coherence between the AWPB and implementation, however the submission of the AWPBs are always very late during the planning year (i.e. around April) causing delay in implementation of activities, and shortening the timeframe to implement activities and planned procurement. This needs to be addressed in the last year of the project.

Acceptable disbursement rate	3	4
-------------------------------------	----------	----------

The current disbursement rate for the IFAD-GEF grant is 61.4%, with expenditures up to May/June 2021 being 56% (most being spent in the last 18 months). This is behind target affected particularly by the COVID-19 Pandemic and procurement bottlenecks, even though the project completion date was postponed by 9 months to June 2022. Good technical progress has also been facilitated also through large amounts of co-finance from government reported at US\$20 million.

Quality and timeliness of financial reports	4	3
--	----------	----------

Financial reporting is an area in need of improvements; the unaudited financial statements have not been submitted to IFAD yet while the Interim Financial Reports (IFRs) for the period ending 31/12/2020 were submitted with a substantial delay. The project should also prepare a report detailing the contributions from each financing source (co-financing) since the project commenced. The audit report for the FY 2020 is due by 30th June 2021 but its submission may be delayed due to the Auditor's restricted access to project sites during the COVID pandemic. The Mission has explained that an official request should be submitted to IFAD for the extension of the deadline, if the audit is not foreseen to be delivered by 30/06/2021.

Quality and timeliness of technical progress reports	3	4
---	----------	----------

Progress report covering the period July 2017 – June 2019 was submitted in July 2019 with detailed information on the project progress status since the FA was signed, meaning that no progress reports were submitted to IFAD for the first 2 years of project implementation, even though many requests were made from IFAD. The SAPR covering July – Dec 2019 was submitted in Nov 2020 (9 months past the deadline set in PIM Table 8) together with the SAPR covering Jan – Jun 2020 (3 months past the deadline set in PIM), whereas the SAPR covering July - Dec 2020 was submitted in March 2021 (2 weeks after deadline set in PIM). The mission team noted

an improvement in submission timeliness, also due to the recruitment of M&E and KM Specialist, and *recommends for the PMO to submit from now on detailed semi-annual progress reports (SAPR) in satisfactory quality, as specified in the section 6.7.2. and Table 8 (page. 24) of revised PIM, and following the SAPR template in revised PIM (page 90-91).* Similarly, the PMO also drafted the 1st (2019) and 2nd (2020) annual Project Implementation Reports (PIRs) for submission to GEF Secretariat which needed substantial work from IFAD as they did not provide enough technical information and detail about the implemented activities, although it was noted that the latest PIR (2020) was of better quality than the 1st (2019) it reported progress against the original indicators rather than the revised ones from the 2019 PIR. *It is recommended that detailed PIR are to be provided to IFAD as per deadline in section 6.7.3 and Table 9 (page 25) of the revised PIM (version dated 29 Sept 2020), following the template in page 92-97 of the revised PIM.*

C. Assessment of Implementation Progress

Indicator	Last	Current
Relevance to IFAD target group	5	5

The project target group is of great relevance to IFAD, as it aims benefit at least 10,000 poor smallholders farmers and their families through access to alternative livelihoods and benefit 20,000 beneficiaries through improvement of ecosystem services and reduced haze exposure.

Gender focus	4	4
---------------------	----------	----------

Gender issues have been integrated inherently in all process of the project implementation. Women form a specific target group of the project's activities. However, disaggregated data for men and women will need to be included in the SAPRs and PIRs, in order to measure the project results in terms of their gender impact, as well as other livelihood benefits and women's ownership of assets and access to land and resources. Under sub-component 3.2, the gender balance of the TKPPEG, trainings and other activities needs to be addressed in the remainder of the project period, to engage more women, with a clear gender strategy and targeting. Gender balance should be emphasized at every stage of the project activities. *It is recommended to start building partnerships or close communication with community groups such as the Riau Women Working Group (RWWG) and Rumpun Perempuan dan Anak Riau (RUPARI).* Results from impact survey conducted 2-8 June 2021, for a total of 152 respondents from 12 project villages provided input of which 15.5% were women (i.e. 24 person). From the survey, 76.5% of the respondents think that the project is benefiting women groups in the villages. On involvement of women groups at site based activities, survey respondents have indicated that women have been engaged for activities in the demonstration plots such as planting, monitoring and maintenance, and harvest of crops, and in harvesting fish in canal blocks. The respondents suggested that in future the women group could benefit further from the project through more training sessions on farming on peatlands, home-based industry to process products from the demonstration plots, and enhance awareness and knowledge on peatland ecosystem management.

Environment and climate focus	5	6
--------------------------------------	----------	----------

The project has a strong environment and climate focus. The emissions from the degradation of peatlands in Indonesia are estimated to be around 1.5 - 2 billion tonnes annually due to drainage of peatlands and decomposition of peat as well as from peatland fires. This constitutes a significant percentage of Indonesia's annual GHG emissions and contributes to mark Indonesia as one of the largest top emitters in the world. The project's aim to prevent the degradation of peatlands, encourage rehabilitation, conserve globally important biodiversity, through promoting and raising awareness on sustainable land and forest management practices, contributes towards the fulfilment of Indonesia's obligations under the CBD (Aichi targets), UNCCD (Land Degradation targets) and UNFCCC (Emission Reduction targets). By establishing the national peatland fire monitoring system, developing and implementing sub-regulations and guidelines for implementation of the national peatland regulation (PP71), GHG emissions calculation methodology, promoting and enabling sustainable peatland management and sustainable fire-free on-farm and off-farm livelihoods on peatlands, the project significantly contributes to reducing GHG emissions. It was estimated that since the project start (baseline 2015) 42.5 million t CO₂e were mitigated – exceeding by 5 times the indicator target set for the overall project. *It is recommended for a summary baseline report to be submitted to IFAD, which should include estimated GHG, haze, SPM and beneficiaries at baseline with methodology for estimating GHG emission mitigated, etc. This can form part of the M&E Plan to be developed.*

Youth focus	-	4
--------------------	----------	----------

Youth is a target group under the project for engagement in alternate livelihoods and peatland management and rehabilitation. Results from impact survey conducted 2-8 June 2021, for a total of 152 respondents from 12 project villages provided input of which 10% were

from youth group (age range 16-30 year old as per guided by the Youth Law for Indonesia). From the survey, 83.7% of respondents think the project is benefiting the youth group through participating in canal blocks construction, development of the demonstration plots, and participating in protecting fire prone peatlands. The respondents suggested that a peat care youth group should be formulated and training on peatland ecosystem management and business management to be conducted.

Nutrition focus		4
------------------------	--	----------

Although the project was not designed with a nutrition focus, the mission team recommends for the project to ensure, when possible, that the appropriate level of attention is given to nutrition aspects in output 3.2 on community livelihoods. For example when identifying, assessing and testing potential alternative livelihood options for targeted communities, the selected options are to be nutrition-sensitive in addition to being peatland friendly. Project interventions have enhanced the availability of fish in rewetted peatlands in each target village as well as introduced a range of short, medium and longer term food crops to complement the dominance of cash crops (rubber and oil palm) in the target villages. These actions should enhance nutrition of local communities.

Innovation	5	6
-------------------	----------	----------

Innovative actions under SMPEI include real time water monitoring systems, hotspot monitoring system, application of the Peatland Hydrological Unit (PHU) approach. Namely: (i) Monitoring and dissemination system for hotspot verification was developed (Sipongi website and alert messages on hotspots through social media platform (Whatsapp) with key stakeholders) in 2016-17 through national budget; (ii) Monitoring system for groundwater level has been developed by MOEF (SIMATAG-0.4m) since 2017, following P.15/2017 and P.16/2017; (iii) grand design of SIPPEG monitoring system (combining Sipongi and SIMATAG) completed; (iv) Mapping of 177 PHUs has been completed under SMPEI and government funding; (v) GHG emission calculation methodology (following Hooijer et al. 2010) proposed to IPCC; (vi) the "Program Kemandirian Masyarakat" (Self-sustained and Community Empowerment Program) developed in this project has been replicated and implemented in other peatland area for restoration and rehabilitation of peatland ecosystem. (vii) Water table-linked fire risk warning signs which automatically adjust through incorporation of piezometer water gauge. All of the above-mentioned innovative approaches implemented under SMPEI have enabled Indonesian government and MOEF to be a pioneer and leader in the peatland management and haze free agenda.

Knowledge Sharing and Management	5	4
---	----------	----------

The website <http://pkgppkl.menlhk.go.id> (in both Bahasa Indonesia and English versions) has been created by the Directorate of Peatland Degradation Control (DPDC) to compile all relevant knowledge and raise awareness on the MOEF work related to peatlands. This includes links to the following publications: "Corrective Action on Peatland Management in Indonesia: Towards Sustainable Peatland Ecosystem" supported by SMPEI, PHU maps (scale 1:150,000 and 1:50,000), some awareness raising videos and pictures, as well as training videos and tutorials (see Appendix 7). The website also includes links to other relevant websites namely: Sipongi for live monitoring of fire hotspots using satellite imagery <http://sipongi.menlhk.go.id/home/main> developed by DG Climate Change, Kementerian LHK <http://www.menlhk.go.id/>, etc. A link to be also created to redirect to the ITPC website. Participation at UNFCCC COP24 and Indonesia Pavilion exhibition in Poland December 2018 which involved leading the session on "Corrective actions on peatland ecosystem management in Indonesia" together with IFAD and Global Environment Centre (GEC) as speakers. Participation at GEF Assembly in Da Nang, Vietnam in June 2018 side-event organized by IFAD on "Sustainable management of peatlands in the ASEAN region: the catalytic role of GEF financing in launching a large-scale programme". Participation in Indonesia Environment Week 2019 to raise awareness on the need for the sustainable management of peatlands. Participation at the 4th Asia-Pacific Forestry Week (APFW) in South Korea (June 2019) to present the SiMATAG platform. Participation in COP25 in Spain in December 2019 including several sessions on peatlands at Indonesian pavilion and formal UNFCCC side event on peatland mapping with multiple partners. Progress against the implementation of the ASEAN Peatland Management Strategy (APMS) facilitated by SMPEI has been regularly updated at ASEAN meetings and related Technical Working Group (TWG) meetings. The Plan for Protection and Management for Peatland Ecosystem (RPPEG replacing National Peatland Strategy referenced in PDR) has been completed. A PHU-level version of the RPPEG (ISMP) is to be prepared to serve as peatland strategy/plan for the SMPEI PHU area. Also, Training of Trainers (TOT) Workshop and training on capacity building of provincial and district technical teams and Community Facilitators were undertaken (e.g. Dec 2018 and 2019), however these were put on hold due to COVID-19 pandemic. In 2020-21 the project and the DPDC has been actively engaged in a series of webinars and workshops on peatlands with multiple partners. However further work needs to be done in relations to KM to increase the visibility of the achievements of the projects and to share the lessons learned to a wide audience and high-level events during the remainder of the project.

Linkages (with other IFAD development initiatives)	5	4
---	----------	----------

The findings and knowledge products developed in the SMPEI are meant feed into the IFAD-funded MAHFSA, GEF6-funded IFAD IMPLI, and upcoming GEF7-CoPLI projects. Through the IFAD country grant TAKE-SMPEM knowledge sharing is being facilitated between SMPEI and the GEF6-funded SMPEM, as well as with the Congo Basin countries. Therefore, with GEF-IMPLI and GEF6-SMPEM project starting this year, close collaboration and knowledge exchange is recommended between these projects.

Scaling up	4	4
-------------------	----------	----------

Scaling up is an important part of this project, as it is supporting critical national frameworks for peatland management and the targeted site in Riau Province is a model for management of a peatland hydrological unit which can potentially be up-scaled to the rest of the country and internationally. The scale of components 1 and 2 is national, however activities under component 3 have so far been rather small in scale and therefore the following aspects will be crucial for the remainder of the project period: (i) Develop a Sustainability and Replication Strategy for livelihood and sustainable peatland management activities (indicator 20 under Comp. 3); (ii) Develop fire prevention strategy (indicator 19 under Comp. 3) for inclusion in RKMs, ISPM and District RPPEG. This in addition to the development of the Project Exit Strategy, which will need to focus on the sustainability of activities under components 1 and 2 and the scaling-up of activities under component 3.

Overall implementation progress	4	5
--	----------	----------

Considering the number of activities specified in the project logical framework that have been initiated and achieved (several of which substantially exceeding the original indicator targets), and considering the progress made since the last Mission (Aug 2019), the implementation progress is rated as **Satisfactory** with the recommendation to resolve the issues identified related to procurement and financial management.

Effectiveness	4	5
----------------------	----------	----------

The project team has demonstrated substantial effectiveness and efficiency in advancing project implementation since the last Mission in Aug 2019, and in delivering project activities and targets considering the number of project activities that have been initiated and achieved (most of which substantially exceeding the indicator target) especially given the challenges of the COVID-19 Pandemic.

D. Supervision / implementation support arrangements

Description of IFAD's supervision / implementation support arrangements

SMPEI project supervision will be conducted through supervision and implementation support missions, the last mission held being in Aug 2019, there was no supervision mission in 2020 due to COVID-19 pandemic and difficulty to hold physical missions. On-going implementation support is provided through the Indonesia Country Office. A further supervision mission will be organized in Late 2021 or early 2022 to guide the process for project completion by June 2022.

E. Follow-up Action Please refer to Appendix 3 table in Aide Memoire.

Appendix 2: Updated logical framework: Objectives, outcomes, outputs, indicators and justification

Narrative Summary	Key Performance Indicators (2021)	Means of Verification	Assumptions (A) / Risks (R)	Justification of change to indicators in 2021
Goal:				
The overall goal of the project is to enhance sustainable peatland management and reduce GHG emissions from target peatland areas	1. One million ha of peatland in Indonesia zoned for integrated sustainable management 2. At least 8 million tons of CO ₂ e mitigated (target may be enhanced - depending on comparison of calculation methodologies)	<ul style="list-style-type: none"> National report by MOEF Project technical reports National MRV report Project linked report on GHG emission reductions 	A: No significant climatic or economic shocks	No change to indicators but target may need to be enhanced
Project Development Objective:				
The objective of this project is to sustainably manage peatlands at a landscape level for improving local livelihoods and reducing peat fire and GHG emission.	3. At least 10,000 beneficiaries (people) benefiting from sustainable peatland management (at 1,000 direct beneficiaries and 9,000 indirect beneficiaries) 4. 20,000 beneficiaries (at least 50% women) made less vulnerable to exposure to peatland degradation and fires 5. At least 600,000 ha of peatlands in Riau under	<ul style="list-style-type: none"> Project technical reports National MRV reports 	A: Government finding balance between enforcement of regulations and working in partnership with private sector and communities on sustainable peatland management through its RPPEG at national, provincial and/or district levels	Removed KPI 3 of 2017 (30% reduction in area burnt as no historic data compiled and difficult to map and track burn scars without high cost for analysis. Replaced with KPI 21 moved from Component 3 to highlight delivery as aprt of overall objectives and to link with sustainable livelihood replication activities at the national level. M&E plan To specify

	integrated peatland management regime			<p>numbers of beneficiaries for direct (ie directly supported/financed at project site) and indirect – through action in Riau province or other areas supported through project as a whole).</p> <p>KPIs 4 and 5 No change</p>
<p>Component 1:Capacity building and institutional strengthening for implementation of policies and regulations for sustainable peatland management</p> <p>Outcome 1: Capacity and institutional framework enhanced for implementation of Government Regulation of Republic Indonesia No.71 of 2014 on peatlands (PP71/2014) and Government Regulation of Republic Indonesia No 57 of 2016 (PP 57/2016), and National/ASEAN Peatland Management Strategy at all levels</p>	6. At least 6 national regulations or technical guidelines developed for implementation	Copies of regulations and their approvals	A: Continued commitment by government to implement peatland relevant regulations and the RPPEG 2020-2049	Increased target as national regulations as already achieved in 2019 (with Co-funding) and many technical guidelines/DG regulations have been developed
Outputs:	7. National Peatland Ecosystem Protection and	<ul style="list-style-type: none"> Copy of RPPEG and Approval Decision 	A: Strong commitment of the government to properly	RPPEG 2018-2047 has replaced the National

<p>1.1 Strengthen policy, regulations and institutional mechanisms for sustainable peatland management</p> <p>1.2 Strengthen capacity and knowledge management for sustainable peatland management</p> <p>1.3 Develop Peatland Hydrological Unit (PHU) maps for management zoning in selected provinces</p>	<p>Management Plan (RPPEG) approved and implemented</p> <p>8. National monitoring system for groundwater level in peatland developed and operationalized to support sustainable peatland management</p> <p>9. Capacity development plan developed and implemented include participation at regional and international platform to share Indonesian experience on protection and management of peatland ecosystems</p> <p>10. Detailed PHU map (1:50,000) developed for project PHUs and additional 80 PHU maps developed</p>	<ul style="list-style-type: none"> ▪ Reports on implementation progress of RPPEG 2020-2049 ▪ Reports on technical operation progress of the national monitoring system ▪ Project semi-annual report and project implementation report ▪ Capacity development plan ▪ Report of workshops and outreach activities ▪ Publications of the PHU maps 	<p>monitor peatland water table to prevent peat fires and have been providing technical support to private sector and communities to set up monitoring points across the country</p> <p>R: Limited resources of the government to enforce/check compliance of private sector to set up and maintain the functionality of the monitoring points (Moderate)</p>	<p>Strategy on Peatlands (2012). Putting correct name avoids any confusion. New KPI 8 was taken from 2019 KPI 11 in Component 2 on the monitoring system establishment.as being financed under Component 1.</p> <p>KPI 9, Changed KPI to “development and implementation of the capacity development plan”</p> <p>KPI 10, increase the target to justify increased budget.</p>
<p>Component 2: Monitoring peatland degradation, fires and GHG emissions</p> <p>Outcome 2: Monitoring of peatland degradation, fires and GHG emission reduction enhanced, at national and local levels</p>		<ul style="list-style-type: none"> ▪ Provincial reports on fire incidents 	<p>A: Commitment by government at all levels including stricter enforcement and fire prevention measures at site level</p>	<p>2021 KPI 11. Monitoring system established under component 1 and used under component 2 to support calculation of reduction in degradation, fire risk and GHG emission</p> <p>Removed former indicator 2019 KPI 10 as covered by</p>

				2021 KPI 8 and 2021 KPI 12
Outputs: 2.1 Strengthen national peatland fire prediction, monitoring and warning systems 2.2 Assessment of GHG emission reductions from targeted peatlands	11. Information from peatland water level monitoring used to support early warning system on fire risk 12. Methodology on calculating the GHG emission from Indonesian peatland developed and agreed for utilisation 13. Baseline GHG emissions compiled and being tracked annually	<ul style="list-style-type: none"> • Periodical reports from MOEF on the early warning system • Technical paper on methodology on GHG emission calculation • Technical report on GHG emission reductions 	A: Strong commitment of the government in reducing its GHG emission with better peatland management and results being reported to the Minister and international platforms (UNFCCC, UN, etc.) R: Climate change risk including intensification and extreme effect of the periodic El Nino or Indian Ocean Dipole (Moderate)	2019 KPI 12 fire prevention strategies for 3 project districts (i.e. Pelalawan, Indragiri Hulu and Indragiri Hilir) moved to Component 3 as 2021 KPI 19 as financed under component 3.
Component 3: Landscape level sustainable management of peatlands Outcome 3: Functioning multi-stakeholder partnership established for integrated sustainable management of Kampar – Gaung and Gaung – Batang Tuaka Peatland Hydrological Units (KG and GB PHUs) and	14. An Integrated Sustainable Management Plan for project PHUs developed and implemented (linking districts with inclusion of inputs from local government, private sector and local community) 15. Multi-stakeholder partnerships established for development and implementation of the ISMP for project PHUs	<ul style="list-style-type: none"> ▪ Provincial RPPEG for Riau and District levels RPPEGs for Pelalawan, Indragiri Hulu and Indragiri Hilir ▪ Documentation on the multi-stakeholder partnerships ▪ Documentation of the establishment of the community forums for Pelalawan, Indragiri Hulu and Indragiri Hilir 	A: MOEF has control over all RPPEG to be developed and implemented thus have authority to standardise the format/template as per regulated. A: Governments facilitate the establishment of the partnership and community forums. Main parties are finding mutual advantages for active participation in the partnership/forums	2017 KPIs 16 and 17 were slightly adjusted in wording as KPI 14 and 15 of 2021 2017 KPI 18, was modified to replication and sustainability plan. Added KPI to develop community forum in 3 project districts to share experience and lessons learned. KPI 15 remains the same

enhanced community livelihoods	16. Community Forums established in three target districts for peer-to-peer learning and knowledge sharing		<p>R: Potentially slow development and implementation of integrated management plan for the project landscape (High)</p> <p>R: Sustainability and continuity of the partnership/forum based on project implementation period and loss momentum/interest if no further financial support on site based work (Moderate)</p>	
Outputs: 3.1 Develop and implement an integrated sustainable management plan for Sungai Kampar - Indragiri Peatland Hydrological Unit (SKI PHU) 3.2 Community livelihood from sustainable peatland management enhanced (financed by IFAD country grant)	17. At least 150,000 ha of peatlands within the project PHUs being monitored with enhanced water management within the targeted PHUs (include land of private sector and community) 18. Community-based peatland action plans developed and implemented in 14 villages 19. Fire prevention strategies developed and implemented at three project districts (include the 28 FDRS signboards as part of	<ul style="list-style-type: none"> Project semi-annual report and project implementation report Documentation on area being monitored with enhanced water management within the landscape Community-based action plans (RKM) for 14 project villages Fire prevention strategies for 3 project districts Replication Strategy (include maintenance of the existing structures/facilities and activities scaling up) 	<p>A: Implementation of the RKM has been properly monitored and documented</p> <p>R: Increasing demand of pulp and paper, timber and palm oil) in the global market which pose challenge to protecting peatland forest (Moderate)</p> <p>R: Sustainability and continuity of site level activities for replication due to available funding/resources (High)</p>	<p>2017 KPI 20, Target was expanded to 150,000ha as DPDC is actively working with private sector on enhanced water management in landscape and target can be achieved even if increased 2017 KPI 21 moved to Overall objectives (as 2021 KPI 3).</p> <p>2017 KPI 22 on 2 models of credit schemes was changed to capture actual work of village action plans (RKM) for 14 project villages</p>

Indonesia

SMPEI

Mid-Term Review report aide memoire - Mission dates: 31 May – 23 June 2021

Appendix 2: Updated logical framework: Progress against objectives, outcomes and outputs

	the strategy for fire prevention)			
	20. Replication strategy for sustainable livelihoods developed and being implemented to scale-up project activities in village and landscape			

Appendix 3: List of MTR agreed actions to be taken within agreed timeframes

Ref. No.	Action Area	Action Agreed	Whom	Agreed Date
B1	Implementation	Develop clear timetable and workplan to the closing date to ensure timely completion	DPDC	July 2021
B2	Procurement	Expedite the recruitment of a) Project Management Coordinator on direct appointment or a project management specialist on short term/intermittent contract until project closing;	DPDC, ULP, PMO	August 2021
B3	Procurement	Expedite the procurement of SIPPEG system components and other critical procurement items	DPDC, ULP, PMO	August 2021
B4	Implementation/A WPB	Undertake a review of progress in Implementing the 2021 AWPB in order to determine the likely utilisation of resources by end of 2021 and the transfer of likely unused resources to the 2022 AWPB	DPDC, PMO, IFAD	October 2021
B5	Implementation/A WPB	Adjust the 2021 AWPB to include priority activities identified by the MTR for completion before the end of the project	DPDC, PMO, IFAD	July 2021
B6	COVID-19	Develop or update a COVID-19 Contingency plan and update every 2 months based in the COVID-19 situation in the country and project sites	PMO	July 2021 and ongoing
B7	Implementation	Organise an Implementation Support Mission to review and assist progress with MTR actions in October and Supervision Mission to guide closing of the Project in February 2022	PMO, IFAD	October 2021 and February 2022
C1	Capacity Development	Prepare a capacity development plan specifying the proposed capacity development activities in the remainder of the project period (Ref: KPI 9 Capacity development plan developed and implemented)	PMO	August 2021
C2	KM	Allocate/appoint at least one person with IT (web/GISbase specialist) to develop and manage the DPDC website and enhance content development and sharing	PMO	September 2021
C3	Implementation Component 2	Review and revise the data on the exact area with modified water management and levels in the targeted landscape Riau in both village and plantation land and recalculate the estimates of emission reduction linked to the SMPEI project.	PMO	September 2021
C4	Implementation Component 2	Expedite the development of SIPPEG and ensure capacity for operation and maintenance of the system	PMO	December 2021
C5	Implementation Component 3	Establish a project landscape level platform for Pelalawan, Indragiri Hulu and Indragiri Hilir stakeholders (indicator 15 under Component 3)	PMO/PPMO/PDU	September 2021

C6	Implementation Component 3	Develop an Integrated Sustainable Management Plan (ISMP) for the project landscape (building on the draft RPPEG for Pelalawan) (indicator 14 under Comp. 3)	PMO/PPMO/PDU	March 2022
C7	Implementation Component 3	Establish community forums for the 3 project districts to share lessons learned and knowledge (indicator 16 under Comp. 3)	PPMO/PDU	September 2021
C8	Implementation Component 3	Develop a Sustainability and Replication Strategy for livelihood and sustainable peatland management activities (indicator 20 under Comp. 3)	PMO/PPMO/PDU	September 2021
C9	Implementation Component 3	Develop a fire prevention strategy for inclusion in RKMs, ISPM and District RPPEG (indicator 19 under Comp. 3)	PMO/PPMO/PDU	August 2021
D1	KM	Appoint a short term consultant to help develop Knowledge products to showcase lessons learned to wider audience and high-level forums	PMO	July 2021
D2	Reporting	Improve communication and reporting with IFAD on all aspects through bi-monthly meetings and monthly tracking of action on MTR recommendations	DPDC, PMO, IFAD	July 2021 and ongoing
D3	KM	Prepare KM plan for remaining project implementation period for submission to IFAD, to increase project visibility (see Appendix 7 for guidance/Table of Contents)	PMO	July 2021
D4	Baseline/M&E	Prepare draft M&E Plan for submission to IFAD, including summary baseline report on indicators in logical framework and set up clear tracking systems for project activities and gender disaggregated data. (see Appendix 18 for template/TOC)	PMO	July 2021
D5	Targeting	Take proactive measures to enhance the engagement of women and youth in the activities in the target communities	PMO/PPMO/DPU	July 2021 and ongoing
D6	Implementation	Update the PIM (English and Indonesian Versions) with the various changes in M&E Indicators, fund flow arrangements, staffing etc	PMO	August 2021
D7	Implementation/ M&E	Enhance internal communication between PMO, PPMO and DPU to keep all updated on project implementation and M&E issues	PMO,PPMO,PDU	July 2021 and ongoing
E1	Personnel	Recruit a Procurement Officer/Specialist and other remaining PMO personnel with short-term contracts using Independent Consultant System (ICS)	PMO	July 2021
E2	Procurement	Submit a revised Procurement Plan 2021 (National and Sub-national) and actively implement it	PMO, PPK (Commitment Maker)	1 July 2021 and ongoing
E3	Procurement	Improve monitoring and supervision of ongoing contracts; prepare and submit the contract register and improve record management	PMO, PPK (Commitment Maker)	31 July 2021 and ongoing

E4	Budgeting/AWPB	Finalize the reallocation proposal and update the AWPB 2021	PMO	July 2021
E5	Budgeting/AWPB	Start development of the draft 2022 AWPB preparation to enable submission to IFAD by November 2021	PMO	September 2021
E6	FM	Complete the mandatory on-line IFAD FM training for all project's FM staff/participate in other training organised by IFAD	PMO	31 August 2021
E7	FM	Provide a detailed report on co-financing from GOI, stakeholders and beneficiaries in line with IFAD requirements and keep updated	PMO	September 2021
E8	FM	Ensure that DA reconciliation, WA and SOEs statements are included in the Financial Statement and duly reviewed by BPKP. Project and BPKP should always reconcile data with IFAD	PMO	June 2021
E9	FM	Maximise payments direct to service providers by the PMO for activities in province and district	PMO, PPMO, PDU	Ongoing
F1	Implementation	Develop a Project Exit Strategy	PMO	October 2021
F2	Implementation	Prepare a clear plan for synergy and phasing in/out of activities between SMPEI and IMPLI project to ensure smooth transition and avoidance of gaps.	PMO SMPEI, PMO IMPLI, IFAD	October 2021
G1	Implementation/ M&E	Use revised LFA and Indicators (Appendix 2) to guide further project implementation and all future M&E and reporting	PMO, PPMO, DPU, IFAD	From June 2021 onwards

Appendix 4: Progress against revised indicators (2021)

Component/ Sub-component or Output	Indicator (2021)	Progress	Achievement %
<p>The overall goal of the project is to enhance sustainable peatland management and reduce GHG emissions from target peatland areas</p> <p>The objective of this project is to sustainably manage peatlands at a landscape level for improving local livelihoods and reducing peat fire and GHG emission.</p>	1 million ha of peatland in Indonesia zoned for integrated sustainable management	There have been more than 3 million of peatland in Indonesia with enhanced sustainable management (improved water management and conservation measures) that are being monitored by MOEF	100%
	At least 8 million tons of CO ₂ e mitigated (target may be enhanced - depending on comparison of calculation methodologies)	According to initial calculations prepared at the time of the MTR (Appendix 21 MTR Report), there has been a reduction of emissions of 19,270,183 tCO ₂ from the overall intervention of the project the targeted landscape in Riau with improved peatland management	100%
	At least 10,000 beneficiaries (people) benefiting from sustainable peatland management	It estimated to date that 7326 direct beneficiaries benefiting from the SPM and livelihood activities in the 14 target villages including the water supply to three villages	73%
	20,000 beneficiaries (at least 50% women) made less vulnerable to exposure to peatland degradation and fires	It is estimated that approximately half of the population of the targeted villages (22,000) have been made less vulnerable to exposure to peatland degradation and fires	100%
	At least 600,000 ha of peatlands in Riau under integrated peatland management regime	It was reported that approximately 300,000 ha of the targeted peatland landscape (about 300,000 ha) in the 3 project districts in Riau are under enhanced peatland management regime; information is needed on the situation elsewhere in Riau	50%
Component 1: Capacity building and institutional strengthening for implementation of policies and regulations for SPM	At least 6 national regulations or technical guidelines developed for implementation	A total of 12 national regulations and/or sub-regulations developed to support direct implementation of the PP71/2014 jo. PP57/2016; and additional 10 regulations and/or technical guidelines in relation to the peatland management	100%

	<i>Sub-component 1.1: Strengthen policy, regulations and institutional mechanisms for SPM</i>	National Peatland Ecosystem Protection and Management Plan (RPPEG) approved and implementation	RPPEG 2020-2049 was developed and endorsed by Minister in 2020 of MOEF for implementation. Copies of the RPPEG have been provided to 154 Districts and cities throughout Indonesia. A provincial RPPEG for Central Kalimantan and Riau Province and a district RPPEG for Pelalawan in Riau Province are in preparation.	100%
	<i>Sub-component 1.2: Strengthen capacity and knowledge management for SPM</i>	<p>National monitoring system for groundwater level in peatland developed and operationalised to support sustainable peatland management</p> <p>Capacity development plan developed and implemented include participation at regional and international platform to share Indonesian experience on protection and management of peatland ecosystems</p>	<p>National monitoring system (SiMATAG-0.4m) has been operational and information has been prepared in 2 domains of which one domain for intranet for key agencies to monitor the information and one domain with public access which has yet to be published. The SiMATAGA-0.4m will later to be integrated into a more comprehensive system i.e. SIPPEG that will integrate other monitoring systems and function from different agencies (e.g. SIPALAGA of BRGM, hotspot information from LAPAN, SiPongi and SiMATAG-0.4m of MOEF) to prevent and monitor forest and land fires including peat fires.</p> <p>A total of 18 workshops were conducted in 2018-2020 under the Project with approximately 750 participants. The project has been supporting DPDC to participate in at least 15 regional or international meetings/conferences since 2018 to share Indonesian experience on protection and management of the peatland ecosystems. A capacity development plan to the end of the project needs to be developed.</p>	<p>80%</p> <p>70%</p>
	<i>Sub-component 1.3: Develop Peatland Hydrological Unit (PHU) maps for management zoning in selected provinces</i>	Detailed PHU maps developed for project PHUs and additional 80 PHU maps developed	A total of 56 PHU maps (1:50.000) were developed (2019 - 32 maps and 2020 - 24 maps) with SMPEI funding. 122 maps have been developed with DPDC funding.	100%

