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UNITED NATIONS DEVELOPMENT PROGRAMME

PROJECT DOCUMENT

Malaysia

Project Title: Climate Resilient Agriculture: Enhancing the hill paddy industry in Sabah.
Project Number:
Implementing Partner: Ministry of Agriculture, Fisheries and Food Industry Sabah (MAFFI)
Start Date: July 2025 **End Date:** June 2028 **PAC Meeting date:** 11 March 2025

Brief Description
This joint UNDP/Government of Malaysia project aims to enhance the hill paddy industry in Sabah, in terms of yield productivity, sustainability and potential for income-generation. This will be done through the introduction of relevant technology combined with traditional practices of hill paddy farmers. Specific consideration will be placed on nature-based solutions in the project methodology for climate adaptation and mitigation purposes. The project further links several related development issues, such as increasing youth participation in the agriculture sector and increasing rural income from agriculture activities. The project will support the Government's Twelfth Malaysia Plan, National Agrofood Policy (DAN 2.0) 2021-2030, DAN 2.0 Action Plan and Sabah Agriculture Blueprint 2021 – 2030. This project's field interventions will take place at two pilot sites located in Sabah based on the options from several sites as initial proof of concept for scaling up in the next Thirteenth Malaysia Plan. The two sites represent rural communities actively participating in agriculture, both for subsistence and income generation. After several rounds of consultations from July – December 2024 with agencies and community partners in Sabah and at the National Level, the project will initially test various technology tools and introduce new sustainable practices complementing the traditional practices already in use as part of the climate resilient agriculture initiatives for the hill paddy industry in Sabah. In addition, pathways for upscaling these tools and methods together with downstream income-generating opportunities (e.g. sale of hill rice products and agrotourism) from the pilot sites to multiple locations will be developed. At the end of the project timeline (three years), the project aims to demonstrates relevant technology and practices for hill paddy and enhance the value chain for better income generation.

Contributing Outcome (UNSDCF, CPD, CPAP, RPD):
UNSDCF, CPD 2022-2025 and CPAP 2024-2025 Outcome 2: Planet. By 2025, environmental sustainability and resilience are mainstreamed as priorities in the national development agenda, across all sectors and all levels of society. UNSDCF, CPD 2022-2025 and CPAP 2024-2025 Outcome 3: Prosperity. By 2025, Malaysia is making meaningful progress towards an economy that is inclusive, innovative and sustainable across all income groups and productive sectors.

Total resources required:	**USD750,000**	
Total resources allocated:		
	UNDP TRAC:	-
	Donor:	-
	Government of Malaysia (GCS):	750,000
	In-kind	-
	GMS (6%)	45,000
Unfunded:		

UNDP Strategic Plan 2022-2025 Outcome 1: Structural transformation accelerated, particularly green, inclusive and digital transitions. CPD 2022-2025 Priorities: Planet — Mainstreaming environmental sustainability and resilience; Prosperity — Promoting an inclusive, innovative and sustainable economy Twelfth Malaysia Plan Game Changers VII, XI, Pillars: P1 Sources of Economic Growth, P2 Green Growth, P3 Economic Growth Enabler, P5 Inclusivity and wellbeing of Rakyat	

Agreed by (signatures)[1]:

Government	UNDP	Implementing Partner
Dato' Nor Azmie Bin Diron Secretary-General Ministry of Economy	Edward Vrkic UNDP Resident Representative for Malaysia, Singapore and Brunei Darussalam	Datuk Leonard Stephen Poyong Permanent Secretary Ministry of Agriculture, Fisheries and Food Industry Sabah
Date: 31 July 2025	Date: 31 July 2025	Date: 31 July 2025

[1] Note: Adjust signatures as needed

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ABBREVIATIONS

AI	Artificial Intelligence
APR	Annual Progress Report
AWP	Annual Work Plan
BDA	Big Data Analytics
DAN 2.0	Malaysia's National Agrofood Policy 2021 – 2030
DIGITAL AGTECH	Digital Agriculture Technology
DOA Sabah	Department of Agriculture Sabah
EPD	Environmental Protection Department Sabah
GIS	Geographical Information System
IOT	Internet Of Things
KE	Ministry of Economy
KePKAS	Ministry of Tourism, Culture and Environment Sabah
KPKM	Ministry of Agriculture and Food Security
LPS	Lembaga Padi dan Beras Sabah
MD	Ministry of Digital
MAFFI	Ministry of Agriculture, Fishery and Food Industry
MDEC	Malaysia Digital Economy Corporation
MIGHT	Malaysian Industry-Government Group for High Technology
MTR	Mid-Term Review
MOF	Ministry of Finance
MOSTI	Ministry of Science, Technology and Innovation
MYPR	Mid-Year Progress Report
MyGAP	Malaysia Good Agricultural Practices Scheme
myORGANIC	Malaysia Organic Certification Scheme
PSC	Project Steering Committee
RP	Responsible Parties
SAB	Sabah Agriculture Blueprint 2021-2030
SaBC	Sabah Biodiversity Center
SBAA	Standard Basic Assistance Agreement
SSL	Self Sufficiency Level
Thirteenth Plan	Thirteenth Malaysia Plan (2026 – 2030)
TRAC	Target for Resource Assignment from the Core
TWC	Technical Working Committee
Twelfth Plan	Twelfth Malaysia Plan (2021 – 2025)
UNDP	United Nations Development Programme
UNSDCF	United Nations Sustainable Development Cooperation Framework, 2021-2025
USMB	Ulu Senagang Mongool Baru

I. DEVELOPMENT CHALLENGE

Background on agriculture in Malaysia

Malaysia's agricultural sector (including forestry and fisheries) has contributed to ~8-10% of GDP since 2000[2] with a labour force of ~520,000 (2022)[3]. In 2020, the agrofood sector specifically accounted for around 3.5%, 4% and 4% of GDP, labour force and total exports[4]. A total of 5.63 million hectares of land (accounting for approximately 17% of total land area of Malaysia) is currently used for agrofood cultivation. However, Malaysia still needs to continue intensifying its diversification effort away from large scale agricommodity such as oil palm. At present, almost 5.6 million hectares of land is under cultivation for oil palm[5], with another 1.1 million hectares under cultivation for rubber[6]. Together, these two crops alone make up a similar area to all agrofood crops combined.

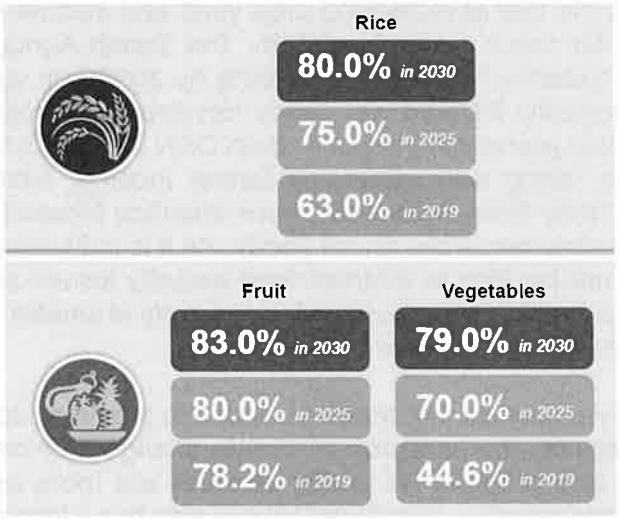


Figure 1: Past and projected Self Sufficiency Levels for rice, fruits and vegetables (National Agrofood Policy 2021 – 2030)

Malaysia's National Agrofood Policy 2021 – 2030 (DAN 2.0) highlights the generally low national Self Sufficiency Level (SSL) for multiple food groups as well as future targets (Figure 1). To reduce reliance on imports, DAN 2.0 has set SSL targets at 80% for rice, 83% for fruits and 79% for vegetables by 2030. The agrofood sector in Malaysia is predominantly comprised of smallholder farmers[7] and remains very labour intensive. There is still a lack of widespread technological adoption in the sector, likely due to availability of cheap labour and limited access to technological applications. There has been a decline in R&D expenditure as a share of agriculture GDP, from 1.88% in 2002 to 0.85% in 2016. Specific examples include only 86.2% of rice producers in granary areas owning low value machinery (less than RM10,000) in 2018. Meanwhile, as of 2018, 72% of livestock farms have limited usage of technology, with only 2% utilising modern technology.[8]The adoption of the voluntary certification Malaysia Good Agricultural Practices Scheme (myGAP), while bringing tangible financial benefits to farmers, is still at very low levels among agriculture smallholders[9]. Youth participation is also very low with only ~15.0% youth employed in the sector in 2015. In addition, only 4.2% of tertiary students considered a career in agriculture in 2016. Reasons

[2] Agriculture, forestry, and fishing, value added (% of GDP) - Malaysia | Data (worldbank.org).

[3] https://www.dosm.gov.my/portal-main/release-content/economic-census-2023-agriculture.

[4] National Agrofood Policy 2021-2030 (NAP 2.0).

[5] Oil Palm Planted Area 2023. Malaysian Palm Oil Board.

[6] Data Statistics on Commodities 2022: Rubber. Ministry of Plantation and Commodities.

[7] National pathway for food systems transformation. United Nations – Food Systems Pre-Summit 2021. Ministry of Agriculture and Food Industries, Malaysia.

[8] National Agrofood Policy 2021-2030 (NAP 2.0) Action Plan

[9] Understanding the Landscape of Agrifood Smallholders in Malaysia: Climate Risks, Sustainable Standards, and Gender Gap. – Kuala Lumpur, Malaysia: Khazanah Research Institute

for this low youth participation include agriculture's image as a dirty, difficult and dangerous (3D) industry, lack of technology use and limited returns[10].

Climate change further exacerbates challenges in the agrofood sector. This is especially true for paddy, as rising sea levels threaten saltwater intrusion into low lying paddy granaries. Furthermore, projections reveal that changes in rainfall pattern and temperature are likely to reduce the average rice yield per hectare by ~10-33% by 2030[11]. As such, reforms in the agrofood sector must consider climate risk and deploy tools and practices that are climate resilient.

The hill paddy industry in Sabah

The current national SSL for rice is just above 56.2% as of 2023[12]. To achieve an SSL of 80% by 2030, DAN 2.0 highlights the role of increasing crop yield and income earned for farmers. At the state level, Sabah's SSL for rice is currently at 22%. The Sabah Agriculture Blueprint 2021-2030 (SAB) lists the target for Sabah's SSL level be at 60% by 2030[13]. In working to achieve this, the Sabah government has recently initiated wet paddy development projects in Kota Marudu[14] and plans to develop a hill paddy granary in Tongod[15]. Both DAN 2.0 and SAB highlight that increasing paddy yield is imperative, along with increasing farmer income, incorporating technology and prioritizing sustainability. While there is correctly much attention focused on wet paddy, there is an opportunity to also focus some resources on hill paddy. As it is cultivated on a much smaller scale, hill paddy cultivation will not be able to address food security issues at a state or national level; however, it does have the potential for addressing food security at smaller scales (rural communities) as well as increase income for rural farmers in Sabah.

Hill paddy has several characteristics that make it suitable in providing opportunities for rural socio-economic advancement against the backdrop of climate change. For instance, hill paddy requires little water for cultivation and heirloom hill paddy varieties are more resistant to diseases when compared to "modern" paddy varieties. Harvested hill rice also has a long shelf life and can be stored for up to 2-4 years.

To fully unlock the potential of hill paddy cultivation, there are several challenges that need to be overcome. A primary challenge is the low yield (Mt/ha) from hill paddy. Currently, yields from hill paddy are around 1-5 Mt/ha, while yields from "modern" variety wet paddy are ~15 Mt/ha (average national yield for wet paddy is ~5MT/ha). Maturing periods for hill paddy also longer (3 - 6 months) compared to wet paddy (~120 days)[16]. Limited research has been done on producing high yield hill paddy seeds, and there is opportunity for agriculture research bodies and academia to fill this gap. The majority of these heirloom hill paddy varieties are not registered with any agricultural body and lack a Geographical Indicator[17]. Recognition of varieties would allow for easier sale of hill rice products, as demonstrated by the popularity of the recognized Bario hill rice variety.

Hill paddy is cultivated using manual methods, mostly in steep terrain. Currently, the low impact nature and small scale of hill paddy farming generally reduces risks of soil erosion and downstream flooding, but if cultivated at larger scales these risks will be more apparent. The adoption of technology is very limited as farmers lack access to such tools. Similarly, irrigation systems are lacking and hill paddy farmers are completely dependent on rainfall. Farmers also rely mostly on the natural fertilizer created after a slash and controlled burn in the planting area. Some farmers may use additional fertilizer, mostly depending on the farmers ability to purchase it or if there is a

[10] National Agrofood Policy 2021-2030 (NAP 2.0)

[11] Ministry of Energy, Science, Technology, Environment, and Climate Change, Malaysia's Third National Communication and Second Biennial Update Report submitted to the United Nations Framework Convention on Climate Change, 2018.

[12] https://theedgemalaysia.com/node/729581

[13] Sabah Agriculture Blueprint 2021-2030

[14] https://www.bernama.com/en/news.php?id=2328706

[15] https://www.bernama.com/en/news.php?id=2305266

[16] The Paddy and Rice Industry of Sabah and Sarawak: Status and Potential. Kuala Lumpur, Malaysia: Khazanah Research Institute

[17] The Paddy and Rice Industry of Sabah and Sarawak: Status and Potential. Kuala Lumpur, Malaysia: Khazanah Research Institute

subsidized allocation. The heavy dependence on natural fertilizer complicates the planting process when rainfall (during previously dry periods) prevents the controlled burning from being executed[18]. The application of pesticides is similar to that of fertilizer, largely depending on subsidies and ability of the farmer to purchase. Though the hill paddy cultivation in place is largely organic and sustainable, very few hill paddy farmers have applied for certification under Malaysia's Good Agriculture Practices Scheme (myGAP) and Malaysia Organic Certification Scheme (myOrganic)[19]. In terms of downstream income-generating activities, farmers lack access to items such as drying ovens and vacuum packaging machines at an affordable cost. These technology tools would allow for farmers to sell high value hill rice product themselves. Farmers also have limited access to wider market and digital marketing skills to promote hill rice.

While the traditional knowledge used in hill paddy farming is rich and extensive, there is still limited documentation of this practice that can be shared within and among communities. With decreasing youth participation in hill paddy planting, there is a risk of such knowledge dying off. One example of such knowledge is how farmers ensure trees (*pokok pelindung*)[20] are in place to limit erosion and create fire bunds around such trees during the controlled burn. Farmers also typically plant multiple varieties of hill paddy at one time, together with other crops like pumpkins and cucumbers[21]. This multi-cropping method assists in pest control and improving soil fertility. With the goal of enhancing hill paddy yield and farming practices, there is a unique opportunity to combine traditional knowledge, nature-based solutions with appropriate technology while ensuring income improvement across age and gender.

Increasing income for rural communities and ensuring higher youth participation

Most hill paddy farming is done for subsistence, although there is demand for hill rice both within Sabah and in other states (especially Selangor and Kuala Lumpur). With an increase in yield, farmers will have a surplus of hill rice that can be sold to increase their income. This also serves as an incentive for youth who are interested in continuing the rich tradition of hill paddy farming with technology, as they can stay in their villages and earn dignified incomes without needing to relocate to urban areas. If this project is able to increase yields, there is further potential for selling hill rice products in Selangor and Kuala Lumpur or further exported to other countries where there is demand for such products.

Problem analysis on low hill paddy productivity

UNDP Malaysia undertook problem analyses of the roots and causes behind the challenges inherent in the hill paddy industry. This was done through desktop research, a rapid field visit, discussions with subject matter experts from ministries and agencies at the federal and state levels, and consultations with the private sector and civil society. On the level of 'Immediate Causes' for the current low productivity of hill paddy we identified: (1) drought and changing rainfall patterns, (2) manual labour and lack of technology applications, (3) low participation of youth, (4) long fallow periods and (5) weeds and pests.

[18] A. Lasimbang, pers. comm.

[19] The Paddy and Rice Industry of Sabah and Sarawak: Status and Potential. Kuala Lumpur, Malaysia: Khazanah Research Institute

[20] Ulu Senagang Mongool Baru community

[21] C.Lasimbang, pers. comm.

