

Annex 7a

Stakeholder Engagement Plan (SEP)

GCF Funding Proposal

*Thai Rice:
Strengthening Climate-Smart Rice Farming*

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Abbreviations and Acronyms

AE	Accredited Entity
AWD	Alternate Wetting and Drying
BAAC	Bank for Agriculture and Agricultural Cooperatives
CEDAW	Committee on the Elimination of Discrimination Against Women
CSA	Climate Smart Agriculture
DoAE	Department of Agriculture Extension
EE	Executing Entity
ESIA	Environmental and Social Impact Assessment
ESMP	Environmental and Social Management Plan
ESS	Environmental and Social Safeguards
FPIC	Free Prior Informed Consent
GCF	Green Climate Fund
GCU	Grievance Consideration Unit
GHG	Greenhouse Gas
GIZ	Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH
GSEI	Good Governance for Social Development and the Environment Institute
GRM	Grievance Redress Mechanism
IFC	International Finance Cooperation
IPM	Integrated Pest Management
IRRI	International Rice Research Institute
LDD	Land Development Department
LLL	Laser Land Levelling
MoAC	Ministry of Agriculture and Cooperatives
MoNRE	Ministry of Natural Resources and Environment
MSDHS	Ministry of Social Development and Human Security
NAMA	Nationally Appropriate Mitigation Actions
NDA	National Designated Authority
NDC	Nationally Determined Contribution
NGO	Non-Governmental Organization
OECD	Organisation for Economic Co-operation and Development
ONEP	Office of Natural Resources and Environmental Policy and Planning
PMU	Project Management Unit
PS	Performance Standards
RD	Rice Department
RID	Royal Irrigation Department
RIO	Regional Irrigation Office
RRC	Rice Research Center
SDF	Sustainable Development Foundation
SE	Social Enterprise
SEAH	Sexual exploitation, abuse and harassment
SEP	Stakeholder Engagement Plan
SSM	Straw and Stubble Management
SSNM	Site-Specific Nutrient Management
TMD	Thai Meteorological Department
TRSI	Thailand Rice Science Institute
UN	United Nations

1. Introduction

1.1 Overview

Rice farming is an economically and culturally important sector in Thailand. It occupies approximately 50% of total arable land. It is also the source of 8% of the country's greenhouse gas (GHG) emissions and 51% of the country's agricultural GHG emissions. These GHGs are emitted during rice cultivation under flooded conditions. Additional emissions also result from the use of fossil fuels during land preparation, irrigation, fertilization and chemical, harvest and rice straw management. While rice cultivation is an large source of GHG emissions, it is also extremely vulnerable to climate change. In particular due to the floods and droughts brought about by climate extremes, and to the wider spread of rice pests and diseases that have become evident in recent years. Thai rice farmers are predominantly smallholders with few assets, high debt, and limited means of responding to climate change. Efforts to enhance the livelihoods of rice farmers have therefore become a cornerstone of government policy over the past few decades.

Rice farming in Thailand involves many stakeholders, from local farmers and suppliers, to market and financial services to national-level policymakers and decision makers. It is therefore necessary to engage these diverse relevant stakeholders on the basis of their role, interest, and capability to meet national climate resilience and low-carbon development goals.

This Stakeholder Engagement Plan (SEP) was prepared in association with the submission of "Thai Rice: Strengthening climate-smart rice farming" project to the Green Climate Fund (GCF) by Deutsche Gesellschaft für Internationale Zusammenarbeit (GIZ) GmbH. The project will target rice farmers in 21 provinces of Thailand to overcome barriers related to technical capacity, financing, market linkages and policy, to promote the adoption of low-emission, climate-resilient rice farming technologies and practices. The project is expected to reduce emissions by at least 2.4 million tCO₂eq over the 5-year Thai Rice Project implementation period and 12.5 million tCO₂eq over the 15-year lifespan of the project and reduce the climate vulnerability of 253,400 direct beneficiaries.

The SEP is based on consultations to collect the views, interests, needs and concerns of different relevant stakeholders, particularly those of local communities, ethnic groups, and vulnerable groups that may be involved and/or directly affected by the project. The consultations involved the target groups, experts, government and administration, private sector and civil society and other relevant project stakeholders identified by GIZ. The entire stakeholder consultation process is documented to ensure that interested or concerned third-party groups are able to review the findings following the consultations. This document also outlines the planning processes and the proposed Grievance Mechanism Procedure associated with the SEP.

1.2 Objectives

To ensure that relevant stakeholders, their concerns, and their recommendations are fully and meaningfully incorporated into the project, GIZ carried out consultations with relevant stakeholders during the stakeholder engagement process. During this process, recommendations and concerns were collected, environmental and social impacts assessed, and feedback and discussion on the preliminary measures proposed by the project was received to manage negative impacts and explore opportunities to maximize positive impacts.

Specifically, the main objectives of the consultations were to:

- Introduction of the project.
- Identify preliminary impacts and opportunities for mitigation from the perspectives of stakeholders.
- Collect stakeholder suggestions and concerns.
- Collect baseline information.

2. Stakeholder Consultation Processes

2.1 Principles and Concept of Consultation

This document is in line with GCF policies and those of the GIZ and adheres to the principle of Free, Prior and Informed Consent (FPIC). The GCF uses an interim Environmental and Social Policy based on the Performance Standards of the International Finance Cooperation (IFC), which are compatible with GIZ’s Safeguards and its Gender Management System (S+G). The update of the ESS (March 2022) follows the performance standards (PS) PS1 through PS8 and adds two more safeguards (ESS9 and ESS10). These standards and policies were therefore used to structure the consultations. The interview and focus group discussion formed the basis of the consultation for relevant stakeholders. The relevant stakeholders were separated according to the regions (Central, North, and Northeast) in which the ‘Thai Rice: Strengthening climate-smart rice farming’ (Thai Rice) project will be implemented. They were also divided into three categories: farmers, service providers, and enabling environment institutions. The last category consists of several types of institutions/organizations: central government, local government, non-governmental organizations, relevant companies, and social enterprises (SEs). In addition, the Thai Rice project development team (GIZ staff and advisors) also interviewed various relevant stakeholders, and these stakeholders were also considered during the formulation of the SEP in order to gather comprehensive information (Figure 1).