Component 2: Monitoring peatland degradation, fires and GHG emissions							
	<i>Sub-component 2.1: Strengthen national peatland fire prediction, monitoring and warning system</i>	Information from peatland water level monitoring used to support early warning system on fire risk	Monitoring system using the peatland water level has been in place and functional with support from private sector of which automated water level information has been transmitted to the system and weekly/monthly update on information from optional/manual water level monitoring points from the private sector and community land areas. In addition to the national monitoring system, there have been 53 villages have been implementing peatland ecosystem management strategy at site level with similar organisational set-up for the SMPEI villages in Riau i.e. TK PPEG to prepare IMAS and RKM, in addition there are other groups such as Community based Fire Brigade (MPA) and Peat Care Community (Desa Mandiri Peduli Gambut) in some of the villages. The 53 villages are located in Aceh, North Sumatra, West Sumatra, Riau, Jambi, West Kalimantan, Central Kalimantan and East Kalimantan. It is planned to establish the SIPPEG system in 2021 which will integrate information from peatland water level, fire danger rating, hotspots and soil moisture.				60%
	<i>Sub-component 2.2: Assessment of GHG emission reductions from targeted peatlands</i>	Methodology on calculating the GHG emission from Indonesian peatland developed and agreed for utilisation	Methodology on calculating the GHG emission was developed by the project based on earlier studies and presented to the Ministry. It has been agreed in principle by the Minister but pending agreement by a technical expert panel. In addition a Peat Ecosystem Quality Index (Indeks Kualitas Ekosistem Gambut/IKEG) has been developed and improved in 2020 as part of the Environmental Quality Index (IKLH) for Sumatra, Kalimantan, Sulawesi and Papua.				70%
		Baseline GHG emissions compiled and being tracked annually	The project made an initial calculation on GHG emissions based on enhancements in ground water level in the target villages. Baseline GHG emission was calculated based on assumption that the water level below ground by 1.5m in most village before the project and has been increased in level during the project. However more work is needed to define the actual area where water levels have been increased. Further information and comments on the methodology and adjustment of the input data for				50%

			the calculations of GHG emission reductions to date is given in Appendix 21	
Component 3: Landscape level sustainable management of peatlands		An Integrated Sustainable Management Plan for project PHUs developed and implemented (linking districts with inclusion of inputs from local government, private sector and local community)	An ISPM has yet to be prepared for the landscape, however, Village Action Plans (RPK) have been developed and implemented in 14 villages in 3 project districts. A RPPEG has been prepared for Pelalawan District which included about 20% of the targeted landscape. Similar plans are planned to be prepared in 2021-22 for the two other districts in the landscape. An integrated plan for the landscape in the three districts has yet to be prepared.	30%
	<i>Sub-component 3.1: Develop and implement an integrated sustainable management plan (ISMP) for Kampar-Gaung and Gaung-Batang Tuaka Peatland Hydrological Units (KG & GB PHUs)</i>	<p>At least 150,000 ha of peatlands within the project PHUs being monitored with enhanced water management within the targeted PHUs (include land of private sector and community)</p> <p>Multi-stakeholder partnerships established for development and implementation of the ISMP for project PHUs</p>	<p>It was reported that 295,703 ha of SMPEI project area (primarily oil palm and forest plantations) have enhanced their water management and are continually being monitored by DPDC. About 6,060 ha in the 14 target villages has been rewetted with enhanced water management.</p> <p>It was reported that there have been at least once a year meetings conducted with involvement of government agencies, local community and private sector. A WhatsApp Group has been established since 2018 to link government and project personnel involved in the project implementation in Riau including representatives from the Province, District and Village facilitators. This group is used to share information and build links across the district teams and share examples of good practice such as on fish cultivation in canals.</p>	<p>100%</p> <p>50%</p>
	<i>Sub-component 3.2: Community livelihood from SPM enhanced in targeted communities</i>	Community Forums established in three target districts for peer-to-peer learning and knowledge sharing	No official community forums have been established yet, but informal sharing of information and lessons learned is taking place through annual community levels meetings to discuss and share experience on the community action plans. Coordination and partnership activities are also regularly carried out, one of which is through RKM exposure activities in each village. In 2020, this activity was carried out in September and involved other related multi-stakeholder agencies in order to socialize activities and coordinate technically. The agencies involved are as follows: The Environmental Service of each district, related Village Government, Village Head, the Village Consultative Body (BPD), Bhayangkara	<p>25%</p> <p>70%</p>

		<p>Community-based peatland action plans developed and implemented in 14 villages</p> <p>Fire prevention strategies developed and implemented at three project districts</p>	<p>Trustees of Community Security and Order (Bhabinkamtibmas), Fire Care Society (MPA), and Sector Police Representatives (Kapolsek). This activity strengthened the multi-stakeholder partnership that has been initiated in the previous year, with the relevant agencies involved include non-governmental organizations, the Manggala Agni Indonesian Forest Fire Control Brigade, the Agriculture Service, the Food Security Service, BBKSDA, TK-PPEG, and plantation companies.</p> <p>Participatory Assessments (IMAS) and Community-based Peatland Action Plans (RKM) were prepared and implemented in 2019 and 2020. As of end 2020, a total of 202 canal blocks were constructed and 43 livelihood activities have been undertaken since 2019. In addition, there have been 3 drinking water treatment plants provided to 6400 people in 3 project villages i.e. Desa Teluk Meranti of Pelalawan District, Desa Sialang Dua Dahan of Indragiri Hulu District, and Desa Rambaian of Indragiri Hilir</p> <p>Fire prevention strategies have yet to be developed for the three project districts. A total of 28 fire risk signboards as part of fire prevention strategies were installed with on-site monitored ground water level using two piezometer - signboards per village. Fire-fighting equipment (pumps and hoses) have been provided to the 14 villages for fire-fighting and other operations.</p>	35%
		Sustainability and replication strategy for livelihoods and community-based peatland management developed and being implemented to scale-up project activities in village and landscape	<p>A sustainability and replication Strategy has yet to be prepared for the project.</p> <p>Based on the impact survey conducted by the MTR, 28% respondents indicated that they have been replicating methods and activities from the demonstration plots to their personal land - the activities include zero burning practices, better water management, and type of agricultural crops to be planted. Similar concept of establishment of TK PPEG and Village Facilitators have been developed by DPDC in 53 villages in other peatland provinces.</p>	25%

Appendix 5: Financial: Actual financial performance by financier; by component and disbursements by category including Co-finance information

Table 5A: Financial performance by financier

Financier	Appraisal (USD '000)	Disbursements (USD '000)	Per cent disbursed
GEF grant	4,766,756	2,927,433	61.4
Co-financier			
Government	14,950,000	20,280,056*	134
Total	19,716,756	23,207,489	117

*to be confirmed

Table 5B (1): SMPEI - Financial performance by financier by component ('000 USD)

Component	GEF Grant			Co-financier (Govt)**			Co-financier (other)			Co-financier (IFAD)			Total Co-financing**		
	Appraisal	Actual	%	Appraisal	Actual*	%	Appraisal	Actual	%	Appraisal	Actual	%	Appraisal	Actual	%
1. Capacity building and institutional strengthening	1.766	183.12	10		3,813			30		-	-	0	7,270	3,843	52.8
2. Monitoring peatland degradation, fires and GHG	625	-	0		67			200		-	-	0	5,969	267	4.5
3. Landscape level sustainable management of peatlands	2.076	89.70	4		16,056			1,025			463		7,106	17,544	256.9
4. Management costs	300	55.44	18		147		-	-		-	-	0	1,400	147	10.5
Total	4.767	346.58	7	14,950	20,084	134	4,300	1,255	29	2,495	463	18	21,745	21,802	100.3

Table 5C: IFAD grant disbursements (as at June 2021)

Category	Category description	Original Allocation	Revised Allocation	Disbursement	W/A pending*	Balance	Per cent disbursed
I	Consultancies	540,000		311,083.83	7,311.65	221,604.52	58.96
II	Equipment & Materials	1,255,000		402,928.95	358,139.42	493,931.63	60.64
III	Goods, services, and inputs	1,949,756		1,210,722.08	267,891.19	471,142.73	75.84
IV	Salaries, allowance, operating cost,	420,000		42,138.98	3,076.67	374,784.35	10.7
V	Training	410,000		23,903.66		386,096.34	5.83
	Unallocated	192,000				192,000	
	Total	4,766,756		2,927,433.16	636,418.93	2,139,559.57	74.8

*The WA #7 will be revised to be USD 613,680.40 and cost categories corrected accordingly.

Counterpart funding provided through the Directorate of Peatland Degradation Control (DPDC) 2017-2020*

No	Activity	Year and Funding Amount in Rp				Total (Rp)	Total USD
		2017	2018	2019	2020	2017-2020	2017- 2020
1	Inventory and mapping of peatland hydrological units	2,429,633,000	4,866,273,000	6,752,544,000	100,381,986,000	114,430,436,000	8,173,603
2	Capacity building for Planning Protection and management of peatland Ecosystems	1,154,934,000	1,011,745,000	540,866,000	10,558,044,000	13,265,589,000	947,542
3	Restoration of hydrological function of peatland ecosystems	2,745,647,000	6,272,928,000	2,618,860,000	119,606,438,000	131,243,873,000	9,374,562
4	Evaluation of the work of industry in peatland rehabilitation	2,000,000,000	-	1,012,730,000	386,410,000	3,399,140,000	242,796
5	programme for community development for peatland ecosystem management	1,072,986,000	1,499,054,000	1,075,000,000	17,934,699,000	21,581,739,000	1,541,553
	Total funding	9,403,200,000	13,650,000,000	12,000,000,000	248,867,577,000	283,920,777,000	20,280,056

*Awaiting further documentation

Appendix 6: Compliance with legal covenants: Status of implementation

Section	Covenant	Target/Action Due Date	Compliance Status/Date	Remarks
Section B.4	There shall be one Designated Account opened and maintained by the Ministry of Environment and Forestry in a commercial bank to receive the Grant resources in advance in USD for the project implementation. Eligible project expenditures shall be paid directly to the service providers and/or suppliers when Advance Withdrawal arrangement is applied. The Recipient shall then inform the Fund of the officials authorized to operate the DA	On the date of the project commenced.	Partially complied	The Project has an account in local currency with dual signatory for PMO.
Section B.5	The Recipient shall provide counterpart financing for the Project in the amount of USD 14 950 000, which includes tax and duties on IFAD-funded expenditure	In periodic manner.	On going	Contribution reported is USD 20,084,000. The amount shall be verified and confirmed
Section E	(a) The national PMO within the MOEF shall have been duly established, and a Project Director and a Finance Manager are appointed in accordance with Section II, Schedule 1 to this agreement. (b) The Project Implementation Manual (PIM) shall have been prepared in a manner satisfactory to IFAD, in accordance with Section II, Schedule 2 to this Agreement.		Complied	a) The National PMO was established in 2018 and Project Director and Finance Manager appointed. b) The PIM was prepared in a manner satisfactory to IFAD and has been periodically updated.
Schedule 3 to the FA	1. <i>Gender.</i> The Recipient shall ensure that gender concerns shall be mainstreamed in all Project activities throughout the Project Implementation Period. The Recipient shall also ensure that the Project activities specifically designed to benefit women and women headed households are duly and diligently implemented.		Ongoing	Gender concerns have been mainstreamed to some extent into the project but more needs to be undertaken in the remaining project period to scale up the activities in the Target villages to benefit women.

	<i>2. GEF Project Implementation Report and Tracking Tools.</i> The Lead Project Agency shall submit to the Fund annual Project Implementation Report and GEF Tracking Tools on the Project in such form and substance as the Fund requests.			The Project Implementation Reports have been submitted to GEF in 2019 and 2020. The tracking tools are being prepared by the MTR.
Section 4.03	Procurement of goods, works and services carried out in accordance with the procedures laid down in Schedule 3	On the date of the project commenced.	Partially	The procurement of goods works and services have been carried out in accordance with GOI procedure, largely in accordance with IFAD requirements although some challenge have occurred.
Section 4.04	Insurance of vehicles, equipment and civil works financed from the grant proceeds to be consistent with sound commercial practice.	NA	NA	
Section 4.05, section 11.10(b)	Audit report submitted to IFAD.	Every year and 30 June as the deadline for submission.	On going	Audit conducted by BPKP and the audit report for FY 2020 will be submitted to IFAD in timely manner (June 30, 2021)
Section 4.06	Progress reports to be submitted to IFAD on a quarterly basis.	On the date of the project commenced.	Partially	
Schedule 4, para 7	AWPB to be submitted to the Fund, for its review and comments	In 60 days before the beginning of relevant project year	AWPB prepared but submitted late and significant revisions needed.	The 2021 AWPB was submitted for approval to IFAD in March 2021 or delayed by about 5 months from the initial deadline.
Schedule 4, para 8(a)	A Mid-Term Review (MTR) to be carried out jointly by the Borrower and IFAD.	NA	NA	Currently ongoing in 2021
Schedule 4, para 16	Project to be exempted from all import duties, excise taxes and value added tax (VAT) on investment expenditures	On every taxable transaction.	Done	The taxes are part of GoI contribution.

Appendix 7: Knowledge Products and KM Plan

Innovation & Lessons Learned

The Project has developed innovative national monitoring systems (SIMATAG-0.4m and SIPPEG) with a combination of remote-sensed data and ground-level data collection, and established Indonesia's first National Media Control Room for fire prevention. Another key aspect is that PMO/DPDC is proposing to IPCC to use the Hooijer *et al.* (2010) calculation and methodology to estimate the amount of GHG mitigated at national level via MOEF peatland restoration activities.

The project has developed and implemented sub-regulations and guidelines for the roll-out of PP71 - which is an innovative national policy in itself on sustainable peatland management and restoration. Most importantly, the project has developed and initiated the implementation of the new National Peatland Strategy i.e. the National Plan for Protection and Management of Peatland Ecosystem (RPPEG) which was developed until 2049. It is the first time a national peatland strategy is developed covering such a long period of time anywhere in the world. In addition to this, the project pioneered the application of the landscape-level approach i.e. the Peatland Hydrological Unit (PHUs) in the national regulatory and planning frameworks.

Lessons learned related to the above-mentioned innovations have been shared via:

- ❖ Knowledge sharing beyond Indonesia: DPDC has participated in many high-level international and regional dialogues and events with support from SMPEI GEF-IFAD funding, including GEF Assembly, Viet Nam (2018), UNFCCC COP24, Poland (Dec 2018) and COP25, Spain (Dec 2019); Environment and Forest Exhibition in 2019 in Korea; the 21st Meeting of the Technical Working Group (TWG) and the 21st Meeting of Sub Regional Ministerial Steering Committee (MSC) on Transboundary Haze Pollution in Brunei Darussalam (August 2019); 15th ASEAN Ministerial Meeting on the Environment and 15th Meeting of the COP to the ASEAN Agreement on Transboundary Haze Pollution in Siam Reap, Cambodia (October 2019); ASEAN Task Force on Peatlands (ATFP) annual meetings in Brunei Darussalam (2018), Myanmar (2019), Virtual meeting 2020; ATFP members at the 1st and 2nd Regional Programme Steering Committee (PSC) meetings of the ASEAN-IFAD Measurable Action for Haze Free Sustainable Land Management in Southeast Asia (MAHFSA) programme, the EU-GIZ Sustainable Use of Peatland and Haze Mitigation in ASEAN (SUPA) project, and the GEF6-IUCN Sustainable Management of Peatland Ecosystems in Mekong Countries (Nov 2019 in Thailand and Dec 2020 - Virtual). DPDC has also actively participated in meetings of the Task Force for the Review of the ASEAN Peatland Management Strategy 2006-2020 in July and November 2020.
- ❖ Knowledge products developed related to the promotion and dissemination of sustainable peatland management include:
- ❖ 4 videos: (i) with general information on the Media Center room which was showcased at the Launch in 2020; (ii) on the SIMATAG-0.4m Information System (https://drive.google.com/drive/folders/15s_pRFV4Hu8Uj0gEnji6ayBonSw1Nk-i); (iii) on MOEF's activities related to Peat Ecosystem Recovery in Indonesia (Pemulihan Ekosistem Gambut di Indonesia) activities (available in english at <http://pkgppkl.menlhk.go.id/v0/pemulihan-ekosistem-gambut-di-indonesia/>), and on (iv) on Community Empowerment in the Management of Peatland Ecosystem in Indonesia (Pemberdayaan Masyarakat dalam Pengelolaan Ekosistem Gambut) (available in English at <http://pkgppkl.menlhk.go.id/v0/community-empowerment-on-peatland-ecosystem-recovery/> - with IFAD logo). The purpose of the latter was to showcase the progress of SMPEI Project, on peatland restoration, alternative livelihoods cultivation activities by TK-PPEG Community

Groups, as well as sharing regarding the local community perspectives on project impacts and outcomes.

- ❖ 2 documentary videos on SMPEI project focussed on challenges faced by peatland ecosystems in Indonesia (and especially Riau) and their importance as well as the village TK-PPEG establishment, IMAS and RKM development process (in Bahasa not disseminated yet - one made in 2019 and the other in 2020 https://drive.google.com/drive/folders/15s_pRFV4Hu8Uj0gEnji6ayBonSw1Nk-i). The mission team notes that these videos could form the basis for developing a short video in English for COP26. IFAD COM divisions could support and guide the development of such a KP.
- ❖ 2 books on (i) Corrective Action on Peatland Management in Indonesia - Towards Sustainable Peatlands Ecosystems (available in English at: <http://pkgppkl.menlhk.go.id/v0/corrective-action-tata-kelola-gambut/>); (ii) Community Self-reliance-Based Peat Ecosystem Restoration (Pemulihan Ekosistem Gambut Berbasis Pemandirian Masyarakat - made in 2019 in Bahasa and not yet disseminated)
- ❖ The website <http://pkgppkl.menlhk.go.id> (in both Bahasa Indonesia and English versions) has been created by the Directorate of Peatland Degradation Control (DPDC) to compile all relevant knowledge and raise awareness on the MOEF work related to peatlands. This includes links to the following publications: "Corrective Action on Peatland Management" book and above-mentioned 2 videos with associated links, supported by SMPEI. The website also shows PHU maps (scale 1:150,000 and 1:50,000), some other awareness raising, training videos, and pictures by MOEF. The website also includes links to other relevant websites namely: Sipongi for live monitoring of fire hotspots using satellite imagery <http://sipongi.menlhk.go.id/home/main> developed by DG Climate Change, Kementerian LHK <http://www.menlhk.go.id/>, etc. A link to be also created to redirect to the ITPC website.

Under the IFAD-grant to CIFOR (IFAD co-financing to SMPEI) titled *Haze Free Sustainable Livelihood Project* (HFSLP, 2016-2019), the following KPs were developed and training were held to identify and promote alternative sustainable livelihoods for the communities living in peatland areas of SMPEI:

- ❖ Knowledge Products: (1) Literature review on sustainable peatland management, (2) Village Profile Book of 9 villages in SMPEI, (3) Baseline Study Working Paper, and (4) Value Chain Working Paper. The knowledge products (1), (2), (3) and (4), aimed at identifying the best alternative sustainable livelihood options on peatlands for the project area, and the community-groups to involve in the *trainings and demonstration plots*. These KPs and grant findings were presented to PMO and other stakeholders at SMPEI project Launch in March 2018 and were shared with SMPEI PMO to inform key stakeholders involved the SMPEI project at the national and provincial levels to replicate community-driven on-farm and off-farm activities. Additionally, three documentary videos were produced on social forestry (https://www.dropbox.com/s/obga16o43dhap60/Annex_12_Video_Social%20Forestry.mp4?dl=0), honeybee cultivation (https://www.dropbox.com/s/n5sni8jcngiuu91/Annex_11_Video_Honeybee%20cultivation.mp4?dl=0) and fish processing (https://www.dropbox.com/s/do43lug5fwa3cgw/Annex_13_Video_Fish%20Processing.mp4?dl=0). Training materials in the form of training reports and training manuals complemented the videos and which were also used to scaling-up the awareness and training program. A paper titled "An exploration of gender equity in household: A case from a peatland-based community in Riau" was published in Biodiversitas scientific peer-reviewed journal (available at: https://www.cifor.org/publications/pdf_files/articles/AHerawati1901.pdf). The knowledge products (KPs) produced under HFSLP aimed to contribute to the lessons learning and implementation of scaling-up strategy in the SMPEI project. The mission team recommends for PMO to draw upon and use these KPs being part of the SMPEI project outputs.

- ❖ Trainings on alternative commodities have been organised in the project area involving 300 smallholder farmers: one training on plant nursery in Tanjung Sari (Apr 2018), one on social forestry in Simpang Gaung in July 2018, two on honeybee cultivation in Simpang Gaung (July 2018) and Bukit Lembah Subur (Sept 2018), two on fish cultivation and processing Teluk Meranti (March 2018) and in Bayas Jaya (Jan 2019), two on microfinance in Pekanbaru and Teluk Meranti in March 2019, and trainings on impact assessments were conducted in Dec 2018, Feb and March 2019.

The HFSLP Grant Completion Report (GCR) and Exit Strategy Report, prepared by CIFOR and shared with PMO, although very brief, aimed to provide a summary of lessons learned and recommendations to inform SMPEI, however a proper handover to SMPEI was not ensured as there was not sufficient overlap in implementation periods (given that SMPEI project activities started end 2018, 2.5 years after the start of HFSLP, given the delay in FA signing and start-up of SMEPI) and poor communication between CIFOR and MOEF.

Given the level of innovation that the project is, not only piloting, but scaling-up at national level, the mission team highly recommends the project to dedicate efforts on pulling lessons from the projects activities and showcasing these lessons learned in the appropriate format (videos, books, scientific journal articles) and at high-level policy dialogues and events such as the UNFCCC COP26. Lessons learned from the project will be useful not only for Indonesia or Southeast Asian countries but in all other peatland countries of the Congo basin for example and Latin America. Dissemination of knowledge and lessons learned through platforms such the International Tropical Peatland Center (ITPC), the Global Peatland Initiative (GPI), etc. are also recommended. IFAD, including Communication Division, can support the conceptualisation of these KPs as needed.

One of the recommendations of the mission team is for the PMO to prepare a KM plan for the remaining project implementation period for submission to IFAD, to increase the project's visibility and to appropriately capture and disseminate the lessons learned and key innovations of the project (agreed action D3). See below for a suggested template/Table of Contents for the KM Plan.

Knowledge Management Plan

The Knowledge Management (KM) Plan should indicatively include the following sections:

Sections	Description
1. Current situation / background	The project has been going for a number of years, therefore describe what has been accomplished so far from a KM point of view. List the knowledge products developed, with links to each one and description of how each was disseminated, and whether they were effective in reaching the desired audience.
2. Purpose, objectives and expected results	<p>What the project hopes to achieve as a result of KM and sharing activities. The overall objective could be to improve the project/country programme's ability to generate, use and share knowledge to: achieve high quality project performance and results; support policy engagement, scaling up and partnership building; build awareness of the project among stakeholders; raise visibility of results and impact. Specify the main expected outcomes and outputs.</p> <p>Clear, specific, and measurable objectives are key to the success of the KM plan. When setting these objectives, you should:</p> <ul style="list-style-type: none"> ○ be realistic within the timeframe, budget and resources ○ ensure the objectives are measurable
3. Knowledge sharing & knowledge products	<p>Identify knowledge products to be developed for the remaining project implementation, and their purpose, including publications, studies, lessons learned, etc. Define target audiences, and communications and dissemination plans for knowledge products at the outset, before investing time and resources in developing products that may be unsuitable for your intended end users. Also, events such as knowledge fairs, roundtable discussions, or easily accessible information materials could be other options to consider. Networks and communities are ideal vehicles for knowledge sharing, collaboration, learning and co-creation of knowledge.</p> <p>List the planned knowledge products to be prepared in the last 12 months of project implementation, in order to increase the project's visibility. For example:</p> <ul style="list-style-type: none"> - Video on SMPEI/MOEF activities to showcase at COP26, building on the 2 documentary videos prepared in Bahasa. - Scientific peer reviewed article on national monitoring system and GHG emission methodology - Capacity building development plan (indicator 9 under Comp. 1) <p>List the events the project will engage in and the type of participation. For example:</p> <ul style="list-style-type: none"> - UNFCCC COP26: organise a side-event at Peatland Pavilion with IFAD and GEC to showcase lessons learned. - Etc. <p>Specify for each planned activity: milestones, budget and timelines for the remaining time of the project.</p>

	Guidance for production of knowledge products including use of logos, dissemination plan, tracking of distribution etc.
4. KM in project management	Define clear roles and responsibilities for KM of project managers and staff, and implementation partners. Specify the budget allocation for knowledge management purposes and also the personnel and consultants responsible for KM activities and results

Documentation of Knowledge Products

The project should maintain at least two master sets of knowledge products with a copy of each knowledge product developed. This should include all leaflets, brochures, pamphlets, posters, maps, books, reports, studies, training materials, videos, press releases and other publications.

It should also maintain a regularly updated list or data base on KPs produced with details on the product, number produced, number disseminated, target groups etc.

Appendix 8: Progress in implementing actions from 2019 supervision mission

Ref. No.	Action Area	Action Agreed during August 2019 mission	Agreed date for completion	Responsible entity	Actual completion date or PC or ND (partly completed or not done)	Details (nature of action taken, reason for no or incomplete action, comments etc)
B1	Procurement	Complete the recruitment of project personnel at the National level	September 2019	DPDC, ULP, PMO	Partly Completed	The recruitment for the MonEv and KM Specialist was completed in July 2020. While the recruitment of the Project Coordinator is still in process.
B2	FM	Enhance the Fiduciary management including establishment of project accounts at province and district levels.	September 2019	DPDC, PMO, PPMO	Completed	Agreement reached between PD and IFAD in July 2020, not to open the provincial and district level bank accounts and to apply a direct payment to service providers (maximizing the use of checks and bank transfers and minimising the use of cash payments)
B3	Procurement	Ensure compliance with IFAD procurement requirements as described in the PIM	August 2019 and ongoing	DPDC, PMO, PPMO	Completed	Kindly refer to the Revision to the Letter to the Recipient Document signed dated 04 December 2020
B4	Reporting/ M&E	Improve communication and reporting with IFAD on all aspects with monthly meetings	August 2019 till end of project	DPDC, PMO, IFAD	Partly Completed	The reporting and communication process with IFAD has been improved since the supervision mission in 2019. However, a monthly meeting has not been held regularly
B5	M&E	Update logical framework and indicators	August 2019	DPDC and IFAD	Completed	The logical framework and indicators were revised and included in the 2019 ISM report and the 2019 PIM, However due to miscommunication they were not used in 2020 and for guiding the project implementation. The project logical framework and indicators have been further discussed and revised in partnership with the IFAD team during MTR Mission 2021 and will be used from now on.
B6	Baseline	Preparation of baseline report for submission to IFAD	September 2019	PMO	Partly Completed	An internal report on baseline actions was prepared by the project but a baseline in the format proposed by IFAD was not prepared or provided to IFAD.
B7	M&E	Preparation of KM plan and M&E Plan for submission to IFAD	October 2019	PMO	NC	M&E Plan has been partly developed prior to the M&E activities implemented (M&E ToR), and monitoring tools have been used to analyze the achievement of each sub-component. However information gathered was not sufficient. Discussed in detail with MTR mission and a revised table of contents and guidance

						(Appendix 21) developed. The KM plan still has to be developed. MTR mission provided some guidance (Appendix 7).
B8	Organisational Framework	Establishment of National Steering Committee and Technical working group (as per PIM)	October 2019	PMO	NC	Not undertaken. A national multi-agency committee is established under the framework of the national Plan for Peatland Protection and Management (RPPEG)
C1	Baseline/ M&E	Capacity needs assessment and/or capacity needs development plan	September 2019	PMO	Partly Completed	Various kinds of training and capacity development activities has been implemented during the implementation of the SMPEI project. The implementation of the capacities development activities is implemented based on the need to support the activities related to the implementation of the project, including training for the local community related to the implementation of the RKM (Community Working Plan). Guidance provided during MTR on capacity development plan.
C2	Training	Institutional capacity building to province/ district/ village governments and site level project staff	Ongoing	PPMO/PDUs	Completed	The first training had been executed in April 2019. Further training was provided in September 2020. However, due to the pandemic situation, the implementation of training activities has been limited. Training online or by video will be explored in future.
C3	M&E	Regular communication is needed with Directorate General of Climate Change (PPI) for information on fire warning and monitoring systems to link with targeted landscape and web-based water management.	September 2019 and ongoing	PMO	Partly Completed	Communication and coordination with the Directorate General of Climate Change (PPI) were done in December 2020 to discuss GHG emissions and MRV.
C4	M&E	Information on fire alerts (hotspots) and trends and warnings disseminated in targeted areas need to be documented	October 2019 and ongoing	PMO	Completed	The platform of Sipongi (http://sipongi.menlhk.go.id/home/main) and Directorate of Peat Degradation Control platforms are two platforms that had been developed and platforms that show the information of fire alerts (hotspots) and soil moisture. However, DPDC is currently developing an integrated platform (SIPPEG), a monitoring system that incorporates several kinds of aspects from different platforms, including Sipongi. At the SMPEI Project area, two fire danger rating warning signs (based on groundwater level) have been installed in all 14 villages, which are monitored monthly.
C5	Baseline/ M&E	GHG emission need to be annually	October	PDUs/PPMO	Completed	The methodology to calculate the GHG emission has been

		estimated at project site based on Methodology in SMPEI Design report and/or new methodology being developed by DPDC	and ongoing	/ PMO		developed and utilized to calculate the GHG emission and progress at the national level. The GHG emission and progress at the project site level have been calculated and included in the baseline study report that currently being developed. Further guidance in use of the methodology has been provided by the MTR Mission.
C6	Baseline/ M&E	Review and revise the outputs, targets and indicators of Component 2 in line with the current direction.	September 2019	PMO and IFAD	Completed	The outputs, targets and indicators of Component 2 have been discussed and agreed with the IFAD team during MTR Mission 2021
C7	Implementation	Develop an Integrated Sustainable Management Plan (ISMP) for KG & GB PHUs	June 2020	PMO/PPMO / DPU	Partly Completed	RPPEG for the Riau Province is still on progress. However, Indonesia has developed the national RPPEG, followed by the Pelalawan district for RPPEG of Pelalawan. The MTR mission has clarified that there still needs to be a strategy of plan linking the three districts for the project site.
C8	Implementation	Develop a stakeholder platform/forum for the landscape or build upon existing available forum/platform	September 2019	PMO/PPMO	Partly Completed	On-going process. However, a WhatsApp Group was made to support the communication and coordination activities between project staff and coordinators at village, district and province levels related to the project.
C9	Baseline/ M&E	Undertake Baseline demographic study by facilitators that includes element of dependency to peatlands for livelihoods	September 2019	DPU/PPMO	Completed	CIFOR had developed a Baseline demographic study for nine villages that includes the element of dependency to peatlands for livelihoods. For all 14 villages of SMPEI Project, a document called IMAS (Identifikasi Masalah dan Situasi/ Situation and Problem Identification) are developed regularly each year which includes the demographic information of every village. Information needs to be extracted and maintained by the PMO.
C10	Baseline/ M&E	Collate Baseline information on KG & GB PHUs on existing water management	September 2019	PMO/ PPMO/ KSDAE	Completed	The groundwater level at project locations in 14 villages is measured regularly every month by the local community assisted by the Facilitator submitted to the PMO. The information of groundwater level in 2020 is done and the information is described in the SAPR developed each semester, while in 2021 is still in progress. Information on the water level in the plantations in the landscape is collated through SIMATAG-0.4 system..
C11	M&E	Undertake further technical review and enhancement of the RKM (Community	September 2019	PMO/ PPMO/	Completed	An eExposure activity was executed to review and enhance the proposed Community Working Plan (RKM) developed by the