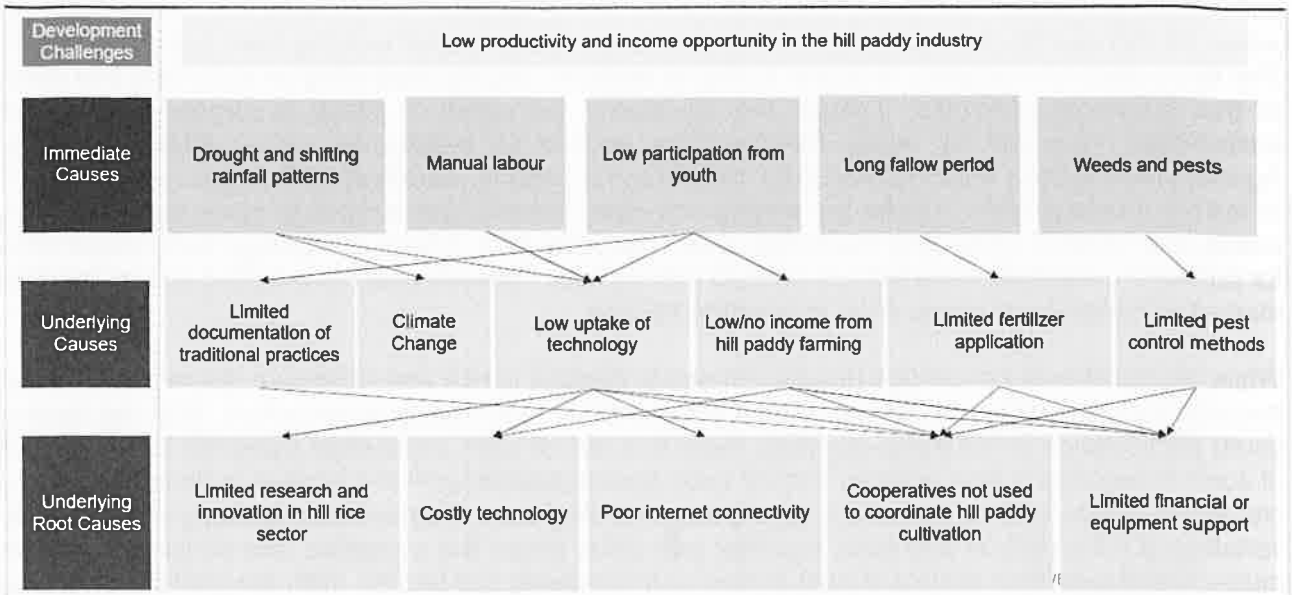


Figure 2: Problem Analysis on the challenge of low productivity and income opportunity in the hill paddy industry.

Figure 2 shows the immediate and two levels of underlying causes preventing higher productivity in the hill paddy industry. With the timeframe of this project, we will not focus on lack of high yield seeds since this will require applied research and development (R&D) that requires a timeline of beyond three years. However, the findings from the outcome of seeds varieties planted in this project can contribute to R&D in the future.

II. STRATEGY

Theory of Change



Figure 3: Theory of change detailing two distinct approaches towards enhancing the hill paddy industry

The project will be carried out via two distinct approaches with the goal of enhancing the hill paddy industry and upscaling the work beyond the project sites (Figure 3). For the first approach the project will focus on the demonstration of affordable technology and sustainable farming practices through the community cooperatives in the project sites as well as scoping for additional income generating activities (i.e. agrotourism, packaged hill rice products). The second approach focuses on capacity building for farmers in the use of technology and documentation of traditional knowledge, as well as identifying potential partnerships with the private sector or academia for technology innovation. The second approach further focuses on creating the ecosystem for hill paddy farmers to continue

planting hill rice while sustainably improving productivity. These approaches align well with the Problem Analysis conducted and attempt to fix both the underlying and root causes of the primary development challenge.

The comparatively short time of initial project implementation will require a whole-of-government approach between all stakeholders. Within the limited timeframe of three (3) years (covering 4 planting cycles), the project will focus on a limited number of activities that are more likely to be achievable. The project strategy is to build the foundation for upscaling of operations in the Thirteenth Malaysia Plan (Thirteenth Plan – RMK13) cycle after project period has ended. Finance assurance of such potential up-scaling will be one of the focuses of stakeholders sitting in the Project Steering Committee and UNDP Country Office.

Assumptions

Internal

- Timely availability of contract finalization and funding for hiring and procurement services.
- Subject matter experts from Malaysia are available to manage and monitor the project effectively.
- Efficient transfer mechanism in place to organize funds from funding source to vendor, as well as verification process of appropriate utilization.

External

- Political support maintained throughout project implementation especially regarding future scaling up and potential funding sources.
- Government of Malaysia and Sabah government take joint ownership of the project and actively facilitate solutions to issues arising.
- On-ground implementing entities maintain and further develop management capacity and technical knowledge.
- Farmer interest and capacity is sufficient and sustained for at least four planting seasons.
- Technology solutions are accessible, affordable and scalable for community cooperatives and the Sabah government.
- Farmers and the wider community are willing to document their traditional knowledge and share it with UNDP and the Sabah government.
- No severe weather events that disrupt the planned four planting seasons.

Project Governance

UNDP will support the Project Implementing Partner, Ministry of Agriculture, Fishery and Food Industry Sabah (MAFFI) with Project Assurance as well as portions of project management, monitoring and evaluation. Development partners will include Ministry of Economy, Ministry of Agriculture and Food Security, Ministry of Communications, Ministry of Digital, Ministry of Science, Technology and Innovation and Ministry of Tourism, Culture and Environment Sabah. Development partners will sit on the Project Steering Committee and Technical Working Committee. The responsible parties for this project will be Malaysian Industry-Government Group for High Technology (MIGHT), the Department of Agriculture Sabah (DOA Sabah) and Malaysia Digital Economy Corporation (MDEC).

Project Coverage

The project will take place in two (2) sites in Keningau, Sabah. The first site is Ulu Senagang Mongool Baru (USMB; 5°21'18"N 116°01'42"E). USMB is a part of the community use zone within Crocker Range Park, a totally protected area. Sabah Parks, the authority in charge, has worked with the USMB community to draft a management plan and divided the area according to land use (residential, agriculture, etc.). USMB farmers plant hill paddy in lots that are assigned to each family and have an extensive knowledge on managing the land for this crop. The terrain at USMB is steep (more than 25-degree slopes). Current land use guidelines do not allow for agriculture on such

slopes, but there is leeway given to communities cultivating hill paddy as it has been conducted for multiple generations.

The second site is Kg Magatang (Magatang; 5°21'49"N 116°13'15"E), where DOA Sabah has been engaging with community members to develop a hill paddy planting project within parts of the village's grazing area. The grazing area is within a network of farms and community lands that border the Nuluhon Trusmadi Forest Reserve. The terrain in Magatang is much less steep (less than 25 degrees). Unlike USMB, very few farmers in Magatang are planting hill paddy actively but the community is keen to cultivate this crop again.

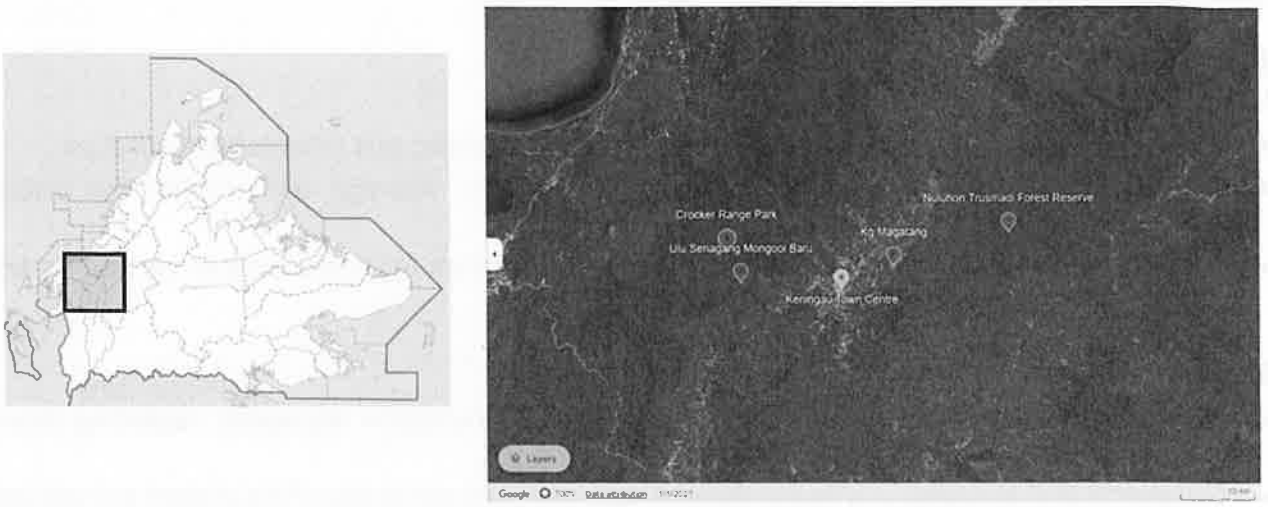


Figure 4: Location of the Project Sites.

Focus on local community farmers

The project will focus on farmers in the USMB and Magatang cooperatives. Farmer traditional knowledge will be used alongside technical expertise of DOA Sabah and partners. Even if third party contractors are brought in for certain aspects of technology applications, the project will ensure that training is conducted with the involvement of farmers. The project recognizes that hill paddy farming has been traditionally conducted for generations, with many of these practices considered to be sustainable (i.e. shifting agriculture, natural pest control, trees for erosion control). We currently identify one specific practice that may need some modification, which is controlled burning. As we will be intensifying hill paddy cultivation in the same area, continuous controlled burning for natural fertilizer will not be possible. The project aims to identify some solutions to this in full consultation with farmers and rely as much as possible on their traditional knowledge. One possible solution would be the use of systematic fertilization (using technology solutions), natural compost and multi-cropping (using traditional knowledge) to ensure soil fertility in each planting season.

Inclusion of Women and Youth

The project will work with cooperatives that are already in place at USMB and Magatang. The cooperatives are composed of men, women and youth, ensuring a good representation in terms of gender and age. This will also give an opportunity for youth who have not been involved in the past to consider getting involved in the hill paddy industry (especially if there is a dignified income to be made from it and reduced manual labour). The project places a focus on women hill paddy farmers, that do not receive a sustained income from cultivating this crop and aims to provide avenues for higher income-generation through downstream value creation.

Nature-based solutions and circular economy

The project will work to find appropriate natural fertilizer (i.e. biochar) where possible to reduce the amount of synthetic fertilizer applied as well as the need for controlled burning. Specific attention will be paid to fertilizer, pellets or any high value-added products that could be created from hill paddy waste (circular waste management). Where possible, pest control using traditional methods

of farmers will also be prioritized to limit pesticide use and explore additional income via waste to wealth activities.

Climate resilience

One aspect of this project is to identify ways in which hill paddy planting can be conducted even through unpredictable weather patterns. In particular, a focus will be placed on irrigation and systematic fertilizer application to reduce the heavy dependence on rainfall and the frequency of controlled burning. Climate data on weather, flood risk and other environment data such as soil health and erosion risk will also be made available to farmers to assist in their planning for the farming activities.

Expected Outcomes, Outputs and Activities

In achieving the overall Objective of enhancing the hill paddy industry, we outline the following outcomes and associated activities. The design of this project is influenced by the extensive knowledge of government agencies and past experiences of UNDP, FAO, UNEP and GEF[22].

Outcome 1: Increased productivity and livelihood opportunities for hill paddy farmers through integrated sustainable farming practices.

Output 1.1: Appropriate technology and sustainable farming practices adopted and deployed by farmers by end of the project.

Activity 1.1.1: Deploy technology solutions (i.e. GIS climate data monitoring system, IOT/AI-sensors and drones for systematic irrigation and fertilisation, renewable energy, composting machines etc.) and innovative solutions at the selected sites, based on the problem statements identified, in addition to the traditional practices (i.e. multi-cropping etc).

Output 1.2: Alternative income-generating activities from hill paddy farming piloted by end of project.

Activity 1.2.1: Scope and pilot potential hill rice products through downstream processing and packaging.

Activity 1.2.2: Scope and pilot potential hill rice products for digital marketing (i.e. blockchain traceability) and branding exercise for access to wider market.

Activity 1.2.3: Scope and pilot potential agrotourism initiative into current tourism packages in Crocker Range Park.

Outcome 2: Institutional frameworks for sustainable and productive hill paddy industry improved.

Output 2.1: Capacity building on sustainable farm management with integrated agrotechnology and traditional farming practices to farming communities in the selected sites completed.

Activity 2.1.1: Conduct on-site training and awareness for Digital AgTech solutions usage and best practices for sustainable agriculture, downstream activities (disaggregated by men, women and youth) and produce training reports.

Activity 2.1.2: Organise engagement sessions with communities to build relevant capacity needed in producing a document on traditional farming practices

Output 2.2: Strategic Action Plan to Enhance the Hill Paddy Industry in Sabah developed.

Activity 2.2.1: Develop a strategic action plan or blueprint for the hill paddy industry in Sabah by identifying key issues, challenges, and gaps within the industry landscape; conducting benchmarking analysis; and formulating strategic recommendations and actionable plans, including pathways for potential replication in other locations in the states, all aligned with the industry's vision, mission, and targeted outcomes.

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[22] UNDP https://www.adaptation-undp.org/

FAO https://teca.apps.fao.org/teca/

APAN https://www.weadapt.org/organisation/apan

GEF https://www.thegef.org/projects-operations/database

UNEP https://www.unep.org/publications-data

Linkage with United Nations Country Programme Document and Government Plans

The project is part of the UNSDCF's Results and Resources Framework 2021-2025.[23] If contributes to Strategic Priority Area 2: 'Planet', covering items # 8 and 9 of the Twelfth Malaysia Plan (Twelfth Plan – RMK12) 'Game Changers', and sits within the UN Sustainable Development Goals 2, 5, 8, 15 The UNSDCF Environmental and Sustainability Results Group covers it under its Outcome statement: "By 2025, environmental sustainability and resilience are mainstreamed as priorities within the national development agenda, across all sectors and levels of society."

With the focus on mechanization, this project falls within the scope of one of the Big Bolds (High Growth High Value Agriculture and Agro-based Industry) listed in the Mid-Term Review (MTR) of the Twelfth Plan [24]. This project further aims to fulfill some of the activities outlined in the National Food Security Action Plan 2021-2025 with regards to increasing the use of innovation and technology in food systems (Thrust 1)[25]:

1. Increasing overall mechanization (Strategy 1 Activity 4)
2. Increasing soil fertility (Strategy 2 Activity 1)
3. Recycling usable farm waste (Strategy 3 Activity 2)

III. RESULTS AND PARTNERSHIPS

Expected Results

Outcome 1: DOA Sabah aims to obtain a yield of 3 Mt/ha and two (2) planting cycles a year, through the use of appropriate technology, traditional knowledge and nature-based solutions. Aside from that, information on the amounts and ratios of pesticides (natural and synthetic) and fertilizers (organic and synthetic) to ensure optimum crop health will be obtained through this project.

Outcome 2: Capacity building for farmers will take place in the community area based on the selected sites, led by relevant government agencies and private sector partners. If the communities are agreeable and willing to lead, a document on traditional farming practices will be produced. The project will produce a blueprint document for the hill paddy industry and identify the ecosystem gaps for future development. Recommendations on the strategies and action plans to scale the hill paddy industry for state roll out will be crafted through discussions and engagements with multiple partners and beyond.

Resources Required to Achieve the Expected Results

People: Community cooperatives from the respective villages will be the main local stakeholder and workforce. Additionally, DOA Sabah, MDEC and MIGHT will be providing technical expertise. As the Implementing Partner (IP), MAFFI will have to assign personnel to monitor and report on the project. UNDP will hire one Project Manager and/or project associate to assist MAFFI with project management, reporting and monitoring.

Purchases: Purchases will either be for specific technology and potentially for the services of an agritech company that provides equipment and training. If the Sabah Biodiversity Centre is unable to conduct the training on traditional knowledge documentation, then procurement would also be needed for a company or civil society organization that can facilitate such training.

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[23] UN Sustainable Development Cooperation Framework for Malaysia 2021 to 2025. https://unsdg.un.org/resources/un-sustainable-development-cooperation-framework-malaysia-2021-2025

[24] Twelfth Malaysia Plan Mid-term Review. https://rmke12.ekonomi.gov.my/ksp/bm/dokumen/mid-term-review-twelfth-malaysia-plan-by-chapter

[25] National Food Security Action Plan 2021 – 2025. https://www.kpkm.gov.my/en/agro-food-policy/pelan-tindakan-dasar-sekuriti-makanan-2021-2025

Partnerships: Partnerships for this project will revolve around MAFFI, the community cooperatives, DOA Sabah, private sectors (i.e. Digital Agtech companies), MDEC and MIGHT with the development partners sitting on the Project Steering Committee (PSC) and Technical Working Committee (TWC).