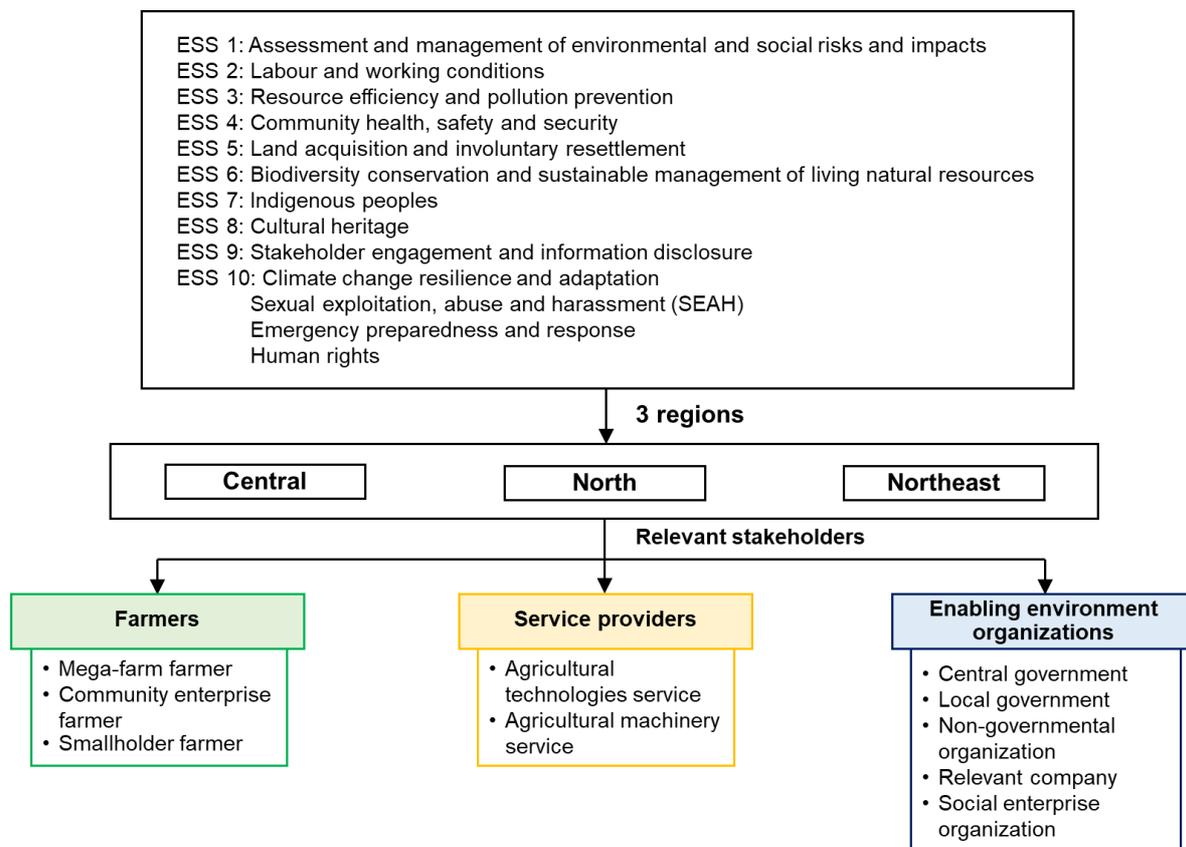


Figure 1. Framework for consultation with relevant stakeholders

All questions used in the stakeholder interviews were formulated from the reports and studies provided by GIZ, including the Concept Note, Climate Smart Agriculture (CSA) study, market study, insurance study, etc. Different questions were selected for different stakeholders as appropriate. During the interviews, detailed discussions and follow-up questions were performed to gather more accurate information. The interviews were mainly conducted online using Zoom, except in cases where meetings could be held on-site. The data gathered from the interviews was analysed and used to formulate the SEP to meet the GCF requirements as part of the project submission.

2.2 Stakeholder Identification and Method of Consultation

Three categories of relevant stakeholders were identified: farmers, service providers, and enabling environment organizations. List of questions (Annex I and II) were selected according to suitability for each interviewee in each stakeholder category, as shown in Figure 2.

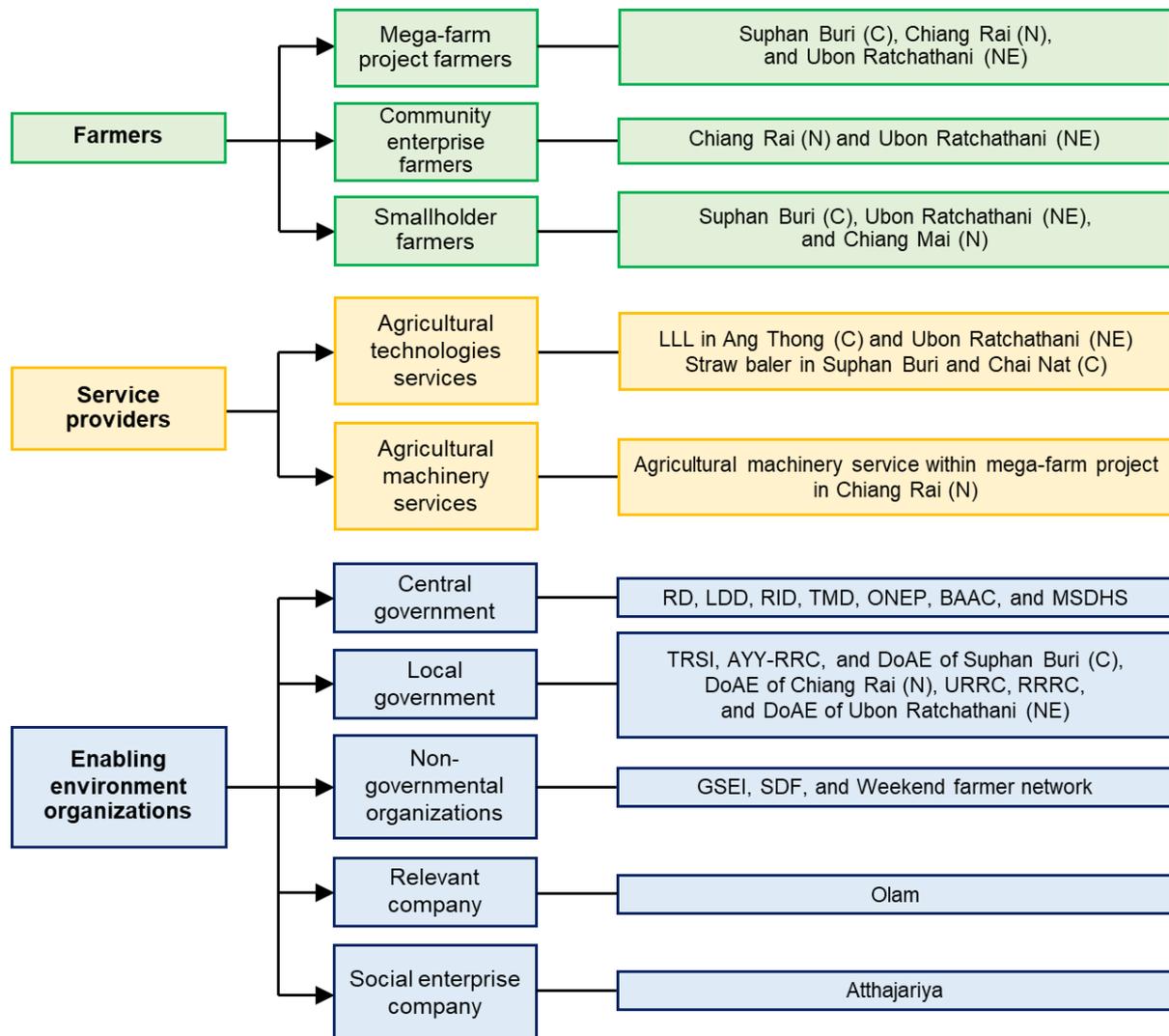


Figure 2. Relevant stakeholders for the interviews. C denotes the Central region, N the Northern region, and NE the Northeastern region.

- Farmers were defined and classified into three groups according to the size of their farm: mega-farm farmers, community enterprise farmers, and smallholder farmers.
 - Mega-farm farmers are those who joined the mega-farm project of the Department of Agriculture Extension (DoAE) at the Ministry of Agriculture and Cooperatives (MoAC) as the basis of agricultural extension support services. A project manager or committee acts as the main focal point for managing the mega-farm's activities along the rice value chain and encourages the members to work together as a group when managing their inputs, cultivation, quality assurance and market linkages. The mega-farm project aims to reduce production costs, improve yields, and build farmers' technical knowledge and bargaining capacity. As a general rule, the establishment of a mega-farm project requires at least 300 rai (48 ha) of paddy field and not less than 30 smallholder farmers (DoAE, 2015). Any farmers can form their own group, but it must be approved by, and later registered with, the relevant local government bodies.
 - Community enterprise farmers are those who participate in a community group (with a minimum membership of at least seven farmers) to perform activities relating to rice production, services, or other relevant activities to generate income and ensure the self-reliance of members' families and their community. These enterprises need to register with the DoAE at the MoAC and also with the provincial commerce office if they intend to sell their products on the market. The members of these enterprises are farmers who are closely related, usually live within the same community, and share a common way of life (DoAE, 2020). Some community enterprise farmers may be members of a mega-farm project.
 - Smallholders are farmers who have less than 50 rai of agricultural land and are registered with the DoAE (DoAE, 2018). Their families are usually small, and they do not participate in group or community activities such as the mega-farms and community enterprises mentioned above. They grow rice mostly for the purpose of subsistence. They are usually hired as local workers by other farmers nearby.
- Service providers are economic actors who provide agricultural technologies and machines, such as tractors, transplanting machines, combine harvesters, laser land levelling (LLL) equipment, straw baling machines, mills, and chemical spraying equipment (e.g., drones).
- Enabling environment institutions/organizations play a key role in driving and supporting farmers and service providers. In this report, these organizations were defined as either individuals (such as local leaders) or institutions/organizations that are involved in the implementation of climate-smart agriculture technologies in each target area. This category includes those who are involved in practice in the field and also national policy makers that are relevant at all steps of rice production. The central and local governments are therefore the main players in this category of stakeholder. In addition, to cover all aspects of the ESS, other non-governmental organizations, including social enterprises and civil society organizations, were also interviewed. These organizations help raise awareness of relevant issues and concerns that must be considered, particularly social

issues relating to vulnerable groups, indigenous people, ethnic groups, and cultural heritage.