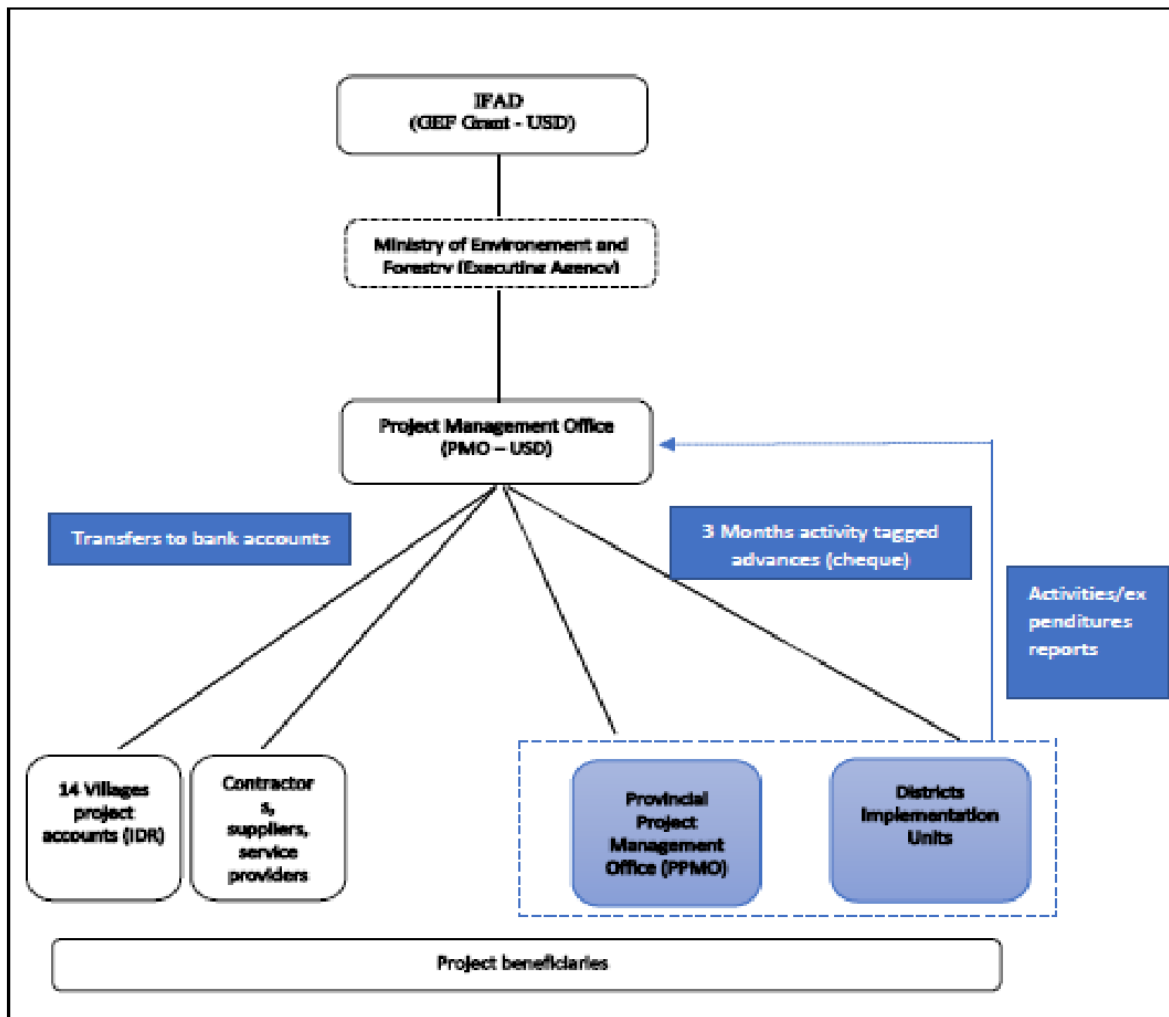
		Work Plan) related to proposed crop and fish species selection for the community livelihood activities under Output 3.2.		DPU		local community assisted by the facilitator. Every community livelihood activity explained in the RKM is reviewed and enhanced by involving the stakeholder related, including the Non-Governmental Organizations (NGO).
C12	M&E	Revise the Project logical framework and indicators	August 2019	PMO and IFAD	Completed	The revised project logical framework and indicators has been discussed and agreed with IFAD team during MTR Mission 2021
C13	FM	Preparation of overall revised budget against amount by expenditure categories in FA	September 2019	PMO and IFAD	Completed	Budget revision has been submitted to IFAD on 26 March 2021. To be discussed with the MTR.
D1	M&E	Translate the PIM from English to Bahasa Indonesia and distribution to all project personnel in PMO, PPMO and PDU	20 Aug 2019	PMO	Completed	Done
D2	Procurement	Re-advertise and promote the National Project Coordinator vacancy	02 Aug 2019	PMO/ULP	Partly Completed	On the first semester of 2020, PMO did re-advertise and promote the National Project Coordinator position, but this was not successful. Will be re-advertised again in 2021
D3	M&E	Submit detailed Semi-Annual Progress Reports (SAPRs) to IFAD in satisfactory quality (in line with timeline in Table 8 of PIM)	July 2019 – project closing	PMO	Completed	Done
D4	Reporting/ M&E	Submit detailed Project Implementation Reports (PIRs) to IFAD in satisfactory quality (in line with Table 9 of PIM)	8 July each year	PMO	Completed	PIR of 2020 has been submitted
D5	Baseline/ M&E	Develop an outline for the baseline report	August 2019	IFAD and PMO	Partly Completed	The Baseline Report is currently in the process of editing
D6	Baseline/ M&E	Prepare baseline Report and submit to IFAD	October 2019	PMO and PPMO	Partly Completed	The Baseline Report is currently in the process of editing, But content needs adjustment in line with guidance of MTR.
E1	Procurement	Submit to IFAD all procurement packages of all project personnel recruited that require NOL as per table 14 of the PIM	02 Aug 2019	PMO	Completed	Done
E2	Procurement	Submit all ongoing procurement that need to be finalised (individual or firm) that require NOL as per table 14 of the PIM	02 Aug 2019	PMO	Completed	Done
E3	Procurement/ FM	Revise AWPB and Procurement Plan including any changes in procurement and	10 Aug 2019	PMO	Completed	Done

		resubmit to IFAD for no objection				
E4	FM	Put in place immediate measures to reduce the risks associated with current finance flows and management including establishment of proper request and voucher systems, clear request and approval procedures for payments, maximising the number of payments made through transfer and cheques and minimising cash transactions in line with MoF recommendations	September 2019 and ongoing	DPDC, PMO, PPMO, DPU	Completed	Done. Direct payment to service providers (maximising the use of checks and bank transfers, and minimising the use of cash payments)
E5	Procurement/ FM	Undertake a further detailed finance and procurement review to be undertaken by a team from IFAD Indonesia office to assess further Fund management and procurement issues and guide the adjustment of fund management and procurement systems to meet IFAD requirements	30 August 2019	IFAD, DPDC	Completed	Done. Direct payment to service providers (maximising the use of checks and bank transfers, and minimising the use of cash payments)
E6	FM	Open the Project Bank Account in IDR at provincial level and open the three Project Bank Accounts in IDR at district level as recommended by MoF.	February 2020	DPDC, PMO, PPMO, DPU	Completed	Done. Direct payment to service providers (maximising the use of checks and bank transfers, and minimising the use of cash payments)
E7	FM	Stop cash advance transfers to “project” accounts in personal names at province or district level and reconcile and account for any previous transfers. Payments of project funds from PMO to province and/or districts by transfers to private bank accounts (except for payment to final recipients of salaries, allowances, travel expenses, and service providers) are not accepted by IFAD and MoF.	September 2019	PMO, PPMO, DPU	Completed	Done. PMO has implemented the regulation.
E8	FM	Prepare Indonesian language Project Financial Management Guidelines, particularly related to improvement on internal control and distribute to all project	August 2019	PMO	Completed	Done

		offices (PMO, Province and Districts Offices).				
E9	Procurement	Conduct intensive training and follow up on IFAD and Indonesian procurement requirements, which will involve procurement officers from the ULP, the finance management and procurement specialist at PMO, the SMPEI Project Manager and others as participants	September 2019	IFAD and PMO	Completed	Done. Followed up with a further coordination on 25 March 2021
E10	M&E/ Implementation	Distribute Indonesian language Project Procurement Guideline, particularly related to procurement at or for sub-national level to all project offices (PMO, Province and Districts Offices).	September 2019	PMO	Completed	All the procurement activities are referred to the Presidential Decree No. 16/2018 on Procurement Of Government Goods / Services, and all the procurement activities are also executed at the national level.
E11	Training	Provide Training on project fiduciary (procurement and financial management) and IFAD requirements provided to project office at sub-national level.	September 2019	PMO and IFAD	Completed	At the national level, training was held in October 2019 which was attended by the PMO and Government staff.
E12	Audit	Include additional IFAD disclosures in financial statements subject to audit, including counterpart funds, and submit interim financial reports on a semi-annual basis to IFAD	Continuous	PMO	Completed	Done
F1	Implementation	Maintain and enhance measures to enhance multi-stakeholder collaboration to support peatland protection and management at national and provincial level.	Ongoing	DPDC, PMO	Completed	Done (within the SMPEI Project)
F2	Implementation	Strengthen engagement with private sector plantation concession holders in the targeted PHU to enhance effectiveness and support sustainability of the actions	September 2019 and Ongoing	DLHK, Riau, PPMO	Completed	Done. Needs to be continued/expanded
G1		Internal discussions between provincial and district government (DLHK) to identify critical issues/conflicts of local community and plantations especially on water management which are not in compliance	Mid-August 2019 and ongoing	DLHK, DLH Pelalawan, DLH Indragiri Hulu and	Completed	Done. Reports of site visits and problems solved should be prepared.

		with existing regulations. Then call for meeting and undertake site visits with plantations to enforce implementation of requirements		DLH Indragiri Hilir		
G2		Establish or strengthen mechanisms for information sharing and knowledge exchange between targeted communities on peatland best management practices	October 2019 and ongoing	Provincial and District governments and targeted local communities	Completed	Done Sharing knowledge and information exchange between the targeted communities on the peatland best management practices has been implemented since the beginning of the project. For example, the establishment of TK-PPEG, MPA, and farmer group to support the coordination of the process of IMAS and RKM are one of the mechanisms that used for information and knowledge exchange.

Appendix 9: Revisions to fund flow, institutional structure and procurement



Appendix 10: Mission schedule

The mission schedule is subdivided into two sections (i.e. field mission and virtual meetings/discussions/interview) as shown below:

A. Field Mission: 31 May - 4 June 2021

Date	Time	Activity
31 May	05:00	Travel to Pekanbaru, Riau
	10:00 - 18:00	Travel from Pekanbaru to Tembilahan, Indragiri Hilir, Hotel Elite (stay at Hotel)
	19:00 - 21:00	Meeting / Briefing from PPMO, Dinner (Tembilahan)
1 June	07:30 - 14:30	Travel to Rambaian Village, Indragiri Hilir – Field visit to Demplot and Canal Blocking, Discussion with community/group community
	14:30 - 16:30	Back to Tembilahan
	18:00 - 20:00	Travel from Tembilahan to Indragiri Hulu, Stay at Hotel Danau Raja, Indragiri Hulu
2 June	08:00 - 12:00	Travel to Redang Village, Indragiri Hulu – Discussion with community group
	15:30 - 17:30	Travel to Sialang Dua Dahan – Discussion with community group, Field visit, Fish Cultivation and Canal Blocking
	17:30 - 18:00	Travel back to Indragiri Hulu (stay at Hotel), Danau Raja
3 June	07:30 - 14:00	Travel to Kerumutan, Pelalawan – Discussion with community group, Fish Cultivation and Canal Blocking
	14.00 - 20.00	Travel to Pekanbaru
4 June	All day	Travel back to Jakarta

B. Virtual Meetings/Discussions/Interview: 7 - 23 June 2021

Date	Time (GMT+8)	Activity
7 June	13:30 - 16:30	1. Kick off meeting 2. Presentation on progress on Component 1: <i>Capacity building and institutional strengthening for implementation of policies and regulations for sustainable peatland management.</i>
8 June	09:00 – 12:00	Meeting on Procurement 1
	17:00 - 19:00	Internal Meeting 1
9 June	09:00 – 12:00	Meeting on Financial Management 1

	13:30 – 16:30	<ol style="list-style-type: none"> 1. Confirmation on LogFrame and M&E Framework of project and M&E Plan; 2. Discussion on progress of Component 1: <i>Capacity building and institutional strengthening for implementation of policies and regulations for sustainable peatland management</i> 3. Presentation and discussion on Component 2: <i>Monitoring peatland degradation, fires and GHG emissions</i>
10 June	09:00 - 12:00	Meeting on Procurement 2
	13:30 - 16:30	<ol style="list-style-type: none"> 1. Presentation on progress on Component 3: <i>Landscape level sustainable management of peatlands</i> followed by Q&A and discussion 2. Discussion on data collection and impact assessment on project sites (results from Local Peatland Consultant and field mission)
11 June	09:00 - 12:00	Meeting on Procurement 3
	14:00 - 16:00	Internal Meeting 2
14 June	09:00 - 12:00	Meeting on Procurement 4
	13:30 - 16:30	<ol style="list-style-type: none"> 1. Presentation and discussion on M&E and project reporting \ 2. Discussion on KM & project visibility
15 June	09:00 - 12:00	Meeting on Financial Management 2
16 June	10:00 - 12:00	Meeting on Financial Management 3
	13:00 - 14:00	Interview with GEF Operational Focal Point
18 June	14:00 - 18:00	Internal Meeting 3
19 June	19:00 - 20:30	Discussion on Roll-out of activities and remaining budget of SMPEI
21 June	09:00 - 11:00	Pre-wrap up Meeting: Review of Aide Memoire, Scoring and Recommendations
23 June	13:30 - 16:30	Wrap up Meeting

Appendix 11: Key stakeholders met during MTR Mission

Acronyms:

Setditjen PPKL : Secretariat of DG Pollution and Environmental Degradation Control
 SMPEI : Sustainable Management of Peatland Ecosystems in Indonesia
 Dit PKG : Directorate of Peatland Degradation Control
 DLH : District Environment Agency
 GEF OFP : Global Environmental Facility - Operational Focal Point
 PMO : Project Management Office
 PPMO : Provincial Project Management Office
 DPMO : District Project Management Office
 PDU : Project District Unit
 Babinsa : Bintara Pembina Desa (Military)
 Bhabinkamtibmas : Bhayangkara Pembina Kamtibmas (Police)
 Bappeda : Provincial Development Agency

Event : Discussion at Rambaian Village

Venue : Demplot Rambaian Village

Date : 01 June 2021

No	Name	Institution/Company
1	M. Askary	Dit PKG
2	Delvano Akbar	SMPEI PMO
3	Adina Dwirezanti	SMPEI PMO
4	Makruf Siregar	SMPEI PPMO
5	Darwin Sulong	DLH Riau
6	Yudi	DLH Riau
7	Abul Haitam	PDU Indragiri Hilir
8	Susi	DLH Indragiri Hilir
9	Surya	DLH Indragiri Hilir
10	Hasbi	Rambaian Village Authority

Event: Official Visit to the Regent of Indragiri Hilir

Venue: Indragiri Hilir

Date: 1 June 2021

No	Name	Institution/Company
1	HM Wardan	Regent of Indragiri Hilir
2	Mena Choiriah	DLH Indragiri Hilir

3	Haryono Karim	Bappeda Indragiri Hilir
4	M. Askary	Dit PKG
5	Delvano Akbar	SMPEI PMO
6	Adina Dwirezanti	SMPEI PMO
7	Makruf Siregar	SMPEI PPMO
8	Abul Haitam	SMPEI DPMO

Event : Discussion at Redang Village

Venue : Redang Village

Date : 02 June 2021

No	Name	Institution/Company
1	M. Askary	Dit PKG
2	Delvano Akbar	SMPEI PMO
3	Adina Dwirezanti	SMPEI PMO
4	Makruf Siregar	SMPEI PPMO
5	Darwin Sulong	DLH Riau
6	Yudi	DLH Riau
7	Budi	PDU Indragiri Hulu
8	Joni Maryanto	DLH Indragiri Hulu
9	Agus Ramadhan	DLH Indragiri Hulu
10	Wiranto	Babinsa (Military)
11	Arif Sanjaya	Bhabinkamtibmas (Police)
12	Sahrizan	Redang Village Authority

Event : Discussion at Sialang Dua Dahan Village

Venue : Sialang Dua Dahan

Date : 02 June 2021

No	Name	Institution/Company
1	M. Askary	Dit PKG
2	Delvano Akbar	SMPEI PMO

3	Adina Dwirezanti	SMPEI PMO
4	Makruf Siregar	SMPEI PPMO
5	Darwin Sulong	DLH Riau
6	Yudi	DLH Riau
7	Budi	PDU Indragiri Hulu
8	Joni Maryanto	DLH Indragiri Hulu
9	Agus Ramadhan	DLH Indragiri Hulu
10	Nasrun Arsyad	Sialang Dua Dahan Village Authority

Event : Discussion at Kerumutan Village

Venue : Kerumutan

Date : 03 June 2021

No	Name	Institution/Company
1	M. Askary	Dit PKG
2	Delvano Akbar	SMPEI PMO
3	Adina Dwirezanti	SMPEI PMO
4	Makruf Siregar	SMPEI PPMO
5	Darwin Sulong	DLH Riau
6	Yudi	DLH Riau
7	Debby Yulfira	PDU Pelalawan
8	Bob Kurniawan	DLH Pelalawan
9	Isra Parman	DLH Pelalawan
10	Ali Busar	PT Sawit Lembah Subur
11	Dede Noprianto	PT Sawit Lembah Subur
12	Heri Paryono	PT Sawit Lembah Subur
13	Ahlina Hafizah	SMPEI DPMO
14	Abdul Gani	Kerumutan Village Authority
15	Sarman	Kerumutan Village Authority

Event : Virtual Meetings/Discussions/Interview

Venue : Zoom (virtual)

Date : 7 - 21 June 2021

No	Name	Institution/Company
1	SPM Budisusanti	Dit PKG
2	M. Askary	Dit PKG
3	Agus Suwendar	Dit PKG
4	Sugeng Yos Budiarmo	Setditjen PPKL
5	Laksmi Dhewanthi	GEF OFP/DG Climate Change
5	Laura Reviani Bestari	GEF OFP Secretariat
6	Astungkawati	GEF OFP Secretariat
7	Delvano Akbar	SMPEI PMO
8	Adina Dwirezanti	SMPEI PMO
9	Arum Kusumawati	SMPEI PMO
10	Yuli Purnamawati	SMPEI PMO
11	Makruf Siregar	SMPEI PPMO
12	Abul Haitsam	SMPEI DPMO
13	Budhi Anwari	SMPEI DPMO
14	Debby Yulfira	SMPEI DPMO
15	Ginanjari	Setditjen PPKL
16	Tulus Laksono	Setditjen PPKL

Event : Wrap up Meeting

Venue : Zoom (virtual)

Date : 23 June 2021

No	Name	Institution/Company
1	Laura Reviani Bestari	GEF OFP Secretariat
2	SPM Budisusanti	Dit PKG
3	M. Askary	Dit PKG
4	Agus Suwendar	Dit PKG

5	Irfan Cahyadi	Biro KLN, MOEF (international affairs)
6	Erlangga Wahyu	DG PEDC (Pollution and Environment Degradation Control)
7	Delvano Akbar	SMPEI PMO
8	Adina Dwirezanti	SMPEI PMO
9	Yuli Purnamawati	SMPEI PMO
10	Arum Kusumawati	SMPEI PMO
11	Makruf Siregar	SMPEI PPMO
12	Abul Haitam	PDU Indragiri Hilir
13	Budhi Anwari	PDU Indragiri Hulu
14	Debby Yulfira	PDU Pelalawan
15	Murnisyah	DLHK Indragiri Hilir
16	Ginangjar Puji Nugroho	Dit PKG
17	Novita	Setditjen PPKL
18	Sahbuddin Palabbi	Setditjen PPKL

Appendix 12: Status of project personnel

No	Position	Name	PMO/PPMO/PDU	Status
National Level (PMO)				
1	Project Director (<i>held by Director of Peatland Degradation Control</i>)	Ir. Sri Parwati Murwani Budisusanti	PMO	On Board
2	Project Manager	M. Askary	PMO	On Board
3	Procurement Officer (PNS)	Destara Dri Harditya	PMO	On Board
4	Finance Officer (PNS)	Irna Djumiati	PMO	On Board
5	Project Management Coordinator (Consultant)	-	PMO	Vacant
6	Procurement Specialist (Consultant)	-	PMO	Vacant
7	Finance Management Specialist (Consultant)	Yuli Purnamawati	PMO	On Board
8	KM and M&E Specialist	Adina Dwirezanti	PMO	On Board
9	Finance/Administration Officer	Arum Kusumawati	PMO	On Board
10	Project Assistant	Delvano Haryad Akbar	PMO	On Board
11	Gender, Youth and Social Specialist (Consultant)	-	PMO	Vacant
12	Community Empowerment and Livelihood Specialist (Consultant)	-	PMO	Vacant
13	Technical Peatland Specialist (Consultant)	-	PMO	Vacant
14	GIS Specialist (Consultant)	-	PMO	Vacant
Provincial Level (PPMO)				
15	Provincial Project Manager	Darwin Sulong	PPMO	On Board
16	Provincial Financial Management and Administrative Staff	Yudiar	PPMO	On Board
17	Provincial Project Management Coordinator (Consultant)	Makruf Siregar	PPMO	On Board
District Level (PDU) Pelalawan				
18	District Project Manager	Bob Kurniawan	PDU	On Board
19	District Project Management Coordinator	Debby Yulfira	PDU	On Board
20	District Financial Management and Administrative Project Staff (Consultant)	Ahlinah Hafizah	PDU	On Board
Village Level - Pelalawan District				
21	Village Facilitator - Mak Teduh Village	Tos Arianto, S.Pi	PDU	On Board
22	Village Facilitator - Mak Teduh Village	Amat Fauzi, S.P	PDU	On Board
23	Village Facilitator - Pulau Muda Village	Wiwini Prasetya, S.Pd	PDU	On Board
24	Village Facilitator - Pulau Muda Village	Sukandar Ardian Saputra, SP	PDU	On Board
25	Village Facilitator - Teluk Meranti Village	Tengku Eрман, S.P	PDU	On Board
26	Village Facilitator - Teluk Meranti Village	Asraf, S.P	PDU	On Board
27	Village Facilitator - Kerumutan Village	Muh Erwin Adi Saputra, S.P	PDU	On Board
28	Village Facilitator - Kerumutan Village	Mulyadi, S.Pi	PDU	On Board
District Level (PDU) Indragiri Hulu				
29	District Project Manager	Jony Maryanto	PDU	On Board
30	District Project Management Coordinator	Budhi Anwari	PDU	On Board

31	District Financial Management and Administrative Project Staff (Consultant)	Nopriansyah	PDU	On Board
Village Level - Indragiri Hulu District				
32	Village Facilitator - Redang Village	Desy Liana Putri	PDU	On Board
33	Village Facilitator - Redang Village	Nurul Khasanah	PDU	On Board
34	Village Facilitator - Sialang Dua Dahan Village	Irhas	PDU	On Board
35	Village Facilitator - Sialang Dua Dahan Village	Zulkifli	PDU	On Board
36	Village Facilitator - Pulau Jumat Village	Langlangbuana	PDU	On Board
37	Village Facilitator - Pulau Jumat Village	E.Novendra Arizal	PDU	On Board
38	Village Facilitator - Tanjung Sari Village	Jaka Fitra Perdana	PDU	On Board
39	Village Facilitator - Tanjung Sari Village	Apriandi	PDU	On Board
District Level (PDU) Indragiri Hilir				
40	District Project Manager	Murnisyah	PDU	On Board
41	District Project Management Coordinator	Abul Haitam	PDU	On Board
42	District Financial Management and Administrative Project Staff (Consultant)	Tantri Noerima	PDU	On Board
Village Level - Indragiri Hilir District				
43	Village Facilitator - Bayas Jaya Village	Nova Mustika Sari	PDU	On Board
44	Village Facilitator - Bayas Jaya Village	Yudi Heriyanto	PDU	On Board
45	Village Facilitator - Kerta Jaya Village	Sunardianto	PDU	On Board
46	Village Facilitator - Kerta Jaya Village	Susanti	PDU	On Board
47	Village Facilitator - Rambaian Village	Ari Fahriza	PDU	On Board
48	Village Facilitator - Rambaian Village	Hairunisa	PDU	On Board
49	Village Facilitator - Simpang Gaung Village	Edi Pardani	PDU	On Board
50	Village Facilitator - Simpang Gaung Village	Roni Indra	PDU	On Board
51	Village Facilitator - Sungai Rabbit Village	Suharyati	PDU	On Board
52	Village Facilitator - Sungai Rabbit Village	Syahrudin	PDU	On Board
53	Village Facilitator - Teluk Kabung Village	Aspul Bahri	PDU	On Board
54	Village Facilitator - Teluk Kabung Village	Decky Zulkarnain	PDU	On Board

Appendix 13: Financial Management Assessment Questionnaire at MTR (updated) with mitigation measures

Topic		Brief description of issues	Mitigation Measures
1.	Organization and Staffing		
a.	Adequacy of organizational structure to meet functional needs of the project. <i>Describe the composition and roles of the project's FM department. Is there any overlap between roles? Are the conditions adequate for the appropriate performance of FM functions?</i>	<p>The project-specific finance team at central level consists of one government officer (treasurer) and two consultants (one for preparing the financial reporting to IFAD and the other focuses more on administrative aspect in invoice verification. Based on submitted AWPB 2021, there will be one more personnel hired for PMO finance staff position.</p> <p>There is one financial management consultant at province and each district to support a government officer managing the project. Meanwhile, for the community, there is one treasurer from around 10 people in 1 group.</p>	
b.	Availability of clear job descriptions for key project positions, including fiduciary positions. <i>Do terms of references clearly outline each person's role?</i>	<p>Yes, for the previously available position, the description is already provided in the letter of appointment.</p> <p>The TOR for new personnel should be shared prior to the recruitment.</p>	
c.	Adequacy of project FM staff (numbers and skill) matching functional needs of project. <i>Do project FM staff have the necessary educational qualifications and minimum professional experience for their position?</i>	<p>Yes, the project FM staff has an accounting education background and adequate working experience for respective position but limited to government funded project.</p>	
d.	Are project staff subject to annual performance reviews? <i>Is there any follow-up conducted on weaknesses noted, if any?</i>	<p>Yes, the contract for consultant will be renewed annually and such renewal will require performance review from the past year.</p>	
e.	Staff adequately informed about IFAD's anti-corruption policy. <i>Has staff undergone training on the policy and associated measures?</i>	<p>Not yet identified, but they already follow ministry anti-corruption regulation and campaign.</p>	<p>Carry out anti-corruption training</p>
2.	Budgeting		
a.	Timely preparation and approval of AWPB. <i>Who is involved in the AWPB preparation/approval process? Is there adequate checking of the AWPB by finance/accounting department prior to submission to IFAD? Are budgets prepared in sufficient detail to allow for meaningful monitoring of subsequent performance? Is there a parallel government planning process</i>	<p>The AWPB preparation and government budget follows bottom-up approach. The district unit will incorporate the community-related budget based on community action plan (consist of list of activities and budget) to the district budget.</p> <p>The provincial and district governments send the draft AWPB to national to</p>	

Topic		Brief description of issues	Mitigation Measures
	<i>besides the AWPB that the project needs to follow?</i>	<p>be reviewed and consolidated in November/December before the implementation year (t-1). The draft is then inputted to the government budgeting system through further review process by internal audit department of the ministry and Directorate General Budget of Ministry of Finance. The approved budget is used as a basis to the draft AWPB to be sent to IFAD for NOL. Usually, the initial approved budget will only include 60%-80% amount in the submitted AWPB and the revision to add budget allocation to match with 100% with amount in AWPB will be made throughout the year if there is already progress in spending.</p> <p>The AWPB 2021 was submitted to IFAD on March 22, 2021 and the NOL was obtained on April 6, 2021.</p> <p>If there is a proposed revision to AWPB, such proposal will also be sent for review to internal audit unit of the Ministry and Directorate General of Treasury, MOF.</p>	
b.	<p>AWPB is in line with the components in the design document and the expenditure categories of the Schedule 2 of the Financing Agreement.</p> <p><i>Are activities included that were not foreseen originally? Does the budget include physical and financial targets?</i></p>	Yes, the submitted AWPB is in line with component in the design document.	
c.	<p>Financing sources and implementing agencies for each components and categories in the AWPB are identified.</p> <p><i>Is there any significant variations in the funding available from different sources from previous AWPBs?</i></p>	In the AWPB 2021, implementing agencies are identified in the AWPB document. However, for financing sources, only funding from GEF-IFAD grant that is indicated in the AWPB document.	All financing sources should be included in AWPB
d.	<p>Linkage between AWPB and Procurement plan are identified (for cost estimate and activities).</p> <p><i>Check assumptions to support cost estimates.</i></p>	Yes. In general, AWPB are consistent with the procurement plan, together with its cost estimate.	

Topic		Brief description of issues	Mitigation Measures
		Only one item that is a bit inconsistent that is consultant under comp 1.2.6 of which the detail of cost estimate is indicated in procurement plan but not yet in AWPB. There is a potential that the amount in AWPB is less by USD 71k.	
e.	Does the project consistently track budget vs actuals? <i>Is there periodic analysis of planned vs actual expenses? Are significant variations noted and followed-up on?</i>	Yes, the project also prepares excel sheet to measure the actual achievement compared to planning set in AWPB.	This is from the last FMAQ and should be followed up.
3. Funds flow and Disbursements Arrangements			
a.	Designated Account and Disbursement methods. <i>Describe the arrangements.</i>	<p>The project has only opened a bank account at national level in IDR currency. At the central level, most of the expenditures are paid using transfer (e.g: payment to hotel, consultants) but small amount expenditures are paid using petty cash.</p> <p>This grant adapts off-treasury mechanism where payments are not done through MOF's cash treasury office (KPPN), the transfer method from central to province and district level is no longer feasible. The provincial and district management unit could not open a bank account in the name of the project since usually there is no authorization for such purpose.</p> <p>The current arrangement since transfer method is not applicable is by PMO providing cheques to province and district level with the allocation per cheque is based on submitted budget for three-month period. The first cheque will only cover about 50% of the total allocation for three-month. The remaining 50% cheque will be given once the expenditure report is submitted to PMO for review. The province and district unit will disburse cheque into cash and paying the local vendors/suppliers in cash. This practice has weakness in control over cash once the personnel in district converts the cheque of advance for three months. The unspent cash is held</p>	<p>The project should minimize the use of cash in transactions both at central, provincial, and district level. All payment to vendor/suppliers should be made via transfer for transactions over IDR xx million (USD xx). For transactions at province and district, the respective unit should indicate to PMO in their submitted three-month budget which kind of cost item that should be paid directly from PMO to suppliers.</p> <p>The PMO at central level should monitor cash</p>

Topic		Brief description of issues	Mitigation Measures
		<p>by the assigned government officer at district level and payment made by project admin and finance (non-government officer)</p> <p>For disbursement to community level, the fund will be transferred by PMO directly to each community group's bank account with the amount is based on the contract between the government (represent by commitment officer) and community group. The payment to community is divided into 2 tranches: 30%:70%. Community should submit the budget for first tranche disbursement requirement and expenditure report as well as adequate supporting documents for second disbursement.</p>	<p>balance at provincial and district level periodically (e.g: bi-monthly or monthly) and to match the balance with expenditures at that specific period.</p> <p>The community should prepare the bank reconciliation. To track the incoming funds, actual expenditures, and remaining balance.</p>
	<p>i) Disbursement methods used and preparation of WAs.</p> <p><i>Are the disbursement methods used by the project appropriate? How frequently are WAs prepared and submitted to IFAD? How frequently are replenishments occurring? Are direct payments being used? Are the authorized signatories aligned to the delegation of authority provided by the Borrower/Recipient? (check for ICP projects) Does the timeliness of funds disbursement affect the project implementation?</i></p>	<p>For DA replenishment, the project is adapting imprest method. Up to April 2021, 6 WAs, starting from project effectiveness, have been submitted to IFAD for replenishment. The WA #7 has been submitted but not yet finish for review since there is a difference between outstanding advance and total advance has been accounted for in the form DA reconciliation.</p> <p>The current disbursement method using advance through designated account is already suitable with the nature of the project. However, the control over use of cash is still concerning as several payments are still paid in cash, especially in provincial and district level.</p>	
	<p>ii) Adequacy of the authorized allocation.</p> <p><i>Is the AA adequate? Are there liquidity constraints?</i></p>	<p>The AA for the project is USD 1 million. Considering the total allocation amount of this project, this amount is adequate.</p>	

Topic		Brief description of issues	Mitigation Measures
	iii) Adequacy of SOEs supporting documentation. <i>Is the supporting documentation provided sufficient and according with the requirements for the specified category, SoE threshold and disbursement method?</i>	<p>In general, the expenditures are supported with sufficient documentation (payment receipt, contract, activity report, and pictures of the activity). For payment of video production, the minutes of acceptance from the project upon the work is not available and detail of the work performed such as script. For transactions at community level, most of expenditure are adequate except for community procurement document and description of payment in several transactions (e.g: payment for transport cost totaling IDR 9 million/EUR 625 is without the detail route, time of travel, personnel doing travelling).</p>	<p>The detail of supporting documents for transactions at every level should be explained in PIM.</p>
	iv) Designated Account and Project Accounts monitoring and reconciliation. <i>Does the project prepare bank reconciliations? Are the Project Accounts reconciled with the Designated Account? Is the segregation of duties appropriate? **In the final year of implementation it is required to prepare a recovery plan.</i>	<p>The project does not have any project account and only have one account (DA) at the central level in IDR currency. DA reconciliation is prepared by the project as a part of WA submission to IFAD.</p> <p>Bank reconciliation is made by treasure officer with support from the finance consultant, controlled by budget holder and commitment officer. The recent DA reconciliation made by the project shows some unreconciled amount. This is because the project did not record exchange rate in FIFO method when reporting the transactions.</p>	<p>The project should revise the DA reconciliation statement by capturing the transactions in USD currency, using the FIFO method.</p> <p>Refreshment training on financial reporting, mainly on the area of DA reconciliation statement should be delivered to the project after this supervision mission.</p>
	v) Counterpart funds (government, beneficiaries, etc.) <i>What is the counterpart funding covering? Is counterpart funding provided on a timely basis? How is the project recording and tracing the counterpart funds?</i>	<p>The counterpart funds recorded coming from central government, local government, and private sector totalling USD 20,084,000 until FY2020. The CP funds cover enhancement of water management in plantations on peat, assessment and mapping of peatlands, as well as demarcate peatland hydrological units throughout Indonesia, development and implementation of regulations, support for local communities for peatland management,</p>	<p>The project should appoint 1 specific personnel to identify the list of financing sources and allocation per each financing source and to trace back the</p>

Topic		Brief description of issues	Mitigation Measures
		and capacity building. However, verification of the total contribution should be conducted. There is a difficulty to obtain the detail of contribution list from each financing source as well as the progress from 2016 up to 2020.	contribution from year 2017 to 2020.
b.	Efficiency of the funding channels. Timeliness and traceability of funds. <i>Is it possible to identify the flow of funds until the final recipient? **For credit lines, describe the flow of funds and the arrangements.</i>	Yes, it is possible to trace the funds until the final recipient. However, for expenses at the provincial and district level, the risk is higher since most of transactions are paid in cash and except for hotel, most of expenses (meals cost, per diem and transport cost) are supported with only payment slip, without contract and other supporting documents.	For significant amount expenditures, the payment should be done from central with the instruction of payment coming from provincial and district level and that the supporting documents have been reviewed before payment is made.
c.	Budget execution compared with the AWPBs. <i>Describe any constrain in the AWPB approval process.</i>	No significant constraint in the AWPB approval process. The difficulty lies on the data and information collection from district and provincial level that usually takes longer than the plan. If the documents are complete and justifiable during the review, the approval process from central level is relatively easier.	The project should start the preparation of next year AWPB as early as possible (e.g: June/July), to provide adequate time of data collection and verification. specifically at the district and provincial level.
4. Internal Controls			
a.	Policies, Procedures, and Manuals. <i>Are there policies or procedures that outline the decision processes? Are they clear? Is there a separate Financial Manual (or equivalent)? How often are policies, procedures, and manuals reviewed/updated? What is the process of approval when modifications are required?</i>	Financial Management section is included in PIM and no update has been made. The manual has included the financial	The manual should be updated based on current condition on funds flow and disbursement arrangement