Sabah's Ministry of Tourism, Culture and Environment through its agency Sabah Parks will oversee activities specific to USMB, as it is within the Crocker Range Park. All farming activities will be assessed, monitored and approved by Sabah Parks to ensure that it does not clash with the existing Crocker Ranger Park management plans.

Key ministries and agencies including the Ministry of Digital, Ministry of Communications, Ministry of Science, Technology and Innovation, Ministry of Agriculture and Food Security, and the Federal Department of Agriculture Malaysia will provide strategic guidance on appropriate technology applications, partnership models, and best practices to support stakeholders in enhancing the capacity of farmers in USMB and Magatang. The Ministry of Economy through its Agriculture and International Cooperation Divisions will monitor the overall implementation and serve as a high-level advisor on the project's direction.

Risks and Assumptions (Please refer to Annex for further details)

Risks

- If the Implementing Partner has capacity constraints, then the project outcomes would be delayed or partially met or not achieved. This will be mitigated by hiring a UNDP Project Manager and/or Project Associate and placed at MAFFI to assist with personnel constraints and to ensure project implementation.
- If the Free, Prior and Informed Consent (FPIC) process is not done properly, then miscommunications and misunderstanding with the community will occur and lead to community rejection or project abandonment. This will be mitigated by a process of continuous engagement and approach to FPIC, always engaging farmers and keeping them up to date with relevant information. Decisions on project activities will be made with farmers. The Project Management Unit (PMU) and IP will be briefed on sexual exploitation and abuse and a grievance mechanism will be available.
- If there is poor slope management and lack of monitoring on the site, then soil erosion will occur and increase runoff, resulting in environmental degradation on site and downstream. The project will rely on DOA Sabah's expertise for proper slope monitoring and integrate traditional farming knowledge to apply sustainable land practices
- If the use of harmful pest control methods is not controlled, then wildlife deaths (e.g., birds) may occur and breach the Wildlife Conservation Enactment 1997. The project will focus on avoiding culling; implement non-lethal deterrence-based pest control strategies to comply with conservation laws.
- If there is poor collaboration among ministries, agencies, and between federal and state stakeholders, then holistic project implementation will be hindered and lead to unsatisfactory results to the productivity. To mitigate this, the role of the PSC and TWC will promote cross-sectoral coordination, align goals, establish clear roles and communication channels early in the project.
- If there are political changes in priorities for the IP due to state elections, then the project may not receive adequate attention from the IP. To mitigate this, the project will continuously be highlighted in its alignment to the Twelfth Plan, national and state agriculture plans. Alignment with Sabah Maju Jaya and local plans will be done via MAFFI.
- If the resources allocated to this project are insufficient, then certain project activities and outcomes will have to be scaled down. To mitigate this, a multi-year work plan has been developed to plan activities and spending projections. In-kind contributions from MAFFI dan

DOA Sabah will also be available. Other partnerships with private sectors and vertical funding will also be explored.

Assumptions: This project inherently requires a whole of government approach as it involves multiple ministries and agencies, deep federal-state cooperation. Beyond that, a whole of society mindset will also be necessary as the private sector, academia and communities will be involved. Another key assumption is that the community cooperatives maintain their support for the project throughout the timeline.

Stakeholder Engagement and Gender Analysis Action Plan (Detailed plans to be produced after LPAC)

Farmers will be engaged continuously through a Free, Prior and Informed Consent approach. This engagement will occur through respective cooperatives (*koperasi*), to ensure transparency and accountability. Specific engagement sessions with be targeted towards farmers who are women and youth. The project will ensure that farmer feedback is highly valued in project decision making.

South-South and Triangular Cooperation (SSC/TrC)

This will not apply to this project.

Digital Solutions[26]

A key component of this project (Outcome 2) focuses on technology, which will include digital solutions. The specific technologies will be finalized by the responsible parties and partners, but early discussions have suggested renewable energy, IOT sensors and drones for precision farming that are already in use in Malaysian farms. The use of climate and environment data and relevant applications will be used to assist farmers plan the start of planting seasons. These will require digital upskilling for farmers.

Knowledge

The knowledge products the projects aim to produce are:

1. Documentation on technology and sustainable practices for enhancing the hill paddy industry, including pathways for upscaling, downstream value creation and partnership models that are beneficial to farmers.
2. Comprehensive documentation of the strategic action plan, including targeted recommendations to address critical gaps and challenges within Sabah's hill paddy industry.
3. The project also plans to build capacity for farmers to document their extensive traditional knowledge. As this knowledge is the intellectual property of these communities, it would be their responsibility to lead the documentation, as only support in terms of facilitating the training with the Sabah Biodiversity Centre or another training provider will be provided.

Sustainability and Scaling Up

The project will involve scoping and piloting for income-generating activities that farmers can participate in. During the rapid assessment of project sites in August 2024, farmers indicated that there is market demand for hill rice. Ideally, farmers will be able to package and market their hill rice products according to industry standards. For this to happen, there must be a significant increase in yield from planting and farmer capacity in food processing. In terms of upscaling, the project aims to identify more locations to implement the project's activities based on frameworks derived from project learnings.

[26] Please see the Guideline "Embedding Digital in Project Design".

IV. PROJECT MANAGEMENT

Cost Efficiency and Effectiveness

The project will be included as part of the overall project portfolio of UNDP Malaysia Country Office (CO). This will ease administrative handling

Project Management

The project modality will be classified as CO support to National Implementation Modality (NIM). The project will be operationalized in USMB and Magatang. Other engagements with the private sector and government agencies will take place in Kota Kinabalu, Sabah or online. Any engagement involving communities will include representatives from the cooperative and as much as possible take place in village halls for convenience. The PMU is proposed to be attached to the Implementing Partner MAFFI in Kota Kinabalu. For further details on the PMU, please refer to Annex 1.

V. RESULTS FRAMEWORK[27]

Intended Outcome as stated in the UNSDCF/Country [or Regional] Programme Results and Resource Framework:

The project is part of the United Nations Results and Resources Framework 2021-2025 for Malaysia:

UNSDCF, CPD 2022-2025 and CPAP 2024-2025 Outcome 2: Planet. By 2025, environmental sustainability and resilience are mainstreamed as priorities in the national development agenda, across all sectors and all levels of society.

UNSDCF, CPD 2022-2025 and CPAP 2024-2025 Outcome 3: Prosperity. By 2025, Malaysia is making meaningful progress towards an economy that is inclusive, innovative and sustainable across all income groups and productive sectors.

UNDP Strategic Plan Outcome 1 – Structural transformation accelerated, particularly green, inclusive and digital transitions.
Malaysia CPD Priorities: Planet — Mainstreaming environmental sustainability and resilience; Prosperity — Promoting an inclusive, innovative and sustainable economy.

The project aligns with UNSCDF and the CPD in promoting ongoing and new sustainability practices in agriculture as well as the digital upskilling of farmers.

The project is set within the UN's Sustainable Development Goals number 2, 5, 8, and 15. Specifically for Sustainable Development Goal number 2, this project aims to align with target 2.A, 2.3 and 2.4 on food systems.

The project covers the Twelfth Plan Game Changers VII (Embracing the Circular Economy) and XI (Enhancing Digital Connectivity for Inclusive Development).

The project aligns with DAN 2.0 and SAB in the focus areas of increasing rice yield, increasing farmer income, increasing technology in farming methods and prioritizing sustainability.

Lessons learned from this project may be contributed towards the formulation of the upcoming Thirteenth Plan.

[27] UNDP publishes its project information (indicators, baselines, targets and results) to meet the International Aid Transparency Initiative (IATI) standards. Make sure that indicators are S.M.A.R.T. (Specific, Measurable, Attainable, Relevant and Time-bound), provide accurate baselines and targets underpinned by reliable evidence and data, and avoid acronyms so that external audience clearly understand the results of the project.

Outcome indicators as stated in the Country Programme [or Regional] Results and Resources Framework, including baseline and targets:

Results and Resources Framework for Malaysia 2022-2025:
UNSDCF, CPD and CPAP Outcome 2: Planet. By 2025, environmental sustainability and resilience are mainstreamed as priorities in the national development agenda, across all sectors and all levels of society.

UNDP Strategic Plan Outcome 1 – Structural transformation accelerated, particularly green, inclusive and digital transitions
Output 2.1: Transitioning national development towards decarbonized pathway and a resource- efficient economy through the adoption of green growth strategies and practices across all sectors
Indicator 2.1.2 Number of green/blue economy and circular economy initiatives developed with national/subnational governments
Baseline: 0
Target: 3

UNSDCF, CPD and CPAP Outcome 3: Prosperity. By 2025, Malaysia is making meaningful progress towards an economy that is inclusive, innovative and sustainable across all income groups and productive sectors.
UNDP Strategic Plan Outcome 1 – Structural transformation accelerated, particularly green, inclusive and digital transitions
Output 3.1: Inclusive growth and decent work taps into new sources of economic growth and the Future of Work trends
Indicator 3.1.1: Number of digital economy initiatives as income-generation options for vulnerable populations (women, vulnerable youths, PWDs, rural communities)
Baseline: 0
Target: 5

Applicable Output(s) from the UNDP Strategic Plan:

CPD output:
Output 2.1: National development is transitioning towards decarbonization and a resource- efficient economy through the adoption of green growth strategies and practices across all sectors

Output 3.1: Inclusive growth and decent work taps into new sources of economic growth and the future of work trends.

Indicators:
Indicator 2.1.2: Number of green/blue economy and circular economy initiatives developed with national and subnational governments
Indicator 3.1.1: Number of digital economy initiatives as income-generation options for vulnerable populations (women, vulnerable youths, PWDs, rural communities)

Lessons learned from this project may be contributed towards the formulation of the upcoming Thirteenth Malaysia Plan (Thirteenth Plan – RMK13).

Project title and Quantum Project Number:

Climate Resilient Agriculture: Enhancing the hill paddy industry in Sabah

EXPECTED OUTPUTS	OUTPUT INDICATORS[28] gender aggregated where useful (Main Activities below)	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year	Year 1	Year 2	Year 3	Year 4	Year ...	FINAL	
Output 1.1: Appropriate technology and sustainable farming practices adopted and	Activity 1.1.1: Deploy technology solutions (i.e. GIS climate data monitoring system, IOT/AI-sensors and drones for systematic irrigation and	*DOA Sabah, MDEC and farmers*									*Methods: (1) Existing traditional knowledge of farmers; (2) Training sessions for farmers; (3) Extension visits*

[28] It is recommended that projects use output indicators from the Strategic Plan IRRF, as relevant, in addition to project-specific results indicators. Indicators should be disaggregated by sex or for other targeted groups where relevant.

EXPECTED OUTPUTS	OUTPUT INDICATORS[28] gender aggregated where useful (Main Activities below)	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year	Year 1	Year 2	Year 3	Year 4	Year ...	FINAL	
deployed by farmers by end of the project.	fertilisation, renewable energy, composting machines etc.) and innovative solutions at the selected sites, based on the problem statements identified, in addition to the traditional practices (i.e. multi-cropping etc).										*Risks: (1) Farmers may not be able/willing to use new practices and technology*
	Minimum no of farmers (50:50 ratio for men and women, 20% youth) that have tested and implemented technology and new practices		*0*	*2025*	*30*	*30*	*30*			*30*	
	Improved yield (Mt/ha) due to better irrigation, fertilization and pest control		*~1*	*2025*	*1-2*	*2-3*	*3*			*3*	
	1 planting season every 6 months (2 seasons per year)		*1*	*2025*	*1*	*2*	*1*			*2*	
	Soil erosion less than 8Mt / ha / year		*TBC*	*2025*	*TBC*	*TBC*	*TBC*			*TBC*	
Output 1.2: Alternative income-generating activities from hill paddy farming piloted by end of project.	Activity 1.2.1: Scope and pilot potential hill rice products through downstream processing and packaging. *Minimum revenue generated per planting season*	*Farmers*	*~900*	*2025*	*~1800*	*~3600*	*~1800*			*~1800*	*Methods: (1) Engagement sessions with farmers, private sector, development partners; (2) Training sessions with farmers* *Risks: (1) No uptake of hill rice products*

EXPECTED OUTPUTS	OUTPUT INDICATORS[28] gender aggregated where useful (Main Activities below)	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year	Year 1	Year 2	Year 3	Year 4	Year ...	FINAL	
	Activity 1.2.2: Scope and pilot potential hill rice products for digital marketing (i.e. blockchain traceability) and branding exercise for access to wider market. *Minimum revenue generated per planting season (RM)*	*Farmers*	*~900*	*2025*	*~900-1800*	*~3600 -5400*	*~2700*			*~2700/ season*	*Methods: (1) Engagement and training sessions* *Risks: (1) No uptake of hill rice products (2) Low acceptance of farmers to involve in activities suggested and to utilise digital marketing*
	Activity 1.2.3: Scope and pilot potential agrotourism initiative into current tourism packages in Crocker Range Park. *Minimum revenue generated from farmstay*	*Farmers and Sabah Parks*	*0*	*2025*	*TBC*	*TBC*	*TBC*				*Methods: (1) Engagements with Sabah Parks and tour operators* *Risks: (1) No interest in agritourism/ farmstays from tourists*
Output 2.1: Capacity building on sustainable farm management with integrated agrotechnology and traditional farming practices to farming communities in the selected sites completed.	Activity 2.1.1: Conduct on-site training and awareness for Digital AgTech solutions usage and best practices for sustainable agriculture, downstream activities (disaggregated by men, women and youth) and produce training reports. No of participants trained	*UNDP, MDEC, Farmers and training provider*	*0*	*2025*	*4*	*8*	*4*			*16*	*Methods: (1) Training sessions and report preparation*
	Activity 2.1.2: Organize engagement sessions with communities to build relevant capacity needed in producing a document on traditional farming practices	*Farmers and training provider*									*Methods: (1) Engagement sessions*

EXPECTED OUTPUTS	OUTPUT INDICATORS[28] gender aggregated where useful (Main Activities below)	DATA SOURCE	BASELINE		TARGETS (by frequency of data collection)						DATA COLLECTION METHODS & RISKS
			Value	Year	Year 1	Year 2	Year 3	Year 4	Year ...	FINAL	
	No of training sessions conducted		*0*	*2025*	*2*	*2*	*2*			*6*	*Risks: (1) USMB farmers may find the process of creating a community protocol too time consuming*
Output 2.2: Blueprint for enhancing hill paddy industry developed.	2.2.1: Develop a strategic action plan or blueprint for the hill paddy industry in Sabah by identifying key issues, challenges, and gaps within the industry landscape; conducting benchmarking analysis; and formulating strategic recommendations and actionable plans, including pathways for potential replication in other locations in the states, all aligned with the industry's vision, mission, and targeted outcomes. *Action Plan or Blueprint document*	*MAFFI, MIGHT, KPKM, DOA, DOSM & Local Agriculture Cooperatives*	*0*	*2025*	-	-	*1*			*1*	*Methods: (1) Engagement and workshop sessions among development partners*

VI. MONITORING AND EVALUATION

In accordance with UNDP's programming policies and procedures, the project will be monitored through the following monitoring and evaluation plans: *[Note: monitoring and evaluation plans should be adapted to project context, as needed]*

Monitoring Plan

Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
Track results progress	Progress data against the results indicators in the RRF will be collected and analysed to assess the progress of the project in achieving the agreed outputs.	Bi-monthly status as simplified table[29]	Slower than expected progress will be addressed by project management.	IP, PMU for PSC, TWC, UNDP, Vendors	Please refer to Budget
Monitor and Manage Risk	Identify specific risks that may threaten achievement of intended results. Identify and monitor risk management actions using a risk log. This includes monitoring measures and plans that may have been required as per UNDP's Social and Environmental Standards. Audits will be conducted in accordance with UNDP's audit policy to manage financial risk.	As soon as risk materializes as actual problem	Risks are identified by project management and actions are taken to manage risk. The risk log is actively maintained to keep track of identified risks and actions taken.	IP, PMU, UNDP, Vendors	Please refer to Budget
Learn	Knowledge, good practices and lessons will be captured regularly, as well as actively sourced from other projects and partners and integrated back into the project.	At all in person meetings of PSC and TWC	Relevant lessons are captured by the project team and used to inform management decisions.	Reported by PM/APM	Please refer to Budget
Annual Project Quality Assurance	The quality of the project will be assessed against UNDP's quality standards to identify project strengths and weaknesses and to inform management decision making to improve the project.	Annually	Areas of strength and weakness will be reviewed by project management and used to inform decisions to improve project performance.	UNDP CO	Please refer to Budget