The three categories of stakeholders described above have been carefully selected to represent each stakeholder's role, as described below. Stakeholders in the target provinces of the Thai Rice project were selected for the consultations.

- The DoAE is trying to encourage smallholder farmers throughout the country to group together into mega-farms. Mega-farm farmers in the central, northern, and northeastern regions were thus included in the interviews to allow them to share their views on overall impacts (i.e., both negative and positive impacts). In addition, smallholder and community enterprise farmers were also interviewed to support the comprehensive consideration of all aspects of ESS, especially the spatial constraints (such as water management potential, soil problems, rice diseases, and the relative difficulty of land preparation before planting) in target areas.
- Those who provide agricultural technology services in the central plains, for example LLL for straw balers, were invited to share their views and concerns. Service providers in the northern and northeastern regions (providing LLL, straw baler, tractor, combine harvester, and direct seeding machine services) were also interviewed to enable a comparison of the benefits and drawbacks of technology services and to gather information on potential benefits and drawbacks of the project's implementation in their areas. The information obtained from these interviews was analyzed to reveal the views of technology providers on environment and social impacts.
- Institutions relevant to the promotion of the enabling environment of the engagement plan are listed below, along with their roles.
 - Rice Department (RD). The RD is mainly responsible for promoting and supporting production efficiency and rice production quality, strengthening the potential of farmers and farmer organizations, developing rice production infrastructure and agricultural machinery, and promoting value-added rice products, processed products, and rice by-products. RD will serve as Executing Entity in the context of the Thai Rice project.
 - Bank for Agriculture and Agricultural Cooperatives (BAAC). The BAAC is a financial and insurance organization which is responsible for providing financial assistance to individual farmers, farmer associations, and agricultural cooperatives, including those which also undertake non-agricultural related activities. The BAAC provides important knowledge and technology to farmers and their families in order to improve their standard of living. The BAAC also collaborates with other relevant agencies in both the public and private sectors in order to support their business and agriculture-related activities so that farmers can earn more income, ultimately helping them to achieve better standard of living. BAAC will serve as Executing Entity in the context of the Thai Rice project.

- Office of Natural Resources and Environmental Policy and Planning (ONEP). The ONEP acts as the designated national authority for climate change in Thailand and is responsible for enhancing and preserving natural resources and the environment by developing relevant policies, plans, and measures. BAAC will serve as Executing Entity in the context of the Thai Rice project.
- Land Development Department (LDD). The LDD is responsible for studying, surveying, analyzing, and classifying soils to formulate land use policies and plans. It is also responsible for determining land use areas, controlling land use in areas where chemicals or other substances are used or which have been contaminated, establishing soil and water conservation areas, and monitoring land use.
- Royal Irrigation Department (RID). The RID is responsible for overall water resource management with the aim of storing, controlling, supplying, draining or allocating water for agriculture, energy, public utilities or industry. RID is also in charge of prevention of damage caused by water and water transportation in irrigated areas.
- Thai Meteorological Department (TMD). The TMD is responsible for supplying weather forecasts for the entire country and publicizing disaster warnings to support natural disaster mitigation.
- Ministry of Social Development and Human Security (MSDHS). The MSDHS is responsible for overseeing social development and human security.
- Local government is responsible for a range of vital services for people and businesses in the following areas:
 - The Thailand Rice Science Institute (TRSI) and provincial rice research centers under the Rice Department are responsible for conducting research and development in the fields of varietal improvement, production technology, plant protection, post-harvest, and processing technology. The TRSI also disseminates and transfers production technologies and site-specific recommendations, as well as preserving and promoting cultural and local wisdom.
 - District and provincial DoAE offices are responsible for the provision of agricultural information and documentation, providing agricultural consulting and pest control services, supporting the transfer of agricultural knowledge, and the organization of mobile agricultural clinics which issue registration certificates to farmers and growers.
- Non-governmental organizations are free from government control. They are non-profit bodies that work for the welfare of society and act as intermediary organizations which bridge the gap between the government and society. Those relevant to the current project include:

- Good Governance for Social Development and the Environment Institute (GSEI) is an institution which emphasizes and recognize the role of communities and people in driving social and environmental development. GSEI also focuses on research studies and the dissemination of knowledge that will lead to the promotion of good management and social and environmental justice.
- The Sustainable Development Foundation (SDF) serves to promote and strengthen quality, fair and sustainable social development as a base for certifying and respecting human rights.
- The Weekend Farmer Network, whose members are part of a new generation of farmers who communicate on social media networks inspired by the Facebook fan page 'Weekend Farmer'. They are interested in and focus on organic farming, where rice is planted during the weekends coupled with regular work on weekdays. The members of the network work in a variety of occupations.
- Private companies related to rice cultivation and rice products are relevant to this project. They play an important role in both the processing and consumption of rice. They also connect with farmers directly, so many farmers gather important information from them.
 - Olam (Thailand) Company Limited produces, procures, buys, imports, owns, improves, polishes, and packs rice and agricultural products.
- Social Enterprises (SE) are organizations that work toward social and environmental aims. Sources of income of SEs can include product and/or service sales, fundraising by giving returns to investors as well as by requesting donations, or the provision of free financial support by a public benefit organization.
 - Atthajariya Company Limited is an SE that deals in environmentally friendly products and services to help cope with climate change and balance the environment, society, and economy in accordance with the Sustainable Development Goals (SDGs).

All stakeholders were interviewed using the Zoom online platform if on-site interviews could not be arranged. The interviews lasted approximately one hour, on average. Lists of questions were shared prior to each interview, but the specific questions asked depended on the circumstances and stakeholder group of each interviewee (Annex I and II). However, during the interviews detailed discussions and follow-up questions were used to gain more information as necessary.

For minutes of the stakeholder meetings please refer to the Summary of Stakeholder Consultations (Annex 7b).

3. Stakeholder Engagement Plan

3.1 Objectives of the Stakeholder Engagement Plan

3.1.1 Objectives

The Stakeholder Engagement Plan focuses on active engagement with stakeholders from pre-rice cultivation to post-rice cultivation, including farmers, service providers, policy makers, regulators and those involved in the rice value chain. The study area included nine provinces in the central plain, six provinces in the north-eastern region, and one province in the northern region. The Stakeholder Engagement Plan is intended as a starting point for communication and consultation during the development and implementation of the project. It has been designed to be used throughout the whole rice cultivation cycle, with the following objectives:

- Effective communication to ensure that meaningful stakeholder consultation addresses all concerns related to the implementation of the project.
- Provision of quality and accurate information to stakeholders through appropriate means and appropriate stages throughout the entire project implementation period.
- Fostering a two-way dialogue that offers an opportunity for stakeholders to raise their concerns and submit their opinions, including providing feedback to stakeholders.
- Promotion of stakeholders and the social acceptance of the project.

Meaningful engagement activities should meet the following conditions:

- Engagement should start at the beginning of the project by identifying key issues that influence project implementation and enough time should be allowed to find solutions.
- All targeted stakeholders should be engaged, including women, vulnerable groups, ethnic groups and any other relevant, eventually disadvantaged group.
- All presentations should be understandable in the local language and should be given in culturally appropriate formats.
- Clear and transparent explanations of project implementation should be provided throughout the activities.
- Good quality and accurate information should be provided to stakeholders at relevant stages.
- Consistent messages regarding the project activities should be maintained, and expectations should be managed.
- Meetings should be documented, and the minutes should be archived. This is necessary for document disclosure purposes.
- Locations or venues where stakeholders feel most comfortable should be chosen for meetings.