Topic	Brief description of issues	Mitigation Measures
<p>b. Segregation of duties. <i>Are the following functional responsibilities performed by different units or persons?</i></p> <ul style="list-style-type: none"> i) Preparation of a transaction; ii) Review of a transaction; iii) Authorization of a transaction; iv) Custody of assets; and v) Reconciliation of accounts 	<p>Payment request is prepared by finance admin consultant (Ibu Arum), before handed to financial consultant (Ibu Yuli) for review. From finance consultant, the request is sent to outgoing treasurer (Ibu Irna) for further review and then to input payment application at the Bank or prepare cheque. The final review is made by commitment officer staff/project manager assistant (Pak Agus) before cheque or payment application at BNI direct is sent for approval to Project Manager.</p> <p>Asset is under custody of the asset unit of the ministry. The finance consultant will obtain the list of fixed asset data from the respective unit and identify assets that are specific under SMPEI for the reporting purpose.</p> <p>Reconciliation of account is conducted internally by the project, between the finance consultants, on a monthly basis.</p>	
<p>c. Effectiveness and efficiency of internal controls over expenditures (full cycle from commitment, receipt of good and services, approval of payments, payment, classification, etc.) <i>Is there documentary evidence to confirm the delivery and acceptance of goods, works, and/or services? Can it be verified that they were delivered to the end beneficiaries? Perform a sample check.</i> <i>Are payments to suppliers and consultants done on a timely basis? If there are delays, identify how long delays are and whether they significantly impact project execution. Is the timing of the payment identified in contracts with third parties?</i> <i>Is the filing/archive and maintenance of records appropriate?</i></p>	<p>The project prepares their own template of payment voucher, minutes of payment verification, and authorization sheet. The contract, invoice, and other supporting documents should be included before the payment request can be further processed. The normal process from invoice submission to payment usually takes 1-2 weeks.</p>	
<p>d. Controls over cash. <i>What are the arrangements of cash management in the project? Who has the control over cash, documents and records? Is this function sufficiently independent?</i></p>	<p>The project has cash book and bank book to record outgoing cheques for operational expenses. The cheques are kept at the safe at central level before they are assigned to specific person and district for disbursement.</p>	

Topic		Brief description of issues	Mitigation Measures
	<p><i>Who has custody of the petty cash box?</i></p> <p><i>Is the petty cash subject to monthly reconciliation as well as spot checks?</i></p>	<p>The safe is managed by treasurer.</p> <p>Payment in cash usually will be for payment of per diem and transport cost. If there is an event ending on Friday, the participants will be paid in cash by Wednesday the week after, right after the project disbursing its cheque.</p>	
e.	<p>Adequacy of controls and authorization process for use of funds (payments, transfers, Cash/Bank balance management) / and other operational accounts.</p> <p><i>For decentralized activities, who is responsible for overall Financial Management? Is there adequate segregation of duties?</i></p>	The FM personnel at the district	
f.	<p>Adequacy of contract management and filing (use of contracts register and monitoring form).</p> <p><i>Is the contract register updated on a regular basis? Who is responsible for the process?</i></p>	<p>Yes, usually it is managed and recorded properly.</p> <p>Personnel responsible managing contract of hotels: Arum</p> <p>Personnel responsible managing contract of suppliers and consultant: Delvano</p>	
g.	<p>Adequacy of controls on project assets management.</p> <p>i) <i>Vehicle and other assets management (are assets property tagged, is a physical inventory count done on a regular basis?)</i></p> <p>ii) <i>Fuel management (do drivers maintain a log book?)</i></p> <p>iii) <i>Travel authorisations (incl. DSA paid to staff)</i></p> <p>iv) <i>Recordkeeping for fixed assets and inventory (how often is the fixed asset register reviewed and updated?)</i></p> <p>v) <i>What policies and procedures (insurance) are in place to adequately safeguard or protect assets from fraud, waste, and abuse?</i></p>	There is no vehicle purchased under the project. The fixed assets list is maintained and coordinate with fixed asset unit within the ministry	
h.	<p>Workshops:</p> <p>i) <i>Availability of list of participants (daily list of participants for multiple-day workshops)</i></p> <p>ii) <i>If a DSA/Per diem was paid to participants. What applicable rates the projec followed for the payments?</i></p>	<p>For hotel payment, usually the documents will be verified before payments are made.</p> <p>Per diem and transport will refer to ministry of finance standard that is</p>	

Topic		Brief description of issues	Mitigation Measures
	iii) Receipts/invoices for workshop expenditures. iv) How are workshop venues paid? Is there a pre-existing policy of the implementing agency on cash management for workshops?	usually updated every year. In 2020, there is no workshop activity at the district, only 6 workshops at national level. The maximum value of contract for hotel last year is IDR 60 million.	
i.	Eligibility of advances from project funds and timely justification. <i>On what basis are funds transferred to other executing agencies (MoU, Contracts, etc.)? Are the modalities for different types of partners or suppliers provided for in the PIM?</i>		
j.	Compliance with Financial Management covenants in the Financing Agreements and Letter to the Borrower /Recipient. <i>Identify whether any of the covenants have not been met.</i>		
k.	Eligibility of expenditures with respect to Financing Agreement. <i>Have there been cases of ineligible expenses noted in previous supervision missions or external audit reports? If yes, what were the reasons for ineligibility? Perform a check on at least 30% of the expenses claimed since the previous supervision mission to verify eligibility in accordance with the Financing Agreement, Letter to the Borrower, and other IFAD requirements.</i>		
l.	Existence of Internal Audit arrangements. <i>Is there an internal audit department in the implementing entity? Will the project be covered by an internal audit? If not, is internal audit deemed necessary to ensure appropriate internal controls function effectively? What is the role of the internal audit?</i>	The internal audit unit (Inspectorate General) of the ministry only review the budget documents and its revision. The project is not included in the ministry' internal audit work plan.	
m.	Adequacy of internal audit arrangements and quality of report. <i>Is internal audit independent? What are the qualifications of IA staff? What is the scope of the internal audit?</i>		
n.	Assessment of matters raised in audit reports. <i>Has the internal auditor reported any issue that could lead to a</i>		

Topic		Brief description of issues	Mitigation Measures
	<i>potential ineligible expenditure? Has the project taken actions to address the audit recommendations?</i>		
5. Accounting and Financial Reporting			
a.	Basis of accounting applied by the project (cash, accrual), and whether the accounting standards are in line with IFAD's requirements (e.g. IFRS/IPSAS/IPSAS cash).	The project apply cash basis on preparation of its financial statement	
b.	Adequacy and reliability of accounting system. <i>Is double entry accounting used? Specify the accounting software used. Is budget data entered and monitor through the accounting system? Can the accounting system produce regular automated financial reports? Does the project have adequate policies and procedures and manuals in place to guide activities and ensure staff accountability? Is the accounting policies and procedures updated regularly and for the project activities? Are the policies and procedures communicated with the appropriate personnel?</i>	GOI has computerized financial system/applications for transaction process. However, this Government accounting system has not included information on loan disbursement categories (to be added manually) which is necessary for preparation of WA. PMO staff track project expenses in parallel with Excel, assigning the relevant expense categories and components.	
c.	Fixed assets register maintained and reconciled (sample and physical check).	Government asset management is following the government system and regulation. PP 27/2014 Fixed asset register is maintained and reconciled. No physical check conducted in this remote mission	
d.	Adequate documentation and controls for information systems, including documented accounting procedures, backup/filing of financial records, integration of all sub-systems. <i>Who is responsible for recordkeeping?</i>	The documentation for expenditures is relatively adequate and was provided in timely manner after the request. The often missing document is related to community procurement and minutes of acceptance for the work performed for video production cost.	
e.	Adequacy of chart of accounts for project accounting purposes. <i>Refer to the most recent audit review in the Audit Report Tracking System (ARTS) for the most recent assessment of financial</i>		

Topic		Brief description of issues	Mitigation Measures
	<i>reporting and assigned performance rating.</i>		
f.	Timeliness of recording transactions, regularity of performance and approval of reconciliations, controls on erroneous recordings. <i>Identify control measures in place.</i>		
g.	Appropriate/ adequate accounting and reporting of counterpart funds contributions (incl. tax and tax exemptions) as well as beneficiary contributions. <i>Does the project use the same accounting system to record co-financing?</i>	No report provided yet detailing financing sources and contribution made by each financing source throughout the lifetime of the project.	
h.	Completeness, accuracy, usefulness, and timeliness of financial reports. <i>Are financial reports provided in accordance with International standards? Are financial reports prepared following the IFAD Handbook for Financial Reporting and Auditing?</i>	No unaudited financial statements provided yet to IFAD. The project mentions not knowing whether the statements that they have prepared so far are correct or wrong.	Training on financial reporting should be conducted
i.	Preparation of reports showing actual vs budget income/expenditure and AWPB execution rate.	For mission purpose, the project able to provide report showing actual vs budget	
j.	Interim FM reports – unaudited annual Financial Statements <i>Does the project prepare Interim Financial Statements according to frequency outlined in the Letter to the borrower/recipient? Is the project submitting unaudited annual Financial Statements within 4 months the end of the FY?</i>	Yes, interim financial report for this project is semi annually. The project should produce its unaudited FS of 2020 within 4 months after end of 2020. However, the report has not been submitted yet as of June 2021.	
k.	Reasonable alignment between disbursement rate of recurrent costs versus investment costs. <i>For consistency, assess the information reported in the Financial Statements against the information reported in the progress reports</i>		

Topic		Brief description of issues	Mitigation Measures
6.	External Audit (Refer to Audit Report Tracking System (ARTS – Quality & Timeliness of Audit Section)		
a.	Performance of first audit. <i>If the first audit has not yet been done, comment on the status of procurement of the auditor and comment on their ToR.</i>	The audit has been performed since 2018 with the latest audit report (2019) has been submitted to IFAD on time with a clean opinion.	
b.	If the first audit has already been done and assessed in the Audit Report Tracking System (ARTS): <i>(i) refer to the latest supervision mission report which should make reference to the most recent audit review (as recorded in ARTS), which should already cover timeliness and audit standards;</i> <i>(ii) comment on the status of the procurement of the auditor and the adequacy of their ToR for the next cycle; and</i> <i>(iii) comment on the implementation status of the ARTS recommendations, highlighting what has been resolved and what is still outstanding.</i>	<p>The project audit for FY2020 is ongoing and the audit report will be submitted to IFAD at the latest by end of June 2021.</p> <p>The issues highlighted in the audit report on the procurement aspect (procured prior obtaining NOL) has been addressed. For the next audit report, the team will noted on the availability on required financial statements that should be audited.</p>	

Appendix 14: Project Fiduciary Risk Assessment at implementation including recommendations (updated)

Summary of FM risk at Supervision

Country: Indonesia	Performed by:	
Project Name: GEF5-SMPEI	Mission Ref.: <i>Mid-Term Review</i>	Date of review: 3-14 June 2021

Summary

Pillars	Brief description of current issues	Inherent (Current) Risk H/S/M/L	Planned Mitigation Measures	(Future) Residual Risk H/S/M/L
1. Organization and Staffing <i>Risk that the implementing entity does not have the necessary number of adequately qualified and experienced financial management staff in the national and regional centers, resulting in limited ability to meet the functional needs of the project</i>	<i>The project-specific finance team at central level consists of one government officer (treasurer) and two consultants. Based on submitted AWPB 2021, there will be one more personnel hired for PMO finance staff position (finance and admin). The team has limited experience working on the donor-funded project thus FM training, mainly on financial reporting and counterpart contribution, is significantly needed.</i>	M	<i>The FM training to the project FM team should be delivered once the mission ends especially on the aspect of financial reporting and counterpart financing record.</i>	L
2. Budgeting <i>Risk that budgeted expenditures are not realistic, not prepared or revised on a timely basis, and not executed in an orderly and predictable manner, resulting in funds not being available when needed, ineligible costs and reallocation of project funds and slow implementation progress</i>	<i>The AWPB 2021 submission is delayed by 3 months and the current actual expenditure is still very low (below 10%). Communities have not yet signed contracts with the Ministry, thus delaying the implementation of activities at village level. The project proposed a reallocation between categories to optimally utilize the remaining balance until closing date and IFAD will process it once the agreement has been made.</i>	S	<ul style="list-style-type: none"> - To expedite procurement of key activities and implementation at community level - To accelerate the agreement on reallocation proposal - To start the preparation of AWPB 2022 considering the implementation progress of 2021 activities, in parallel with the reallocation plan between categories - The contracts between communities and Ministry for the year 2021 should be signed without further delay. 	M
3. Funds flow & Disbursement Arrangements <i>Risk that funds from multiple financiers disburse with delay due to cumbersome treasury arrangements or inability of project cost centers and service providers to justify prior advances, resulting in delayed</i>	<i>The WA for replenishment of the DA has been submitted but DA reconciliation statement needs a significant work for the improvement. The project has not consistently used the FIFO method for the preparation of WAs, thus resulting in an unreconciled balance. The project open one DA (IDR) at national level and while community in all 14 villages open bank account to receive fund from</i>	M	<ul style="list-style-type: none"> - The project to update PIM based on current flow of funds and related policy regarding fund disbursement to province, district, and community level and share it with district and provincial personnel. - The project should consistently use the FIFO method when claiming the WAs. 	M

implementation	national level. The project has modified some approaches to transfer of funds to province and district level. However, the current mechanism has not been reflected yet in PIM.			
4. Internal Controls <i>Risk that appropriate controls over Project funds are not in place, leading to the inefficient or inappropriate use of project resources.</i>	<p>The expenditures are adequately supported except for community procurement aspect and minutes of acceptance of the work performed for video production. The control over flow of funds ensures that cash balances at provinces and districts are maintained relatively low; however, the review revealed that the system can be further improved and the use of cash reduced as some payments to vendors (especially hotels) could be executed directly from PMO. Control over cash at district and provincial level for 3-month budget period is also one of the issue and needs to be monitored thoroughly.</p>	M	<ul style="list-style-type: none"> - The project to apply stricter monitoring over cash balance and fund transfer mechanism at the provincial and district level and update it in the PIM. - The project should detail a list of supporting documents needed for several activities in PIM and improve community procurement aspect during implementation at the village level. - Eligible expenditures are to be paid directly to the service providers/ suppliers when Advance Withdrawal arrangement is applied, as stated in the FA. - The fund requisition from provinces and districts should always disclose the items (goods and services) that can be reasonably paid directly from PMO. 	L
5. Accounting and Financial Reporting <i>Risk that accounting systems – including policies and standards – are not integrated and reliable, leading to inaccuracies in financial records and that reasonable records are not prepared, issued and stored, leading to lack of informed decision-making.</i>	<p>The review of project's accounts revealed an unreconciled balance (>USD 100,000) which is due to the incorrect use of the First-In-First-Out (FIFO) method for the computation of exchange rates, resulting in an over-estimation of bank balance and WA #7 amount. The Mission also noted an incorrect entry of an old WA for justification of expenditures which results in an under-reporting of the Initial Advance. As a result, the correct initial advance received by the project is USD 1,040,579 instead of USD 936,655.</p> <p>The project has not submitted the unaudited financial statement of the FY2020; while the Interim Financial Reports (IFRs) for the period ending December 2020 were submitted during the SM. The project has not yet provided a report/record detailing government contribution and other financiers by source of financing and year.</p>	S	<ul style="list-style-type: none"> - The project to prepare bi-annually Interim Financial Reports as stated in the LTR. The unaudited FSs should be submitted within 4 months from the end of the FY. - The project should submit unaudited financial statement in timely manner. - The project should provide a report detailing contributions from each financing source and each year since the project commenced. - The project should update the report periodically and ensure contribution verification mechanisms and procedures are in place. 	M
6. External Audit <i>Risk that independent and competent oversight of the Project financial statements is not in place or performed timely</i>	<p>The audit FY2020 may be submitted with delay, as the work of auditors has been affected by the restriction of movements in the project area due to the COVID pandemic.</p>	M	<ul style="list-style-type: none"> - The project to liaise with BPKP and MoEF to ensure that the audit is timely submitted; or the Recipient should request an extension of the deadline to IFAD. 	L

<i>leading to possible misrepresentation of the financial results and/or suspension or other remedies due to compliance breaches.</i>	<i>The audit reports of previous years did not include the Designated Account Reconciliation statement, WA statement and Statement of Expenditures. The project should ensure that all statements are included in the Financial Statement and duly reviewed by BPKP, as per IFAD requirements.</i>		<i>- FM team to include all statements in the FS report and coordinate with auditor and ensure that records are always reconciled with IFAD.</i>	
---	--	--	--	--

Assessment of overall FM risk

Overall, the inherent risk is rated as being “moderate”. The project followed-up on several issues raised in the last SM, especially under the flow of funds mechanisms and internal controls. Bank accounts have been opened at community level; while provinces and districts receive activities’ tagged advances in cheques. The control over the flow of funds ensures that cash balances at provinces and districts are maintained relatively low; however, the review revealed that the system can be further improved and the use of cash further reduced as some payments to vendors (especially hotels) could be executed directly from PMO. Accounting and financial reporting are the areas of major weakness and in need of improvement, particularly in control over cash balance and the quality of project financial reporting (including the counterpart financing). Budgeting is also to be improved, with regards to the timely submission of the AWPBs, alignment between estimates and actual expenditures; furthermore, communities have not yet signed contracts with the Ministry, thus delaying the implementation of activities at village level. The project’s residual risk is considered to be “low” if the project timely implements the recommendations raised at MTR.

Appendix 15: GEF Tracking Tools – Land Degradation, Climate Change and Sustainable Forestry Management (separate files)

Appendix 16: Findings on procurement and Recommendations on enhancement to procurement system and implementation (in a separate file)

Appendix 17: Findings from Impact Survey and Field mission

A. Social Impact Survey: 2 - 8 June 2021

This survey was carried out via google online form in 2 - 8 June 2021, total 152 Respondents from 12 villages, missing Teluk Kabung and Simpang Gaung due to network

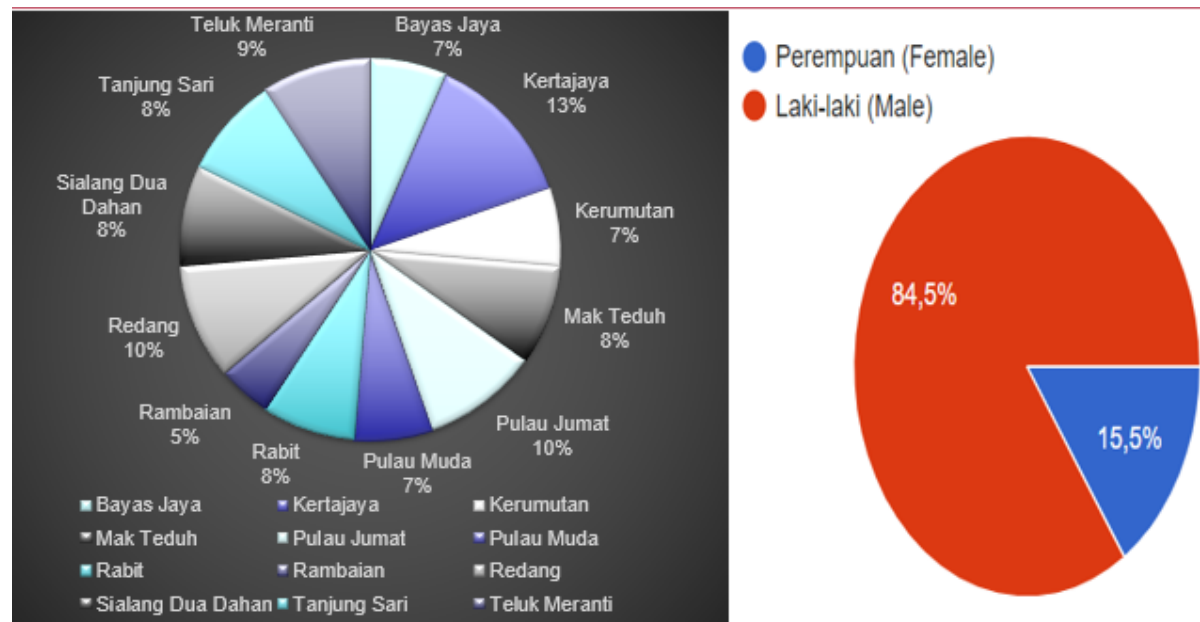


Figure 1. Graph Describing Percentage TK-PPEG from 12 Villages and Gender Percentage

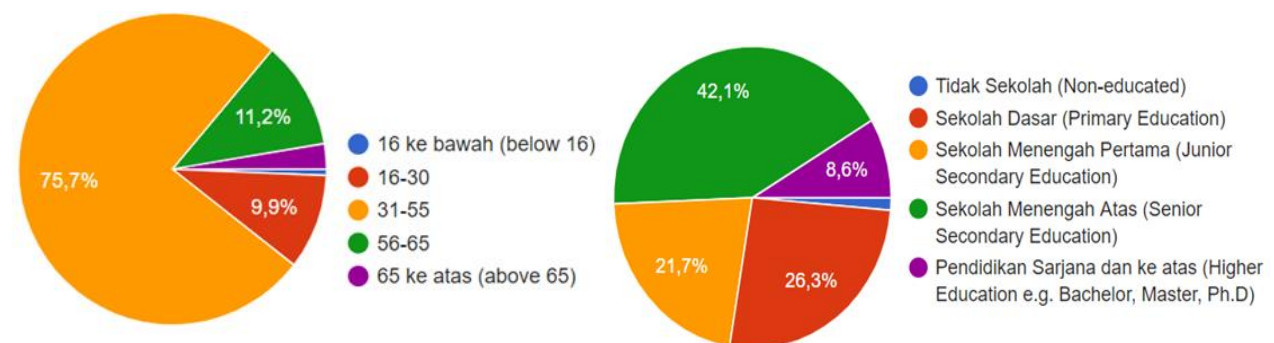


Figure 2. Graph Describing Age Percentage and Education

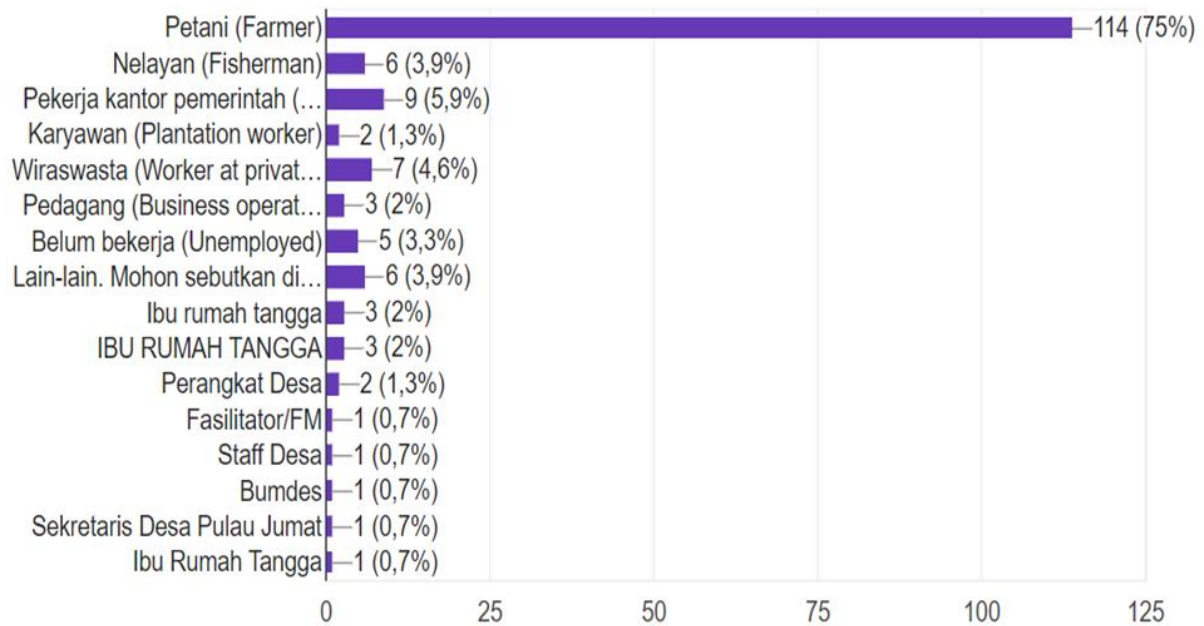


Figure 3. Graph Describing Occupation Percentage

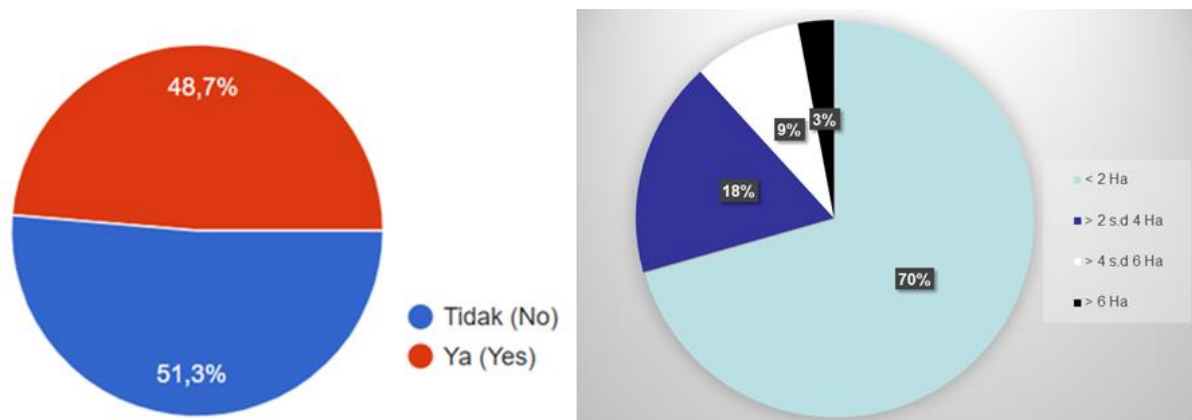


Figure 4. Graph Describing Land Owner (Left) and land ownership Area (Right)

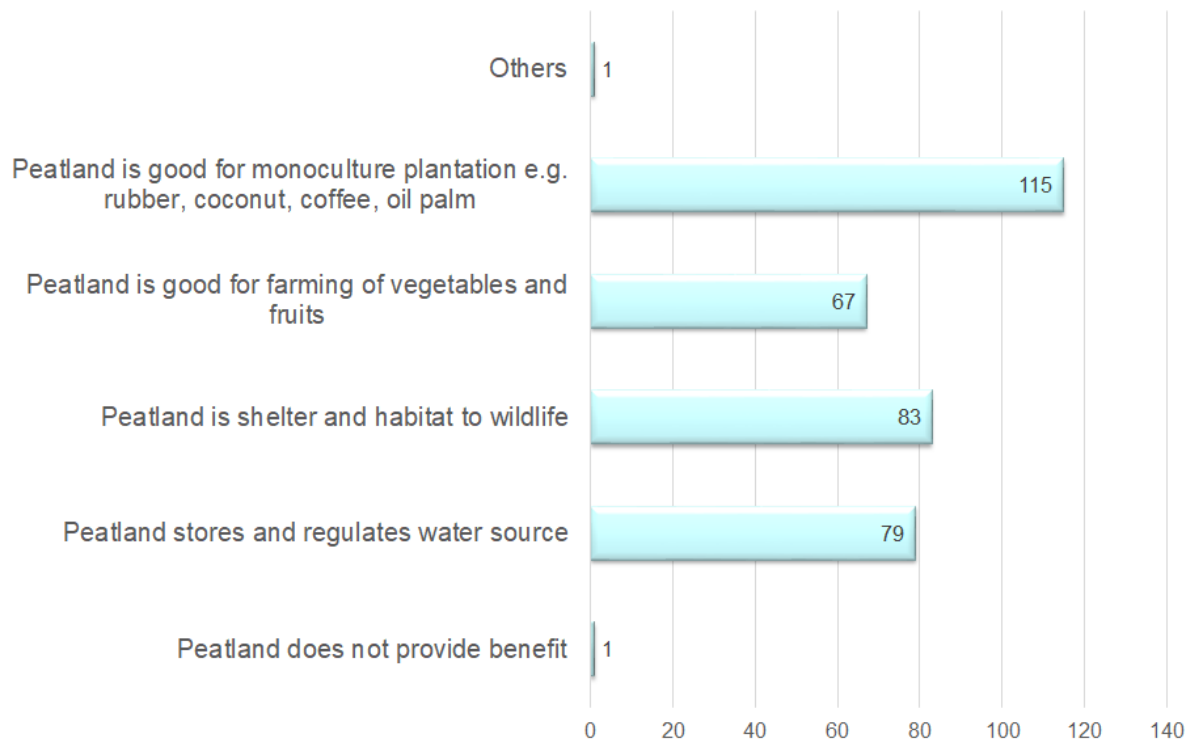


Figure 5. Graph describing Benefit of Peatland by Respondent



Figure 6. Graph Describing Peatland Conditions in Villages by Respondent



Figure 7. Graph Describing Peatland Degradation Factor by Respondent

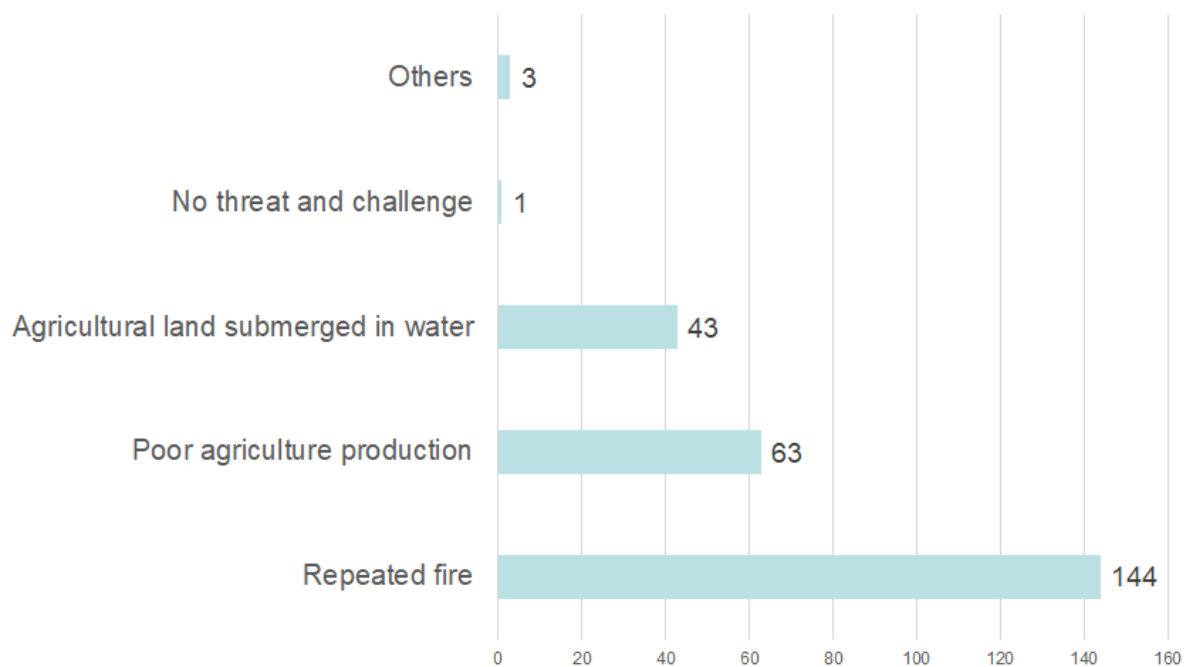


Figure 8. Graph Describing Challenges if Peatland are and Managed Properly by Respondent

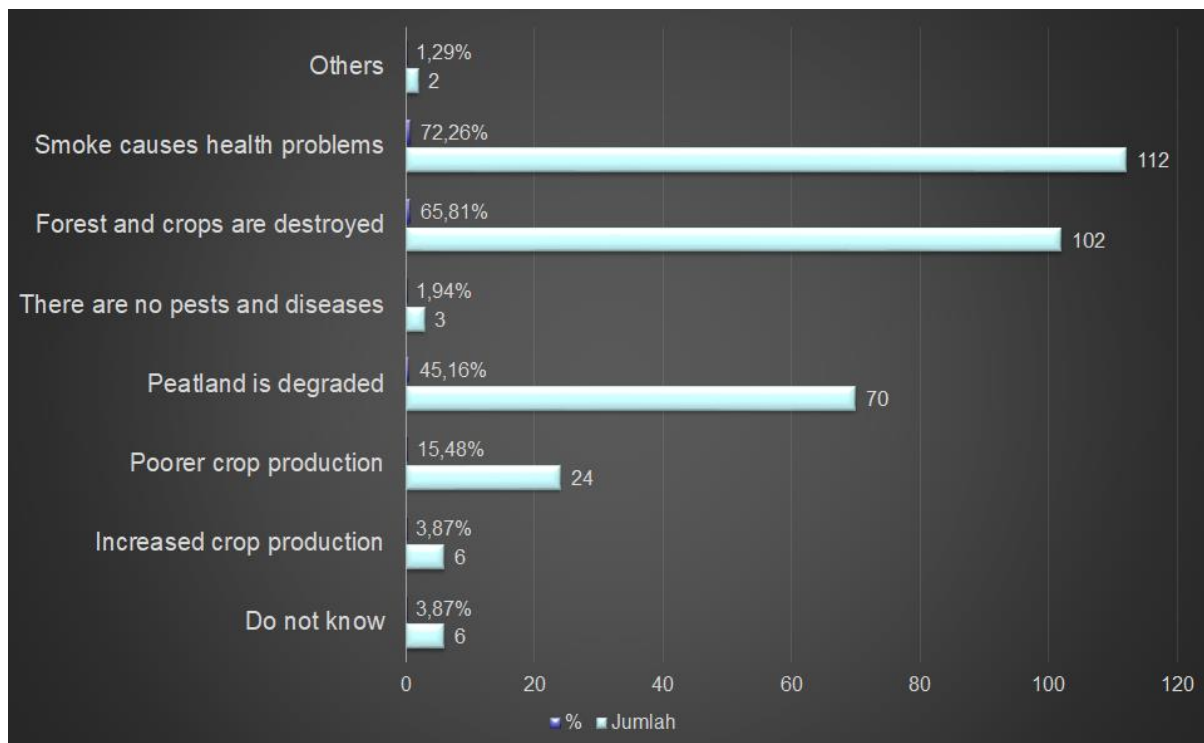


Figure 9. Graph Describing Impact of Land Clearance Using fire

● Tidak (No)
 ● Ya (Yes)