[29] Example Project status, progress
https://ecosorn-project.blogspot.com/

Monitoring Activity	Purpose	Frequency	Expected Action	Partners (if joint)	Cost (if any)
Review and Make Course Corrections	Internal review of data and evidence from all monitoring actions to inform decision making.	During all PSC meetings (at least 3)	Performance data, risks, lessons and quality will be discussed by the project board and used to make course corrections.	PMU, UNDP as recommended by PSC	Please refer to Budget
Project Report	A progress report (Mid-Year Project Report and Annual Project Report, among others) will be presented to the Project Board and key stakeholders, consisting of progress data showing the results achieved against pre-defined annual targets at the output level, the annual project quality rating summary, an updated risk long with mitigation measures, and any evaluation or review reports prepared over the period.	At formal project inception, mid-term review, and final lessons and conclusion. Focus on timely delivery and quality of deliverables.		IP, PMU, UNDP CO	Please refer to Budget
Project Review (Project Board)	The project's governance mechanism (i.e., project board) will hold regular project reviews to assess the performance of the project and review the Multi-Year Work Plan to ensure realistic budgeting over the life of the project. In the project's final year, the Project Board shall hold an end-of project review to capture lessons learned and discuss opportunities for scaling up and to socialize project results and lessons learned with relevant audiences.	In each of the thre PSC meetings, Additional focus on arrangements for future flow of funding.	Any quality concerns or slower than expected progress should be discussed by the project board and management actions agreed to address the issues identified.	PSC, UNDP	Please refer to Budget

Evaluation Plan[30]

Evaluation Title	Partners (if joint)	Related Strategic Plan Output	UNSDCF/CPD Outcome	Planned Completion Date	Key Evaluation Stakeholders	Cost and Source of Funding
Baseline Video / Visual snapshots before field implementation	IP, UNDP, PMU			June 2025		Please refer to Budget
e.g., Mid-Term Review				NA		
End of Project Review Including video / visual snapshots comparable to baseline	All PSC members	According to Results Framework	Focus on lessons learned from Pilots and future options	December 2027	All PSC / TWC members	Please refer to Budget

[30] Optional, if needed

VII. MULTI-YEAR WORK PLAN

All anticipated programmatic and operational costs to support the project, including development effectiveness and implementation support arrangements, need to be identified, estimated and fully costed in the project budget under the relevant output(s). This includes activities that directly support the project, such as communication, human resources, procurement, finance, audit, policy advisory, quality assurance, reporting, management, etc. All services which are directly related to the project need to be disclosed transparently in the project document.

Expected Outputs	Planned Activities	2025	2026	2027	2028	Responsible Party	Funding Source	Budget Description	Amount (MYR)	Amount (USD)
Output 1.1: Appropriate technology and sustainable farming practices adopted and deployed by farmers by end of the project.	1.1.1 Deploy technology solutions (i.e. GIS climate data monitoring system, IOT/AI-sensors and drones for systematic irrigation and fertilisation, renewable energy, composting machines etc.) and innovative solutions at the selected sites, based on the problem statements identified, in addition to the traditional practices (i.e. multi-cropping etc)	RM428,129.98 (USD96,425.67)	RM1,297630.00 (USD292,259.01)	RM2,499.99 (USD563.06)	RM0.00 (USD0.00)	UNDP, DOA Sabah, MDEC	Ministry of Economy (GCS)	Mobile application, research equipment, Digital AgTech solutions, fertilizer and pesticide	RM1,728,259.97	USD389,247.74
Output 1.2: Alternative income-generating activities from hill paddy farming piloted by end of project.	1.2.1: Scope and pilot potential hill rice products through downstream processing and packaging.	RM22,200.00 (USD5,000.00)	RM139,516.03 (USD31,422.53)	RM0.00 (USD0.00)	RM0.00 (USD0.00)	UNDP, MAFFI	Ministry of Economy (GCS)	Processing, packaging and labelling machinery	RM161,716.03	USD36,422.53
	1.2.2: Scope and pilot potential hill rice products for	RM0.00 (USD0.00)	RM0.00 (USD0.00)	RM0.00 (USD0.00)	RM0.00 (USD0.00)	UNDP, MAFFI	Ministry of Economy (GCS)	No costs	RM0.00	USD0.00

	digital marketing (i.e. blockchain traceability) and branding exercise for access to wider market.									
	1.2.3: Scope and pilot potential agrotourism initiative into current tourism packages in Crocker Range Park.	RM0.00 (USD0.00)	RM20,000.00 (USD4,504.50)	RM0.00 (USD0.00)	RM0.00 (USD0.00)	UNDP, MAFFI	Ministry of Economy (GCS)	Printed materials, homestay improvement	RM20,000.00	USD4,504.50
	Sub-Total for Outcome 1	RM450,329.98 (USD101,425.67)	RM1,457,146.02 (USD328,186.04)	RM2,499.99 (USD563.06)	RM0.00 (USD0.00)				RM1,909,976.00	USD430,174.78
Output 2.1: Capacity building on sustainable farm management with integrated agrotechnology and traditional farming practices to farming communities in the selected sites completed.	2.1.1: Conduct on-site training and awareness for Digital AgTech solutions usage and best practices for sustainable agriculture, downstream activities (disaggregated by men, women and youth) and produce training reports.	RM53,280.00 (USD12,000.00)	RM10,860.02 (USD2,445.95)	RM10,860.02 (USD2,445.95)	RM0.00 (USD0.00)	UNDP, MDEC	Ministry of Economy (GCS)	Training sessions for farmers conducted by service providers	RM 75,000.04	USD16,891.90
	2.1.2: Organise engagement sessions with communities to build relevant capacity needed in producing a document on traditional farming practices	RM2,664.00 (USD600.00)	RM5,000.01 (USD1,126.13)	RM5,000.01 (USD1,126.13)	RM0.00 (USD0.00)	UNDP	Ministry of Economy (GCS)	Workshops with relevant government agencies and civil society organizations	RM12,664.02	USD2,852.25
Output 2.2: Blueprint for enhancing hill paddy industry developed.	2.2.1: Develop a strategic action plan or blueprint for the hill paddy industry in Sabah by identifying key issues, challenges, and gaps within the	RM306,188.44 (USD68,961.36)	RM186,608.67 (USD42,028.98)	RM62,202.89 (USD14,009.66)	RM0.00 (USD0.00)	MIGHT	Ministry of Economy (GCS)	Data collection, stakeholder engagement and blueprint compilation	RM555,000.00	USD125,000.00

	industry landscape; conducting benchmarking analysis; and formulating strategic recommendations and actionable plans, including pathways for potential replication in other locations in the states, all aligned with the industry's vision, mission, and targeted outcomes.									
	Sub-Total for Outcome 2	RM362,132.44 (USD81,561.36)	RM202,468.71 (USD45,601.06)	RM78,062.93 (USD17,581.74)	RM0.00 (USD0.00)				RM642,664.03	USD144,744.15
Project Management	Hiring of Project Manager and Project Associate	RM98,447.54 (USD22,172.87)	RM168,720.00 (USD38,000.00)	RM168,720.00 (USD38,000.00)	RM84,360.00 (USD19,000.00)	UNDP	Ministry of Economy (GCS)	Laptop and salary estimates. Project Manager to be based at MAFFI.	RM520,247.54	USD117,172.87
	Policy Advisory (NOB x 10 Days)	RM8,500.00 (USD1,914.42)	RM17,000.00 (USD3,828.83)	RM17,000.00 (USD3,828.83)	RM8,500.00 (USD1,914.42)	UNDP	Ministry of Economy (GCS)	UNDP Accelerator Lab support to project	RM51,000.00	USD11,486.50
	Supervision and M&E (including missions)	RM7,249.99 (USD1,632.88)	RM14,500.02 (USD3,265.77)	RM14,500.02 (USD3,265.77)	RM7,249.99 (USD1,632.88)	UNDP	Ministry of Economy (GCS)	UNDP Accelerator Lab travel and support on M & E	RM43,500.02	USD9,797.30
	Communications and Results Reporting	RM0.00 (USD0.00)	RM4,200.02 (USD945.95)	RM4,200.02 (USD945.95)	RM2,099.99 (USD472.97)	UNDP	Ministry of Economy (GCS)	UNDP communication specialists support to project	RM10,500.03	USD2,364.86
	SESP Oversight -Environmental and Social Management Framework, Comprehensive Stakeholder Engagement Plan, Gender Analysis	RM0.00 (USD0.00)	RM0.00 (USD0.00)	RM0.00 (USD0.00)	RM0.00 (USD0.00)	UNDP	Ministry of Economy (GCS)	UNDP Accelerator Lab travel and consultant costs	RM0.00	USD0.00

	Action Plan, Grievance Redress Mechanism									
	Project Evaluation	RM0.00 (USD0.00)	RM0.00 (USD0.00)	RM44,400.00 (USD10,000.00)	RM22,200.00 (USD5,000.00)	UNDP	Ministry of Economy (GCS)	Consultant costs	RM66,600.00	USD15,000.00
	UPL/LPL	RM6,851.85 (USD1,543.21)	RM12,265.19 (USD2,762.43)	RM14,929.19 (3,362.43)	RM7,464.62 (USD1,681.22)	UNDP	Ministry of Economy (GCS)		RM41,510.85	USD9,349.29
	General Management Service (6%)	RM7,262.95 (USD1,635.80)	RM13,001.12 (USD2,928.18)	RM15,824.96 (USD3,564.18)	RM7,912.48 (USD1,782.09)	UNDP	Ministry of Economy (GCS)	UNDP cost recovery	RM44,001.51	USD9,910.25
	Sub-Total for Project Management	RM128,312.40 (USD28,899.19)	RM229,686.31 (USD51,731.15)	RM279,574.15 (USD62,967.15)	RM139,787.09 (USD31,483.58)		Ministry of Economy (GCS)		RM777,359.95	USD175,081.07
	GRAND TOTAL	RM940,774.80 (USD211,866.22)	RM1,889,301.02 (USD425,518.25)	RM360,137.05 (USD81,111.95)	RM139,787.10 (USD31,483.58)				RM3,330,000.00	USD750,000.00

Expected revenue for farmers

Disclaimer: Calculating farmer revenue is highly variable as it can be very different from farmer to farmer.
With current farming methods, we estimate that farmers who chose to sell their excess hill rice (after setting aside stock for themselves) would earn ~RM900. For this calculation, the assumption is that farmers sell 10% of their total harvested hill rice from a 1 ha cultivation with a low yield of 1 Mt/ha at a market price of ~RM9.00/kg (around three times the price of local white rice[31]). As farmers tend to cultivate hill rice mostly for the own consumption, we projected that 10% of a hill rice harvest would be the most any farmer would be willing to sell[32] [33]. After the first planting season of this project using improved methods and technology, farmers may earn up to ~RM1,800 for the same sized area and for the same price but with a projected increased yield of 2 Mt/ha. If farmers are willing to sell 20% or more of their harvest, the potential revenue earned could be a minimum of ~RM3,600 (with a yield of 2 Mt/ha).

Currently, the project budget covers input costs (fertilizer and pesticides) for two planting seasons (please refer to detailed budget attached). Input costs per planting season are ~RM2,100. With increased revenue, farmers would be able to cover input costs for the other planting seasons. If farmers are willing to sell at least 20% of their harvest, an estimated 60% of this revenue can go towards input costs for the next season, while still allowing some income. This calculation is based on 1 ha of cultivation, yield of 2 Mt/ha and a market price of RM9.00/kg. However, there are several assumptions to this calculation: (1) the market price of RM9.00/kg does not change; (2) farmers sell 20% of their harvest; (3) farmers are cultivating 1 ha of hill paddy and (4) yield is at least 2 Mt/ha. The projected revenue per farmer may increase or decrease depending on these factors.

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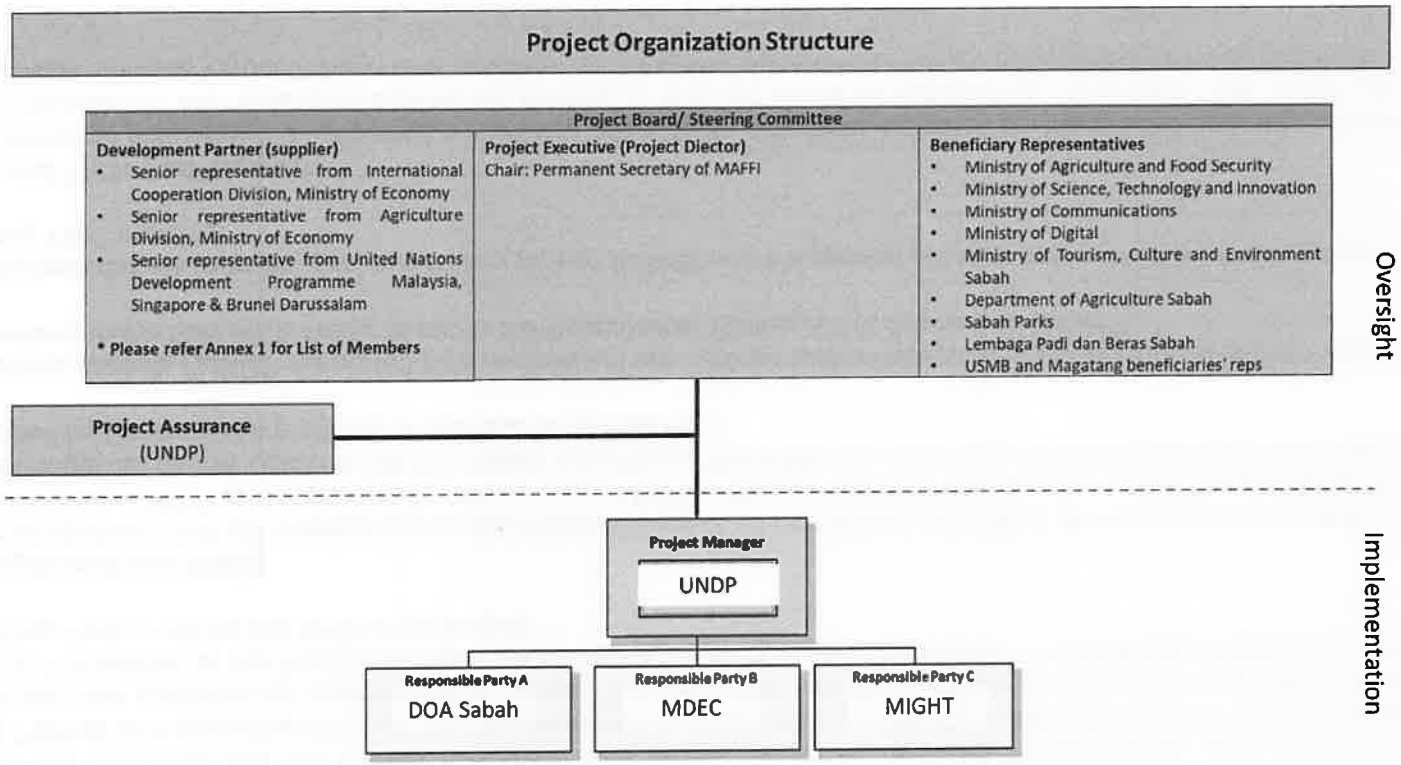
[31] Claudia Lasimbang, Partners of Community Organizations in Sabah

[32] Betroychiper Bin Hongsui, Forever Sabah

[33] Claudia Lasimbang, Partners of Community Organizations in Sabah

VIII. GOVERNANCE AND MANAGEMENT ARRANGEMENTS

PROJECT ORGANISATION STRUCTURE



Program Management Arrangements

Project Steering Committee (PSC)A Project Steering Committee will provide guidance and direction to the project implementation process according to the established detailed work plan monitoring tool. The PSC will be chaired by the Permanent Secretary of MAFFI and comprised of federal and Sabah ministries/ departments that have mandates on paddy, agritech and food industry and other relevant stakeholders. The PSC will convene twice a year for the three-year duration of the project. Please see Annex-1 for the list of the steering committee. The TORs of the PSC shall be agreed among stakeholders within the first two months of the project.

Technical Working Committee (TWC)
A technical working committee will be established to handle all technical matters relating to the project and will be chaired by Deputy Permanent Secretary (Development) MAFFI. The members of the TWC will consist of representatives from MAFFI, DOA, MIGHT, MDEC, UNDP Malaysia and respective stakeholders from the Implementing Partner as well as other relevant stakeholders to be determined by the PSC. Please see Annex-1 for the list of the technical committee. The TWC will work directly with the Project Management Unit to accomplish Outcome 1 and the capacity building initiatives under Outcome 2.