3.1.2 Engagement Strategy

Communication and stakeholder engagement should adhere to certain ethical and accuracy principles to be effective. Thus, this strategy will to the principles shown in

Table 1. Strategy of engagement

Strategy	Description
Transparency	Information on all engagement activities is available and accessible for all with reference source using appropriate means. Progress of implementation can be tracked and disclosed.
Consistency	Maintain consistency in communication with all stakeholders group during consultation including information and engagement.
Two-way communication	Two-way dialogue to promote space for feedback and clarity of information as well as exchanging experiences for better understanding. Using local language in some areas such as the Northeast is necessary and helpful to collect all stakeholders' views.
Building trust	Trust can be built along with transparency and consistency. It is important to raise trust amongst beneficiaries and project stakeholders of the project. Trust can be created by showing the true benefit of the project and can help to incentivize farmers.
Accessibility	Provision of easy and adequate services supplied and information at all levels to meet the need of stakeholders.
Inclusiveness	Ensure all relevant stakeholders are included and their views are represented.
Incentive	This strategy is not only for SEP but can be used in the project implementation as Thai farmers are still below the average income of the whole population, and this economic incentives in term of subsidy and soft loan are necessary.

3.2 Stakeholder Mapping

The project development team at GIZ has classified the key stakeholders relevant to the Thai Rice project's operations into three groups: farmers, service providers, and enabling environment organizations. Stakeholder engagement activities are two-way interactions that, in this case, will benefit rice production. A map of project stakeholders is shown in Figure 3. Farmers are the key players in the rice production chain. Farmers can be defined and categorized into three distinct groups according to the sizes of their operations and the roles that they play in the farming production. These groups are mega-farm farmers, community enterprise farmers, and smallholder farmers. Most Thai farmers are considered to be smallholders because they only own relatively small plots of land. Smallholder farmers who are interested in cultivating large areas of land are required to rent land from capitalists or other individual farmers (Lertdejdech, 2017). In the rice cultivation process, most farmers require labor and tools to grow rice, so they look for help from service providers when conducting various processes. The service providers relevant to this project are farmers or non-farmers who provide on-farm rice cultivation services or off-farm transportation and processing services. The service providers engaged in these different processes should provide fair and satisfactory services to farmers as their service recipients or employers.

Enabling environment organizations were categorized into three sub-groups: (1) central government, i.e. ONEP, DoAE, RD, RID, LDD, and BAAC), (2) local government, i.e. the Rice Research Center (RRC), Regional Irrigation Office (RIO), and provincial offices of the DoAE, LDD and BAAC, and (3) non-government institutions, i.e. International Rice Research Institute (IRRI), Non-Governmental Organizations (NGOs), private companies, standard organizations and research institutes. The organizations in the central government sub-group are responsible for making policies, defining operational guidelines, supporting operations and finances, and assigning tasks to responsible departments at the regional, provincial, and local levels. The local government organizations are responsible for receiving tasks from the central government as well as supporting field operations, providing technical knowledge, and up-skilling and re-skilling farmers and service providers. The non-government organizations relevant to this project are those which advise and contribute to the project by supporting technical knowledge, research, field operations, finance and marketing, as well as supporting operations with government organizations, farmers and service providers. In most cases, these organizations encourage farmers in the rice mega-farms and community enterprises to gain access to funding and technical knowledge, as well as training, marketing, quality improvement, cost reduction, and productivity improvements. Smallholder farmers can also take part in activities if they want to learn more.

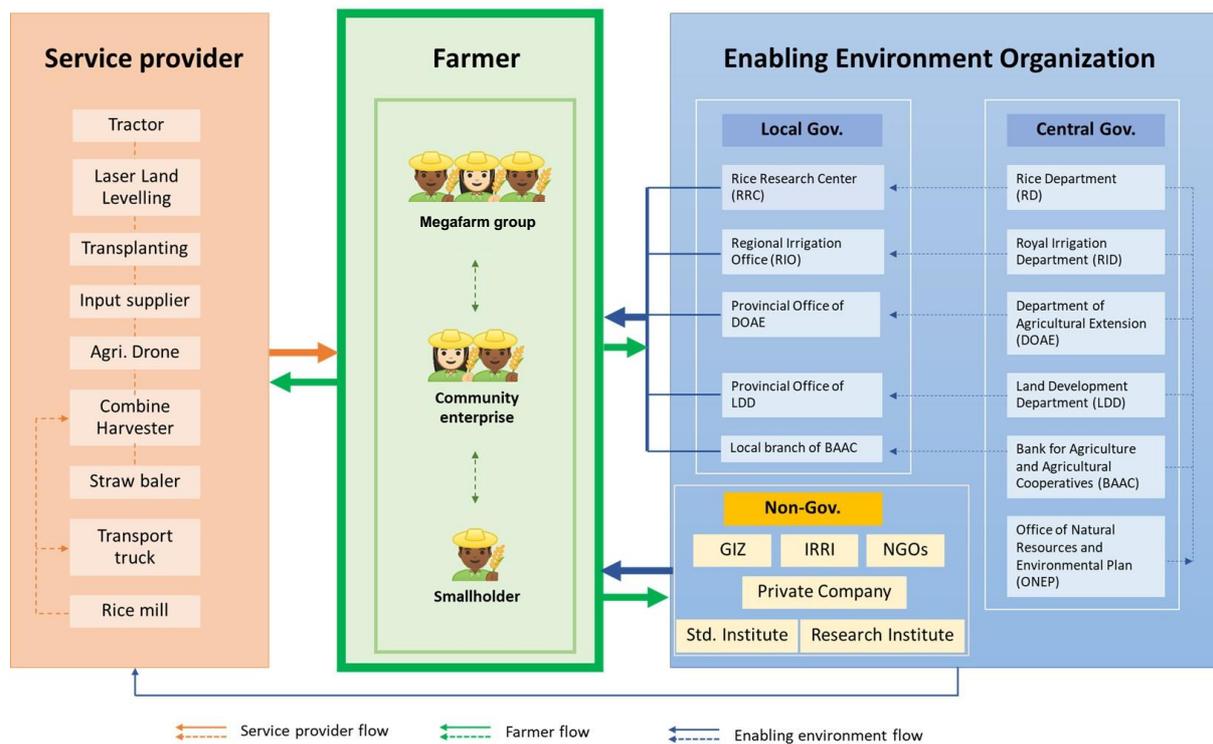


Figure 3. Stakeholder mapping

Many stakeholders contribute to several activities in the rice production chain (Figure 4). The cultivation of rice is carried out by the farmers with the help of their family members or outside contract workers, such as service providers. The service providers have various duties, including preparing fields by tractor, planting by machine, fertilization, chemical spraying by agricultural drone, harvesting by machine, baling rice straw, rice transportation, and rice processing.

Farmers and service providers share the benefits of these operations. The operation of machines and provision of various production inputs by service providers is critical for rice cultivation processes. Mechanization of agricultural operations is almost complete and combine harvesters are widely used (Thepent, 2015). Farmers who, due to old age, physical limitations, or gender, are unable to farm by themselves, often turn to third-party farming service providers for assistance. Therefore, it is important for service providers to manage agricultural machinery in accordance with the requirements of farmer groups and smallholder farmers. In addition, the service fees should be reasonable in terms of cost and wages. For example, the tillage service fee is 300 THB per rai, the LLL service fee is 2,000 THB per rai, the chemical spraying service fee is 50 to 100 baht per rai, and the harvest service fee is 500 THB per rai.

Enabling environment organizations support both farmers and service providers. For instance, central and local government organizations are responsible for supporting the use of technology in field operations such as LLL, Alternate Wetting and Drying (AWD), site-specific nutrient management (SSNM), straw/stubble management (SSM), and integrated pest management (IPM).