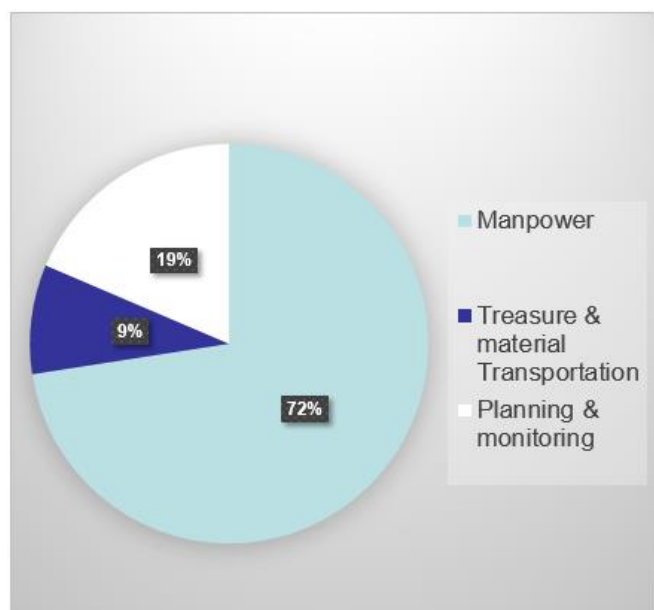
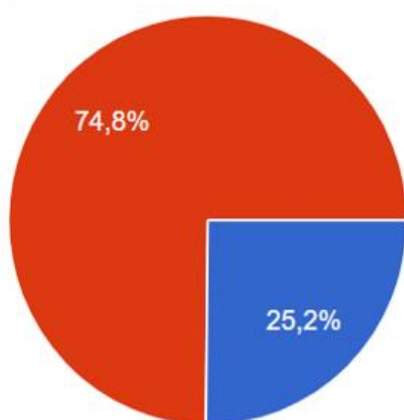


Figure 10. Graph Describing TK-PPEG Involved in Construction of Canal Blocking (Left) and Role of TK-PPEG in Construction of Canal Blocking

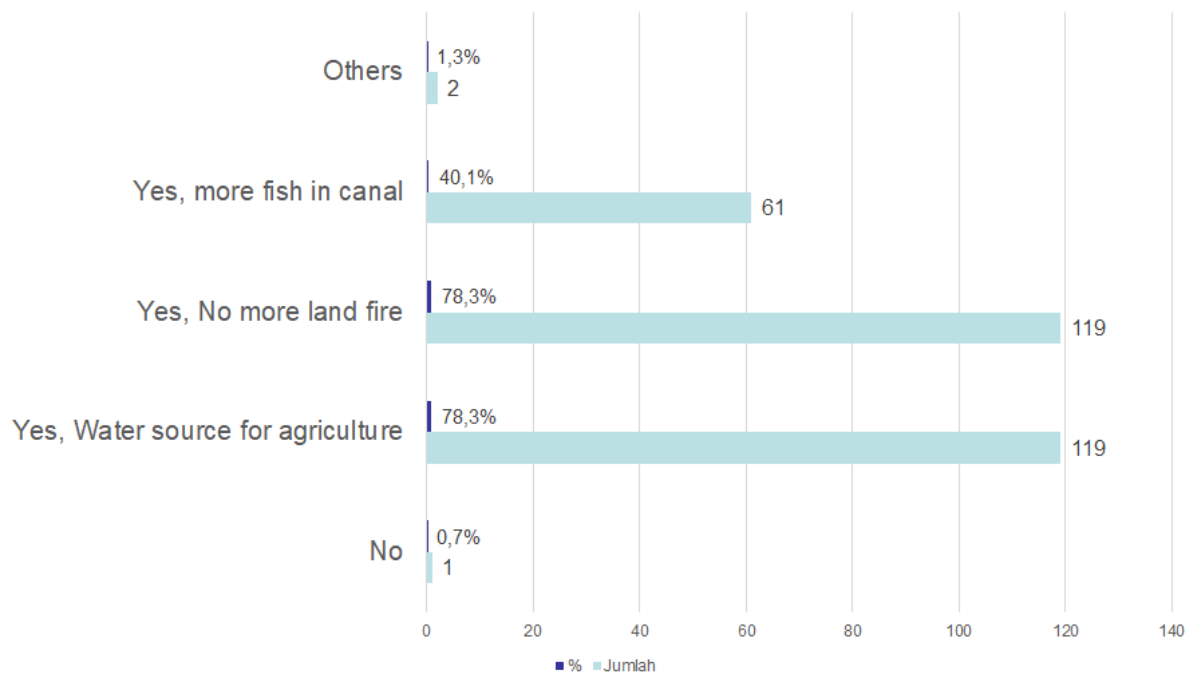


Figure 11. Graph Describing Benefit From Canal Blocking

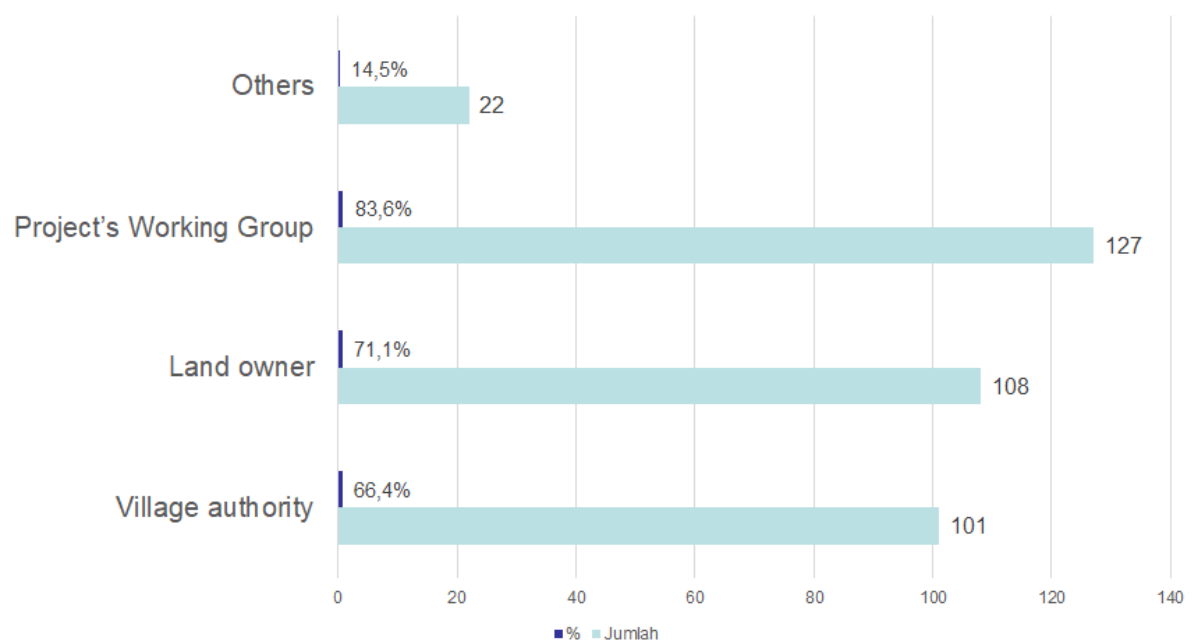


Figure 12. Graph Describing Who Should Monitor Canal Blocks After Completion of Project

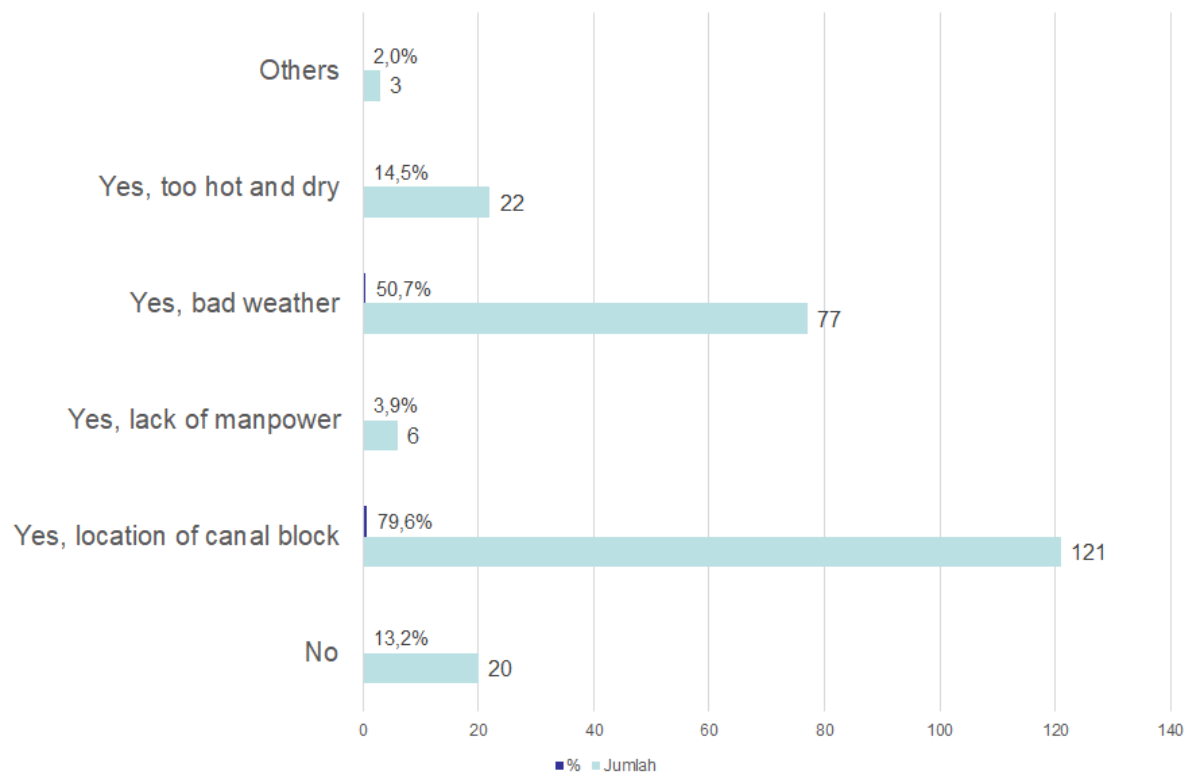


Figure 13. Graph Describing Challenges in the Development of Canal Blocks

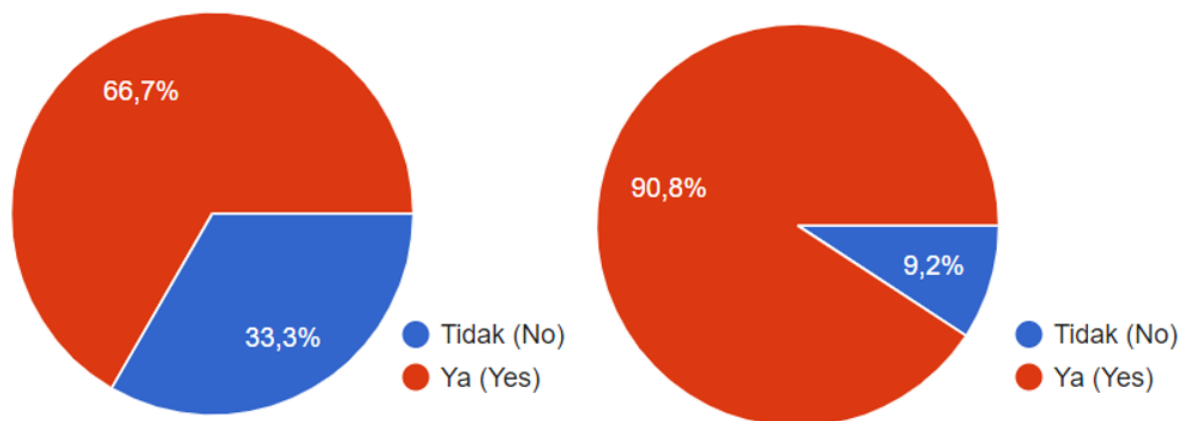


Figure 14. Graph Describing Economic Benefit from Developing the Demonstration Plot (Left) and TK-PPEG Involved in Developing and Operating the Demonstration Plot (Right)

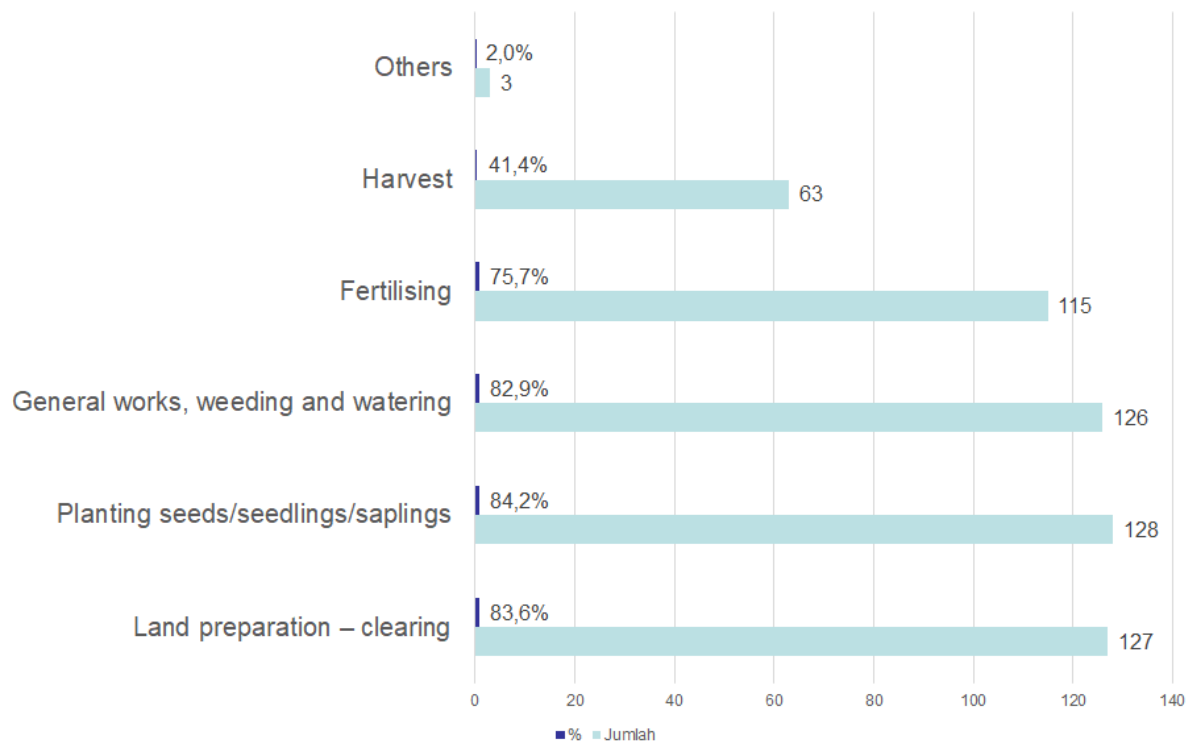


Figure 15. Graph Describing Type of Activity TK-PPEG Involved in Demonstration Plot

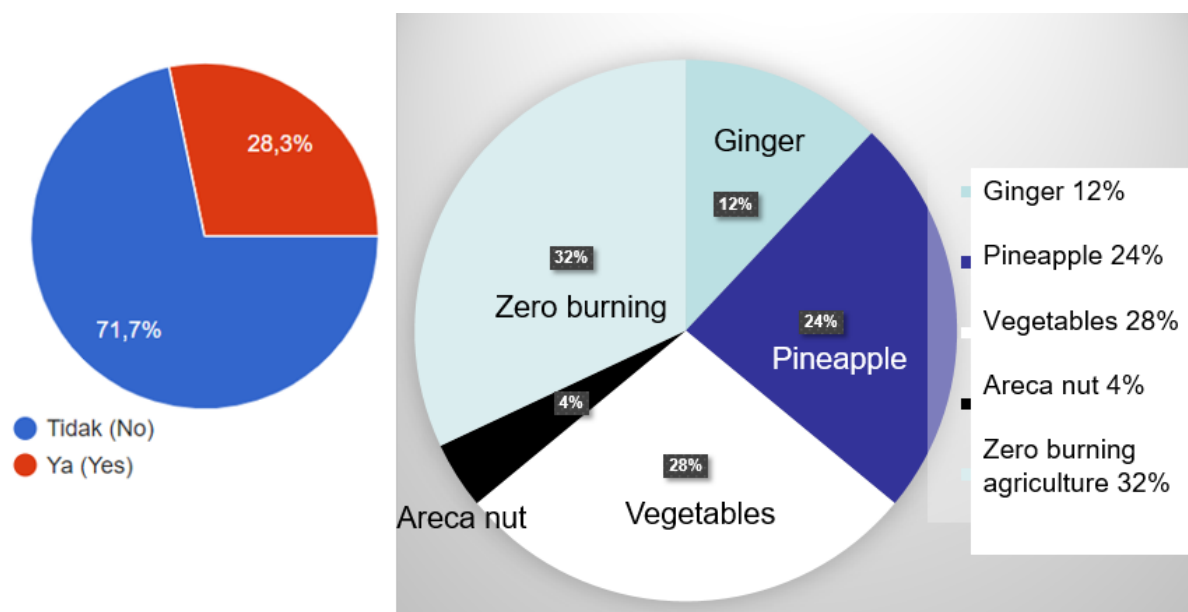


Figure 16. Graph describing TK-PPEG Replicate Methods and Practises from Demonstration Plot (Left) and 25 Respondent Replicated in Their Land (Right)

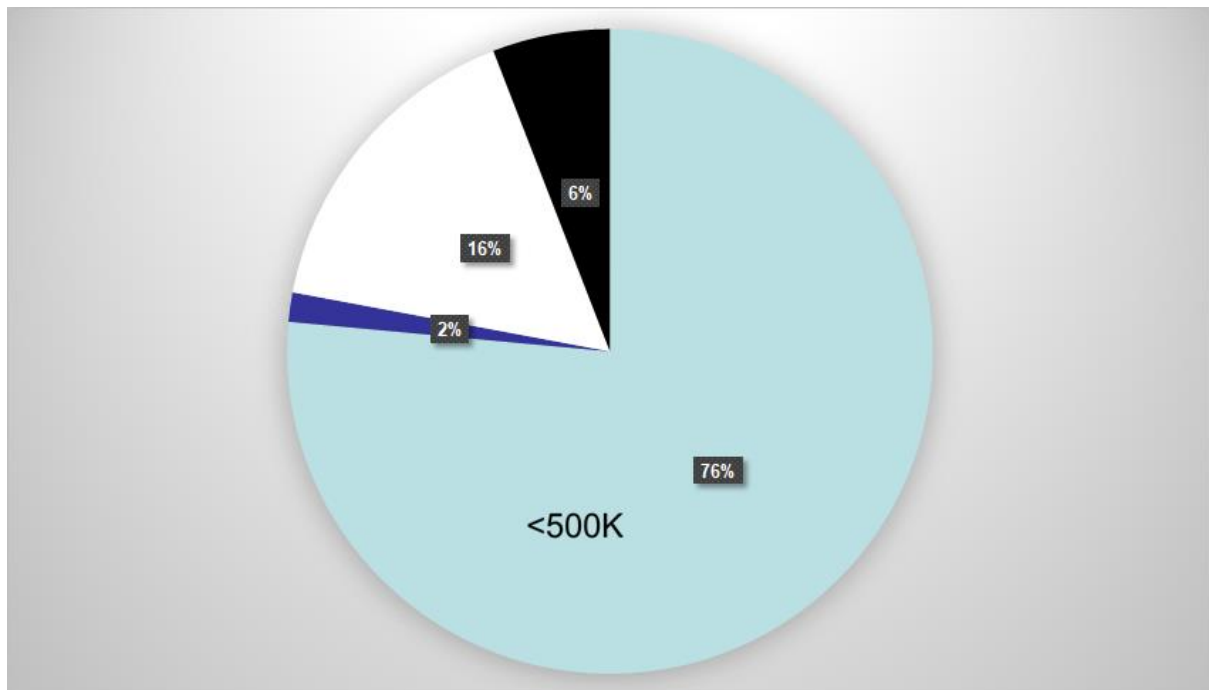


Figure 17. Graph describing additional monthly income (Rupiah) earned from the demonstration plot (68 respondents)

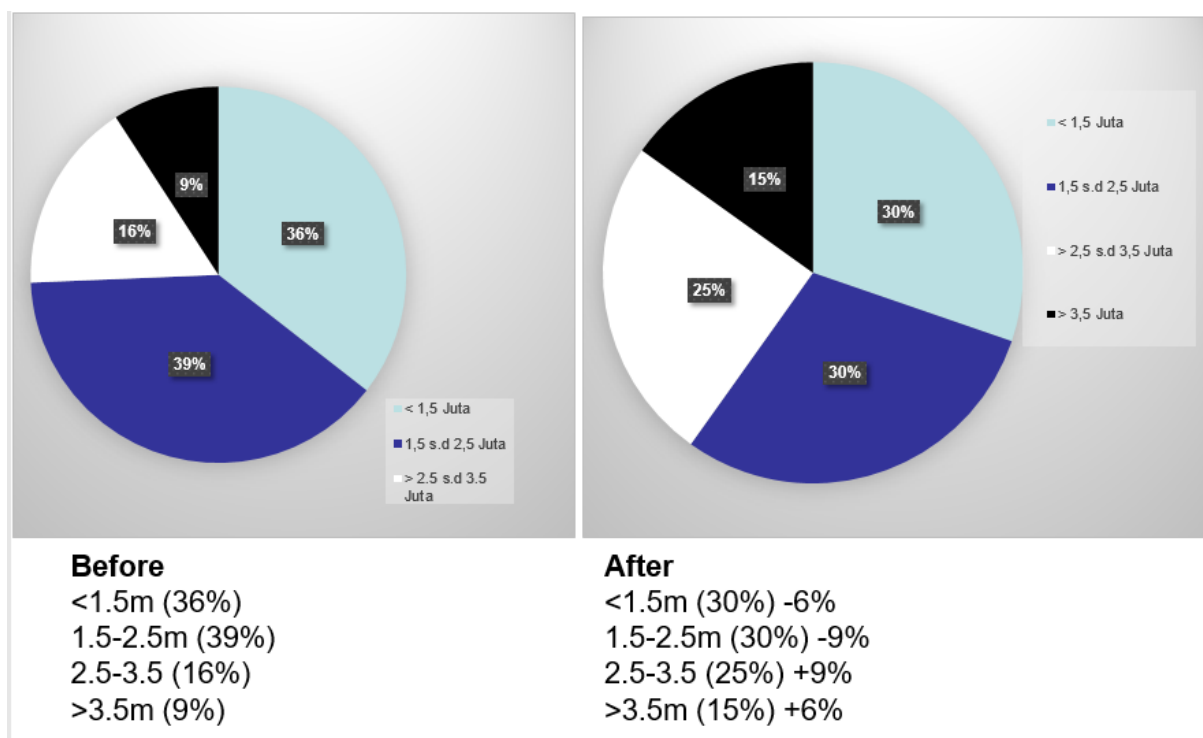


Figure 18. Graph describing monthly income before and after development of demonstration plot (Million Rupiah)

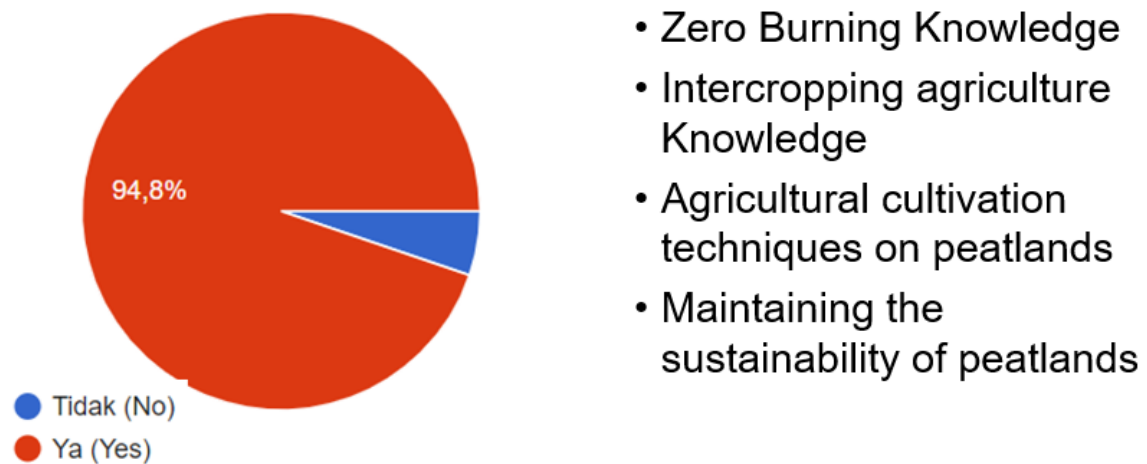


Figure 19. Graph describing other benefit from Demplot by respondent (Left) and conclusion by 141 respondents answer specify benefit (Right)

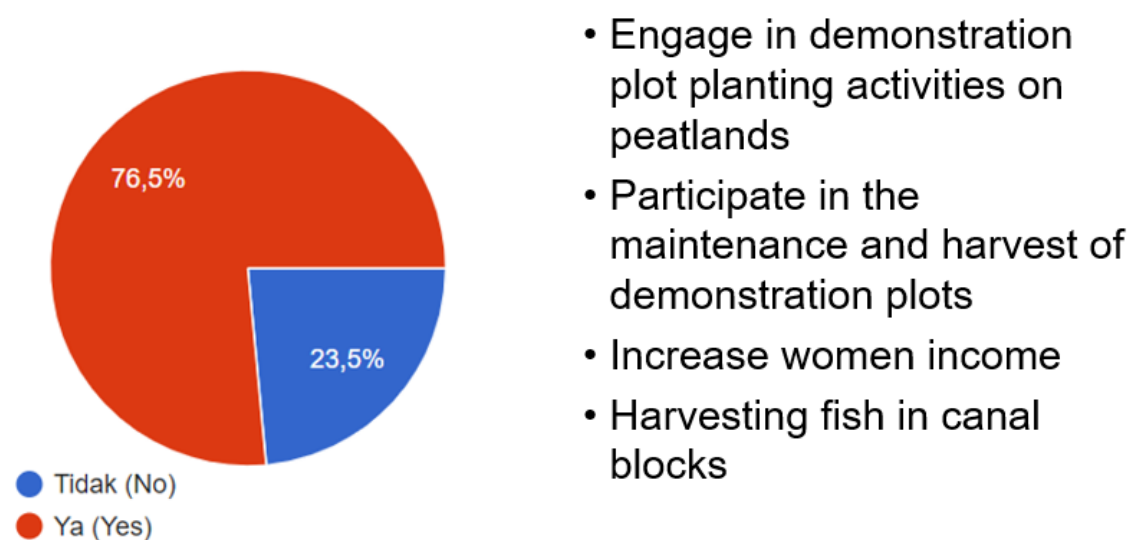


Figure 20. Graph describing SMPEI project with involvement of women group in the project villages (Left) and conclusion by 120 respondents answer how women involved (Right)

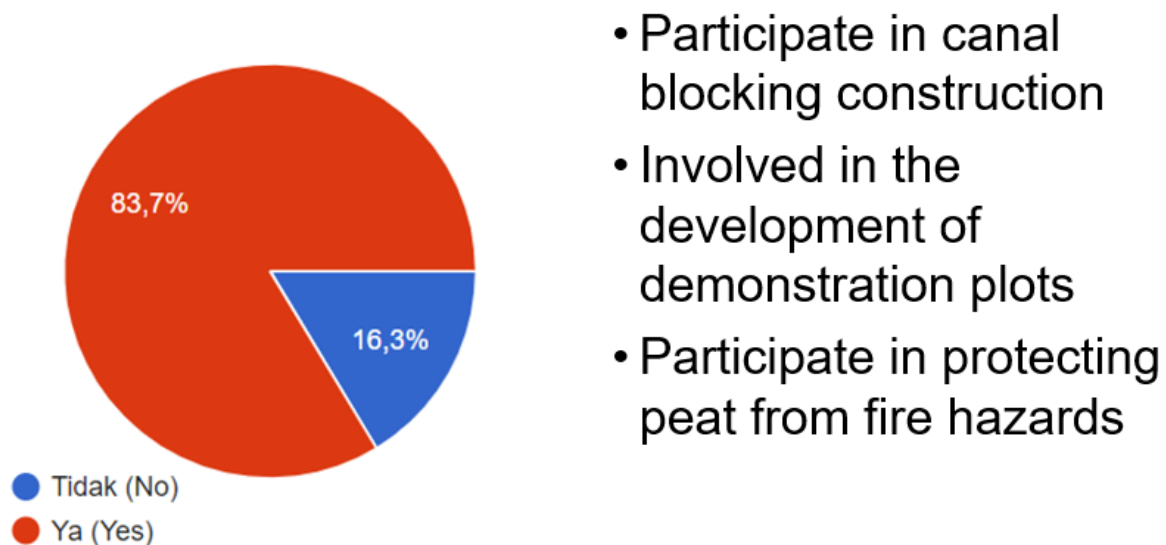


Figure 21. Graph describing SMPEI is benefiting youth group in the project villages (Left) and conclusion by 127 respondents answer how Youth Involved (Right)

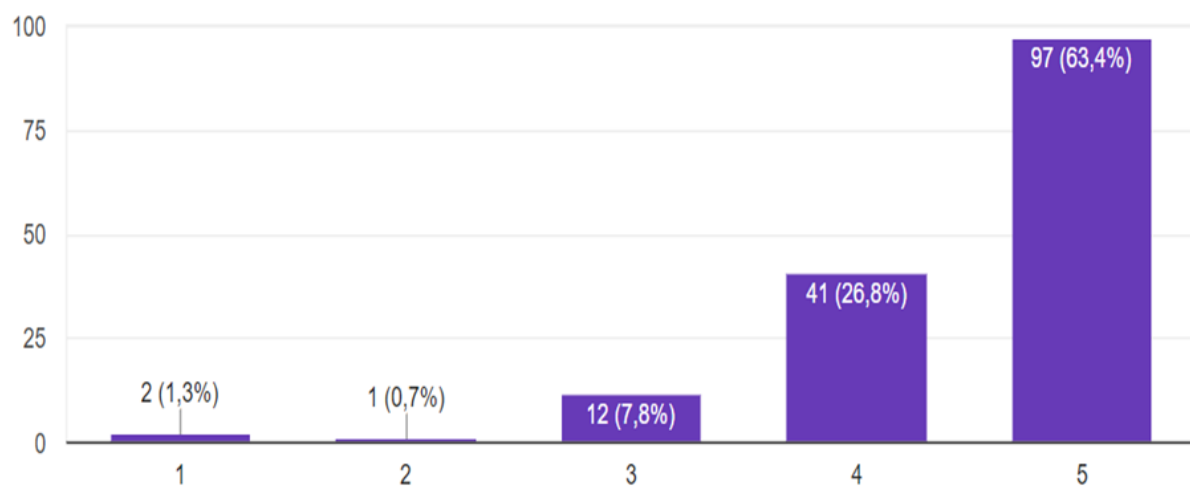


Figure 22. Graph describing the SMPEI Project been effective in peatland management and protection, and involvement of village community in enhancing fire-free alternative livelihood activities

Recommendation to improve benefits to women group in the village by 152 Respondent

- Farming training on peatlands

- Home industry training for derivative products resulting from demonstration plots
- Training related to peat ecosystem management

Recommendation to improve benefits youth group in the village by 127 Respondent

- Training related to peat ecosystem management
- Business management training
- Establish a peat care group for youth

Recommendations to improve implementation of the project by 152 Respondent

- The sustainability of the SMPEI program
- Involve more parties
- Training on canal blocking and demonstration plot construction
- Maintenance of demonstration plots and canal blocking
- Disclosure of information
- Organisational management training
- Addition of construction of canal blocks & demonstration plots

B. Canal Blocking Locations (195 Unit, Missing Simpang Gaung 7 Unit)

No	Year	Longitude	Latitude	Village	Sub-District	District
1	2019	102,702859	-0,494435	Bayas Jaya	Kempas	Indragiri Hilir
2	2019	102,703858	-0,491350	Bayas Jaya		
3	2019	102,706084	-0,484470	Bayas Jaya		
4	2019	102,736677	-0,478343	Bayas Jaya		
5	2019	102,724869	-0,471066	Bayas Jaya		
6	2019	102,821412	-0,497325	Kertajaya		
7	2019	102,813434	-0,469852	Kertajaya		
8	2019	102,809447	-0,459940	Kertajaya		
9	2019	102,821845	-0,470094	Kertajaya		
10	2019	102,822719	-0,484069	Kertajaya		
11	2019	102,738527	-0,423230	Rabit		
12	2019	102,734444	-0,422706	Rabit		
13	2019	102,730760	-0,422687	Rabit		
14	2019	102,726705	-0,420707	Rabit		
15	2019	102,722534	-0,423001	Rabit		

16	2019	103,093043	-0,167964	Rambaian	Gaung Anak Serka	
17	2019	103,133306	-0,163688	Rambaian		
18	2019	103,133002	-0,147937	Rambaian		
19	2019	103,132278	-0,145948	Rambaian		
20	2019	103,130508	-0,146281	Rambaian		
21	2019	103,096065	-0,057641	Simpang Gaung	Gaung	
22	2019	103,090622	-0,048446	Simpang Gaung		
23	2019	103,085477	-0,034900	Simpang Gaung		
24	2019	103,067394	-0,055320	Simpang Gaung		
25	2019	103,063717	-0,059584	Simpang Gaung		
26	2019	103,028105	-0,116287	Teluk Kabung		
27	2019	103,085721	-0,140615	Teluk Kabung		
28	2019	103,081253	-0,145132	Teluk Kabung		
29	2019	103,074855	-0,147434	Teluk Kabung		
30	2019	103,076619	-0,139670	Teluk Kabung		
31	2019	103,034302	-0,112891	Teluk Kabung		
32	2019	102,380091	0,021592	Kerumutan	Kerumutan	Pelalawan
33	2019	102,369262	0,019819	Kerumutan		
34	2019	102,374299	0,030640	Kerumutan		
35	2019	102,378476	0,044541	Kerumutan		
36	2019	102,375228	0,038066	Kerumutan		
37	2019	102,378441	0,038066	Kerumutan		
38	2019	102,311529	0,052483	Mak Teduh		
39	2019	102,309433	0,013570	Mak Teduh		
40	2019	102,311103	0,013032	Mak Teduh		
41	2019	102,311107	0,012752	Mak Teduh		
42	2019	102,309993	0,012473	Mak Teduh		
43	2019	102,309716	0,012471	Mak Teduh		
44	2019	102,303211	0,005174	Mak Teduh		
45	2019	102,305190	-0,000041	Mak Teduh		
46	2019	102,896111	0,262778	Pulau Muda	Teluk Meranti	