National Project Director (NPD)
The National Project Director will be responsible for coordinating project activities among the main parties to the project. Among these responsibilities are ensuring that the project document and project revisions requiring Government's approval are verified by the Implementing Partner and processed through the Government's co-coordinating authority in accordance with established procedures and providing direction and guidance on project-related issues. The NPD also has the authority to disburse funds upon the advice from the Project Steering Committee, or the Project Manager based on the required project milestones. The state the designated representative from the Implementing Partner will be the NPD of the project.

Project Management Unit (PMU)
The Project management Unit will oversee day-to-day-management of all operations composed of two experienced professionals (1 male /1 female) recruited by UNDP and strategically placed under MAFFI. These PMU staff will function under the guidance of the UNDP CO Programme Manager as part of UNDP's role for project assurance. The PMU will have daily online interactions with the members of the TWG, as required by the technical progress of operations on field level.

Further procedural aspects ('UNDP supported NIM modalities') are outlined under Paragraph 9 Legal Context of this Project Document. All operators (vendors) in the field will formally report to the Responsible Parties (DOA Sabah and MIGHT).

At least four representatives from the local beneficiary groups (USMB and Magatang) will take part in the PSC meetings on a rotating basis, as well as every TWC meeting.

Consultants and Technical Support
If applicable, technical support will be provided by national consultants with local expertise on the ground and may be complemented by international professionals with extensive experience working in relevant areas as required by the project. The UNDP global knowledge network will provide valuable inputs through best practices and lessons learned from similar experiences in other countries.

Financial Management Arrangements

Based on the approved AWP, ME/UNDP will provide the required financial resources to the Implementing Partner to carry out project activities during the annual cycle. The following modalities may be used, where applicable and relevant:

- Direct cash transfers to the Implementing Partner, for obligations and expenditures to be made by them in support of activities;

- Direct payments to vendors and other third parties, for obligations incurred by the Implementing Partner; and
- Reimbursement to the Implementing Partner for obligations made and expenditures incurred by them in support of activities.

UNDP will work closely with the Implementing Partner to monitor the use of the financial resources and are accountable for:

- Managing project resources to achieve the expected results; and
- Maintaining an up-to-date accounting system that contains records and controls to ensure the accuracy and reliability of financial information and reporting. Expenditures made should be in accordance with the AWPs and budgets.

At the end of every quarter, UNDP prepares a Combined Delivery Report (CDR) which records all disbursements made under the project for verification.

A project revision shall be made when appropriate; to respond to changes in the development context or to adjust the design and resource allocation to ensure the effectiveness of the project, provided that the project remains relevant to the CPAP. A project revision shall be supported by the record of an approved decision made by the project PSC, and an updated and signed AWP.

The contribution of funds for this project shall be charged:

- 6% cost recovery for the provision of general management support (GMS) by UNDP headquarters and country offices; and
- Direct cost for implementation support services (ISS) provided by UNDP and/or an executing entity/implementing partner.

UNDP Support Services

In addition to the roles and responsibilities assigned to UNDP and the Implementing Partner in the Project Document, UNDP may/ shall provide the following services, at the request of the Implementing Partner:

- Identification and recruitment of project personnel;
- Procurement of goods and services;
- Identification, development and implementation of capacity building/training activities and assistance in carrying them out; and
- Provision of policy and technical advisory services, project assurance, monitoring, evaluation and reporting.

The above will be carried out based on UNDP policies and procedures following the principles of the best value for money, fairness, integrity, transparency, and effective competition.

In-Kind Contributions

In addition to the financial resources through UNDP, the Implementing Partner will provide the following in-kind contributions:

- Assist in gaining access to all relevant data and information required for the project that is accessible for public viewing;
- Office space (i.e. room/workspace) for the Project team stationed in the IP Office, consultants and experts when necessary;
- Use of office support facilities by the Project team, consultants and experts (e.g. fax machine, stationary, photocopy machine, telephone), and secretarial support where applicable; and

- Facilities for convening meetings, workshops and seminars.
- Government's stakeholder engagement consultation for the project communication events

IX. LEGAL CONTEXT

*[NOTE: Please choose **one** of the following options, as applicable. Delete all other options from the document]*

Option a. Where the country has signed the Standard Basic Assistance Agreement (SBAA)

This document together with the CPAP signed by the Government and UNDP which is incorporated herein by reference, constitute together a Project Document as referred to in the Standard Basic Assistance Agreement (SBAA); as such all provisions of the CPAP apply to this document. All references in the SBAA to "Executing Agency" shall be deemed to refer to "Implementing Partner", as such term is defined and used in the CPAP and this document.

Consistent with the Article III of the Standard Basic Assistance Agreement (SBAA), the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:
a) Put in place an appropriate security plan and maintain the security plan, considering the security situation in the country where the project is being carried;
b) Assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

X. RISK MANAGEMENT

*[NOTE: Please choose **one** of the following options that corresponds to the implementation modality of the Project. Delete all other options.]*

Option a. Government Entity (NIM)

1. Consistent with the Article III of the SBAA *[or the Supplemental Provisions to the Project Document]*, the responsibility for the safety and security of the Implementing Partner and its personnel and property, and of UNDP's property in the Implementing Partner's custody, rests with the Implementing Partner. To this end, the Implementing Partner shall:

   (a) put in place an appropriate security plan and maintain the security plan, considering the security situation in the country where the project is being carried; and

(b) assume all risks and liabilities related to the Implementing Partner's security, and the full implementation of the security plan.

2. UNDP reserves the right to verify whether such a plan is in place, and to suggest modifications to the plan when necessary. Failure to maintain and implement an appropriate security plan as required hereunder shall be deemed a breach of the Implementing Partner's obligations under this Project Document.

3. The Implementing Partner agrees to undertake all reasonable efforts to ensure that no UNDP funds received pursuant to the Project Document are used to provide support to individuals or entities associated with terrorism, that the recipients of any amounts provided by UNDP hereunder do not appear on the United Nations Security Council Consolidated Sanctions List, and that no UNDP funds received pursuant to the Project Document are used for money laundering activities. The United Nations Security Council Consolidated Sanctions List can be accessed via https://www.un.org/securitycouncil/content/un-sc-consolidated-list.

4. The Implementing Partner acknowledges and agrees that UNDP will not tolerate sexual harassment and sexual exploitation and abuse of anyone by the Implementing Partner, and each of its responsible parties, their respective sub-recipients and other entities involved in Project implementation, either as contractors or subcontractors and their personnel, and any individuals performing services for them under the Project Document.

(a) In the implementation of the activities under this Project Document, the Implementing Partner, and each of its sub-parties referred to above, shall comply with the standards of conduct set forth in the Secretary General's Bulletin ST/SGB/2003/13 of 9 October 2003, concerning "Special measures for protection from sexual exploitation and sexual abuse" ("SEA").

Moreover, and without limitation to the application of other regulations, rules, policies and procedures bearing upon the performance of the activities under this Project Document, in the implementation of activities, the Implementing Partner, and each of its sub-parties referred to above, shall not engage in any form of sexual harassment ("SH"). SH is defined as any unwelcome conduct of a sexual nature that might reasonably be expected or be perceived to cause offense or humiliation, when such conduct interferes with work, is made a condition of employment or creates an intimidating, hostile or offensive work environment. SH may occur in the workplace or in connection with work. While typically involving a pattern of conduct, SH may take the form of a single incident. In assessing the reasonableness of expectations or perceptions, the perspective of the person who is the target of the conduct shall be considered.

5. a) In the performance of the activities under this Project Document, the Implementing Partner shall (with respect to its own activities), and shall require from its sub-parties referred to in paragraph 4 (with respect to their activities) that they, have minimum standards and procedures in place, or a plan to develop and/or improve such standards and procedures in order to be able to take effective preventive and investigative action. These should include: policies on sexual harassment and sexual exploitation and abuse; policies on whistleblowing/protection against retaliation; and complaints, disciplinary and investigative mechanisms. In line with this, the Implementing Partner will and will require that such sub-parties will take all appropriate measures to:

(i) Prevent its employees, agents or any other persons engaged to perform any services under this Project Document, from engaging in SH or SEA;

(ii) Offer employees and associated personnel training on prevention and response to SH and SEA, where the Implementing Partner and its sub-parties referred to in paragraph 4 have not put in place its own training regarding the prevention of SH and SEA, the Implementing Partner and its sub-parties may use the training material available at UNDP;

(iii) Report and monitor allegations of SH and SEA of which the Implementing Partner and its sub-parties referred to in paragraph 4 have been informed or have otherwise become aware, and status thereof;

(iv) Refer victims/survivors of SH and SEA to safe and confidential victim assistance; and

(v) Promptly and confidentially record and investigate any allegations credible enough to warrant an investigation of SH or SEA. The Implementing Partner shall advise UNDP of any such allegations received and investigations being conducted by itself or any of its sub-parties referred to in paragraph 4 with respect to their activities under the Project Document, and shall keep UNDP informed during the investigation by it or any of such sub-parties, to the extent that such notification (i) does not jeopardize the conduct of the investigation, including but not limited to the safety or security of persons, and/or (ii) is not in contravention of any laws applicable to it. Following the investigation, the Implementing Partner shall advise UNDP of any actions taken by it or any of the other entities further to the investigation.

b) The Implementing Partner shall establish that it has complied with the foregoing, to the satisfaction of UNDP, when requested by UNDP or any party acting on its behalf to provide such confirmation. Failure of the Implementing Partner, and each of its sub-parties referred to in paragraph 4, to comply of the foregoing, as determined by UNDP, shall be considered grounds for suspension or termination of the Project.

6. Social and environmental sustainability will be enhanced through application of the UNDP Social and Environmental Standards (http://www.undp.org/ses) and related Accountability Mechanism (http://www.undp.org/secu-srm).

7. The Implementing Partner shall: (a) conduct project and programme-related activities in a manner consistent with the UNDP Social and Environmental Standards, (b) implement any management or mitigation plan prepared for the project or programme to comply with such standards, and (c) engage in a constructive and timely manner to address any concerns and complaints raised through the Accountability Mechanism. UNDP will seek to ensure that communities and other project stakeholders are informed of and have access to the Accountability Mechanism.

8. All signatories to the Project Document shall cooperate in good faith with any exercise to evaluate any programme or project-related commitments or compliance with the UNDP Social and Environmental Standards. This includes providing access to project sites, relevant personnel, information, and documentation.

9. The Implementing Partner will take appropriate steps to prevent misuse of funds, fraud or corruption, by its officials, consultants, responsible parties, subcontractors and sub-recipients in implementing the project or using UNDP funds.

10. In the implementation of the activities under this Project Document, UNDP places reasonable reliance upon the Implementing Partner for it to apply its laws, regulations and processes, and applicable international laws regarding anti money laundering and countering the financing of terrorism, to ensure consistency with the principles of then in force the UNDP Anti-Money Laundering and Countering the Financing of Terrorism Policy.

11. The Implementing Partner will ensure that its financial management, anti-corruption, anti-fraud and anti-money laundering and countering the financing of terrorism policies are in place and enforced for all funding received from or through UNDP.

12. The requirements of the following documents, then in force at the time of signature of the Project Document, apply to the Implementing Partner: (a) UNDP Policy on Fraud and other Corrupt Practices and (b) UNDP Office of Audit and Investigations Investigation Guidelines. The Implementing Partner agrees to the requirements of the above documents, which are an integral part of this Project Document and are available online at www.undp.org.

13. In the event that an investigation is required, UNDP has the obligation to conduct investigations relating to any aspect of UNDP projects and programmes in accordance with UNDP's regulations, rules, policies and procedures. The Implementing Partner shall provide its full cooperation, including making available personnel, relevant documentation, and granting access to the Implementing Partner's (and its consultants', responsible parties', subcontractors' and sub-recipients') premises, for such purposes at reasonable times and on reasonable conditions as may be required for the purpose of an investigation. Should there be a limitation in meeting this obligation, UNDP shall consult with the Implementing Partner to find a solution.

14. The signatories to this Project Document will promptly inform one another in case of any incidence of inappropriate use of funds, credible allegation of fraud or corruption or other financial irregularities with due confidentiality.

    Where the Implementing Partner becomes aware that a UNDP project or activity, in whole or in part, is the focus of investigation for alleged fraud/corruption, the Implementing Partner will inform the UNDP Resident Representative/Head of Office, who will promptly inform UNDP's Office of Audit and Investigations (OAI). The Implementing Partner shall provide regular updates to the head of UNDP in the country and OAI of the status of, and actions relating to, such investigation.

15. *Choose one of the three following options:*

    Option 1: UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement. Recovery of such amount by UNDP shall not diminish or curtail the Implementing Partner's obligations under this Project Document.

Option 2: The Implementing Partner agrees that, where applicable, donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities which are the subject of this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Option 3: UNDP shall be entitled to a refund from the Implementing Partner of any funds provided that have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document. Such amount may be deducted by UNDP from any payment due to the Implementing Partner under this or any other agreement.

Where such funds have not been refunded to UNDP, the Implementing Partner agrees that donors to UNDP (including the Government) whose funding is the source, in whole or in part, of the funds for the activities under this Project Document, may seek recourse to the Implementing Partner for the recovery of any funds determined by UNDP to have been used inappropriately, including through fraud, corruption or other financial irregularity, or otherwise paid other than in accordance with the terms and conditions of the Project Document.

Note: The term "Project Document" as used in this clause shall be deemed to include any relevant subsidiary agreement further to the Project Document, including those with responsible parties, subcontractors, and sub-recipients.

16. Each contract issued by the Implementing Partner in connection with this Project Document shall include a provision representing that no fees, gratuities, rebates, gifts, commissions or other payments, other than those shown in the proposal, have been given, received, or promised in connection with the selection process or in contract execution, and that the recipient of funds from the Implementing Partner shall cooperate with any and all investigations and post-payment audits.

17. Should UNDP refer to the relevant national authorities for appropriate legal action any alleged wrongdoing relating to the project, the Government will ensure that the relevant national authorities shall actively investigate the same and take appropriate legal action against all individuals found to have participated in the wrongdoing, recover and return any recovered funds to UNDP.

18. The Implementing Partner shall ensure that all of its obligations set forth under this section entitled "Risk Management" are passed on to each responsible party, subcontractor and sub-recipient and that all the clauses under this section entitled "Risk Management Standard Clauses" are included, *mutatis mutandis*, in all sub-contracts or sub-agreements entered into further to this Project Document.

XI. ANNEXES

Annex 1: TERMS OF REFERENCE

1. Terms of Reference – Project Steering Committee

The Project Steering Committee (PSC) will provide strategic guidance and direction to the Project Management Unit (PMU) on the project implementation. The PSC will be chaired by Permanent Secretary, Ministry of Agriculture, Fisheries and Food Industry Sabah (MAFFI) or his/her alternate.

The PSC will meet after the receipt of each project deliverable or at least once a year, whichever greater. Meeting quorum is achieved when 50% of PSC membership is in attendance via physical presence or virtual conference. The change of chairperson or project leadership, however, will require full quorum in attendance via physical presence or telephone conference and full consensus amongst the members.

The main duties and responsibilities of the PSC are the following:

- Provide policy guidance on matters pertaining to the project implementation;
- Monitor and evaluate the implementation of the project towards fulfilment of the objectives and/or outcomes stated in the project document;
- Review and endorse annual work plan and budget, and changes to a project budget affecting the scope (outputs) or completion date, budget re-allocation between project components/outputs, or total estimated project costs require a formal budget revision;
- Review and approve relevant changes to the project result framework;
- Coordinate the roles of the various organizations/entities involved in the project execution and ensure coherence among the relevant outputs and activities;
- Review and approve all related reports or deliverables produced by the project;
- Advice and provide direction on the long-term sustainability strategy of the project; and
- Initiate remedial actions to overcome constraints in the project implementation.