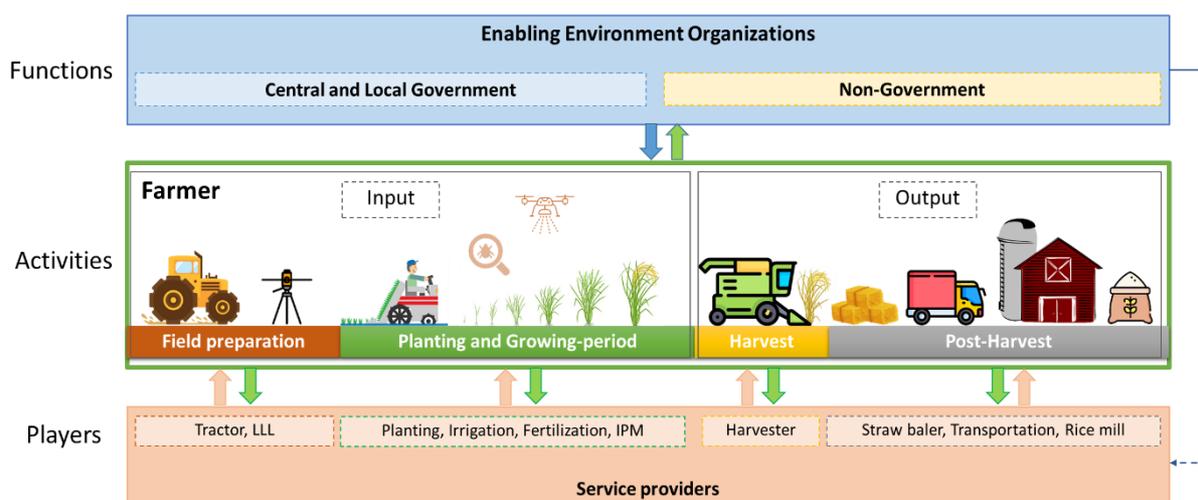


Figure 4. Contribution of stakeholders in Thai rice production.

3.3 Stakeholder Analysis and Engagement

3.3.1 Stakeholder Analysis

Engagement during project development

A. Farmers

Farmers are the main beneficiaries of the Thai Rice project. The identification and categories of stakeholders involved in the project was discussed in section 3.2. This section explains the challenges faced by rice farmers in the three regions.

Central region: Farmers in the central region are mostly engaged in irrigated rice cultivation. The key problem in this region is water management, as the water used in the field is taken from irrigation canals, which distribute water from field to field in a sequence according to each

field's proximity to the water source. During the rainy season, farmers in some lower plain areas (such as Pra Nakorn Sri Ayutthaya, Sing Buri, and Ang Thong) suffer from flooding, with heavy rain and water being released from reservoirs such as that of Bhumibol Dam to control reservoir water levels. Farmers belonging to mega-farms are familiar with technologies such as LLL and AWD as these technologies are promoted by the Rice Department.

Northeastern region: Rice cultivation is mostly rain-fed with one crop per year. Farmers usually grow the Hom Mali rice variety. This variety is light sensitive, with a cultivation time of more than four months per crop. Yields of Hom Mali rice generally range from 300-400 kg per rai, but due to its attractive fragrance and high price the northeastern region is still famous for growing it. Shifting yearly precipitation patterns mean uncertainty around when to start cultivation for northeastern farmers. Due to their cultural practices, most farmers start cropping during the early rainy season. Therefore, late precipitation can cause loss of yield and income to farmers.

Northern region: Rice cultivation is mostly rain fed, with rice growing on the mountain plain. Some cultivation areas use mountain slopes. This region faces the problems of shifting precipitation and water supply. Open burning of rice straw causes the air to be polluted with PM 2.5; this is a major concern in the northern region, particularly after the rice harvest. Therefore, straw management in this region should focus on abating the air pollution caused by the burning of agricultural residue. However, current governmental policy to avoid open burning of agricultural residue means that it is likely that burning activity is slowing down.

B. Service providers

Most farmers rely on machinery through the rice cultivation process, from field preparation to post-harvest activities. There are at least three types of service that farmers commonly request during the cultivation season: land preparation (LLL services and tractors), cultivation (fertilizer and pesticide application) and harvest (harvesting machines and straw baling) services. Service providers can be members of mega-farms, as the mega-farms receive support from Ministry of Agriculture and financial support of 5 million THB to buy appropriate equipment and machines to serve their members' needs. Supporting machines are often different depending on the needs of each mega-farm. These machines are managed by team members from service providers. There are also independent service providers that serve farmers upon request. Smallholders are usually prevented from owning machinery by their financial circumstances. High demand for machine services is generally expected during harvest. In addition, service providers' ability to use drones to spray fertilizer is constrained by the requirement for a license to operate such equipment. Some service providers fly drones illegally without a license.

C. Enabling environment organizations

Organizations with roles to play in ensuring a good environment and atmosphere for the implementation of this project are defined as either governmental (central and local) or non-governmental (NGOs and SEs). Local government organizations such as the DoAE and the Rice Research Center work closely with farmers and have direct relationships with them. They promote technical and scientific knowledge to provide rice cultivation solutions to farmers. NGOs support the needs of farmers on specific issues. These enabling environment organizations differ according to their mandates.

Central government: Thailand has long-term emission reduction and development strategies and a new Nationally Determined Contribution (NDC) target that includes mitigation of GHG emissions resulting from agricultural activities, particularly rice cultivation. Dealing with the emissions of the agricultural sector is a new challenge for Thailand, which aims to achieve net zero emissions by 2065. The implementation of the project is expected to have a positive effect on large-scale emissions mitigation and the sustainability of Thai rice production. However, concerns focus on the sustainability of the project, including the long-term effects on farmers' incomes and profits after the end of the project. Capacity building among farmers is also a major concern. ONEP welcomes any projects that aim to develop the country's productive capacity.

Local government: At the provincial level, the Rice Research Center takes responsibility for researching technologies and knowledge to promote good agricultural practice, while the DoAE oversees the implementation of these technologies and knowledge in practice. These two agencies cooperate closely in the local area. The DoAE also takes care of the registration of farming organizations such as mega farms, organic groups and community enterprises. There is a need for a 'train the trainer' scheme for RD and DoAE officers in order to improve their knowledge of climate change impacts, mitigation and adaptation, and to help them to transfer the correct information to farmers.

Financial supporters: BAAC works closely with farmers by offering loan schemes which include potential for the restructuring of loans when the conditions of payment are not met. Currently, the BAAC has programs in place to build capacity and disseminate good cultivation practice to farmers and service providers. Its support for crop insurance schemes for rice farmers can help reduce environmental risk. The potential increase in rice farmer incomes resulting from the implementation of this project implementation would be beneficial to the BAAC.

3.3.2 Risks of project implementation as perceived by stakeholders

The risks identified by stakeholders during the interviews are described in this section. Figure 5-Figure 7Figure 8 identify the degree of risk for key stakeholders by topic. Smallholders are likely to have the highest risk, followed by community enterprise farmers, mega-farm farmers and service providers. Risks to enabling environment organizations were not analyzed due to their role of supporting farmers.

1) Technology implementation

During the consultation most farmers, and particularly smallholders, informed the interviewers that shifts in precipitation can cause LLL to be carried out at the wrong time as this technology should be implemented during the dry period (usually March and April). In the central plains, farmers grow two to three rice crops a year, giving them limited time to apply LLL. On the other hand, in the northeastern region, longer droughts can cause soil cracking and present a barrier to LLL implementation. The timing of LLL implementation must be considered during project implementation.

Farmers that participate in the Thai Rice NAMA project are familiar with AWD. However, farmers who have not implemented AWD still express a need for water drainage information as their understanding of water drainage during cultivation, and the other benefits of AWD, is not clear.

2) Shifts in cultivation period

Farmers are at risk of having to shift their cropping calendar due to shifts in precipitation, floods, and droughts resulting from climate change. During interviews with megafarm and community enterprise farmers, both groups agreed that floods came without warning in some years, and that they have to harvest earlier leading to lower yield quality and quantity. Late growing can also lead to premature harvesting in order to avoid the loss of yield due to a delayed rainy season. Farmers in the northeastern region stated that it is difficult to find water resources and supplies during droughts.

3) Information accessibility

Elderly smallholders may face challenges when trying to use new technologies and social media. These farmers mentioned that they have less opportunity to access or utilize modern technologies such as drones for fertilizer application, harvesting machines or social media. On the other hand, smallholders from the young generation who participate in the 'Young Smart Farmers' program of the Rice Department are keen to use marketing strategies to sell their product and to produce value-added rice products. Members of mega-farms have more opportunities to receive information and technology through local radio announcements and regular member meetings. Farmers who own no land are usually hired to grow rice in the fields of landowning farmers, and it is therefore difficult for them to make any decisions about alternative methods of rice cultivation.