47	2019	102,894722	0,257500	Pulau Muda		
48	2019	102,868349	0,246468	Pulau Muda		
49	2019	102,876817	0,239943	Pulau Muda		
50	2019	102,918333	0,271944	Pulau Muda		
51	2019	102,891111	0,263889	Pulau Muda		
52	2019	102,595526	0,142149	Teluk Meranti		
53	2019	102,597135	0,136826	Teluk Meranti		
54	2019	102,552270	0,144626	Teluk Meranti		
55	2019	102,553410	0,149306	Teluk Meranti		
56	2019	102,545636	0,144605	Teluk Meranti		
57	2019	102,547008	0,150986	Teluk Meranti		
58	2019	102,680520	-0,393166	Pulau Jumat	Kuala Cenaku	Indragiri Hulu
59	2019	102,680836	-0,390773	Pulau Jumat		
60	2019	102,680872	-0,388621	Pulau Jumat		
61	2019	102,680863	-0,386296	Pulau Jumat		
62	2019	102,680833	-0,383957	Pulau Jumat		
63	2019	102,718465	-0,408988	Tanjung Sari		
64	2019	102,718775	-0,403989	Tanjung Sari		
65	2019	102,719323	-0,400664	Tanjung Sari		
66	2019	102,719868	-0,398119	Tanjung Sari		
67	2019	102,424024	-0,293739	Redang	Rengat Barat	
68	2019	102,420624	-0,290786	Redang		
69	2019	102,420441	-0,288067	Redang		
70	2019	102,420596	-0,285021	Redang		
71	2019	102,420592	-0,282176	Redang		
72	2019	102,485208	-0,354130	Sialang Dua Dahan		
73	2019	102,485179	-0,352684	Sialang Dua Dahan		
74	2019	102,483317	-0,350982	Sialang Dua Dahan		
75	2019	102,482881	-0,348310	Sialang Dua Dahan		
76	2019	102,482759	-0,347370	Sialang Dua Dahan		
77	2020	102,725667	-0,475658	Bayas Jaya	Kempas	Indragiri Hilir

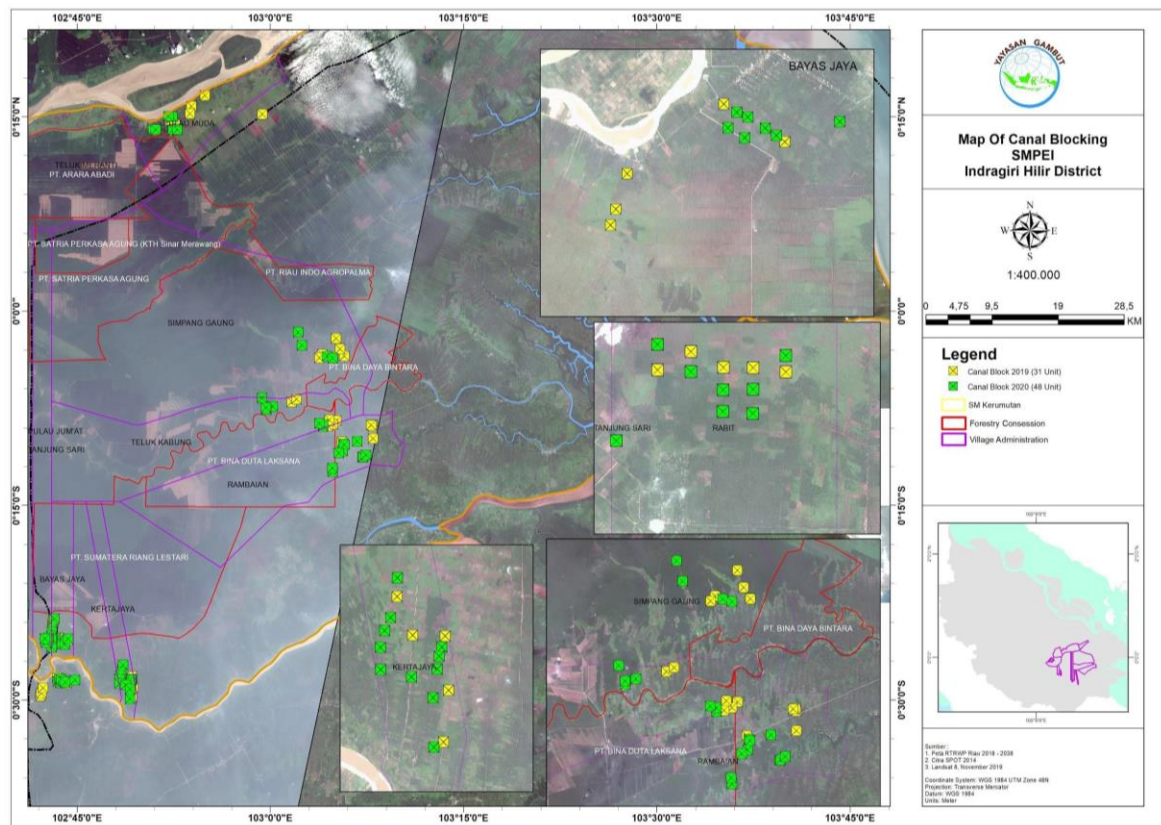
78	2020	102,727389	-0,472622	Bayas Jaya		
79	2020	102,728931	-0,477594	Bayas Jaya		
80	2020	102,729525	-0,473578	Bayas Jaya		
81	2020	102,732917	-0,475703	Bayas Jaya		
82	2020	102,735039	-0,477142	Bayas Jaya		
83	2020	102,747367	-0,474450	Bayas Jaya		
84	2020	102,809525	-0,455108	Kertajaya		
85	2020	102,807783	-0,465378	Kertajaya		
86	2020	102,806225	-0,468714	Kertajaya		
87	2020	102,805128	-0,473044	Kertajaya		
88	2020	102,805218	-0,478717	Kertajaya		
89	2020	102,820972	-0,472944	Kertajaya		
90	2020	102,820336	-0,475258	Kertajaya		
91	2020	102,819778	-0,478564	Kertajaya		
92	2020	102,813125	-0,480642	Kertajaya		
93	2020	102,818961	-0,498683	Kertajaya		
94	2020	102,818711	-0,485975	Kertajaya		
95	2020	102,722558	-0,419836	Rabit		
96	2020	102,726689	-0,423200	Rabit		
97	2020	102,730736	-0,425453	Rabit		
98	2020	102,730694	-0,428147	Rabit		
99	2020	102,734441	-0,425383	Rabit		
100	2020	102,734403	-0,428368	Rabit		
101	2020	102,738558	-0,421181	Rabit		
102	2020	102,717417	-0,431778	Rabit		
103	2020	103,081065	-0,206499	Rambaian	Gaung Anak Serka	
104	2020	103,080435	-0,201712	Rambaian		
105	2020	103,093694	-0,179199	Rambaian		
106	2020	103,094703	-0,170621	Rambaian		
107	2020	103,095810	-0,171446	Rambaian		
108	2020	103,095817	-0,171724	Rambaian		

109	2020	103,112761	-0,167275	Rambaian		
110	2020	103,119714	-0,187804	Rambaian		
111	2020	103,120504	-0,187061	Rambaian		
112	2020	103,124090	-0,184633	Rambaian		
113	2020	103,088978	-0,182327	Rambaian		
114	2020	103,073715	-0,057882	Simpang Gaung	Gaung	
115	2020	103,081098	-0,060049	Simpang Gaung		
116	2020	103,036296	-0,026912	Simpang Gaung		
117	2020	103,041035	-0,043575	Simpang Gaung		
118	2020	103,068611	-0,148333	Teluk Kabung		
119	2020	103,068611	-0,145556	Teluk Kabung		
120	2020	103,063611	-0,144167	Teluk Kabung		
121	2020	103,003333	-0,122222	Teluk Kabung		
122	2020	102,994975	-0,126422	Teluk Kabung		
123	2020	102,994819	-0,123734	Teluk Kabung		
124	2020	102,989541	-0,111342	Teluk Kabung		
125	2020	102,354722	-0,018889	Kerumutan	Kerumutan	Pelalawan
126	2020	102,354722	-0,019167	Kerumutan		
127	2020	102,356667	-0,019167	Kerumutan		
128	2020	102,355000	-0,021667	Kerumutan		
129	2020	102,357778	-0,021944	Kerumutan		
130	2020	102,358333	-0,021667	Kerumutan		
131	2020	102,360833	-0,023611	Kerumutan		
132	2020	102,394444	-0,110000	Kerumutan		
133	2020	102,392500	-0,108333	Kerumutan		
134	2020	102,389444	-0,106111	Kerumutan		
135	2020	102,331111	0,010000	Mak Teduh		
136	2020	102,334722	0,010000	Mak Teduh		
137	2020	102,337500	0,007222	Mak Teduh		
138	2020	102,305833	0,009444	Mak Teduh		
139	2020	102,311389	0,012500	Mak Teduh		

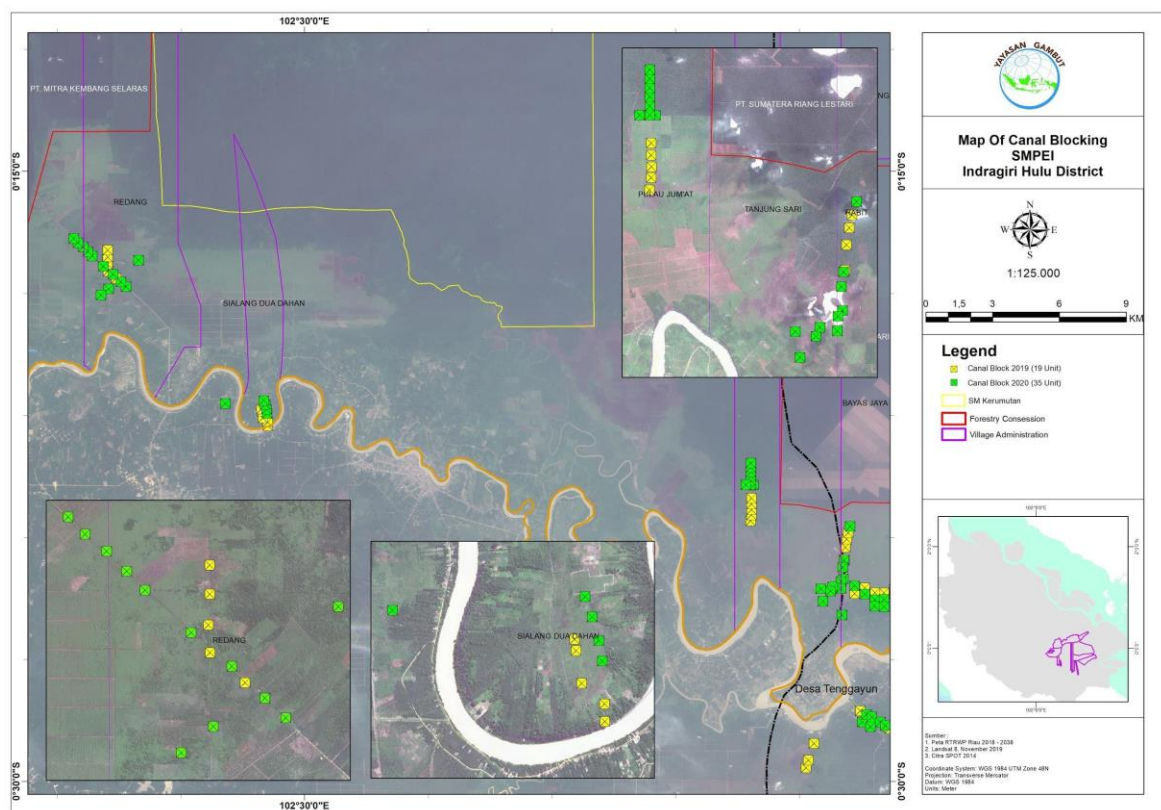
140	2020	102,304722	0,013889	Mak Teduh		
141	2020	102,307500	0,013889	Mak Teduh		
142	2020	102,305833	0,012778	Mak Teduh		
143	2020	102,338056	0,004444	Mak Teduh		
144	2020	102,335556	0,012778	Mak Teduh		
145	2020	102,877500	0,234722	Pulau Muda	Teluk Meranti	
146	2020	102,874444	0,233611	Pulau Muda		
147	2020	102,873611	0,250278	Pulau Muda		
148	2020	102,868333	0,251111	Pulau Muda		
149	2020	102,879722	0,233889	Pulau Muda		
150	2020	102,848889	0,234167	Pulau Muda		
151	2020	102,852222	0,233889	Pulau Muda		
152	2020	102,568056	0,144722	Teluk Meranti		
153	2020	102,563333	0,143333	Teluk Meranti		
154	2020	102,559167	0,136389	Teluk Meranti		
155	2020	102,555833	0,136389	Teluk Meranti		
156	2020	102,547778	0,156111	Teluk Meranti		
157	2020	102,530000	0,146111	Teluk Meranti		
158	2020	102,531111	0,156111	Teluk Meranti		
159	2020	102,524444	0,158333	Teluk Meranti		
160	2020	102,613333	0,142778	Teluk Meranti		
161	2020	102,681667	-0,378500	Pulau Jumat	Kuala Cenaku	Indragiri Hulu
162	2020	102,680556	-0,378472	Pulau Jumat		
163	2020	102,680556	-0,376667	Pulau Jumat		
164	2020	102,680556	-0,374861	Pulau Jumat		
165	2020	102,680556	-0,373111	Pulau Jumat		
166	2020	102,680556	-0,371306	Pulau Jumat		
167	2020	102,680556	-0,369528	Pulau Jumat		
168	2020	102,678611	-0,378472	Pulau Jumat		
169	2020	102,718001	-0,416931	Tanjung Sari		
170	2020	102,720722	-0,395472	Tanjung Sari		

171	2020	102,718194	-0,409333	Tanjung Sari	
172	2020	102,717778	-0,412222	Tanjung Sari	
173	2020	102,717111	-0,418028	Tanjung Sari	
174	2020	102,717000	-0,420917	Tanjung Sari	
175	2020	102,709778	-0,426167	Tanjung Sari	
176	2020	102,713583	-0,420222	Tanjung Sari	
177	2020	102,712806	-0,422000	Tanjung Sari	
178	2020	102,708833	-0,421028	Tanjung Sari	
179	2020	102,427972	-0,297194	Redang	Rengat Barat
180	2020	102,425944	-0,295250	Redang	
181	2020	102,422722	-0,292139	Redang	
182	2020	102,420944	-0,298056	Redang	
183	2020	102,417814	-0,300617	Redang	
184	2020	102,418767	-0,288806	Redang	
185	2020	102,433056	-0,286278	Redang	
186	2020	102,414306	-0,284658	Redang	
187	2020	102,412528	-0,282778	Redang	
188	2020	102,410583	-0,280806	Redang	
189	2020	102,408500	-0,279139	Redang	
190	2020	102,406861	-0,277444	Redang	
191	2020	102,485000	-0,349167	Sialang Dua Dahan	
192	2020	102,484722	-0,347500	Sialang Dua Dahan	
193	2020	102,484167	-0,345556	Sialang Dua Dahan	
194	2020	102,483611	-0,343889	Sialang Dua Dahan	
195	2020	102,468056	-0,345000	Sialang Dua Dahan	

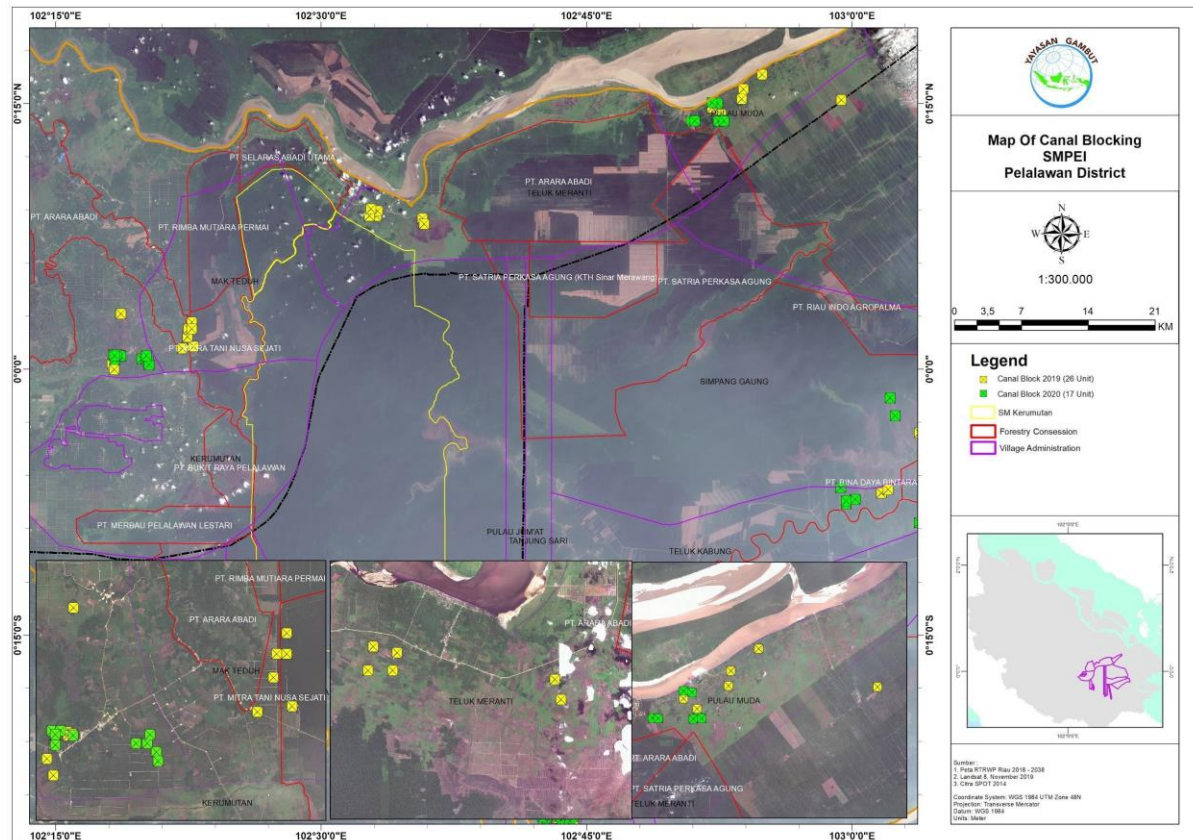
C. Map of Canal Blocking



Map of Canal Blocks in Indragiri Hilir District



Map of Canal Blocks in Indragiri Hulu District



Map of Canal Blocks in Pelalawan District

Appendix 18: Guidance for Preparing M&E Plan

Draft Table of Contents for M&E Plan for the SMPEI

In line with Appendix 4 of the SMPEI Project Design Report (PDR) (pages 59 - 62) the Monitoring and Evaluation (M&E) Plan should include the following sections:

1. Planning (e.g. AWPBs): National and District/village (p. 59 of PDR and PIM)
2. M&E (p. 59 – 60 of PDR and PIM)
 - i. Revised indicators in logical framework as agreed with MTR mission in June 2021 (Appendix 2 of the AM) and Table 1 below with guidance on how to monitor each indicator
3. Reporting (Technical and Financial), Surveys and Reviews (p. 60 – 62 of the PDR and PIM)
 - i. Technical and Financial reports (quarterly updates, SAPRs, PIRs): timelines and templates
 - ii. Baseline survey: Summary baseline report: Situation analysis prior to project start in July 2017 related to main indicators in logical framework. This should include:
 - a. Early warning systems description (situation prior to project start in July 2017)
 - i. Sipongi (status of establishment, operation , if any)
 - ii. SiMATAG-0.4m (status of establishment, operation , if any)
 - iii. SIPPEG (status of establishment, operation , if any)
 - iv. Analysis of fire hotspots in each target village by year (starting in 2016)
 - b. GHG emissions: methodology and baseline
 - i. Methodology for calculation
 - ii. Baseline of 2015-2016 situation in terms of meay parameters in methidoclogy – eg water levels, fire hotspots, etc)
 - iii. GHG emission reduction from project (as determined by methodology in Appendix 21)
 - c. Peatland areas with improved practices of SPM: methodology and baseline
 - i. Documentation of BMPs (if any) used in project area before project (from design report or interviews)
 - ii. community land (baseline amounts in hectares for SMPEI project area and water levels prior to canal blocking activities)
 - v. private sector (oil palm plantation and pulpwood) (map of plantaion area prior to project amounts in hectares disaggregated by district and plantaion type; water management system and baseline water levels (based on company/MOEF records for SMPEI project area)
 - d. PHU maps and land cover : baseline
 - e. Local community
 - i. Population, income, employment, age profile and gender information by village (from Village profile (CIFOR-HFSLP) and IMAS reports
 - ii. Beneficiaries impact surveys: questionnaire templates, methodology, etc.
4. Supervision missions, Mid-Term Review (MTR), Terminal Evaluation Review (TER)
 - i. Requirements, timing, scope
 - ii. Follow-up to recomendations
5. Examples of templates for tracking of project activities
 - i. Tracking of participation at training/workshops/meetings/implementation

No.	Name	Gender	Age Group Youth (16-30)/ Adult (above 30)	Position, Organisation	Contacts

Tracking of plans and its execution

No.	Planned RKM activities	Execution/Progress	Updated by Village Facilitator	Verified by PDU	Date

6. Maintenance of site based facilities

- a. Canal blocks
- b. FDRS signboard and water table monitoring points
- c. Demonstration plots

7. Implementation of the M&E Plan

- i. Responsibility at national, provincial and local levels
- ii. Timetable
- iii. Budget for implementing M&E Plan

Annex 1: Guidance on measurement of the revised (2021) Key performance indicators

Key Performance Indicators (2021)	Means of Verification	Responsibility	Guidance notes, information to be gathered, documents to be collated etc
1. One million ha of peatland in Indonesia zoned for integrated sustainable management	<ul style="list-style-type: none"> National report by MOEF Project technical reports 	PMO	Tracking of peatland area (ha) in Indonesia with integrated sustainable management (this could be interpreted as areas having a specific management and monitoring plan for water management and or conservation; or being included in a district RPPEG plan).
2. At least 8 million tons of CO ₂ e mitigated (target may be enhanced - depending on comparison of calculation methodologies)	<ul style="list-style-type: none"> National MRV report Project linked report on GHG emission reductions 	PMO/DPDC	<p>Follow the guidance note from the MTR (Appendix 21).</p> <p>Gather necessary information to track emissions – ie – average water levels in selected portions of landscapes where project/DPDC action has reduced emissions – eg village areas with peatland rewetting; plantations with enhanced water management).</p> <p>For plantations – area of plantations of different types (ie forest or oil palm) should be tracked along with the average annual water table in each plantation.</p> <p>Additional methodology may be developed by DPDC and project to track emissions related to avoided deforestation and reduced fire extent (optional)</p> <p>DPDC to finalise methodology with guidance from IPCC and technical panel and share annual emission reduction with PMO</p>
3. At least 10,000 beneficiaries (people) benefiting from sustainable peatland management	<ul style="list-style-type: none"> Project technical reports 	PMO	<p>Tracking of beneficiaries disaggregated by district and village and with gender and youth disaggregation (when possible)</p> <ul style="list-style-type: none"> Direct beneficiaries: people directly benefiting (project villages) from livelihood activities and

			<p>sustainable peatland management (including water management in villages, demonstration plots, and clean water treatment plants) fire prevention and control measures directly financed by the project.</p> <ul style="list-style-type: none"> - Indirect beneficiaries: are other people in the project villages or elsewhere in the project districts - that have adopted techniques for sustainable peatland and water management and fire prevention measures stimulated by the project - but funded by themselves or by other funding sources
4. 20,000 beneficiaries (at least 50% women) made less vulnerable to exposure to peatland degradation and fires	<ul style="list-style-type: none"> ▪ Project technical reports 	PMO	Assess the level peatland fires in the district through mapping of presence and trends in fire hotspots or burn scars in the 14 target villages with 2019 as the baseline year (first year of village level implementation). Multiply the reduction/increased % in fires by the village populations.
5. At least 600,000 ha of peatlands in Riau under integrated peatland management regime	<ul style="list-style-type: none"> ▪ Project technical reports 	PMO/P PMO	Tracking of peatland area with integrated peatland management regime (Integrated management plan, district RPPEG, village level peatland management plan with Desa Mandiri Peduli Gambut/ Desa Mandiri Peduli Api, etc.)
6. At least 6 national regulations or technical guidelines developed for implementation	Copies of regulations and their approvals	PMO	<p>List of regulations, sub-regulations, technical guidelines and others that relate to sustainable peatland management with date of approval. Information on dissemination of regulations etc. including workshops, meetings etc.</p> <p>Maintain copies of regulations etc.</p>
7. National Peatland Ecosystem Protection and Management Plan (RPPEG) approved and implemented	<ul style="list-style-type: none"> ▪ Copy of RPPEG and Approval Decision ▪ Reports on implementation progress of RPPEG 2020-2049 ▪ Project technical reports 	PMO	<p>Documentation on the dissemination and promotion of the RPPEG</p> <p>Maintain copies of reports from any national monitoring on plan implementation</p>
8. National monitoring system for groundwater level in peatland developed and operationalized to support sustainable peatland management	<ul style="list-style-type: none"> ▪ Reports on technical operation progress of the national monitoring system ▪ Project technical reports 	PMO/D PDC	<p>Concept paper with system operational mechanisms and reporting flow.</p> <ul style="list-style-type: none"> • Report on system development • Outputs and reports from the system • Tracking of reports • Summary report at end of project on use of the system

9. Capacity development plan developed and implemented include participation at regional and international platform to share Indonesian experience on protection and management of peatland ecosystems	<ul style="list-style-type: none"> Capacity development plan Report of workshops and outreach activities 	PMO	<p>Capacity Development plan specifying training and capacity development to be undertaken through project.</p> <p>Listing of workshops and training courses implemented with participant list with agencies and gender disaggregated participant numbers</p> <p>List and copies of presentations and training materials developed and shared.</p> <p>Listing of workshops, seminars, conferences etc. (with dates, locations, participant numbers etc.) participated in including details and copies of presentations given</p>
10. Detailed PHU map (1:50,000) developed for project PHUs and additional 80 PHU maps developed	<ul style="list-style-type: none"> Publications of the PHU maps 	PMO/D PDC	<p>Tracking of total PHU maps (name, province, Location, size, date developed) developed (either with APBN or co-funding)</p> <p>Copies of maps developed and associated reports.</p>
11. Information from peatland water level monitoring used to support early warning system on fire risk	<ul style="list-style-type: none"> Periodical reports from MOEF on the early warning system 	PMO/D PDC	<ul style="list-style-type: none"> Concept note of the early warning system Records of use or dissemination of the system Information on effectiveness of the system
12. Methodology on calculating the GHG emission from Indonesian peatland developed and agreed for utilisation	<ul style="list-style-type: none"> Technical paper on methodology on GHG emission calculation 	PMO/D PDC	<ul style="list-style-type: none"> Copy of technical paper(s) on methodology Records of presentation or approval of methodology by DG Climate change (PPI)
13. Baseline GHG emissions compiled and being tracked annually	<ul style="list-style-type: none"> Technical report on GHG emission reductions 	PMO/D PDC	<ul style="list-style-type: none"> Technical paper on the specific data requirements for emission calculation Annual data for tracking GHG emission reductions related to project
14. An Integrated Sustainable Management Plan for project PHUs developed and implemented (linking districts with inclusion of inputs from local government, private sector and local community)	<ul style="list-style-type: none"> Integrated sustainable management plan or strategy for Project PHUs Provincial RPPEG for Riau and District levels RPPEGs for Pelalawan, Indragiri Hulu and Indragiri Hilir 	PMO/P PMO/P DU	<ul style="list-style-type: none"> Concept and outline of Integrated sustainable management plan or strategy for Project PHUs Information on workshops and meetings organized to prepare the plan (dates, locations, participants etc) Copies of Working papers and the final plan Copies of Draft RPPEG for Pelalawan. INHU, INHIL and information on preparation process.
15. Multi-stakeholder partnership	<ul style="list-style-type: none"> Documentation on the multi-stakeholder 	PPMO/ PDU	<p>Establishment of the Forum/Working group to be hosted/chaired by Provincial Government or to be co-chaired by the 3 project districts to develop and</p>

established for development and implementation of the ISMP for project PHUs	partnerships		implement the ISMP. The stakeholders involved will be the stakeholders within the project districts (include government agencies, private sector, NGOs/CSOs and community groups). Details of meetings (venue, dates, participants, minutes etc.)
16. Community Forums established in three target districts for peer-to-peer learning and knowledge sharing	<ul style="list-style-type: none"> Documentation of the establishment of the community forums for Pelalawan, Indragiri Hulu and Indragiri Hilir 	PDU	Records of establishment of the district level community forum for the villages to share experiences and encourage peer-learning. The forums could be facilitated by District Government (or by project DPU). Forum could be in form on WhatsApp Group and physical meetings or workshops involving project villages and other villages in district. Records of operations and activities. Details of meetings (venue, dates, participants, minutes etc.)
17. At least 150,000 ha of peatlands within the project PHUs being monitored with enhanced water management within the targeted PHUs (include land of private sector and community)	<ul style="list-style-type: none"> Project semi-annual report and project implementation report Documentation on area being monitored with enhanced water management within the landscape 	PMO/P PMO/P DU	List of the management units (e.g. plantations, Villages etc.) with water management and monitoring. Tracking of peatland area within the project landscape being monitored (refer to KPIs 1, 5, 8 and 14) and changes in area by year. Disaggregated by District. Maps to be periodically updated to show the locations.
18. Community-based peatland action plans developed and implemented in 14 villages	<ul style="list-style-type: none"> IMAS Community-based action plans (RKM) for 14 project villages 	PPMO/ PDU	Tracking of RKM and actual implementation of the planned activities stated in RKM Summary table to show the villages and actions undertaken each year, aggregated by District. Copies of the IMAS with any updates and annual plans
19. Fire prevention strategies developed and implemented at three project districts	<ul style="list-style-type: none"> Fire prevention strategies for 3 project districts 	PPMO/ PDU	Outline of fire prevention strategy for district Meetings organised in developing strategy Copy of fire prevention strategies Facilities developed as part of fire prevention strategy (including the 28 FDRS signboards, 14 sets of fire-fighting pumps, other equipment and materials, etc.) Records of promotion of strategy Records of maintenance and use of facilities and equipment Records of fires if any Data disaggregated by village and district and year
20. Sustainability and Replication Strategy for livelihoods and community-based	<ul style="list-style-type: none"> Replication Strategy (include maintenance of the existing structures/facilities and activities) 	PMO/P PMO/P DU	Outline of Sustainability strategy Meetings organised in developing strategy Copy of sustainability strategy Documentation on maintenance of Canal blocks, demonstration sites, water treatment facilities etc.

peatland management developed and being implemented to scale-up project activities in village and landscape	scaling up)		developed by project Documentation of implementation of the Strategy by District government and other villages within project landscape or outside project landscape. Data on beneficiaries disaggregated by gender, village, district Data on replication of activities by type of activity, location and results
---	-------------	--	---

Appendix 19: List of workshops and training organised by the project 2018-2020

No	Year of Activity	Implementation Date	Types of Activities	Name of Activities	Number of Participants / institution	Participant Details	Remarks	Component
1	2018	08 - 10 October 201	Technical Coordination	Candidate Assessment of SMPEI Field Technical Team	19	SMPEI PMO team, Setditjen PPKL, and DPDC	Technical coordination related to the recruitment mechanism for the Provincial/Regency SMPEI technical team, the duties and responsibilities of the SMPEI field technical team, performance monitoring mechanism for the SMPEI field technical team, performance evaluation mechanism of the SMPEI field technical team, and reporting mechanism for results of the activities of the Provincial/Regency SMPEI technical team.	1.2.2
2		15 - 19 October 2018	Workshop	Workshop on Capacity Building of Community Facilitators for Sustainability Peat Ecosystem Management (SMPEI)	44	Local Facilitators of SMPEI, Districts and Province Administration Staff, District and Province Coordinator, District and Province Person in Charge, and the Village Head from each villages	Community facilitator capacity building activities, activities: 1. General material on the legislation or mandate of peat ecosystems restoration 2. General information on peat ecosystems empowerment 3. Empowerment materials including peat ecosystems planning through PRA methods, the establishment of TK-PPEG, TK-PPEG facilitation, preparation of RKM and IMAD documents development, assisting strategies	3.1.1
3	2019	25 - 29 April 2019	Workshop	SMPEI Capacity Building Workshop year of 2019	75	Local Facilitators of SMPEI, Districts and Province Administration Staff, District and Province Coordinator, District and Province Person in Charge, and the Village Head from each villages	Community facilitator capacity building activities, activities: 1. General material on the legislation or mandate of peat ecosystems restoration 2. Empowerment materials including peat ecosystems planning through PRA methods, the establishment of TK-PPEG, TK-PPEG facilitation, preparation of RKM and IMAD documents development, assisting strategies	1.2.2