Specific responsibilities of the Project Steering Committee include the following:

- Provide overall guidance and direction to the project, ensuring it remains within any specified constraints, and promote gender equality and social inclusion (LNOB) in the project implementation;
- Review project performance based on monitoring, evaluation and reporting, including standard quality assurance checks, progress reports, risk logs, spot checks/audit reports and the combined delivery report;
- Address any high-level project issues as raised by the project manager and project assurance;

- Provide guidance on emerging and/or pressing project risks and agree on possible mitigation and management actions to address specific risks (including ensuring compliance with UNDP's Social and Environmental Standards, Fraud/corruption, Sexual Exploitation and Abuse and Sexual Harassment);
- Agree or decide on project manager's tolerances as required, within the parameters set by UNDP (Manage Change in the PPM) and the donor, and provide direction and decisions for exceptional situations when the project manager's tolerances are exceeded;
- Advise on major and minor amendments to the project within the parameters set by UNDP and the donor;
- Agree or decide on a project suspension or cancellation, if required;
- Provide high-level direction and recommendations to the project management unit to ensure that the agreed deliverables are produced satisfactorily according to plans;
- Receive and address project level grievance, including overseeing whatever specific compliance and stakeholder response (or grievance) mechanisms have been put in place so that individuals and communities potentially affected by the project have access to effective mechanisms and procedures for raising concerns about the social and environmental performance of the project[34]; and
- Engage in the low value grant selection process where there is no Grant Selection Committee, as guided by the Low Value Grants – UNDP Operational Guide.

Additional responsibilities of the Project Steering Committee can include, but are not limited to, the following:

- Ensure coordination between the various donors and government-funded projects and programmes;
- Report to relevant inter-ministerial bodies or higher-level oversight bodies;
- Ensure coordination with multiple government agencies and their participation in project activities;
- Track and monitor co-financing for this project;
- Appraise the annual project implementation report, including the quality assessment rating report;
- Ensure commitment of human resources to support project implementation, arbitrating any issues within the project;
- Approve the Project Inception Report, Mid-term Review and Terminal Evaluation reports and corresponding management responses; and
- Review the final project report package during an end-of-project review meeting to discuss lessons learned and opportunities for scaling up.

Chair: Permanent Secretary, Ministry of Agriculture, Fisheries and Food Industry Sabah (MAFFI)

Members:

1. Ministry of Economy
2. Ministry of Agriculture and Food Security (KPKM)
3. Ministry of Science, Technology and Innovation (MOSTI)
4. Ministry of Communications (KK)

[34] The responsibilities of the board in this regard should follow UNDP's Social and Environmental Standards (SES) as codified in the PPM.

5. Ministry of Digital (KD)
6. Ministry of Tourism, Culture and Environment Sabah (KePKAS)
7. Department of Agriculture Sabah (DOA Sabah)
8. Sabah Parks
9. Lembaga Padi dan Beras Sabah (LPS)
10. Malaysia Digital Economy Corporation (MDEC)
11. Malaysian Industry-Government Group for High Technology (MIGHT)
12. USMB and Magatang beneficiaries' reps (alternating attendance)
13. United Nations Development Programme (UNDP)

Note: Other ministries/ agencies will be members by invitation

1.2 Terms of Reference – Technical Working Committee

The Technical Working Committee (TWC) will act as the technical adviser to the PSC to provide technically sound inputs and information to the development and implementation of project activities, in order to successfully deliver the project outputs.

The TWC will be specifically responsible for:

- Provide technical guidance and decisions on matters pertaining to the technical aspects of the project to ensure that they meet with the objectives set in the project document and with international best practices and standards;
- Monitor and evaluate the technical implementation of the project towards fulfilment of the objective/ outcomes stated in the project document;
- Review and comment on the proposed technical work plan and budget;
- Review and technically endorse the project deliverables; and
- Regular monitoring of the progress of the project and recommend approved technical reports to the PSC.

Chair: Deputy Permanent Secretary, Ministry of Agriculture, Fisheries and Food Industry Sabah (MAFFI)

Members:

1. Ministry of Economy
2. Ministry of Agriculture, Fisheries and Food Industry Sabah (MAFFI)
3. Department of Agriculture Sabah (DOA Sabah)
4. Lembaga Padi dan Beras Sabah (LPS)
5. Malaysia Industry-Government Group for High Technology (MIGHT)
6. Malaysia Digital Economy Corporation (MDEC)
7. Environmental Protection Department Sabah (EPD)

8. Sabah Biodiversity Centre (SaBC)
9. United Nations Development Programme (UNDP)
10. Malaysian Industry-Government Group for High Technology (MIGHT)
11. USMB and Magatang beneficiaries' reps

Note: Other ministries/ agencies will be members by invitation

1.3 Terms of Reference – National Project Director

The National Project Director is MAFFI. The main responsibility of the National Project Director is to coordinate project activities among the main parties to the project i.e. Government coordinating authority, the consultant and UNDP.

Specifically, the National Project Director works in close collaboration with UNDP where the responsibilities include:

- Ensure that the project documents and project revision requiring Government approval are processed through the Government coordinating authority, in accordance with established procedures;
- Finalize work plans based on the inputs from the project team
- Mobilize institutional mechanisms for smooth progress of project;
- Provide formal project/deliverable sign off and acceptance upon verification of the project outputs;
- Review project status reports;
- Provide direction, advice and guidance on project related issues; and to the project team; and
- Approve financial transaction and report.

The National Project Director will be supported by the Programme Analyst and Project Associate who will primarily focused on the day-to-day matters of the project, both on the substantive and operational aspects of the project.

1.4 Terms of Reference – Implementing Partner

The Implementing Partner (IP) is MAFFI. The main responsibility of the IP is to coordinate project activities among the main parties to the project i.e. Government coordinating authority, the consultant and UNDP.

Specifically, IP works in close collaboration with UNDP where the responsibilities include:

- Ensure that the project documents and project revision requiring Government approval are processed through the Government coordinating authority, in accordance with established procedures;
- Finalize work plans based on the inputs from the project team
- Mobilize institutional mechanisms for smooth progress of project;
- Provide formal project/deliverable sign off and acceptance upon verification of the project outputs;

- Review project status reports;
- Provide direction, advice and guidance on project related issues; and to the project team; and
- Approve financial transaction and report.

The IP will be supported by the Project Manager and Project Associate who will primarily focused on the day-to-day matters of the project, both on the substantive and operational aspects of the project.

1.5 Terms of Reference – Project Manager

The Project Manager role is to manage and coordinate the implementation of various project activities in ensuring quality and timeliness of activities and delivery of outputs. He/she will be based at UNDP with occasional presence each site location. The specific tasks of the Project Manager are:

- Under the advice of the Head of SIFI Unit, he/she shall provide direction for the project based on the project document(s) and decisions made by the TWC and PSC;
- Manage and coordinate the implementation of the project activities to ensure the maintenance of the quality, timeliness, and delivery of the outputs;
- Liaise and work closely with the project's partners and beneficiaries;
- Reports regularly to the NSC, TWC and Head of SIFI Unit on the project progress;
- Maintain close contact with designated focal points from stakeholders, indicating any estimated changes to the work plan, and proposing a budget revision when appropriate;
- Ensure that the requisite allocations are available in accordance with the agreed budget and established schedules of payment, if any, in consultation with the Head of SIFI Unit;
- Coordinate and facilitate the work of multiple teams engaged in implementing the project activities;
- Work closely with key stakeholders in the drafting and preparation of relevant Terms of Reference for local consultants;
- Liaise with the relevant focal points in UNDP office to monitor the project funds and resources by preparing progress and financial reports of the project whenever required; and
- Prepare and establish a monitoring plan and comply with Monitoring and Evaluation guidance
- Prepare Mid-Year Progress Report (MYPR) and Annual Year Progress Report (AYPR) and other relevant documents as needed for the project document.

1.6 Terms of Reference – Project Associate

The Project Associate's role is to coordinate the stakeholder engagement in ensuring quality and timeliness of activities and delivery of outputs. He/she will be based at UNDP. The specific tasks of the Project Associate are:

- Under the advice of UNDP Project Manager and/or Head of SIFI to provide coordination support that have direct relevance to the project.
- Planning and organization of consultations/conference/seminar/workshop/meetings etc;
- Liaison person for logistic support;
- Prepare progress reports, meeting minutes, conference/seminar/workshop reports and maintain documentation and records;
- Support consultants in liaising with government agencies to gather data/information and inputs for relevant and timely research to guide the delivery of outputs/reports;
- Synthesize and document lessons learnt and best practices and support the development of knowledge products;
- Provide administrative and logistic support for consultants and PMU;
- Under the advice of UNDP Project Manager, liaise with the relevant focal points in the UNDP office to support in preparing progress and financial reports of the project whenever required; and

Any other duties assigned by UNDP Project Manager and/or Head of SIFI that have direct relevance to the project.

Annex 2: Risk Analysis. Use the standard Risk Register template. Please refer to the Deliverable Description of the Risk Register for instructions

Project Title: Climate Resilient Agriculture: Enhancing the Hill Paddy Industry in Sabah				Project Number:	Date: 13 November 2024
No.	**Description**	**Risk Category**	**Impact (I) & Likelihood (L) = Risk Level**	**Risk treatment/ Management Measures**	**Risk Owner**
1	If the Implementing Partner has capacity constraints, then the project outcomes would be delayed or partially met or not achieved.	Operational 1.8 Capacities of the partner Organizational 4.2 Execution capacity	I: 4; L:3 Substantial	A UNDP Project Manager and Project Associate will be hired and placed at MAFFI to assist with personnel constraints and to ensure project implementation.	PMU
2	If the Free, Prior and Informed Consent (FPIC) process is not done properly, then miscommunications and misunderstanding with the community will occur and lead to community rejection or project abandonment.	Social and Environmental 1.1 Human rights 1.3 Grievances 1.9 Indigenous peoples 1.10 Labour and working conditions 1.12 Stakeholder engagement 1.13 Sexual exploitation and abuse Reputational 5.1 Public opinion 5.3 Code of conduct and ethics 5.5 Stakeholder engagement	I:4; L:2 Moderate	The PMU and IP adopt a continuous and culturally appropriate approach to FPIC, ensuring regular engagement with farmers and keeping communities informed of all relevant project developments. Project decisions will be made in consultation with farmers, with particular attention to inclusion of women, youth, and Indigenous representatives. The PMU and IP will be briefed on sexual exploitation and abuse and a grievance mechanism will be will be established to ensure accessible and transparent resolution of concerns.	IP and PMU
3	If there is poor slope management and lack of monitoring on the site, then soil erosion will occur and increase runoff, resulting in environmental degradation on site and downstream.	Environmental / Technical	I:4, L:3 Moderate	Apply Standards SES 1 management measures. Rely on DOA Sabah's expertise for proper slope monitoring and integrate traditional farming knowledge to apply sustainable land practices.	PMU, IP
4	If the use of harmful pest control methods is not controlled, then wildlife deaths (e.g., birds) may occur and breach the Wildlife Conservation Enactment 1997.	Environmental / Legal	I:4, L:3 Moderate	Develop health safety and pest management plan. Avoid culling; implement non-lethal deterrence-based pest control strategies to comply with conservation laws.	PMU, IP

5	If there is poor collaboration among ministries, agencies, and between federal and state stakeholders, then holistic project implementation will be hindered and lead to unsatisfactory results to the productivity.	Institutional / Governance	I:4; L:2 Low	Promote cross-sectoral coordination, align goals through inter-agency working groups, and establish clear roles and communication channels early in the project.	PMU, IP
6	If there are political changes in priorities for the IP due to state elections, then the project may not receive adequate attention from the IP.	Strategic 7.5 Government commitment	I:4; L:1 Low	The project will continuously be highlighted in its alignment to the 12th Malaysia Plan, national and state agriculture plans. Alignment with Sabah Maju Jaya and local plans will be done via MAFFI.	IP, PMU and UNDP Programme Manager
7	If the resources allocated to this project are insufficient, then certain project activities and outcomes will have to be scaled down.	Financial 2.5 Delivery Organizational 4.2 Execution capacity	I:4; L:2 Moderate	A multi-year work plan has been developed. In addition, annual work plans will be prepared. In-kind contributions from DOA Sabah will also be available. Other partnerships with private sectors will also be explored.	IP and PMU

Annex 3: Project Quality Assurance (attached separately)

Annex 4: Social and Environmental Screening Template [English] [French] [Spanish], including additional Social and Environmental Assessments or Management Plans as relevant.

Project Information	
1. Project Title	Climate Resilient Agriculture: Enhancing the hill paddy industry in Sabah
2. Project Number (i.e. Quantum project ID, PIMS+)	
3. Location (Global/Region/Country)	Malaysia
4. Project stage (Design or Implementation)	Design
5. Date	13 November 2024

Part A. Integrating Programming Principles to Strengthen Social and Environmental Sustainability

QUESTION 1: How Does the Project Integrate the Programming Principles in Order to Strengthen Social and Environmental Sustainability?
Briefly describe in the space below how the project mainstreams the human rights-based approach
The project applies a human rights-based approach by ensuring inclusive, equitable participation of all affected groups, particularly Indigenous Peoples, women, youth, and other marginalized stakeholders, throughout the project cycle. It will apply FPIC where Indigenous Peoples are present and promote engagement through local cooperatives. A SEP will guide culturally appropriate, transparent consultations and ensure access to information and inclusive decision-making. A functional, accessible GRM will address concerns fairly and promptly. Participation in planning, implementation, and monitoring will be supported through regular meetings, capacity-building, and inclusion of both formal and informal community groups, particularly in decisions on natural resource use, benefit-sharing, and technology access.
Briefly describe in the space below how the project is likely to improve gender equality and women's empowerment
The project will promote gender equality by enhancing women's skills, resilience, and leadership in rural communities. This will be supported through a gender analysis and the development of a GAP, in consultation with local women, to identify specific needs and barriers. Women will be prioritized in access to training, agri-tech, and income-generating opportunities. SES safeguards will be applied to prevent exclusion, with measures to ensure women's representation in decision-making and address time, caregiving, and social constraints
Briefly describe in the space below how the project mainstreams sustainability and resilience
The project mainstreams sustainability and resilience by combining local agricultural knowledge with climate-smart practices to ensure long-term community ownership. It builds institutional, systemic, and individual capacity to manage natural resources, adapt to environmental risks, and support inclusive development. These efforts align with UNDP's goals to reduce vulnerability, enhance livelihoods, and conserve ecosystems.
Briefly describe in the space below how the project strengthens accountability to stakeholders
The project strengthens accountability to stakeholders through inclusive decision-making, transparent communication, and accessible feedback mechanisms. A Comprehensive SEP will guide ongoing consultation and information sharing, while a culturally appropriate GRM will ensure concerns are addressed promptly. The project will also implement an Indigenous Peoples Plan, GAP, and other safeguards to ensure inclusive participation and equitable access to benefits.

Participatory monitoring and regular reporting will help track implementation of risk management measures and incorporate stakeholder feedback into adaptive project management.
UNDP's Social and Environmental Compliance and Stakeholder Response Mechanisms will serve as an additional layer of accountability.

Part B. Identifying and Managing Social and Environmental Risks

QUESTION 2: What are the Potential Social and Environmental Risks? *Note: Complete SESP Attachment 1 before responding to Question 2.*	**QUESTION 3: What is the level of significance of the potential social and environmental risks?** *Note: Respond to Questions 4 and 5below before proceeding to Question 5*			**QUESTION 6: Describe the assessment and management measures for each risk rated Moderate, Substantial or High**
Risk Description (broken down by event, cause, impact)	***Impact and Likelihood (1-5)***	***Significance (Low, Moderate Substantial, High)***	***Comments (optional)***	***Description of assessment and management measures for risks rated as Moderate, Substantial or High***
Risk 1. Limited capacities of vulnerable people to claim their rights **Principles: Human Rights** **(Question: P.3)** **Event:** particularly vulnerable groups or with low level of literacy, may not have the capacity and opportunities to claim their rights in terms of design and implementation of project activities **Cause:** The risk is related especially to the opportunities for vulnerable groups to access to project activities under Output 1.2 (Scoping and piloting other income- generating activities), where the participation could be limited by low level of literacy and awareness for vulnerable individuals or groups of their rights in the project areas. **Impacts:** Discrimination and exclusion from project benefits of the most vulnerable individuals and groups. **Risk owner**: PMU	I = 3; L = 3	Moderate		No activities which might have adverse impacts on the rights, lands, resources and territories of marginalized Local Communities and Indigenous Peoples will commence until the Indigenous Peoples Plan is completed and broad community consent has been obtained. Further assessments of the roles of individuals and groups, with a focus on women and youth, and on the participation to decision making process of the different groups will be done during the implementation of the project. The project will implement targeted awareness-raising activities, using accessible formats, to ensure vulnerable individuals understand their rights and entitlements. This risk will be mitigated also by the Stakeholder Engagement Plan and the Grievance Redress Mechanism that will be developed during the first year of the project. In order to ensure that the gender component is taken into consideration, a Gender Analysis and Action Plan will also be developed during the first year of the project. SES emphasizes providing information in formats appropriate for the audience, especially for vulnerable, illiterate, or linguistically diverse populations. Project information and GRM materials will be made accessible (e.g., oral, visual, or local language formats). If the presence of Indigenous Peoples or ethnic minorities is confirmed in the project areas, an Indigenous People's Plan will be developed during the first year of project implementation.