4) Supply and demand of services

Demand for machine-based services during field preparation and harvesting is high, particularly when many farmers are growing rice in the same period. Demand is even higher when unexpected floods and droughts occur. In mega-farms, services are distributed to members according to their requests. In general, services are provided for members on a first-come-first-served basis and can also be offered to non-member farmers. Disagreements among members happen when services are managed poorly. Smallholders usually have equipment and machines of their own. These machines are simple and old due to maintenance costs. This group risks losing access to services if they rely on individual providers or mega-farms to supply them. The supply and demand of services should be considered during the implementation of the project. Requests for financial support to buy machinery were raised during the consultation.

5) Complaints of environmental pollution

The burning of rice straw can cause air pollution, particularly in the Northern part of Thailand. Nevertheless, some smallholders still burn rice straw after harvesting, as it is then easier to clear the land. The DoAE and RD confirm that the promotion of straw baling and the utilization of straw can help reduce air pollution from straw burning. Overuse of fertilizers and pesticides can result in these chemicals remaining in the soil and leaching to nearby watercourses. The

DoAE often receives complaints about this kind of contamination, including the presence of excess pesticides in the yield.

6) Market access

Minority groups in the north usually grow rice for their own consumption and use local rice varieties. Excess rice can be sold to their neighbors in their own village. Smallholders sell rice directly or through middlemen. Young smart farmers usually use social media to market both rice and rice products. Mega-farm farmers have more power when dealing with middlemen or millers. They can sell their rice directly to millers. In some cases, millers directly contact farmers to buy rice. During flood and drought years, not only are rice yields uncertain, but the market price of rice also fluctuates according to the situation in Thailand and the global rice market. Risks related to market access are relevant to all groups of farmers, although the degree of risk is dependent on the farmers' ability to connect with market demand and negotiate desirable prices.

7) Finance and debt

Thirty percent of Thai farming households owe debts with a value above the average annual farming income per person, and 10% have debts more than three times higher than the average annual farming income per person (UN, 2020). Most Thai rice farmers, particularly smallholders and landless farmers, get into debt due to the high price of chemicals, low yields, and failure of cultivation. It is likely that the debts of Thai rice farmers will increase every year if no appropriate assistance and support is provided by the government. During the stakeholder consultation, both farmers and service providers mentioned that they are at risk of increasing debt and difficulties in applying for the soft loans provided by the BAAC.

8) Disagreement

Rice cultivation areas are closed to other land uses, such as vegetable farming or fish farming. Information provided by service providers indicates that in some cases improper distribution of fertilizer and pesticide by drones can cause disputes between landowners and the service providers who operate the service. Uncontrolled distribution can lead to leakage into the surrounding environment. In addition, farmers in the central plain stated that disagreements can occur among farmers during drought periods when water from dam reservoirs is distributed unfairly as a result of farmers close to the irrigation canal diverting water to their own land and thus restricting the supply of water to land downstream from them.

9) Resource management

The most important resource for rice cultivation is water. In the central plain, water for irrigated rice is distributed by an irrigation canal. According to the RID, rice fields need 1500 cubic meters of water per rai (0.16 hectares). This annual water requirement for rice fields is calculated on the basis of the water consumption rate and the area of cultivation. This amount of water is distributed to the farmer according to the decision of the local water management committee. Irrigation water needs to be shared with other sectors, such as industry and housing. Drought years present a risk of insufficient water supply. In addition, if farmers who are closer to an irrigation canal divert excess water to their fields, farmers whose fields are not directly connected to the irrigation canal risk having insufficient water for cultivation. Rain-fed rice fields in the northeastern and northern regions depend upon the amount, duration, and

time of rainfall. Farmers in the northeastern area agree that reserve ponds and community ponds can reduce the risk of irrigation canals or precipitation not providing enough water. The RID also mentioned that the accurate estimation of water budgets for rice growing areas is key to managing water usage and successful negotiations by local water management committees.