4	13 Aug 19	Technical Coordination	Coordination on strategic peatland management and forest fire mitigation	35	Government Institutions (Badan Penelitian dan Pengembangan LHK, Dinas Kehutanan, BPKH, dan dinas terkait lainnya)	-	1.1.3
5	20 - 29 August 2019	Pembinaan/ Supervisi	Technical Assistance on Water Management and Monitoring of Revegetation for Peat Ecosystem Recovery and TP TMAT Verification in Non Peat Areas	12	Business Unit (PT. Bumi Andalas Permai, Sumatera Selatan)	Verification of manual groundwater levelling points, automatic groundwater levelling points, and rainfall monitoring stations	1.1.4
6	30 August - 8 September 2019	Pembinaan/ Supervisi	Technical Assistance on Water Management and Monitoring of Revegetation for Peat Ecosystem Recovery and TP TMAT Verification in Non Peat Areas	12	Business Unit (PT. Bumi Mekar Hijau, Sumatera Selatan)	Verification of manual groundwater levelling points, automatic groundwater levelling points, and rainfall monitoring stations	1.1.4
7	2- 5 July 2019	Technical Coordination	Technical Coordination on RPPEG development plans of PHU Rupert Island and Bengkalis	3 institusi	KPHP Unit IV Bengkalis, Dinas Lingkungan Hidup Kabupaten Bengkalis	Facilitation / supervision on the preparation of RPPEG KHG Rupert Island in Bengkalis District	1.1.3
8	9 - 10 September 2019	Workshop	Workshop/ technical assistance on peatland ecosystem water management for plantation field operator staff	175	Representative of 118 business units, Direktorat Pengendalian Kerusakan Gambut, Direktorat Jenderal Pengendalian Perubahan Iklim, Direktorat Jenderal Perkebunan, Direktorat Jenderal Planologi Kehutanan dan Tata lingkungan, FAO, IFAD	Workshop Materials: <ol style="list-style-type: none"> 1. Introduction of hydrological dynamics model in business area of PHU 2. Improvement on technical capacity of water management 3. Sharing experiences between companies and case studies 	1.1.4

9	22 - 23 September 2019	Technical Coordination	Coordination in peatland management, forest fire management and preparation of National RPPEG	30	Dinas Lingkungan Hidup Provinsi Jambi, Dinas Kehutanan Provinsi Jambi, Badan Penanggulangan Bencana Daerah Provinsi Jambi, Balai Taman Nasional Berbak, Balai Taman Nasional Bukit Duabelas, Balai PPIKHL wilayah Sumatera, Balai PSKL Wilayah Sumatera dan Daops Manggala Agni		1.1.3
10	23 - 25 October 2019	Technical Coordination	Coordination on the preparation of RPPEG Sumatra Barat Province	40	Government Institutions (Dit. PKG, BPN Agam - Padang, DLH Sumbar, Dinas PUPR Provinsi SUMBAR, BKSDA, Bappeda Litbang)	Activities materials: 1. Explanation on Peat Ecosystems Protection and Management, No. PP 71 year of 2014 in connection with PP. 57 year of 2016 2. Explanation on the development of RPPEG 3. Exposure on RPPEG spatial analysis data of West Sumatera Province	1.1.3
11	14 - 18 October 2019	Technical Coordination	Peat ecosystem restoration plan in plantation management unit	64	including 40 representative of business unit and 24 representative of DPDC	Discussion related to the determination point of groundwater level and rainfall monitoring station	1.1.4
12	28 - 29 October 2019	Technical Coordination	Technical Coordination on RPPEG Development of Riau Province	97	Government Institutions (P3E Sumatera, BBKSDA Province Riau, Bappeda Dumai, Bappeda Pekanbaru, Bappeda Kabupaten Siak, DLH Inhil, DLH Inhil, DLH Pelalawan, Dinas PUPR, Dinas esdm Provinsi Riau, etc).	Activities materials: 1. Procedures on the preparation, determination, and modification of peat ecosystem protection and management plans 2. Exposure related to the data and spatial analysis of RPPEG preparation of Riau Province 3. FGD	1.1.3

13		05 - 07 November 2019	Technical Coordination	Technical Coordination on RPPEG Development plans of Rupert Island	40	Government Institutions (DLHK Riau Province, Manggala Agni, DLH Kabupaten Bengkalis, PUPR Kabupaten Bengkalis, Dit. PKG, etc.) NGO (LSM Ikatan Pemuda Melayu Peduli Lingkungan), and Business Units.	Activities materials:	1.1.3
							1. Discussion on Draft RPPEG of KHG Rupert Island and discussion regarding data/information collection	
							2. FGD	
14		12- 13 November 2019	Technical Coordination	Coordination on RPPEG Development plans of Jambi Province	53	Government Institution of Jambi Province, Tanjung Jabung Timur District, Meragin District, etc.	Activities materials:	1.1.3
							1.Preparation of peat ecosystem protection and management plan (RPPEG)	
							2. Pemaparan terkait kebijakan perlindungan dan pengelolaan ekosistem gambut	
							3. Data and spatial analysis of RPPEG Jambi Province	
15	2020	14 - 18 September 2020	Technical Coordination	Coordination on Pemulihan ekosistem berdasarkan peta terkoreksi skala 250.000	9	Business Unit (PT. Riau Andalam Pupl & Paper & PT. Adindo Hutani Lestari)	Activities materials:	
							1. Determination on manual groundwater level point	
							2. installation point of automatic groundwater level gauge	
							3. Rainfall monitoring station point and vegetation wetting and rehabilitation infrastructure development point for peat ecosystem recovery based on 1:250,000 corrected peat ecosystem function map	

Appendix 20: List of Peatland Hydrological Units Mapped by Project and DPDC

List of locations of Peatland Hydrological Units Inventoried by SMPEI project in 2019-2020				
No.	Name of Peatland Hydrological Unit	District	Province	Year undertaken
1	KHG Sungai Batang - Sungai Keritang 1	Indragiri Hilir, Indragiri Hulu	Riau	2019
2	KHG Sungai Batang - Sungai Keritang 2	Indragiri Hilir	Riau	2019
3	KHG Sungai Indragiri - Sungai Batang	Indragiri Hilir, Indragiri Hulu	Riau	2019
4	KHG Sungai Indragiri - Sungai Enok	Indragiri Hilir	Riau	2019
5	KHG Sungai Indragiri - Sungai Tuana	Indragiri Hilir	Riau	2019
6	KHG Sungai Senama Kecil - Sungai Rajaelok	Indragiri Hilir	Riau	2019
7	KHG Sungai Nidir - Sungai Enok	Indragiri Hilir	Riau	2019
8	KHG Sungai Kanan - Sungai Buluh	Indragiri Hilir	Riau	2019
9	KHG Sungai Pergam - Sungai Pucuk Besar	Indragiri Hilir	Riau	2019
10	KHG Sungai Belutu - Sungai Leko	Siak	Riau	2019
11	KHG Sungai Bangko - Sungai Rokan	Rokan Hilir	Riau	2019
12	KHG Sungai Kiyap - Sungai Kampar Kiri	Kampar, Pelalawan	Riau	2019
13	KHG Sungai Pelanduk - Sungai Tumu	Indragiri Hilir	Riau	2019
14	KHG Pulau Merbau	Kepulauan Meranti	Riau	2019
15	KHG Pulau Labu	Kabupaten Pelalawan	Riau	2019
16	KHG Pulau Menggung	Kep. Meranti	Riau	2019
17	KHG Pulau Muda	Kabupaten Pelalawan	Riau	2019
18	KHG Pulau Serapung	Kabupaten Pelalawan	Riau	2019
19	KHG Pulau Topang	Kep. Meranti	Riau	2019
20	KHG Sungai Boang - Sungai Basira	Indragiri Hilir	Riau	2019
21	KHG Sungai Bunut - Sungai Umban	Bengkalis dan Siak	Riau	2019
22	KHG Sungai Gasip - Sungai Siak	Kabupaten Siak	Riau	2019
23	KHG Sungai Indragiri	Indragiri Hulu	Riau	2019
24	KHG Sungai Indragiri - Sungai Ekok	Indragiri Hulu	Riau	2019
25	KHG S. Kampar Kiri - Sungai Lipai	Kabupaten Kampar	Riau	2019
26	KHG S. Kampar Kiri - Sungai Segati	Kampar dan Pelalawan	Riau	2019
27	KHG Sungai Lipai - Sungai Bunut	Kabupaten Kampar	Riau	2019
28	KHG S. Mendawai - Sungai Gasip	Kabupaten Siak	Riau	2019
29	KHG Sungai Merusi - Sungai Belanak	Kabupaten Hilir	Riau	2019
30	KHG S. Minas - Sungai Mandiangin	Kabupaten Siak	Riau	2019

31	KHG Sungai Rotoh - Sungai Bang	Kabupaten Indragiri hilir	Riau	2019
32	KHG Sungai Tumu	Kabupaten Indragiri hilir	Riau	2019
33	KHG Sungai Lamandau - Sungai Kumai	Kotawaringin Barat	Kalimantan Tengah	2020
34	KHG Sungai Lamandau - Sungai Sematu	Kotawaringin Barat, Lamandau	Kalimantan Tengah	2020
35	KHG Sungai Rungan - Sungai Kahayan	Palangka Raya, Pulangpisau	Kalimantan Tengah	2020
36	KHG Aek Sebatik - Aek Musi	Banyuasin	Sumatera Selatan	2020
37	KHG Air Banyuasin - Sungai Musi	Banyuasin	Sumatera Selatan	2020
38	KHG Delta Talang	Banyuasin	Sumatera Selatan	2020
39	KHG Sungai Alur - Sungai Lintang	Musirawas Utara	Sumatera Selatan	2020
40	KHG Sungai Musi - Sungai Empasan	Musi Banyuasin, Musirawaas	Sumatera Selatan	2020
41	KHG Sungai Musi - Sungai Saleh	Banyuasin	Sumatera Selatan	2020
42	KHG Sungai Saleh - Sungai Batanghari	Banyuasin	Sumatera Selatan	2020
43	KHG Sungai Tandatuan - Sungai Beberi	Ogan Komering Ilir	Sumatera Selatan	2020
44	KHG Batang Merangin - Batang Tembesi	Merangin, Sarolangun	Jambi	2020
45	KHG Sungai Batanghari - Sungai Mandahara	Kota Jambi, Muaro Jambi	Jambi	2020
46	KHG Sungai Mesao - Aek Rawas	Sarolangun	Jambi	2020
47	KHG Sungai Baung - Sungai Betara	Tanjung Jabung Barat	Jambi	2020
48	KHG Sungai Betara - Sungai Mendahara	Muarojambi, Tanjabbar, Tanjabtim	Jambi	2020
49	KHG Sungai Batanghari - Sungai Kampeh	Kab. Muarojambi	Jambi	2020
50	KHG Sungai Batangkalis - Sungai Maday	Kab. Kapuas Hulu	Kalimantan Barat	2020
51	KHG Sungai Embalun - Sungai Palin	Kab. Kapuas Hulu	Kalimantan Barat	2020
52	KHG Sungai Embau - Sungai Kapuas	Kab. Kapuas Hulu	Kalimantan Barat	2020
53	KHG Sungai Kapuas - Sungai Embau	Kab. Kapuas Hulu	Kalimantan Barat	2020
54	KHG Sungai Kapuas - Sungai Maday	Kab. Kapuas Hulu	Kalimantan Barat	2020
55	KHG Sungai Mendalam - Sungai Sambus	Kab. Kapuas Hulu	Kalimantan Barat	2020

No.	Peatland Hydrological Unit	Province	Year	Implementation by
1	KHG Krueng Wonki - Krueng Gubon	Aceh	2018	KLHK
2	KHG Krueng Meureubo - Krueng Matee	Aceh	2018	KLHK
3	KHG Aek Na Birong - Aek Batang Toru	Sumatera Utara	2018	KLHK
4	KHG Sungai Kualuh Bilah - Sungai Barumon	Sumatera Utara	2018	KLHK
5	KHG Pulau Mendol	Riau	2018	KLHK
6	KHG Sungai Indragiri - Belilas	Riau	2018	KLHK
7	KHG Sungai Tabat - Batang Masangkiri	Sumatera Barat	2018	KLHK
8	KHG Aek Musi - Sungai Upang	Sumatera Selatan	2018	KLHK
9	KHG Sungai Bila-Sungai Rasau	Kalimantan Tengah	2018	KLHK
10	KHG Sungai Dadau - Sungai Sikan	Kalimantan Barat	2018	KLHK
11	KHG Sungai Sambih-KHG Sungai Landak	Kalimantan Barat	2018	KLHK
12	KHG Sungai Kapuas-Sungai Mendawak	Kalimantan Barat	2018	KLHK

13	KHG Sungai Kapuas - Sungai Mangkutup	Kalimantan Tengah	2019	KLHK
14	KHG Sungai Sampang - Sungai Kala	Kalimantan Tengah	2019	KLHK
15	KHG Sungai Katingan - Sungai Klaru	Kalimantan Tengah	2019	KLHK
16	KHG Sungai Kumai - Sungai Sekonyer	Kalimantan Tengah	2019	KLHK
17	KHG Sungai Mentaya - Sungai Tualan	Kalimantan Tengah	2019	KLHK
18	KHG Sungai Jelai - Sungai Bila	Kalimantan Tengah	2019	KLHK
19	KHG Sungai Seruyan - Sungai Sembuluh	Kalimantan Tengah	2019	KLHK
20	KHG Sungai Arut	Kalimantan Tengah	2019	KLHK
21	KHG Sungai Rasaw - Sungai Lamandau	Kalimantan Tengah	2019	KLHK
22	KHG Sungai Mentaya - Sungai Cempaga	Kalimantan Tengah	2019	KLHK
23	KHG Sungai Barito - Sungai Napu, Kab. Barito Selatan Barito Timur	Kalimantan Tengah	APBN-2020	KLHK
24	KHG Sungai Kapuas - Sungai Murui, Kab Kapuas	Kalimantan Tengah	APBN-2020	KLHK
25	KHG Sungai Barito - Sungai Ayuh, Kab. Barito Selatan	Kalimantan Tengah	APBN-2020	KLHK
26	KHG Air Banyuasin – Air Lalang, Kab. Banyuasin	Sumatera Selatan	APBN-PEN-2020	KLHK
27	KHG Sungai Air Hitam Laut – Sungai Buntu Kecil, Kab. Banyuasin dan Musibanyuasin (Sumsel) dan KHG Sungai Air Hitam Laut – Sungai Buntu Kecil, Kab. Muaro Jambi dan Tanjung Jabung Timur (Jambi)	Sumatera Selatan - Jambi	APBN-PEN-2020	KLHK
28	KHG Sungai Beberi – Sungai Way Mesuji, Kab. Ogan Komering Ilir	Sumatera Selatan	APBN-PEN-2020	KLHK
29	KHG Sungai Burnai – Sungai Sibumbang, Kab. Ogan Komering Ilir	Sumatera Selatan	APBN-PEN-2020	KLHK
30	KHG Sungai Burung – Sungai Way Mesuji, Kab. Ogan Komering Ilir	Sumatera Selatan	APBN-PEN-2020	KLHK
31	KHG Sungai Kalumpang, Kab. Musirawas Utara	Sumatera Selatan	APBN-PEN-2020	KLHK
32	KHG Sungai Medak – Sungai Lalan, Kab. Musibanyuasin	Sumatera Selatan	APBN-PEN-2020	KLHK
33	KHG Sungai Musi – Sungai Aek Lematang, Kab. Muaraenim dan Pali	Sumatera Selatan	APBN-PEN-2020	KLHK
34	KHG Sungai Musi – Sungai Blidah, Kab. Banyuasin, Muaraenim dan Ogan Ilir	Sumatera Selatan	APBN-PEN-2020	KLHK
35	KHG Sungai Musi – Sungai Penu, Kab. Musibanyuasin dan Pali	Sumatera Selatan	APBN-PEN-2020	KLHK
36	KHG Sungai Musi – Sungai Rawas, Kab. Musibanyuasin, Musirawas dan Musirawas Utara	Sumatera Selatan	APBN-PEN-2020	KLHK
37	KHG Sungai Penu – Sungai Abah, Kab. Musibanyuasin dan Pali	Sumatera Selatan	APBN-PEN-2020	KLHK
38	KHG Sungai Rumpit – Sungai Rawas, Kab. Musirawas dan Musirawas Utara	Sumatera Selatan	APBN-PEN-2020	KLHK
39	KHG Sungai Sembilang – Sungai Lalan, Kab. Banyuasin dan Musibanyuasin	Sumatera Selatan	APBN-PEN-2020	KLHK
40	KHG Sungai Sibumbang – Sungai Talangrimba, Kab. Ogan Komering Ilir	Sumatera Selatan	APBN-PEN-2020	KLHK
41	KHG Sungai Talang – Sungai Ulakkedondong, Kab. Ogan Komering Ilir	Sumatera Selatan	APBN-PEN-2020	KLHK
42	KHG Sungai Ulakkedondong – Sungai Lumpur, Kab. Ogan Komering Ilir	Sumatera Selatan	APBN-PEN-2020	KLHK
43	KHG Sungai Aleki Eli – Sungai Aleki Mafe, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
44	KHG Sungai Aleki Male – Sungai Ifuleki Bian, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
45	KHG Sungai Alekikos Bakian – Sungai Ifuleki Bian, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
46	KHG Sungai Alekikosi Soap – Sungai Alekikosi Seghab, Kab. Merauke	Papua	APBN-PEN-2020	KLHK

47	KHG Sungai Alike Alo – Sungai Alike Mauwk Ere, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
48	KHG Sungai Bob Buraka – Sungai Aleki Buraka, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
49	KHG Sungai Bobburaka – Sungai Alike Anaw, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
50	KHG Sungai Ifileki Bian – Sungai Lekiage Sentuf, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
51	KHG Sungai Ifuleki Berapto – Sungai Ifuleki Obat, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
52	KHG Sungai Ifuleki Bian – Sungai Dalik, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
53	KHG Sungai Ifuleki Kumbe – Sungai Lekiage Ser, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
54	KHG Sungai Ifuleki Kumbe – Sungai Lekiasi, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
55	KHG Sungai Ifuleki Obathrow – Sungai Ifuleki Berapto, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
56	KHG Sungai Ifuleki Onam – Sungai Fly, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
57	KHG Sungai Ifuleki Onam – Sungai Lekiage Wagini, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
58	KHG Sungai Kumbe – Sungai Bian, Kab. Merauke	Papua	APBN-PEN-2020	KLHK
59	KHG Sungai Alekikosi Digoel - Sungai Udi Lebah, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
60	KHG Sungai Alekikosi Digoel - Sungai Alekikosi Kauh, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
61	KHG Sungai Buru Miyaman - Sungai Buru Mappi, Kab. Boven Digoel, Mappi	Papua	APBN-PEN-2020	KLHK
62	KHG Sungai Udi Edera - Sungai Samaleki Digul, Kab. Boven Digoel, Mappi	Papua	APBN-PEN-2020	KLHK
63	KHG Sungai Wade Passue - Sungai Jo Dairam, Kab. Boven Digoel, Mappi	Papua	APBN-PEN-2020	KLHK
64	KHG Sungai Alekikosi Kauh - Sungai Ifuleki Mati, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
65	KHG Sungai Alekikosi Digoel - Sungai Aleki Seme, Kab. Boven Digoel, Merauke	Papua	APBN-PEN-2020	KLHK
66	KHG Sungai Alekikosi Digoel - Sungai Alekikosi Bagon, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
67	KHG Sungai Alekikosi Kaswari - Sungai Alekikosi Digoel, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
68	KHG Sungai Alekikosi Sia - Sungai Alekikosi Digoel, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
69	KHG Sungai Alekikosi Yang - Sungai Alekikosi Digoel, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
70	KHG Sungai Alekikosi Kaswari - Sungai Alekikosi Dawe, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
71	KHG Sungai Buru Bayeni - Sungai Buru Mappi, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
72	KHG Sungai Buru Mappi - Sungai Mangguno, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
73	KHG Sungai Buru Mappi - Sungai Udi Afu, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
74	KHG Sungai Buru Mappi II, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
75	KHG Sungai Ivo - Sungai Fly, Kab. Boven Digoel, Merauke	Papua	APBN-PEN-2020	KLHK
76	KHG Sungai Kanggu - Sungai Fly, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
77	KHG Sungai Mappi - Sungai Edera, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
78	KHG Sungai Muyu, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
79	KHG Sungai Udi Aifo - Sungai Buru Mappi, Kab.	Papua	APBN-PEN-2020	KLHK

	Boven Digoel			
80	KHG Sungai Wade Kowo - Sungai Buru Bayeni, Kab. Boven Digoel	Papua	APBN-PEN-2020	KLHK
81	KHG Sungai Buru Mappi - Sungai Buru Obaa, Kab. Mappi dan Kab. Asmat	Papua	APBN-PEN-2020	KLHK
82	KHG Sungai Wade Nanu - Sungai Wade Assue, Kab. Mappi	Papua	APBN-PEN-2020	KLHK
83	KHG Aek Garoga - Batang Toru, Kab. Tapanuli Tengah	Sumatera Utara	APBN-PEN-2020	KLHK
84	KHG Aek Maraitgadang - Batang Maraitgodang Kab. Mandailing Natal	Sumatera Utara	APBN-PEN-2020	KLHK
85	KHG Aek Maros - Aek Pandan Kab. Tapanuli Tengah	Sumatera Utara	APBN-PEN-2020	KLHK
86	KHG Aek Panggainsira - Aek Arong, Kab. Humbang Hasundutan, Tapanuli Utara	Sumatera Utara	APBN-PEN-2020	KLHK
87	KHG Aek Silang - Lae Renun, Kab. Samosir	Sumatera Utara	APBN-PEN-2020	KLHK
88	KHG Aek Siriam - Batang Singkuang, Kab. Mandailing Natal	Sumatera Utara	APBN-PEN-2020	KLHK
89	KHG Aek Sordang - Aek Kalang Kab. Tapanuli Tengah	Sumatera Utara	APBN-PEN-2020	KLHK
90	KHG Aek Sulpi - Aek Sibundong, Kab. Humbang Hasundutan	Sumatera Utara	APBN-PEN-2020	KLHK
91	KHG Batang Batahan - Batang Tamak Kab. Mandailing Natal	Sumatera Utara	APBN-PEN-2020	KLHK
92	KHG Batang Singkuang - Nainjan Nu Godang Kab. Mandailing Natal	Sumatera Utara	APBN-PEN-2020	KLHK
93	KHG Lae Rapus - Aek Pardomuan Kab. Tapanuli Tengah	Sumatera Utara	APBN-PEN-2020	KLHK
94	KHG Lae Sibungkuang, Kab. Tapanuli Tengah	Sumatera Utara	APBN-PEN-2020	KLHK
95	KHG Lae Sibungkuang - Aek Tarutungol Kab. Tapanuli Tengah	Sumatera Utara	APBN-PEN-2020	KLHK
96	KHG Sungai Asahan - Sungai Leidong, Kab. Asahan, Labuhanbatu Utara	Sumatera Utara	APBN-PEN-2020	KLHK
97	KHG Sungai Barumun - Sungai Kubu, Kab. Labuhanbatu, Labuhanbatu Selatan	Sumatera Utara	APBN-PEN-2020	KLHK
98	KHG Sungai Barumun - Sungai Mabar, Kab. Labuhanbatu Selatan	Sumatera Utara	APBN-PEN-2020	KLHK
99	KHG Sungai Kuo - Sungai Kualuh Bilah, Kab. Labuhanbatu, Labuhanbatu Utara	Sumatera Utara	APBN-PEN-2020	KLHK
100	KHG Sungai Leidong - Sungai Kuala, Kab. Labuhanbatu Utara	Sumatera Utara	APBN-PEN-2020	KLHK
101	KHG Sungai Marbau - Sungai Kualuh Bilah, Kab. Labuhanbatu, Labuhanbatu Utara	Sumatera Utara	APBN-PEN-2020	KLHK
102	KHG Sungai Nata - Sungai Sinunukan Kab. Mandailing Natal	Sumatera Utara	APBN-PEN-2020	KLHK
103	KHG Sungai Mentaya - Sungai Seranau Kiri; Kab. Kotawaringin Timur	Kalimantan Tengah	APBN-PEN-2020	KLHK
104	KHG Sungai Pukun - Sungai Kelua Besar; Kab. Seruyan	Kalimantan Tengah	APBN-PEN-2020	KLHK
105	KHG Sungai Pukun - Sungai Seruyan; Kab. Kotawaringin Timur, Kab. Seruyan	Kalimantan Tengah	APBN-PEN-2020	KLHK
106	KHG Sungai Seruyan - Sungai Kelua Besar; Kab. Seruyan	Kalimantan Tengah	APBN-PEN-2020	KLHK
107	KHG Sungai Kapuas - Sungai Barito; Kab. Kapuas dan Kab. Barito Selatan	Kalimantan Tengah	APBN-PEN-2020	KLHK
108	KHG Sungai Mangkatip - Sungai Barito 1, Kab. Barito Selatan dan Kab. Kapuas	Kalimantan Tengah	APBN-PEN-2020	KLHK
109	KHG Sungai Mangkatip - Sungai Barito 2, Kab. Barito Selatan	Kalimantan Tengah	APBN-PEN-2020	KLHK
110	KHG Sungai Katingan - Sungai Mentaya; Kab. Kotawaringin Timur dan Kab. Katingan	Kalimantan Tengah	APBN-PEN-2020	KLHK

111	KHG Sungai Pukun - Sungai Mentaya; Kab. Kotawaringin Timur dan Kab. Seruyan	Kalimantan Tengah	APBN-PEN-2020	KLHK
112	KHG Sungai Kuis - Sungai Bapai, Kab. Mappi dan Kab. Asmat	Papua	APBN-PEN-2020	KLHK
113	KHG Sungai Buru Bagaram, Kab. Mappi	Papua	APBN-PEN-2020	KLHK
114	KHG Sungai Buru Mappi - Sungai Siakha Homo, Kab. Mappi	Papua	APBN-PEN-2020	KLHK
115	KHG Sungai Buru Mappi I, Kab. Mappi	Papua	APBN-PEN-2020	KLHK
116	KHG Sungai Buru Obaa - Sungai Buru Mappi, Kab. Mappi	Papua	APBN-PEN-2020	KLHK
117	KHG Sungai Jaman Kawarga - Sungai Samaleki Digul, Kab. Mappi	Papua	APBN-PEN-2020	KLHK
118	KHG Sungai Jo Dairam, Kab. Asmat, Mappi	Papua	APBN-PEN-2020	KLHK
119	KHG Sungai Jo Vriendschaps - Sungai Jo Siret, Kab. Asmat, Mappi	Papua	APBN-PEN-2020	KLHK
120	KHG Sungai Ju Siret- Sungai Wade Assue, Kab. Asmat, Mappi	Papua	APBN-PEN-2020	KLHK
121	KHG Sungai Wade Passue, Kab. Mappi	Papua	APBN-PEN-2020	KLHK
122	KHG Sungai Keeme - Sungai Bayeni, Kab. Mappi	Papua	APBN-PEN-2020	KLHK

Appendix 21: Review and Guidance on Methodology for Calculation of Peatland GHG Emission Reduction

Methodology Used by SMPEI Project to calculate GHG emissions

The SMPEI project has used a methodology to calculate GHG emission reductions based on changes in peatland ground water levels in the targeted landscape in order to calculate the emissions and reduction in emissions as a result of the project interventions. It is based on the methodology described in Hooijer *et al* (2010)¹. The methodology is based on the following formula:

- $\text{CO}_2 \text{ emissions (in tCO}_2\text{/ha/year)} = 91 \times \text{average groundwater table depth (in m)}$

This linear relation implies that every 10 cm water table drawdown will result in an increase in CO_2 emissions rate of 9.1 tCO₂/ha/yr (i.e. 0.1m x 91). Therefore a peatland with an average groundwater depth of 0.4m would be expected to have an emission of 91 x 0.4 or 36.4 tCO₂/ha/year.

Peatland with an average groundwater table depth of 1.5m below the surface would be expected to have an emission of 91 x 1.5 or 136.5 tCO₂/ha/year.

A peatland where the average groundwater table depth was raised from 1.5m below the surface to 0.4m below the surface would result in a reduction of emission of 136.5 – 36.4 = 100.1 tCO₂/ha/year.

This emission reduction will be cumulative – i.e. after the peatland is rewetted, there will be a reduction in emissions each year of the project (and after the project if the water levels are maintained). However the reduction will not be immediate – as the formula applies for water levels being maintained for a year at the target water level – so they can be used for the 12 months following the installation of the canal blocks and subsequent maintenance thereafter.

The MTR believes that this methodology is sound and is in line with the methodology used in the project design in 2016 to estimate the potential emission reductions from the project (see Annex 1 to this appendix)

Application of the methodology by the project

The calculation of GHG emission reduction through the project that was presented to the MTR mission team was based on the assumption that the original water levels in the target villages was an average of 1.5m below the surface. This is based on information from a 2015 assessment by DPDC of the entire peatland hydrological unit (PHU) giving a range in water levels from 0.5-2.5 m below the surface over much of the PHU. This level is also in line with information collected by DPDC in other community areas in Sumatra that water levels in community areas are often 1.5m below the surface.

Based on this assumption, the baseline emission prior to the project in the villages was estimated as 66.8 million tCO₂e/year for total area (491,304ha) of the villages. After the installation of canal blocks in villages in 2019 and 2020, the average groundwater level was measured in dry and rainy seasons and an annual average calculated per village. This 2020 average water level in each village was used to calculate the emissions in 2020 in each of the 14 project villages assuming the water levels were the same throughout each of the villages. The results were used to indicate that the emission level in 2020 was 24.3 million tCO₂e. Therefore, the total emission reduction as of 2020 was estimated as 42.5 million tCO₂e (= 66.8M in 2015 – 24.3M in 2020), significantly higher than the original target of SMPEI which is 8 million tCO₂e by the end of project period. Details are provided in the Table 1 below:

¹ A. Hooijer et al.: Current and Future CO₂ emissions from drained peat in Southeast Asia, *Biogeosciences*, 7, 1505–1514, 2010, www.biogeosciences.net/7/1505/2010/. Available at: <https://bg.copernicus.org/articles/7/1505/2010/bg-7-1505-2010.pdf>

Table 1: Village area, water levels (2020) and estimated emissions as calculated by SMPEI project

No	Distri ct	Village	Area (Ha)	Dry seaso n water level (m)	Wet season water level (m)	Baseline Emission tCO ₂ /ha/yr	Emission after raising water level tCO ₂ /ha/yr	Reduction in emission 2020 tCO ₂ /ha/yr
1	Pelal awan	Pulau Muda	2,945.34	0.6	0.42	402,038.91	136,693.23	265,345.7
2		Teluk Meranti	11,192.50	0.73	0.55	1,527,776.25	651,851.20	875,925.1
3		Kerumutan	104,443.0	0.4	0.35	14,256,469.50	3,564,117.38	10,692,352.1
4		Mak Teduh	4,323.7	0.12	~	354,111.03	23,607.40	330,503.6
5	Indra giri Hulu	Tanjung Sari	12,508.9	0.46	0.4	1,707,464.85	489,473.26	1,217,991.6
6		Sialang Dua Dahan	31,565.8	0.68	0.62	4,308,731.70	1,867,117.07	2,441,614.6
7		Redang	43,685.5	0.8	0.71	5,963,070.75	3,001,412.28	2,961,658.5
8		Pulau Jumat	7,007.8	0.6	0.78*	956,557.88	440,016.62	516,541.3
9	Indra giri Hilir	Bayas Jaya	14,653.5	0.71	0.88*	2,000,202.75	1,060,107.46	940,095.3
10		Teluk Kabung	9,029.3	0.62	0.64	1,232,493.99	517,647.48	714,846.5
11		Simpang Gaung	34,854.2	0.87	1.09*	4,757,598.30	3,108,297.56	1,649,300.7
12		Rambaian	158,640.0	0.52	0.47	21,654,360.00	7,145,938.80	14,508,421.2
13		Kerta Jaya	39,094.5	0.26	0.29	5,336,399.25	978,339.86	4,358,059.4
14		Sungai Rabbit	17,360.4	1.22	0.47	2,369,694.60	1,334,927.96	1,034,766.6
			491,304.35	0.61	0.55	66,826,969.76	24,319,547.54	42,507,422.2

* these data need to be checked as they indicate water levels in dry season higher than in the wet season which is not normal.

Review and Guidance by MTR

The calculation of emissions by the SMPEI is an over-estimation, as the project interventions did not address the entire 491,304ha of the land in the 14 villages. The two main actions were as follows:

- to construct 202 canal blocks to raise water levels in a portion of the village land (estimated by the project as 6,060 ha on the basis of 30ha per canal block x 202 canal blocks); and
- Work with approximately 300,000ha of oil palm and forest plantations in the landscape to enhance water management systems and raise water levels.

However, these two interventions did not cover all of the village land as some of the village land area overlaps with conservation areas and also there are significant lands where no enhancement of water levels has been made.

In addition there has been some action to promote fire prevention activities and reduce the extent of peatland fires in the villages, but this has not been tracked or analysed.

The detailed guidance on the methodology for GHG emission tracking for the SMPEI project was provided in the Project design report (PDR) in 2016 Appendix 7: GHG emission reduction benefit assessment. It is recommended that this is referred to and used to guide the recalculation of the GHG emissions. However since the project has not been very active in forest conservation and has not gathered or analysed data on the changes in fire extent during the course of the project – it is

proposed to simplify the scope of the work done at this stage and focus on the emission reduction due to enhanced water management.

Since the project to date has focussed on gathering of data on water level management by the communities and by the plantation companies in the landscape – it is proposed that the project undertake the following:

- a) **Emission reduction from peatlands in villages:** recalculate the actual area in the 14 villages that have been directly impacted by the project before re-calculating the emission reductions using the Hooijer et al (2010) formula (according to data provided to the MTR the area with enhanced water level as a result of the project is about 6,060ha – developed progressively in 2019 and 2020). Information on the location of the blocks is given in Appendix 17 of this report. The proposed level of 1.5 m below the surface can be taken as the baseline water level for the purpose of the calculation (although it would be good practice to compare this to any initial measurements of water table undertaken in 2019 and 2020 prior to the installation of canal blocks).
- b) **Emission reductions from plantations on peatland:** assess the emission reductions in the other portions of the landscape that have been impacted by the Project - in particular by the work of DPDC to implement the water management requirements of the government regulations and using the data on water levels through the SIMATAG-0.4 system established under component 1 of the SMPEI. This will involve defining and calculating the amount of has of plantations under enhanced water management. It is understood that the water management and ground water levels of a significant area of plantations has been guided and monitored in the targeted peatland landscape in southern Riau. The emission reductions from these plantations also need to be included in the calculations for the emission reductions for the SMPEI project – Using the Hooijer formula mentioned above – which was also referenced in the methodology in the original SMPEI design document (see Annex 1 below)

For the plantations it may not be appropriate to use a baseline groundwater level of 1.5 m below the surface, as these larger plantations have generally have used some degree of water management in the past. Based on understanding of the MTR team members (who also developed the methods in Annex 1 in 2016), Acacia plantations managed by the larger companies in the landscape could use a baseline water depth of 1m below the surface while oil palm plantations should use a baseline water table of 75cm below the surface. However if DPDC has further information based on actual measurements from these plantations prior to encouraging them to enhance their water management, those baselines can be used. For example, the PHU map prepared by DPDC in 2015 (see **Figure 1** below) includes some information on the water levels in the northern part of the landscape and information can be extracted by overlaying the plantation locations on this. More detailed information may be included in the data collection tables from the PHU survey in 2015.