				The Indigenous People's Plan will be developed with a focus on assessing and monitoring the relations between groups, to be able to avoid increasing any conflict already existing between the local communities present in the project area. The Plan will ensure that the project will engage all communities at project sites and provide culturally sensitive training that consider traditional practices and natural resource uses, while promoting sustainable agriculture mechanisms. Affected stakeholders will be engaged in good-faith negotiation on how potential adverse impacts will be managed and how benefits will be fairly distributed. An ESMP (Environmental and Social Management Plan) will be developed, if needed, during the first year of project implementation to identify the mitigation of the impacts of project activities.
Risk 2: Risks of impacts on community-based rights to land, territories or resources and **economic displacement, especially of groups and most vulnerable individuals** **Standard 5 Displacement and Resettlement (questions: 5.2, 5.4)** **Event**: Project activities may lead to restrictions on access to resources used by communities to support their livelihoods. **Causes:** Activity 1.2.3 (Scoping and piloting agritourism inclusion into current tourism packages in Crocker Range Park) may trigger access restrictions **Impacts**: • Loss of livelihood for communities in the project area • Changes/erosion of traditional resources-use practices • Reduced income for communities in the project area • Increased poverty for vulnerable groups and individuals in the project area • Social conflicts between groups and/or individuals with different opportunities to access to resources **Risk owner:** PMU	I = 3; L = 3	Moderate	The risk that external actors or tourism-focused zoning could shift control away from communities, leading to: • Access restrictions • Changes in traditional land/resource use • Potential exclusion of vulnerable groups from tourism benefits	. The project will ensure that all agritourism initiatives are co-designed with affected communities and structured as community-led models. Prior to implementation, a targeted assessment will be conducted to establish a socio-economic and resource-use baseline, with specific attention to identifying customary access patterns, livelihood dependencies, and community-based rights to land, territories, and natural resources. These rights will be fully respected and protected in accordance with UNDP's SES Standard 5. If Indigenous Peoples are present and affected, the project will apply FPIC before proceeding with any activity that may alter their access to or use of land, territories, or natural resources. The project will include benefit-sharing mechanisms and agreements to ensure that participating communities receive fair, equitable, and sustained economic returns from agritourism activities. Any potential risks of exclusion or economic harm will be addressed through targeted mitigation measures outlined in the ESMP, which will be developed prior to piloting the activity. These measures will be supported by a SEP and a fully accessible GRM to ensure that community concerns are addressed promptly, transparently, and in culturally appropriate ways.

Risk 3: Production of waste and release of pollutants into the environment **Standard 8: Resource Use Efficiency and Pollution (Questions 8.1, 8.2, 8.5, 8.6)** **Event**: Project activities may lead to pollution through the production of waste or release of chemicals that could harm air, soil, or water quality, affecting environmental and human health **Causes:** Activity 1.1.1 - Deploy traditional practices and technology solutions may introduce or reproduce practices that have negative impacts on the environment **Impacts**: • Dangers/negative impacts on air, soil or water in the project areas • Potential harm to human health • Undermining of intended positive biodiversity and ecological outcomes **Risk owner:** PMU	I = 3; L = 3	Moderate		The project will manage the risk through activities design, based on targeted waste/pollution and resource use efficiency assessments. These assessments will be conducted prior to piloting under Output 1.1.1 and will inform preventive or mitigation measures embedded in operational guidelines. A Waste Management and Pesticide/Chemicals Management Plan will be developed at project inception phase in line with applicable national regulatory requirements and international standards. The plan will include provisions for the safe handling, storage, and disposal of any hazardous substances, aligned with FAO pesticide guidelines and IFC EHS standards where relevant Pollution-related indicators will be included in the project's M&E framework to monitor compliance and ensure early identification of unintended impacts.
Risk 4: Risk of substandard and discriminatory labour practices, including unsafe working conditions, child labour, and unequal treatment of workers, if labour standards are not properly enforced across project-supported activities. **Standard 7 Labour and working conditions (Questions: 7.1, 7.3, 7.5, 7.6)** **Event**: Labour practices may not conform to international norms and standards, especially with regards to child labour and discriminatory conditions **Causes:** The risk is related to the labour practices and working conditions for the implementation of Activity 1.1.1 (Deploy traditional practices and technology solutions) and Activity 1.2.1 (Scoping and piloting processing and packaging hill rice products) **Impacts**: • Increase of inequality between men and women and between other groups and individuals in the labour market in the project area	I = 3; L = 3	Substantial		To mitigate the risk of substandard and discriminatory labour practices under Activities 1.1.1 and 1.2.1, the project will apply national labour laws and relevant international standards, including ILO conventions on child labour, equal pay, non-discrimination, and occupational health and safety. The PMU will ensure that all employment opportunities, whether directly through the project or via contractors, are based on transparent and fair recruitment practices that do not exclude or exploit vulnerable groups, including women, youth, unskilled workers, and persons with disabilities. Child labour will be strictly prohibited in line with national laws and ILO standards. Special attention will be paid to local dynamics where economic pressures may encourage child labour, and the project will promote family support and awareness-raising to prevent school dropouts. All workers involved in project-supported activities, including those hired by third-party service providers, will have access to a GRM tailored for labour-related complaints. Occupational health and safety protocols will be applied, and basic training will be provided to workers involved in processing and agricultural tasks.

• Children may drop out of school in favour of working (also to meet family needs) in the project area **Risk owner:** PMU				The PMU will monitor labour practices throughout implementation and include these measures in the ESMP if required.
Risk 5: Outputs and outcomes sensitive or vulnerable to potential impacts of climate change or disasters. **Standard 2: Climate Change and disaster risks (questions 2.1, 2.2, 2.3)** **Event**: Project outputs and outcomes may be adversely affected by climate-induced hazards, such as prolonged droughts, flash floods, or rising temperatures, which could reduce the effectiveness, sustainability, or long-term viability of agricultural practices and income-generating activities promoted by the project.. **Causes**: Output 1.1 involves promoting agricultural techniques and technologies that may be exposed to environmental shocks or unsuitable under future climate scenarios without adaptation. **Impacts**: Increased vulnerability of project outputs and communities dependending on them, potentially reducing benefits for biodiversity, livelihoods, and food security. Risk of maladaptation if measures are not climate-informed. **Risk owner:** PMU	I = 3; L = 3	Moderate		During early implementation, a Climate Vulnerability/Risk assessment will be carried out to: • Identify likely climate change trends and scenarios; • assess risk exposure of proposed activities/outputs, especially under Outcome 1 • identify and evaluate community exposure and vulnerability and develop climate risk preparedness plans where risk is substantial or high • identify measures that the project can take to avoid, adapt to or reduce/mitigate project impacts though, for example, siting of activities (in least risk-prone areas), use of low-carbon technologies in operations (e.g. solar-powered energy for tourism operations); and developing risk-preparedness plans (for outputs and communities depend on them). • identify climate risk information to be included in training programmes) and knowledge sharing platforms and climate-related parameters for inclusion in the M&E process. The following principles will be integrated into the design of project activities: • Adaptive Management: Implement adaptive management strategies to respond to changing climate conditions during the project implementation, including extreme weather events. • Resilience Building: Focus on building the resilience of communities and ecosystems to climate change impacts, including capacity building on adaptation techniques Community Involvement: Engage local communities in planning and implementing of adaptation and other activities to ensure local ecological knowledge is incorporated into the activities
Risk 6: Increase of gender ~~inequality~~ <u>disparity</u> with worsening of conditions of women and widening inequality for women. **Principle: Gender Equality and Women's Empowerment (questions P.9, P.10, P.11, P.12)** **Event:** The project may reproduce or widen existing ~~inequality~~ disparity between women and men and discrimination and disparities faced by women,	I = 3; L = 3	Moderate		A Gender Analysis will be developed, highlighting the main components related to the gender balance in the project areas. Stakeholder identification and analysis and the Stakeholder engagement plan will be developed during project design phase and their implementation will be monitored during the project implementation phase. The Stakeholder Analysis will focus on assessing the sociocultural context, identifying social roles in local communities.

especially regarding participation in decision-making, design, implementation and access to project opportunities, resources and benefits and pre-existing discriminatory practices based on gender in the project area **Causes:** The risk is related to all project activities, if women's circumstances, needs and interests are not adequately factored into design and implementation of interventions and/or if women are not given equitable access to resources and benefits from project-supported activities. However, the risk is linked especially to Output 1.1 (Technology and best farming practices deployed by farmers), Output 1.2 (Scoping and piloting income- generating activities) and Output 2.1 (Capacity building) where the involvement of men and women in processes related to livelihood may not be done considering the local specificities of roles, responsibilities and capacity in the ability to access to opportunities of men and women **Impacts:** • Reinforcement of gender-based discrimination and deepening of women's economic and social exclusion;; • Limitations on women's ability to access, use, develop and manage resources taking into account the different roles of women and men • Backlash from the local community concerning women's active participation in economic activities • Livelihoods insecurity (for the most vulnerable individual – women and men) and associated social impacts related to food security and other aspects of family well-being and social cohesion **Risk Owner:** PMU				The risk will be managed also through the Gender Action Plan that will be developed during the first year of the project and through the implementation of the Stakeholder Engagement Plan. Project M&E will include gender-responsive indicators (e.g. % women trained, % women in leadership roles, % increase in women's income), and data will be disaggregated by sex and, where relevant, other social identity markers. The Grievance Redress mechanism that will take into consideration the local grievance mechanism already in place will be implemented during the project's implementation and will support the mitigation of the identified risk, ensuring that both men and women have access to the mechanism. •
Risk 7: Impacts on tangible and/or intangible cultural heritage. **Standard 4 Cultural Heritage (questions 4.1, 4.5)**	I = 3; L = 3	Moderate		A targeted assessment will be conducted during implementation to identify tangible and intangible cultural heritage that may be affected by proposed activities, in collaboration with local communities and relevant authorities.

Event: Adverse impacts on sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture. **Causes**: This risk will apply especially to Output 1.2 (Scoping and piloting income- generating activities) considering the possible impacts of activities on local practices and, therefore, on tangible and intangible cultural practices and heritage. **Impacts**: • Changes in use of natural resources may lead to erosion of cultural practices and traditions and breakdown in cultural values/social cohesion NbS activities may cause physical damage at sites of cultural heritage value (e.g. sacred sites) Risk Owner:				The ESMP, if confirmed as needed, should include provision for chance to find procedures, in line with applicable national requirements, and will integrate any measures to mitigate possible impacts on cultural heritage. The project has been designed considering the local context, where cultural heritage (tangible and intangible) elements are integrated in the local practices. SEP will ensure that Indigenous Peoples and custodians of traditional knowledge are consulted on any activity with potential cultural implications, with respect for customary decision-making protocols. The project will ensure that NbS and livelihood activities integrate and respect local knowledge systems and avoid disrupting sacred or ceremonial spaces. Awareness and capacity-building sessions will be held with PMU and implementing partners to sensitize teams to cultural heritage risks and incorporate traditional practices as part of culturally appropriate, sustainable development.

Risk 8: Lack of involvement of Indigenous Peoples, especially minorities groups **Standard 6 Indigenous People (Questions 6.1, 6.3, 6.4, 6.5, 6.7, 6.9)** **Event:** Impacts on the human rights, lands (and land-tenure arrangements), natural resources, livelihoods and traditional practices of indigenous peoples and other vulnerable and marginalized communities. **Causes:** A lack of culturally-appropriate consultation processes to secure Free, Prior and Informed Consent of project-affected indigenous peoples is a cross-cutting cause of this risk. Risks could arise in activities under Output 1.1 (Technology and traditional practices deployed by farmers) and Output 1.2 (Scoping and piloting other income- generating activities) **Impacts:** • exclusion of indigenous peoples from decision-making processes that affect them • potential infringement of the human rights of indigenous peoples (including land and resource use rights), potentially leading to grievances • disruption of traditional livelihoods and cultural practices, leading to economic and social challenges for indigenous communities • increased risk of conflicts between indigenous communities and other stakeholders involved in the project, such as government agencies or private sector entities practices. **Risk Owner:** PMU	I = 3; L = 3	Moderate		The project activities have been developed through a participatory approach and participatory processes will be used during project implementation and will mitigate the identified risk. The IPP will be developed in close consultation with affected Indigenous communities, in line with UNDP's SES requirements for FPIC, ensuring that consent is obtained before any activities with potential impacts commence– Additionally, the project will integrate the following principles into its implementation: • **Inclusive Participation: Engagement methods will be culturally appropriate and adapted to the communication styles, languages, and governance structures of Indigenous Peoples. Stakeholder analysis will disaggregate by ethnic group and socio-cultural identity to ensure full inclusion of minority groups.** • **Benefit Sharing: Ensure fair and equitable sharing of project benefits with Indigenous Peoples, as per FPIC agreements.** • **Safeguarding customary land use/access rights: Provide support to Indigenous Peoples to safeguard their rights and mitigate any negative impacts on access to resources and opportunities.** • **The design and location of activities must take existing land tenure arrangements.** • **Monitoring mechanisms will track the participation and inclusion of Indigenous Peoples across all components, with adaptive measures taken if unequal access or unintended exclusion is observed.** A Grievance Redress mechanism, that will take into consideration the local grievance mechanism already in place, will be implemented during the project's implementation. Where necessary, inter-groups stakeholder consultations will be held to resolve "territorial" disputes relating to resource
Risk 9: Impacts on biodiversity and natural resources from agricultural and tourism activities **Standard 1** **Event:** Project activities, particularly those under Output 1.1 (deployment of traditional practices and technologies) and Output 1.2 (agrotourism and processing initiatives), may lead to habitat disturbance, unsustainable use of natural resources, or indirect pressures on ecosystems, potentially	I=3 L=3	Moderate		A site-specific biodiversity and ecosystem sensitivity assessment will be conducted prior to implementing activities under Output 1.1 and Output 1.2. This will identify ecologically sensitive zones, key habitats, and species of conservation concern. Project activities will avoid critical habitats. Where necessary, mitigation measures such as buffer zones, seasonal restrictions, and siting protocols will be applied to minimize biodiversity disturbance. NbS and agroecological practices will be prioritized to align

threatening local biodiversity and ecosystem services. **Cause:** The use or promotion of agricultural practices (including burning, land clearing, or expansion of cultivation) and the development of community-based tourism facilities in ecologically sensitive areas may alter land use patterns, increase foot traffic, or strain local ecosystems if not properly planned or regulated. **Impacts:** • Degradation of natural habitats and fragmentation of ecosystems; • Loss of native species or disruption of breeding grounds and wildlife corridors; • Reduction in ecosystem services vital for community resilience (e.g., soil fertility, water regulation); • Negative feedback on sustainable livelihoods (e.g., reduced productivity, tourism value); • Conflict over resource use if biodiversity loss affects customary practices or ecosystem-based livelihoods. Risk Owner: PMU				livelihood interventions with biodiversity conservation and sustainable natural resource use. Biodiversity conservation measures will be incorporated into the ESMP, developed with technical guidance from relevant authorities (e.g. forestry, environment departments), and will include site-specific impact mitigation strategies. The SEP will facilitate the involvement of local communities—particularly those with traditional ecological knowledge, in identifying and protecting high-value biodiversity areas and monitoring potential impacts. Biodiversity-related indicators (e.g., vegetation cover, species presence, habitat quality, soil erosion) will be included in the project's M&E framework to support adaptive management and ensure outcomes are environmentally sustainable.
Risk 10: Health and safety risks to communities from agro-processing and tourism-related activities **Standard 3**	I = 3 L = 3	Moderate		A Community Health and Safety Risk Assessment will be conducted during the inception phase, with particular attention to agro-processing, packaging facilities, and tourism pilot sites (Output 1.2.1 and 1.2.3), to identify potential physical, chemical, and biological hazards. A concise and practical Health, Safety, and Sanitation Plan (HSSP) will be developed to: • Establish operational protocols for food safety, hygiene, fire prevention, and emergency preparedness; • Ensure safe installation and use of agro-processing equipment; • Provide first aid training and health/safety orientation for community members and workers. • Agritourism initiatives will include visitor management measures, such as codes of conduct, access controls, and culturally respectful protocols, to safeguard both community and visitor well-being.