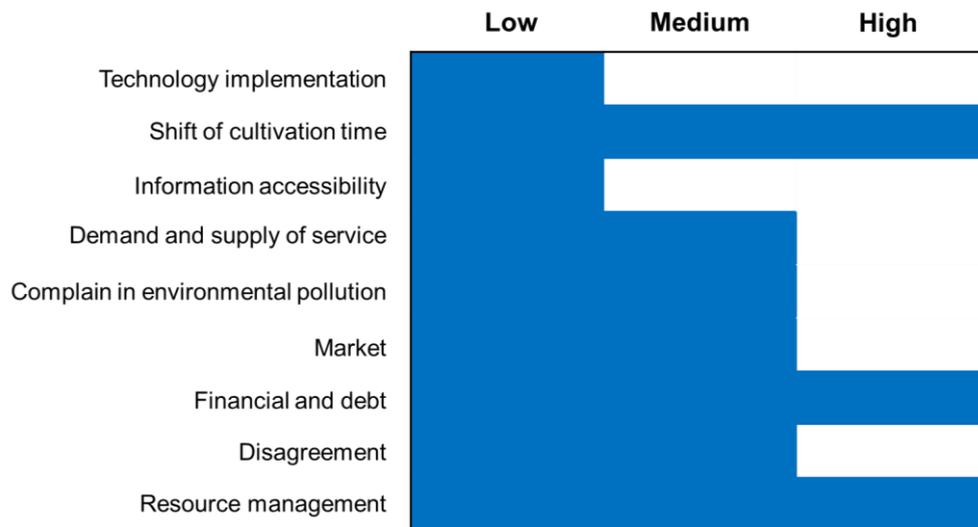


Figure 5. Risk analysis of mega-farm farmers

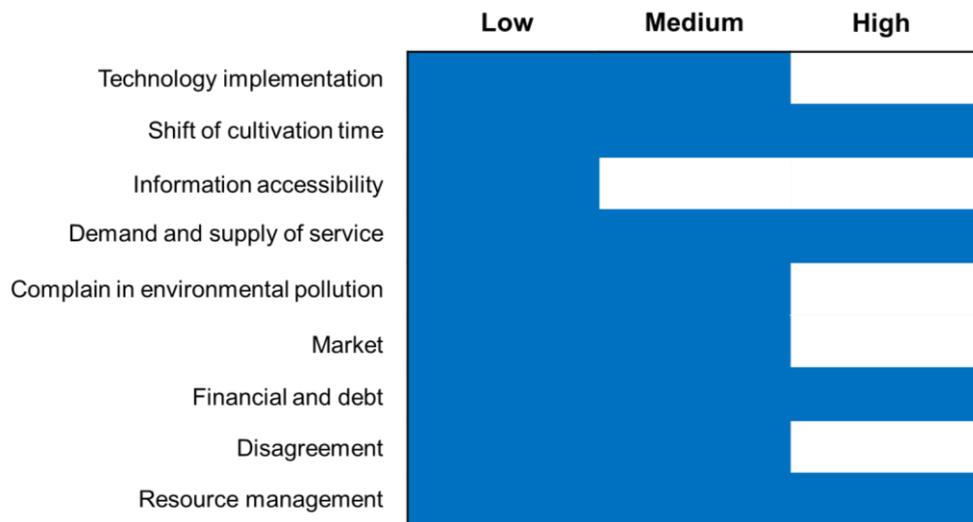


Figure 6. Risk analysis of community enterprise farmers

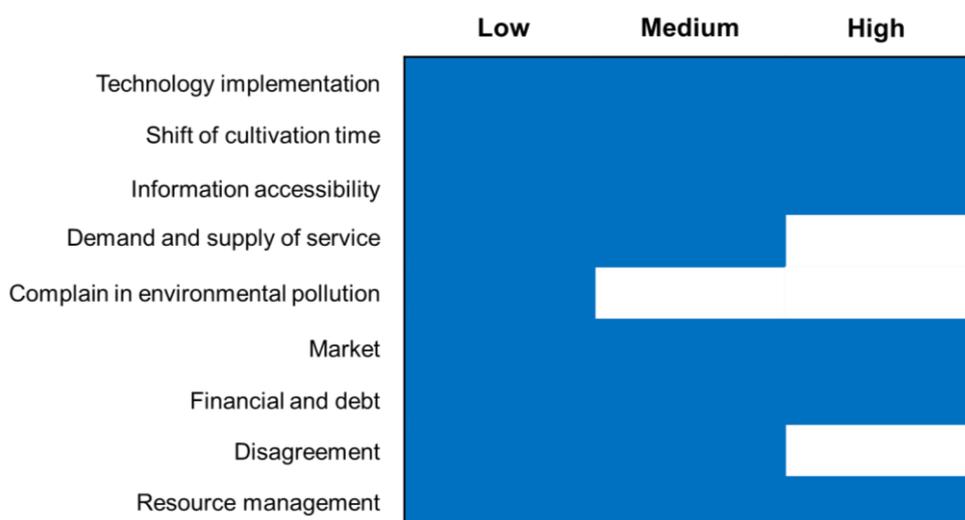


Figure 7. Risk analysis of smallholder farmers

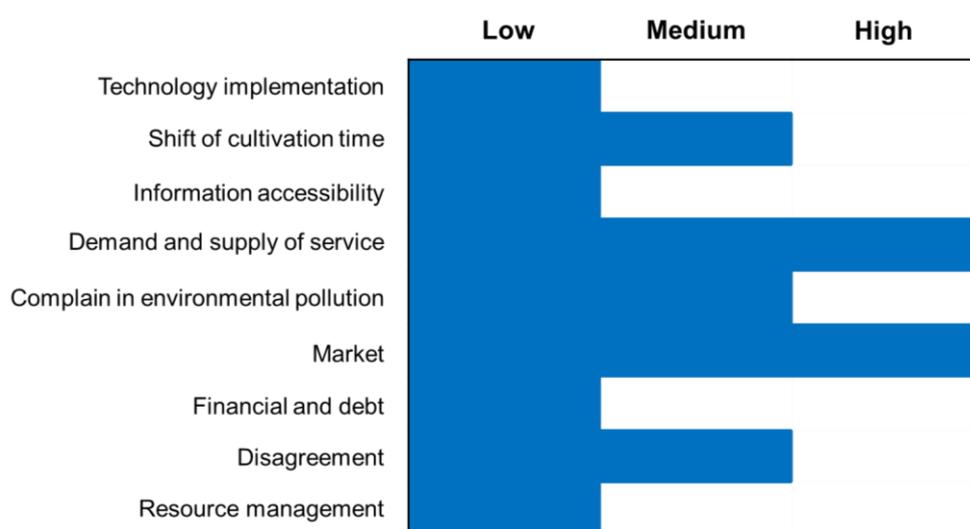


Figure 8. Risk analysis of service providers

3.3.3 Specific concerns from stakeholder consultation

The risk analysis carried out in section 3.3.2 indicates that stakeholders in the Thai Rice project face varying degrees of risk. In order to ensure that these risks are minimized during project implementation,

Table 2 summarizes the main concerns that emerged from the risk analysis and how the project design can address them.

Table 2. Specific concerns of stakeholders

Specific concerns		Addressed in project activities
Environmental concerns	The environmental concerns of Thai farmers are quite limited and include the need for information on climate change and weather data. It is a challenge to improve access to important data and help farmers plan and make decisions according to their situation.	The project will work on building capacity among farmers, and particularly among small farmers, with assistance from project partners TMD described in sub-activities 1.1.1.3 and 2.1.1.2.

Specific concerns		Addressed in project activities
Resource efficiency: Water management	Planned distribution of water to farmers is uncertain due to centralized policy. Allocation of water does not meet the needs of farmers.	Water distribution is dependent on water availability, and RID is responsible for it. This issue will be covered in the capacity building of public sector in sub-activities 1.1.1.1, 1.1.1.2, and 3.1.2.1.
	Good water drainage systems can help farmers at the lower end of irrigation canals receive sufficient water for their fields.	
	Effective year-round water management and consumption is necessary.	
Resource efficiency: Soil management	Soil can be improved by sowing hemp seeds and incorporating the crop into the soil.	Farmers' groups regularly hold meetings on improving acidic soils with support from the Land Development Regional Office and the LDD. In addition, the LDD has a group of volunteer soil specialists in each region who help farmers manage their soil. The verification and transfer of technology described in sub-activity 1.1.1.3 will take issues of soil improvement and soil deterioration into account.
	There are concerns about soil deterioration, because all forms of soil management affect the soil.	
	Chemical fertilizer is expensive, and farmers have to apply it twice to each crop, although the LDD recommends using compost instead.	The price of chemical fertilizer is increasing. Selected climate smart technologies like SSNM can help farmers reduce fertilizer consumption. Training for farmers on technologies and practices in sub-activity 1.1.1.1 will address the issue of fertilizer use, and at the same time activity 1.1.2 will enhance farmers' access to finance for climate-smart technologies and services.
	In some quagmire fields, straw has high moisture content due to water leaking into the fields or rainfall after harvesting. This wet straw is a barrier to straw collection and baling. In these cases, farmers usually burn the straw and/or incorporate into the soil.	Straw baling can increase farmers' incomes and avoid air pollution from straw burning. Straw management by collection and baling is usually done by a service provider after harvesting. The project will work on building the capacity of service providers for the supply of climate-smart technologies and services in rice farming, including by promotion of the service provider business model and match-making between farmers and service providers, through activity 2.1.1 and sub-activity 2.1.1.1, as well as through strengthening market linkages in activity 3.1.1.
	The main barriers to baling are rain and moisture. If it rains before or during baling, baling cannot be performed and the straw is lost due to high humidity.	
Capacity building	Farmers still lack knowledge, understanding, and information about climate and rainfall in their area. It is therefore difficult for them to plan their rice cultivation properly. Short-term seasonal forecasts are needed to help them decide the appropriate time to begin cultivation.	Seasonal forecasting is taken into account in sub-activity 2.1.1.2, which involves the agro-met advisory service. In addition, the project will use the financial literacy development, insurance and loan programs in sub-activity 1.1.2.1 and sub-activity 2.1.1.3, and in activity 2.1.2 to reduce risk.

Specific concerns		Addressed in project activities
	Demonstration sites and learning centers with clear and current information on cases of successful site cultivation are needed.	Thai farmers usually focus on cases of success in the real world, so a demonstration site and/or learning center will enhance promotion of CSA technology. The project will take this issue into account in sub-activity 1.1.1.2.
	Licenses and training for service suppliers are necessary.	Licenses are required to use drones in rice fields. The project will work on this issue in activity 2.1.1 and sub-activity 1.1.1.3 in order to build the capacity of service providers for the supply of climate-smart technologies and services.
Need for financial and market instruments	There is a need for financial instruments to support farmer and service providers.	30% of farmers are still in debt. The project will take into account the need for financial instruments, including the need for enhanced climate risk insurance for rice farmers in activity 2.1.1., and the establishment and operationalization of the Thai Rice Facility in activity 3.1.3.
	Market information support for service providers and value chain services.	The project will work on this issue in activity 3.1.1: 'strengthening market linkages for sustainable rice and biomass residues'.
	Incentives from the government or banks, such as a 50% subsidy for land preparation or harvesting services or soft loans for farmers, are needed.	The project will aim to provide financial incentives through sub-activity 1.1.2.2. and increase the financial literacy of farmers through sub-activity 1.1.2.1. in conjunction with a credit programme offered by BAAC in activity 2.1.2.
Health and Safety	Most farmers do not have technical protection (e.g., no personal protective equipment is used) when working with chemicals, due to inconvenient working conditions.	The project will have a ESS Manager and implement an Environmental and Social Management Plan (ESMP) to ensure that the project meets the ESS standards of GCF and GIZ.
Engagement	Most of the farmers were curious about the project and ready to take action. However, some farmers were less cooperative and lacked information on the project. They are thus unlikely to understand why they should apply CSA (e.g., by reducing the use of water for farming).	The project will follow the Stakeholder Engagement Plan which allows for effective and meaningful engagement with all stakeholders. Implementation of the SEP will improve the access to information.
	Problems with the accessibility of new technology and information, and the utilization of modern technologies (such as drones for fertilizer application, harvesting machines and social media), are limited to smallholders, particular the elderly.	Activity 1.1.1 and sub-activities 1.1.1.1 and 1.1.1.3 promote the utilization of climate smart technology by smallholders. The project also enhances the attractiveness of the rice sector to prospective young and female farmers.
Technology use	The promotion of LLL technology is constrained by the cost of equipment and labor. If there is no financial support for both	LLL is one of the CSA technologies and will be promoted by sub-activities 1.1.1.1 and 2.1.1.1, which

Specific concerns		Addressed in project activities
	service providers and farmers, LLL will increase the cost of farming.	will train farmers and service providers on technology and practices. The project will allow farmers and service providers to access insurance schemes and green loans, as well as the Thai Rice Facility. This will be covered in activities 1.1.2 and 3.1.3.
	Service providers and farmers who want to use LLL are affected by changes in precipitation, because the use of LLL is limited to certain times and by rainfall. LLL must be performed in the dry season, there must be no rain, and soil must be ploughed when it is fine and dry. If rain makes the soil moist or waterlogged, LLL cannot be used.	
Conflict resolution	In the central region, where there are many straw baler providers, there may be a high level of competition for rice straw.	The project provider grievance redress mechanism allows stakeholders to raise grievances in cases where the issue is related to project implementation and within the scope of the project grievance redress mechanism (GRM). The GRM will serve to solve the issue and find appropriate solutions for potential disagreements that may occur during project implementation.
	Mega-farm groups also have conflicts of interest: for example, some groups will follow the rules for members while other groups may have their own limitations.	