The area of plantations in the landscape is shown in **Figure 2** (based on the SIMATAQ-0.4 information), however from the knowledge of the MTR team this map does not include all plantations as there are several additional plantation areas in Teluk Meranti Village in the Northwest of the landscape.

Figure 3 shows the location of manual and data-logger (automatic) water monitoring points in the plantations in the landscape. Based on information presented to the MTR the average water level in plantations in Riau in 2019 was 0.62m below the surface and for 2020 was 0.52m below the surface. However this data can be collated and analysed for the specific plantations in the landscape and differentiated between oil palm and forest plantations.

Therefore based on the area of the plantations and the baseline and post-project water tables, it will be possible to calculate the baseline and project emissions for each individual estate or for all estates in the landscape collectively.

Given the good success of DPDC in securing compliance by the plantation companies on water table management, it is expected that the calculated emission reductions may be higher

than those specified in the design document (see annex 1). At the time of the design it was estimated that the project may be able to encourage the plantation companies to raise the water table on only 20-33% of the plantation area. However information provided to the MTR indicates that in the target landscape most if not all the plantations have elevated water tables.

Preliminary Estimate of emission reductions by the project at the time of the MTR

A preliminary estimate of the emission reductions by the project by the time of the MTR is given below

a) Emission reduction from the canal blocking in the villages

Year of canal blocking	number of canal blocks	area rewetted per canal block (ha)	Total area rewetted (ha)	baseline water level (m)	post blocking water level (m)	increase in water level	emission reduction 2019-2020	emission reduction 2020-2021	total emission reduction
2019	76	30	2280	1.5	0.58	0.92	190,882	190,882	381,763
2020	126	30	3780	1.5	0.58	0.92		316,462	316,462
Total	202		6060				190,882	507,343	698,225

b) Emission reduction from plantations

Type of plantations	Area of plantation in landscape (ha)**	baseline water level (m)*	water level 2019 (m)*	increase in water level 2019 (m)	water level 2020 (m)*	increase in water level 2020 (m)	emission reduction 2019 (tCO2)	emission reduction 2020 (tCO2)	total emission reduction (tCO2)
Forest	200,000	1	0.628	0.372	0.52	0.48	6,770,400	8,736,000	15,506,400
Oil Palm	95,703	0.75	0.628	0.122	0.52	0.23	1,062,495	2,003,064	3,065,558
Total	295,703						7,832,895	10,739,064	18,571,958

+ based on estimated baseline water level in Project Design Report 2016 (see annex 1)

* based on average water level in plantations in Riau in 2019 and 2020 as reported by DPDC in presentation to MTR

**Total area based on project information during MTR (division between plantation types is approximate)

c) Total emission reduction by SMPEI project

The total emission reduction as a result of the action by DPDC/SMPEI working with villagers and plantations in the targeted landscape in Riau province in 2019 and 2020 is **19,270,183 tCO2**

128

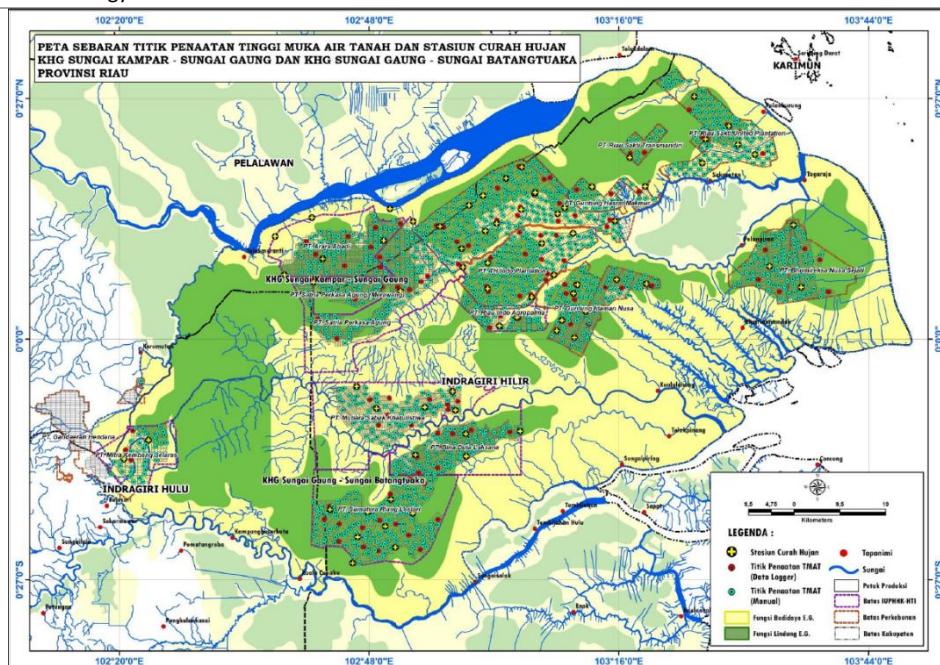


Figure 3: Water table monitoring points in plantations in the Targeted landscape

Finally, based on the information included in **Figure 4** provided to the MTR, some of the plantation companies are in the process to retire and rehabilitate some of the current plantation areas within areas zoned for conservation. This can form the basis of additional calculation of GHG emission reductions as these areas may be permanently taken out of cultivation and returned to forest. If successful, this means that the projected long term emission will be reduced. However it is not known what information the project has on this matter. It could be a future consideration for this project or the overall national methodology.

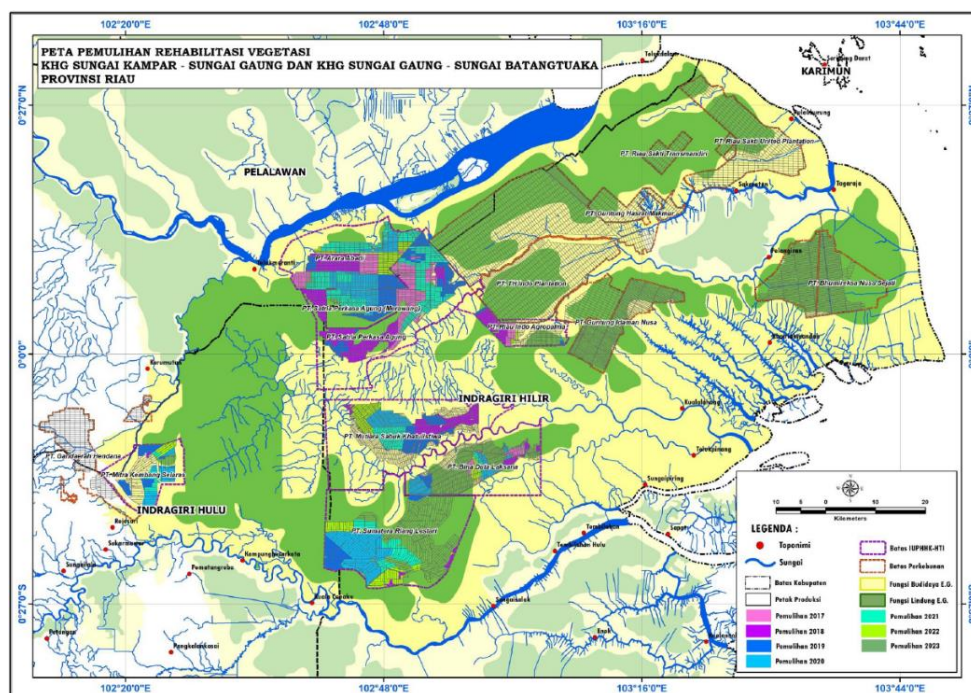


Figure 4: areas of forest plantations on peatland in the targeted landscape planned for vegetation rehabilitation between 2017-2023

Annex 1: GHG emission reduction estimated as part of SMPEI project design in 2016

The GHG emission reduction for SMPEI has been calculated through application of the IPCC 2013 Supplement to the 2006 Guidelines for National Greenhouse Gas Inventories: Wetlands (the Wetlands Supplement). The Wetlands Supplement was developed upon the request of UNFCCC to undertake further methodological work on wetlands, focusing on the rewetting and restoration of peatland.

The selection of GHG emission assessment methodology for SMPEI followed the latest GEF Guidelines for GHG emissions accounting and reporting (May 2015). As a project that develops policy, regulatory frameworks and financial mechanism on land-use planning and capacity building and that influences agroforestry areas (incl. peatlands), SMPEI incorporated the Wetlands Supplement for CO₂ and non-CO₂ emissions from fires on drained inland organic soils. In addition for the calculation of emission reductions related to enhanced water management in peatlands – the project has adopted the methodology approved by the Emission Reduction Working Group of the Round Table on Sustainable Palm Oil (RSPO) (RSPO 2014) which addresses the differential emissions from drainage according to the average water table.

The following assumptions were applied to the GHG emissions reduction assessment of the SMPEI:

- The methodology is based on the Wetlands Supplement
- All GHG emissions are converted to tonnes of CO_{2e} for the project
- The CO_{2e} reductions reported are cumulative reductions, estimated for the project period only and not the lifetimes of the investments
- There is no discounting for future GHG emission reductions

Given the characteristics of the soil type in the project areas of SMPEI (i.e. soil organic/wet, non-flooded land, not constructed for wastewater treatment, non-coastal land), the assessment refers to Drained Inland Organic Soils (Chapter 2) and Rewetted Organic Soils (Chapter 3) of the Wetlands Supplement. The land-use categories applied are thus organic wet soil and organic drained soil.

The challenge of estimating more accurate GHG emissions in Indonesia peatlands is that there has been no harmonized map indicating peatland soil types, function and current practice. The Ministry of Environment and Forestry aim to inventory and map peatlands and this is part of the SMPEI activities. The ex-ante assessment thus assumes the size of peatlands and its function/characteristics in a broad sense and the accuracy will be improved upon the completion of peatland mapping.

- Total peatlands in the Sungai Kampar - Sungai Indragiri Peatland Hydrological Unit (SKI PHU): 850,000 hectares (10% of Riau)
- Kerumutan Nature Reserve (NR), inclusive of other forests on the Kerumutan Peat dome: 350,000 ha
- Assumed small- and large-scale plantation in SKI PHU: 400,000 ha
- Assumed mix cropland + shrub in SKI PHU: 5000 ha (5% of neither NR nor plantation) with degradation of 1.5%/y over 4 years
- Degraded peat in Riau: 1,276,541 ha
- Assumed degraded peat in SKI PHU: 127,654 ha (10%)
- Average shrub cover in Riau: 1%
- Average total mix cropland + shrub (small-scale agriculture) in Riau: 26%
- Average forest cover including logged areas in Riau: 66%
- Land cover trends between 1985-2006 in Southeast Asia: 47% deforested (17% intensive drainage for large-scale agriculture, 67% for small-scale agriculture for mixed cropland and shrubland, and 16% cleared or burnt)
- BAU deforestation rate in remaining forest in SKI PHU assumed for 4 years: 5.7%

- Average Forest change range between 1985-2000 in Riau: -1.4%/y2
- Organic soil fuel consumption values for tropical wildfire on drained peat: 353 tonne dry matter/ha
- Emission Factors for organic soil fire in the tropical zone: CO₂ 0.464 tCO₂/t dry matter

1. **Estimated avoided CO₂e emissions and removals from drained inland organic soils + Rewetted organic soils**

Project will influence large plantation companies to reduce their carbon emissions with a total of assumed 400,000 ha involved which 300,000 ha for Acacia plantations and 100,000 ha for oil palm plantations.

BAU

In the BAU scenario it is expected that Acacia will be maintained at an average water level of 100cm below the surface and oil palm at 75cm below the surface. The emissions over 4 years would be as follows

Acacia: 300,000 ha x 0.91 tCO₂/ha/cm drainage x 100cm drainage x 4 years = 109,200,000 tCO₂

Oil palm: 100,000 ha x 0.91 tCO₂/ha/cm drainage x 75cm drainage x 4 years = 27,300,000 tCO₂

With project

A. Lower Estimate of 20%

It is assumed that better water management will be successfully introduced in approximately 20% of the acacia and oil palm and that this will progressively happen over the four years (calculated as 2 years with BAU water level and 2 years as with project water table). Better water management will be a water level of 60cm in Acacia and 50cm in oil palm.

Acacia:

3,000 ha would be taken out of production and rewetted with zero emission

57,000 ha * 0.91 tCO₂/ha/cm drainage * 60cm drainage * 2 years = 6,224,400 tCO₂

57,000 ha * 0.91 tCO₂/ha/cm drainage * 100cm drainage * 2 years = 10,374,000 tCO₂

240,000 ha * 0.91 tCO₂/ha/cm drainage * 100cm drainage * 4 years = 87,360,000 tCO₂

Total 103,958,400 tCO₂

Total accumulative CO₂ emission with project from 300,000 ha of Acacia plantations is 103,958,400 tCO₂. Thus, total emission reduction from BAU Acacia plantations with 20% is 5,241,600 tCO₂ in four years.

Oil palm:

20,000 ha * 0.91 tCO₂/ha/cm drainage * 50cm drainage * 2 years = 1,820,000 tCO₂

20,000 ha * 0.91 tCO₂/ha/cm drainage * 75cm drainage * 2 years = 2,730,000 tCO₂

80,000 ha * 0.91 tCO₂/ha/cm drainage * 75cm drainage * 4 years = 21,840,000 tCO₂

Total 26,390,000 tCO₂

Total accumulative CO₂ emission with project from 100,000 ha of oil palm plantations is 26,390,000 tCO₂ if only 20% of the plantations comply with the enhanced water management. Thus, total emission reduction compared to BAU from the oil palm plantations is 910,000 tCO₂ in four years.

Total reduction of accumulative carbon emission with project of lower estimate of 20% is 6,151,600 tCO₂ (value a) in four years.

² [A. Hooijer et al. Current and future Co2 emissions from drained peatlands in Southeast Asia. Biogeosciences, 7, 2010. http://www.biogeosciences.net/7/1505/2010/bg-7-1505-2010.pdf](http://www.biogeosciences.net/7/1505/2010/bg-7-1505-2010.pdf)

B. Higher Estimate of 30-33%

It is assumed that better water management will be successfully introduced in approximately 30-33% of the acacia and oil palm and that this will progressively happen over the four years (calculated as 2 years with BAU water level and 2 years as with project water table). Better water management will be a water level of 60cm in Acacia and 50cm in oil palm.

Acacia:

3,000 ha would be taken out of production and rewetted with zero emission
 $97,000 \text{ ha} * 0.91 \text{ tCO}_2/\text{ha}/\text{cm drainage} * 60\text{cm drainage} * 2 \text{ years} = 10,592,000 \text{ tCO}_2$
 $97,000 \text{ ha} * 0.91 \text{ tCO}_2/\text{ha}/\text{cm drainage} * 100\text{cm drainage} * 2 \text{ years} = 17,654,000 \text{ tCO}_2$
 $200,000 \text{ ha} * 0.91 \text{ tCO}_2/\text{ha}/\text{cm drainage} * 100\text{cm drainage} * 4 \text{ years} = 72,800,000 \text{ tCO}_2$
Total **101,046,000 tCO₂**

Total accumulative CO₂ emission with project from 300,000 ha of Acacia plantations is 101,046,000 tCO₂. Thus, total emission reduction from BAU Acacia plantations with 33% is 8,154,000 tCO₂ in four years.

Oil palm:

$30,000 \text{ ha} * 0.91 \text{ tCO}_2/\text{ha}/\text{cm drainage} * 50\text{cm drainage} * 2 \text{ years} = 2,730,000 \text{ tCO}_2$
 $30,000 \text{ ha} * 0.91 \text{ tCO}_2/\text{ha}/\text{cm drainage} * 75\text{cm drainage} * 2 \text{ years} = 4,095,000 \text{ tCO}_2$
 $70,000 \text{ ha} * 0.91 \text{ tCO}_2/\text{ha}/\text{cm drainage} * 75\text{cm drainage} * 4 \text{ years} = 19,110,000 \text{ tCO}_2$
Total **25,935,000 tCO₂**

Total accumulative CO₂ emission with project from 100,000 ha of oil palm plantations is 25,935,000 tCO₂ if only 30% of the plantations comply with the enhanced water management. Thus, total emission reduction compared to BAU from the oil palm plantations is 1,365,000 tCO₂ in four years.

Total reduction of accumulative carbon emission with project of higher estimate of 30-33% is 9,519,000 tCO₂ (value a) in four years.

2. **Estimated avoided CO₂ and non-CO₂ emissions from fires on drained inland organic soils using the Wetlands Supplement**

As mentioned in the Wetlands Supplement, the uncertainties in the assessment of fires on organic soils are much higher because organic soils can burn over long time reading different depths. As well, the type and density of the soil organic material combined with the combustion efficiency will determine the nature of gases and other compounds emitted.

The following equation used to calculate avoided CO₂ and non-CO₂ emissions from fires on drained inland organic soils:

$$\text{Amount of CO}_2 \text{ emissions in tonnes} = \text{Total area burned annually (ha)} * \text{Soil fuel consumption value (t dry matter/ha)} * \text{Emission factor for each gas (tCO}_2\text{/t dry matter)}$$

The values applied for mass of fuel available for combustion and emission factor are 353 t.d.m/ha of dry matter and 0.464 tCO₂/t dry matter burned.

The baseline data of fire affected areas between 2014-2015 will be assessed in preparation of the start-up. As an ex-ante,

A. Lower Estimate of 2,500 ha

It is assumed that the project will reduce the area of peatlands that will burn by 2,500 ha during the project period.

Avoided CO₂ emissions = 2,500 ha * 353 t d.m/ha * 0.464 tCO₂/t d.m = 409,480 tCO₂

Total reduction of accumulative carbon emission by avoided fire/burning from peatlands with project (with lower estimate of 2,500 ha) is 409,480 tCO₂ (value b).

B. Higher Estimate of 5,000 ha

It is assumed that the project will reduce the area of peatlands that will burn by 5,000 ha during the project period.

Avoided CO₂ emissions = 5,000 ha * 353 t d.m/ha * 0.464 tCO₂/t d.m = 818,960 tCO₂

Total reduction of accumulative carbon emission by avoided fire/burning from peatlands with project (with higher estimate of 5,000 ha) is **818,960 tCO₂** (value b).

3. Estimated avoided CO₂ and non-CO₂ emissions from deforestation

BAU

20,000 ha of peatland forests assumed to be cleared where 10,000 ha to be cleared and burnt but another 10,000 ha cleared but not burnt in four years. For this section only the emission from the Above Ground Biomass (AGB) is calculated as the emissions from the burning is covered in Point 2 above. It is assumed that the land to be cleared has an AGB of 100tC/ha.

20,000 ha * 100 tC/ha * 3.67 (C-CO₂ conversion factor) = 7,340,000 tCO₂

Total accumulative carbon emission estimated as 7,340,000 tCO₂ in four years.

With project

Lower estimate of 5,000

It is assumed that the deforestation rate is halved through the action of the project so that in the project situation 5,000 ha of peatland forests are assumed to be cleared (with half being burnt – representing the reduction of 2,500 ha of burning as mentioned in point 2 above)

5,000 ha * 100 tC/ha * 3.67 (C-CO₂ conversion factor) = 1,835,000 tCO₂

Total reduction of accumulative carbon emission by avoided deforestation of peatlands with the project is thus **1,835,000 tCO₂** (value c).

Higher estimate and 10,000

It is assumed that the deforestation rate is halved through the action of the project so that in the project situation 10,000 ha of peatland forests are assumed to be cleared (with half being burnt – representing the reduction of 5,000 ha of burning as mentioned in point 2 above)

10,000 ha * 100 tC/ha * 3.67 (C-CO₂ conversion factor) = 3,670,000 tCO₂

Total reduction of accumulative carbon emission by avoided deforestation of peatlands with the project is thus **3,670,000 tCO₂** (value c).

Projected GHG emission reduction benefit from SMPEI with lower and higher estimates is in table below (value a + value b + value c):

Estimated avoided emissions from	Lower Estimate (tCO₂)	Higher Estimate (tCO₂)
1. Drained/rewetted soil (Value a)	6,151,600	9,519,000
2. Reduced Fire (Value b)	409,480	818,960
3. Avoided Deforestation (Value c)	1,835,000	3,670,000
Total	8,396,080	14,007,960

For purpose of Tracking Tool, the lower estimate of 8,396,080 tCO₂ of direct emission reductions during the project period is taken.

Appendix 22: Agreed Actions on GEF5 SMPEI, GEF6 IMPLI and GEF7 CoPLI from earlier meetings

Meeting date/time: on 22 March 2021 at 9:00 – 11:00 (Rome time)

Meeting participants: Ms. Laksmi Dhewanthi (GEF OFP Indonesia, MOEF), Ms. SPM Budisusanti (Director of Directorate of Peatland Degradation Control, MOEF), Mr Giovanni B. Monsafor (Head of Multilateral I Sub-division, International Cooperation Bureau, MOEF), Ms Laura Reviani Bestari (GEF OFP Secretariat Staff), Mr. Ivan Cossio Cortez (Indonesia Country Director, IFAD), Ms. Kisa Mfalila (Regional Climate and Environment Specialist, IFAD), Ms. Evi Wulandari (Environment and Climate Officer, IFAD), Mr. Muhammad Iskandar (Country Programme Analyst, IFAD), Ms. Dilva Terzano (Environment and NRM Specialist, IFAD)

Follow-up Meeting date/time: on 07 May at 8:00 – 10:00 (Rome time)

Meeting participants: Ms. SPM Budisusanti (Director of Directorate of Peatland Degradation Control, MOEF), Mr. Muhammad Askary, (SMPEI PMO), Mr. Erlangga Wahyu (DG PEDC), Mr Sapto (DPDC), Ms. Yuli Purnamawati (FM Specialist PMO), Adina Dwirezanti (M&E and KM Specialist, PMO), Delvano H. Akbar (Project Assistant, PMO), Arum Kusumawati (FM staff, PMO), Mr. Ivan Cossio Cortez (Indonesia Country Director, IFAD), Ms. Evi Wulandari (Environment and Climate Officer, IFAD), Ms. Dilva Terzano (Environment and NRM Specialist, IFAD)

Area	Progress/Notes	Agreed Actions	Estimated date (PMO/DPDC to please complete)	Updates (as of 07 May 2021)
GEF 5 SMPEI				
Recruitment of PMO Project Coordinator	PMO has undergone the recruitment process twice since 2019, but the position has not been filled. Recent discussion in February 2021 identified that the allocated budget salary may be too low, therefore IFAD has suggested to increase the budget allocation. Currently PMO is proposing USD 3,200/month in the AWPB 2021.	Recruitment process will commence immediately once: <ul style="list-style-type: none"> - 2021 AWPB &PP provided NOL by IFAD - Budget integrated in DIPA (the National Budget) → 3-6 days (by 11 May) - Recruitment to be listed in the procurement document/process (SIRUP) (+ Discussion with ULP – 1 week) → 15 days - Procurement process by ULP → 56 days 	Within 65 days from the NOL released by IFAD	IFAD released NOL on 2021 AWPB on 06 April 2021. Update Information: <ul style="list-style-type: none"> a. Result of review by Itjen KLHK has been released 28 April 2021 (in form of Catatan Hasil Review/CHR) b. Review by DJA in progress (not yet approved). Note: review process has been carried out for 2 weeks by DJA. c. Project activities will be immediately implemented after approval of RKAKL by DJA. d. Time estimation of 65 days after NoL release by IFAD was base on assumption

Area	Progress/Notes	Agreed Actions	Estimated date (PMO/DPDC to please complete)	Updates (as of 07 May 2021)
		Once Vacancy Announcement (VA) advertised, PMO to share VA with IFAD, for IFAD to disseminate the VA within UN systems and other channels - to reach a wider audience of potential applicants.		that the DJA will approve the RKAKL within 3 days. Estimated recruitment process of PMO Project Coordinator to be finalised by end July.
AWPB and PP 2021	The draft 2021 AWPB and Procurement Plan submitted to IFAD on 22 March.		IFAD to respond to the request of NOL by Friday, 26 March	IFAD responded to the NOL request by 26 March, and MOEF submitted updated AWPB addressing IFAD feedback on 05 April 2021. IFAD released NOL on 2021 AWPB on 06 April 2021.
Mid-term Review (MTR) virtual mission	IFAD has started developing TOR. MTR will not be like an audit process.		IFAD to share draft Terms of Reference (including the docs needed) by Thursday 25 th March, for PMO review and inputs, including the proposal of the dates. PMO to provide feedback by Monday, 29 March.	As communicated to MOEF, MTR Mission was suggested to be postponed after Ramadan. IFAD shared draft MTR Mission TORs on 07 May 2021 for PMO review. IFAD to share list of documents to be shared by PMO during the mission (by 10 May). IFAD & PMO to have a preparatory meeting on mission (on 17 May). Proposed Mission dates: 31 May – 16 June (to be confirmed at preparatory meeting on 17 May) Field data collection (prior to mission) to start on 17 May at the latest.
Procurement Issues	IFAD cannot remove prior review process, as this is part of IFAD policy, being an important risk mitigation tool. However, IFAD has facilitated to increase the threshold substantially as part of the agreements last year between IFAD and PMO.	IFAD to undertake briefing/refresher training (including discussion and clarifications) for PMO staff to share experiences on procurement from other projects, with participation also from ULP staff. PMO to recruit a certified Procurement	<u>Thursday 25 March at 9:00 AM.</u>	Done. IFAD released NOL on 2021 AWPB on 06 April 2021. Procurement of Procurement Specialist will be carried out after approval of DIPA revision by DJA

Area	Progress/Notes	Agreed Actions	Estimated date (PMO/DPDC to please complete)	Updates (as of 07 May 2021)
		Specialist. This will be included in the 2021 AWPB & PP to be reviewed by IFAD by Friday, 26 March.	Within 65 days from the NOL released by IFAD	(as with Project Coordinator recruitment). Estimated recruitment process of certified Procurement Specialist to be finalised by end July.
GEF 6 IMPLI				
PMO Establishment	<p>The Director of Peatland Degradation Control (DPDC) submitted Decree (SK) letter to Secretary DG for Pollution and Environment Degradation Control for PMO establishment approval in mid-February.</p> <p>DPDC has consulted internally with the Secretary DG for Pollution and Environment Degradation Control on the possibility to have a separate project manager for IMPLI. Another PMO is also proposed by the Directorate to manage IMPLI.</p> <p>IFAD suggestion: If MOEF to maintain only one PMO for both SMPEI and IMPLI, more staff should be recruited to ensure adequate human resource capacity (each project should have a dedicated Project Coordinator). In some cases, it would be better to have one PMO to avoid duplications and to have stronger coordination on some aspects such as procurement, M&E. However, IFAD will respect and support the decision of MOEF</p>	<p>DPDC to follow-up with DG on SK letter.</p> <p>DPDC to contact IFAD on any issues in establishing PMO.</p>	<p><i>DPDC to provide timeline (by 30 March) when the decree letter will be approved / PMO will be established.</i></p>	<p>The SK of PPK (Pak Sapto) and treasurer officer for IMPLI Project has been appointed on 15 April 2021.</p> <p>Decree letter / SK appointing Director of DPDC as IMPLI PD, and DPDC as PMO, has not been issued yet, and will be issued by end of May. (Evi to follow-up with PMO)</p>

Area	Progress/Notes	Agreed Actions	Estimated date (PMO/DPDC to please complete)	Updates (as of 07 May 2021)
	on this.			
Bank Account Opening	Bank account already being proposed for IMPLI. DPDC submitted Decree (SK) letter to Secretary DG for bank account opening approval in mid-February.	DPDC to follow-up with Secretary DG on SK letter.	<i>DPDC to provide estimated timeline (by 30 March) of when the bank account will be opened</i>	IMPLI Project Account (BNI) has been opened on 04 May 4 2021.
Forms for withdrawal applications/Start-up advance	IFAD has shared the 3 FM start-up forms last 25 November 2020 to be completed by DPDC. The 3 forms consist of: (1) Bank Account Certification form; (2) 1 st Withdrawal Application form; (3) Letter of Evidence to sign WAs and SOEs form.	DPDC to fill-out the 3 forms and submit to IFAD.	<i>DPDC to submit the 3 forms within 1 week after the IMPLI bank account opened.</i>	1 st withdrawal application (WA) form has been prepared. IFAD to share the 3 forms template on 07 May 2021. The 3 forms will be finalised and submitted to IFAD on 11 May 11 2021.
2021 AWPB and PP	MOEF has planned some activities for GEF 6 IMPLI implementation.	DPDC to develop 1 st draft AWPB-PP for IMPLI.	<i>AWPB & PP to be submitted by the end of April 2021 for IFAD NOL.</i>	AWPB 2021 for IMPLI Project will be finalised by end of May 2021 after signing of the PIM by Secretary of DG PPKL.
Recruitment of Project Coordinator	IFAD suggested Project Coordinator for IMPLI to be hired as soon as possible.	DPDC to review draft TORs of Project Coordinator (in p. 54 of draft PIM) and revise as necessary Recruitment process will commence immediately once: - AWPB & PP approved - Budget integrated in DIPA (the National Budget) → 3-6 days - Recruitment to be listed in the procurement document/process	Within 65 days from the NOL released by IFAD	Recruitment process subject to development of 2021 AWPB and IFAD NOL received (see above). Recruitment process of the Project Coordinator estimated to be finalised by mid September.

Area	Progress/Notes	Agreed Actions	Estimated date (PMO/DPDC to please complete)	Updates (as of 07 May 2021)
		<p>(SIRUP) → 15 days</p> <ul style="list-style-type: none"> - Procurement process by ULP → 56 days <p>(above mentioned process to initiate at end of June, and for the recruitment to be finalised by mid September)</p> <p>Once Vacancy Announcement (VA) advertised, PMO to share VA with IFAD, for IFAD to disseminate the VA within UN systems and other channels - to reach a wider audience of potential applicants.</p>		
Project Implementation Manual (PIM)	Draft PIM has been shared with MOEF last 25 November 2020 for review. MOEF has started reviewing it and have several points to discuss with IFAD.	<p>DPDC to finalise the review of the draft IMPLI PIM.</p> <p>DPDC-IFAD to convene meeting to discuss any suggested revision to draft PIM, if necessary.</p>	<p><i>DPDC to provide estimated timeline (by 26 March) of when the PIM review will be finalized.</i></p> <p><i>DPDC to propose meeting date to discuss draft PIM revisions, if necessary</i></p>	The PIM has been agreed internally between Seditjen and Dit PKG and will be submitted to IFAD by Seditjen. PIM to be submitted to IFAD for NOL by end May.
GEF 5 and GEF 6			<i>IFAD and MOEF to convene a meeting on 31 March to check the progress of the agreed actions.</i>	Meeting held between IFAD and MOEF on 07 May 2021.
GEF 7 Indonesia				
PIF	Revised PIF documents (working progress) along with annexes have been shared with GEF OFP on 21 March 2021, and with	MOEF and IFAD to work together on the PIF revision and aim for June 2021 council meeting approval.	MOEF to submit written feedback to IFAD on the latest	<p>Done.</p> <p>IFAD re-submitted the GEF7 PIF on 06 April 2021 to</p>

Area	Progress/Notes	Agreed Actions	Estimated date (PMO/DPDC to please complete)	Updates (as of 07 May 2021)
	<p>Director of Peatland Degradation Control on 22 March 2021.</p> <p>Both MOEF and IFAD are still fully committed with the GEF 7 peatland proposal.</p> <p>In the meeting between IFAD-MOEF-GEF OFP on 23 March, IFAD expressed strong preference to submit the PIF to the December Council. However, GEF OFP strongly encouraged IFAD to aim for June 2021 Council Meeting, since no assurance can be provided on the resource allocation if there will be further delay. GEF OFP had a consultation with the MOEF Vice Minister, and was informed that the Vice Minister is still expecting this project to get approval for June Council Meeting.</p>		draft PIF by 24 March 2021.	<p>GEF Sec, for inclusion at the GEF June Council. IFAD received 3 additional rounds of minor comments from GEF Sec, and resubmitted the GEF7 PIF addressing these comments respectively on 20, 22 and 27 April 2021. No further comments were received from GEF Sec since the last re-submission.</p> <p>IFAD will keep MOEF updated on related communication from GEF Sec.</p>

Other important general notes:

- PMO informed that the delays experienced in GEF5 SMPEI and GEF6 IMPLI were caused by other commitments that needed to be prioritized by DPDC, not because of the lack of commitment from the ministry to implement the projects. In the past few months, peatlands has become a national concern and high priority in the work of the ministry. In this regard, the Directorate of Peatland Degradation Control has encountered some challenges in delivering all commitments, not only from IFAD but also commitments to other donors. IFAD mentioned that this is the reason why the PMO team needs to be strengthened with the inclusion of the Project Coordinator and a procurement officer.
- GEF OFP will be accompanying and facilitating the peatland directorate team to ensure identified issues/challenges are addressed (including the hiring of PMO Project Coordinator for SMPEI) and to bring the project's performance back on track. GEF OFP to provide support within this and in the next few months to expedite the projects.
- Communication between IFAD and MOEF should be intensified. However, it is worth to note that the lack of communication is not due to the lack of response from IFAD. IFAD agrees that this is the time to reconstruct communications between PMO and IFAD