				• All facilities and operations supported by the project will be designed to comply with national health and safety standards, and where applicable, aligned with international best practices (e.g., FAO, WHO guidelines). • The project's GRM will include provisions for anonymous reporting of health and safety concerns and will be accessible to workers, residents, and visitors. • Community-level awareness and capacity-building sessions will be held regularly to enhance public health knowledge and promote shared responsibility for safety and risk reduction.
Risk 11: Weak stakeholder feedback and accountability mechanisms Principle 5: Accountability (Questions: P.13, P.14, P.15) **Event:** Affected stakeholders, particularly marginalized and vulnerable groups, may face barriers in accessing project information, participating in decisions, or lodging complaints, which could lead to grievances and mistrust. **Cause:** Insufficient integration of accessible and culturally appropriate grievance redress, feedback, and transparency mechanisms during project implementation, particularly under Outputs 1.1 and 1.2. **Impacts:** • Exclusion of vulnerable stakeholders from decision-making; • Unaddressed grievances leading to social tension or reputational harm; • Risk of retaliation or fear of reprisal discouraging stakeholder engagement. Risk Owner:	I = 3 L = 3	Moderate		The PMU will: • Develop and implement a Grievance Redress Mechanism (GRM) that is accessible to all stakeholders, including women, Indigenous Peoples, and persons with disabilities; • Ensure information disclosure and transparency through community notice boards, local-language materials, and mobile outreach efforts; • Integrate protection against retaliation and establish protocols for handling sensitive complaints confidentially; • Assign clear GRM roles, including community focal points where feasible; • Maintain secure, regularly updated records of all complaints received and actions taken; • Disaggregate grievance data (e.g., by gender, ethnicity, vulnerability) and track trends through the M&E system to support adaptive management and improve engagement strategies over time.

	QUESTION 4: What is the overall project risk categorization?				
	Low Risk	☐			
	Moderate Risk	X	Overall, the risk rating for this project is Moderate - A total of 11 risks have been identified, and rated as *Moderate)* To meet the SES requirements the following will be prepared: (1) Stakeholder Engagement Plan; (2) Gender Analysis and Gender Action Plan; (3) Indigenous Peoples Plan (5) Environmental and Social Management Plan.(6) A concise and practical Health, Safety, and Sanitation Plan (HSSP), incorporating **Waste Management and Pesticide/Chemicals Management Plan** will be developed and integrated in the ESMP, (7) to manage the risk related to impacts on Cultural Heritage, the mitigation measures will be integrated into the ESMP. (8) An effective, transparent, free-to-access **project-level grievance redress mechanism** will be put in place to ensure that all issues and concerns will be reported, discussed and addressed.		
	Substantial Risk	☐			
	High Risk	☐			
	QUESTION 5: Based on the identified risks and risk categorization, what requirements of the SES are triggered? (check all that apply)				
	Question only required for Moderate, Substantial and High-Risk projects				
	Is assessment required? (check if "yes")	X			***Status? (completed, planned)***
	if yes, indicate overall type and status		X	Targeted assessment(s) An integrated targeted assessment covering: • Gender analysis • Community health and safety risk assessment • Indigenous Peoples' presence, land and livelihood baseline • Socio-economic and resource-use baseline (customary access, tenure) • Tangible and intangible cultural heritage assessment • Biodiversity and ecosystem	Planned

				sensitivity assessment • Climate risk and vulnerability assessment • Labour and working conditions risk screening • Accountability and grievance mechanism accessibility review	
				ESIA (Environmental and Social Impact Assessment) Including: Conflict analysis and assessment Economic Displacement Risk Assessments	
				SESA (Strategic Environmental and Social Assessment)	
	Are management plans required? (check if "yes)	X			
	If yes, indicate overall type		X	Targeted management plans: Gender Action Plan Stakeholder Engagement Plan Full design, operationalization and dissemination of project Grievance Redress Mechanism A concise and practical Health, Safety, and Sanitation Plan (HSSP), incorporating Waste Management and Pesticide/Chemicals Management Plan Indigenous Peoples Plan, incorporating culture heritage management plan	 Planned Planned Planned Planned Planned

			X	ESMP (Environmental and Social Management Plan which may include range of targeted plans)	Planned, if confirmed as needed
				ESMF (Environmental and Social Management Framework) Including: Livelihood Action Framework Process Framework	
	Based on identified <u>risks</u>, which Principles/Project-level Standards triggered?		**Comments (not required)**		
	Overarching Principle: Leave No One Behind				
	Human Rights	X			
	Gender Equality and Women's Empowerment	X			
	Accountability	X			
	1. Biodiversity Conservation and Sustainable Natural Resource Management	X			
	2. Climate Change and Disaster Risks	X			
	3. Community Health, Safety and Security				
	4. Cultural Heritage	X			
	5. Displacement and Resettlement	X			
	6. Indigenous Peoples	X			
	7. Labour and Working Conditions	X			
	8. Pollution Prevention and Resource Efficiency	X			

Final Sign Off

Final Screening at the design-stage is not complete until the following signatures are included

Signature	***Date***	***Description***
QA Assessor		UNDP staff member responsible for the project, typically a UNDP Programme Officer. Final signature confirms they have "checked" to ensure that the SESP is adequately conducted.
QA Approver		UNDP senior manager, typically the UNDP Deputy Country Director (DCD), Country Director (CD), Deputy Resident Representative (DRR), or Resident Representative (RR). The QA Approver cannot also be the QA Assessor. Final signature confirms they have "cleared" the SESP prior to submittal to the PAC.

PAC Chair		UNDP chair of the PAC. In some case PAC Chair may also be the QA Approver. Final signature confirms that the SESP was considered as part of the project appraisal and considered in recommendations of the PAC.

SESP Attachment 1. Social and Environmental Risk Screening Checklist

Checklist Potential Social and Environmental Risks		
INSTRUCTIONS: The risk screening checklist will assist in answering Questions 2-6 of the Screening Template. Answers to the checklist questions help to (1) identify potential risks, (2) determine the overall risk categorization of the project, and (3) determine required level of assessment and management measures. Refer to the SES toolkit for further guidance on addressing screening questions.		
Overarching Principle: Leave No One Behind **Human Rights**		**Answer (Yes/No)**
P.1	Have local communities or individuals raised human rights concerns regarding the project (e.g. during the stakeholder engagement process, grievance processes, public statements)?	No
P.2	Is there a risk that duty-bearers (e.g. government agencies) do not have the capacity to meet their obligations in the project?	Yes
P.3	Is there a risk that rights-holders (e.g. project-affected persons) do not have the capacity to claim their rights?	Yes
Would the project potentially involve or lead to:		
P.4	adverse impacts on enjoyment of the human rights (civil, political, economic, social or cultural) of the affected population and particularly of vulnerable groups?	No
P.5	inequitable or discriminatory impacts on affected populations, particularly people living in poverty or vulnerable situations or excluded individuals or groups, including persons with disabilities? [16]	Yes
P.6	restrictions in availability, quality of and/or access to resources or basic services, in particular to vulnerable individuals or groups, including persons with disabilities?	Yes
P.7	exacerbation of conflicts among and/or the risk of violence to project-affected communities and individuals?	Yes
Gender Equality and Women's Empowerment		
P.8	Have women's groups/leaders raised gender equality concerns regarding the project, (e.g. during the stakeholder engagement process, grievance processes, public statements)?	No
Would the project potentially involve or lead to:		
P.9	adverse impacts on gender equality and/or the situation of women and girls?	Yes
P.10	reproducing discriminations against women based on gender, especially regarding participationin design and implementation or access to opportunities and benefits?	Yes
P.11	limitations on women's ability to use, develop and protect natural resources, considering different roles and positions of women and men in accessing environmental goods and services? *For example, activities that could lead to natural resources degradation or depletion in communities who depend on these resources for their livelihoods and well being*	Yes
P.12	exacerbation of risks of gender-based violence? *For example, through the influx of workers to a community, changes in community and household power dynamics, increased exposure to unsafe public places and/or transport, etc.*	No

[16] Prohibited grounds of discrimination include race, ethnicity, sex, age, language, disability, religion, political or other opinion, national or social or geographical origin, property, birth or other status including as an indigenous person or as a member of a minority.

Sustainability and Resilience: Screening questions regarding risks associated with sustainability and resilience are encompassed by the Standard-specific questions below		
Accountability		
Would the project potentially involve or lead to:		
P.13	exclusion of any potentially affected stakeholders, in particular vulnerable groups and excluded individuals (including persons with disabilities), from fully participating in decisions that may affect them?	Yes
P.14	grievances or objections from potentially affected stakeholders?	Yes
P.15	risks of retaliation or reprisals against stakeholders who express concerns or grievances, or who seek to participate in or to obtain information on the project?	Yes
Project-Level Standards		
Standard 1: Biodiversity Conservation and Sustainable Natural Resource Management		
Would the project potentially involve or lead to:		
1.1	adverse impacts to habitats (e.g. modified, natural, and critical habitats) and/or ecosystems and ecosystem services? *For example, through habitat loss, conversion or degradation, fragmentation, hydrological changes*	Yes
1.2	activities within or adjacent to critical habitats and/or environmentally sensitive areas, including (but not limited to) legally protected areas (e.g. nature reserve, national park), areas proposed for protection, or recognized as such by authoritative sources and/or indigenous peoples or local communities?	Yes
1.3	changes to the use of lands and resources that may have adverse impacts on habitats, ecosystems, and/or livelihoods? (Note: if restrictions and/or limitations of access to lands would apply, refer to Standard 5)	Yes
1.4	risks to endangered species (e.g. reduction, encroachment on habitat)?	No
1.5	exacerbation of illegal wildlife trade?	No
1.6	introduction of invasive alien species?	No
1.7	adverse impacts on soils?	No
1.8	harvesting of natural forests, plantation development, or reforestation?	No
1.9	significant agricultural production?	No
1.10	animal husbandry or harvesting of fish populations or other aquatic species?	No
1.11	significant extraction, diversion or containment of surface or ground water? *For example, construction of dams, reservoirs, river basin developments, groundwater extraction*	No
1.12	handling or utilization of genetically modified organisms/living modified organisms?[17]	No
1.13	utilization of genetic resources? (e.g. collection and/or harvesting, commercial development)[18]	No
1.14	adverse transboundary or global environmental concerns?	No
Standard 2: Climate Change and Disaster Risks		
Would the project potentially involve or lead to:		

[17] See the Convention on Biological Diversity and its Cartagena Protocol on Biosafety.
[18] See the Convention on Biological Diversity and its Nagoya Protocol on access and benefit sharing from use of genetic resources.

2.1	areas subject to hazards such as earthquakes, floods, landslides, severewinds, storm surges, tsunami or volcanic eruptions?	Yes
2.2	outputs and outcomes sensitive or vulnerable to potential impacts of climate change or disasters? *For example, through increased precipitation, drought, temperature, salinity, extreme events, earthquakes*	Yes
2.3	increases in vulnerability to climate change impacts or disaster risks now or in the future (also known as maladaptive or negative coping practices)? *For example, changes to land use planning may encourage further development of floodplains, potentially increasing the population's vulnerability to climate change, specifically flooding*	Yes
2.4	increases of greenhouse gas emissions, black carbon emissions or other drivers of climate change?	No
Standard 3: Community Health, Safety and Security		
Would the project potentially involve or lead to:		
3.1	construction and/or infrastructure development (e.g. roads, buildings, dams)? (Note: the GEF does not finance projects that would involve the construction or rehabilitation of large or complex dams)	No
3.2	air pollution, noise, vibration, traffic, injuries, physical hazards, poor surface water quality due to runoff, erosion, sanitation?	Yes
3.3	harm or losses due to failure of structural elements of the project (e.g. collapse of buildings or infrastructure)?	No
3.4	risks of water-borne or other vector-borne diseases (e.g. temporary breeding habitats), communicable and noncommunicable diseases, nutritional disorders, mental health?	No
3.5	transport, storage, and use and/or disposal of hazardous or dangerous materials (e.g. explosives, fuel and other chemicals during construction and operation)?	No
3.6	adverse impacts on ecosystems and ecosystem services relevant to communities' health (e.g. food, surface water purification, natural buffers from flooding)?	No
3.7	influx of project workers to project areas?	No
3.8	engagement of security personnel to protect facilities and property or to support project activities?	No
Standard 4: Cultural Heritage		
Would the project potentially involve or lead to:		
4.1	activities adjacent to or within a Cultural Heritage site?	Yes
4.2	significant excavations, demolitions, movement of earth, flooding or other environmental changes?	No
4.3	adverse impacts to sites, structures, or objects with historical, cultural, artistic, traditional or religious values or intangible forms of culture (e.g. knowledge, innovations, practices)? (Note: projects intended to protect and conserve Cultural Heritage may also have inadvertent adverse impacts)	No
4.4	alterations to landscapes and natural features with cultural significance?	No
4.5	utilization of tangible and/or intangible forms (e.g. practices, traditional knowledge) of Cultural Heritage for commercial or other purposes?	Yes
Standard 5: Displacement and Resettlement		
Would the project potentially involve or lead to:		
5.1	temporary or permanent and full or partial physical displacement (including people without legally recognizable claims to land)?	No

5.2	economic displacement (e.g. loss of assets or access to resources due to land acquisition or access restrictions – even in the absence of physical relocation)?	Yes
5.3	risk of forced evictions?[19]	No
5.4	impacts on or changes to land tenure arrangements and/or community based property rights/customary rights to land, territories and/or resources?	No
Standard 6: Indigenous Peoples		
Would the project potentially involve or lead to:		
6.1	areas where indigenous peoples are present (including project area of influence)?	Yes
6.2	activities located on lands and territories claimed by indigenous peoples?	No
6.3	impacts (positive or negative) to the human rights, lands, natural resources, territories, and traditional livelihoods of indigenous peoples (regardless of whether indigenous peoples possess the legal titles to such areas, whether the project is located within or outside of the lands and territories inhabited by the affected peoples, or whether the indigenous peoples are recognized as indigenous peoples by the country in question)? *If the answer to screening question 6.3 is "yes", then Standard 6 requirements apply, and the potential significance of risks related to impacts on indigenous peoples must be Moderate or above.* *	Yes
6.4	the absence of culturally appropriate consultations carried out with the objective of achieving FPIC on matters that may affect the rights and interests, lands, resources, territories and traditional livelihoods of the indigenous peoples concerned?	Yes
6.5	the utilization and/or commercial development of natural resources on lands and territories claimed by indigenous peoples?	Yes
6.6	forced eviction or the whole or partial physical or economic displacement of indigenous peoples, including through access restrictions to lands, territories, and resources? *Consider, and where appropriate ensure, consistency with the answers under Standard 5 above*	No
6.7	adverse impacts on the development priorities of indigenous peoples as defined by them?	Yes
6.8	risks to the physical and cultural survival of indigenous peoples?	No
6.9	impacts on the Cultural Heritage of indigenous peoples, including through the commercialization or use of their traditional knowledge and practices? *Consider, and where appropriate ensure, consistency with the answers under Standard 4 above.*	Yes
Standard 7: Labour and Working Conditions		
Would the project potentially involve or lead to: (note: applies to project and contractor workers)		
7.1	working conditions that do not meet national labour laws and international commitments?	Yes
7.2	working conditions that may deny freedom of association and collective bargaining?	No
7.3	use of child labour?	Yes
7.4	use of forced labour?	No
7.5	discriminatory working conditions and/or lack of equal opportunity?	Yes
7.6	occupational health and safety risks due to physical, chemical, biological and psychosocial hazards (including violence and harassment) throughout the project life-cycle?	No

[19] Forced eviction is defined here as the permanent or temporary removal against their will of individuals, families or communities from the homes and/or land which they occupy, without the provision of, and access to, appropriate forms of legal or other protection. Forced evictions constitute gross violations of a range of internationally recognized human rights.

* Note: revised July 2022 modifying presumption of risk significance from Substantial or higher to Moderate or higher.

Standard 8: Pollution Prevention and Resource Efficiency		
Would the project potentially involve or lead to:		
8.1	the release of pollutants to the environment due to routine or non-routine circumstances with the potential for adverse local, regional, and/or transboundary impacts?	Yes
8.2	the generation of waste (both hazardous and non-hazardous)?	Yes
8.3	the manufacture, trade, release, and/or use of hazardous materials and/or chemicals?	No
8.4	the use of chemicals or materials subject to international bans or phase-outs? *For example, DDT, PCBs and other chemicals listed in international conventions such as the Montreal Protocol, Minamata Convention, Basel Convention, Rotterdam Convention, Stockholm Convention*	No
8.5	the application of pesticides that may have a negative effect on the environment or human health?	Yes
8.6	significant consumption of raw materials, energy, and/or water?	Yes