3.4 Vulnerable Groups: Women and Indigenous Groups

3.4.1 Identification of Vulnerable Groups

Based on government documents, a literature review and stakeholder interviews, several vulnerable people/groups were identified.

- Farmers who are below the national poverty line.**
 Officially, the poor are defined in Thailand as those who earn less than approximately 92 THB per day (NESDC, 2020). Based on this criterion, 6.8% of the population were below the national poverty line in 2020. Some 40% of farming households earned an annual income below Thailand's poverty line. Their debt levels are high; 30% of farming households have debts in excess of the average annual farming income per person, and 10% have debts which are more than three times higher (UN, 2020). This group is vulnerable because they usually have a low level of education and limited knowledge of technology, rules, regulations, along with limited access to the benefits provided by government policies. It is also difficult for them to cope with variations in climate conditions, water shortages, and they find it hard to access advanced technologies and countermeasures or to implement them to reduce loss and damage induced by external factors, and to find sources of financial support.
- Households headed by elderly people (≥70 years old) without any other household member bringing in income, and people with disabilities.**
 Rice farmers, like other crop growers in Thailand, are getting older. More than 50% of farmers were over 45 years old in 2013 (Rigg et al., 2020). There is a general perception that aging farmers are usually less productive than younger farmers because they are less likely to embrace modern technology. Their expenses are usually higher than their income, and in many cases, they are being abandoned. This is particularly true of the

elderly, who have insufficient assets and are incapable of attending centers for the elderly. They are also vulnerable to chronic illness, having insufficient cash to pay medical care advances when using the healthcare benefits available under the government employee scheme (Chandoevrit, 2006). The shift in economic development away from agriculture towards other sectors means that the migration of young adults to work in urban areas creates a situation in which there are fewer young people nearby to assist their older age parents on a routine basis.

- **Youth/children without parents but raised by elders in Thai rural areas.**

Demographic changes due to migration from rural to urban areas (like Bangkok) represent an important change in the Thai labor landscape during the past few decades. The latest UNICEF survey, carried out in cooperation with the National Statistical Office, shows that one in four children (aged 0-17 years) in Thailand grow up without parental care. This is because their parents have to migrate for work (thus having no permanent home, and not enough income to support children), and leave their children under their grandparent's care. In many cases, parents want their children to grow up in the safety of a small town rather than in a crowded, polluted megalopolis like Bangkok. Parents send money back to their families, but children often only get to see their parents one to two times a year. This is most common in the northeast. However, children need their parents' care, and grandparents cannot always compensate for this (UNICEF, 2020).

Without proper care, and with the penetration of social network technologies like smart phones, the situation can lead to a greater risk of children being exposed to harmful activities (gangster behavior, sexual activities, drugs, teenage pregnancy, abortion, dropping out from school and motorcycle racing), which makes it more likely that they will become part of a vulnerable group.

- **Landless smallholders**

According to the farmer registration statistics from 2017, half of all farming households owned less than 10 rai of farmland, with an overall average of 14.3 rai owned by each agricultural family. Some 40% of farm households do not own land, and only 42% have access to water resources. This reflects significant inequality in access to land and water resources. Only 26% of agricultural households have access to an irrigation system and most of these households are concentrated in the central region, the lower northern region, and the vicinity of Bangkok. Less than 20% of rice farmers in the central region own land. Thus, most rice cultivation is carried out on rented land. One consequence of lack of land ownership for rice production is that farmers become highly vulnerable to price fluctuations in the rice market and are unable to make decisions about investment or the adoption of new technology.

- **Ethnic groups**

The Indigenous People's Policy sets out principles for GCF project implementation in contexts where project locations are inhabited by indigenous peoples. This will be used to guide engagement with indigenous peoples, during the project.

The Ethnic Groups Plan (EGP, Annex 6b) as well as this document use the term "ethnic group" to refer to communities commonly described as "hill tribes" (chao khao), "forest

tribes/people” (chao ba), and other groups that self-identify as “Indigenous Peoples” in Thailand. Thailand has adopted the UN Declaration on the Rights of Indigenous Peoples but has yet to formally recognize the existence of Indigenous Peoples. The recent Constitution (2017) only refers to ethnic groups (Hien et al, 2022).

Ethno-linguistic groups distinct from the Tai ethno-linguistic group include Malay and Mukan in southern areas; Khmer, Mon, Mountain Khmer and Mon (Kuy) in the north-east and east; and Akha, Hmong, Karen, Lahu, Lisu, Yao in the north and west.

The Sirindhorn Anthropology Center (Public Organization) maintains a database of ethnic groups, using the name that the group calls themselves and by which they want to be called. There are 62 ethnic groups listed; however, not all ethnic groups necessarily self-identify as indigenous people (Sirindhorn Anthropology Center, 2023). There is not an authoritative list of ethnic groups that self-identify as indigenous peoples in Thailand and information differs by source. Difference in naming further complicate assessment.

The Council of Indigenous Peoples in Thailand (CIPT), established in 2014, comprises representatives of groups that self-identify as indigenous people. However, membership may not necessarily include all ethnic groups that self-identify as such. Member groups are located in Chiang Mai, Chiang Rai and Mae Hong Son in the north (Bisu, Dara-ang, Hmong, Karen, Khmu, Mlabri) and Pattalung, Satun, Songkla, and Trang in the south (Mani, Moken, Moklen, Uraklawoy), with some small groups in other localized areas (Chong, Kaleung, Kaw-Empi, Sotawueng, Tai-Sak, Yakru) (Thai IP Portal, 2023).

The Asia Indigenous People Pact (AIPP), a regional organization founded in 1992 by indigenous peoples’ movements and author for the “Thailand” chapter in the International Work Group for Indigenous Affairs (IWGIA)’s annual “The Indigenous World” report, notes that the ethnic groups that self-identify as indigenous peoples of Thailand live mainly in three regions of the country: fisher communities and small populations of hunter-gatherers in the south; small groups on the Korat plateau of the north-east and east; and many different highland peoples in the north and north-west of the country (Hien et al, 2022). Nine groups are explicitly recognized and all are in the north: Hmong, Karen, Lisu, Mien, Akha, Lahu, Lua, Thin and Khmu (Berger et al, 2023).

Ethnic groups in the highland remain among the poorest sectors within Thailand’s population. In 2021, the World Bank reported that 12.2% of Thais were living under the national poverty line estimated at 2,762 baht (\$79) per person, per month. Also in 2021, Apidechkul et al (2021) reported that 71.2% of the ethnic people living in Chiang Rai province had an annual income of less than 50,000 baht (\$1,428), and 20.6% had 50,001-100,000 baht. In effect, around 80% of the ethnic groups living in this province are under the national poverty line of Thailand (Belghith, 2023). Many of them do not have proper documentation regarding their status. Therefore, they cannot vote, seek civil service jobs or travel freely to other parts of the country. The lack of citizenship status for highland women has also been cited as a factor in their vulnerability to trafficking and exploitation for sexual and labour purposes.

Findings of the EGP, including the results of stakeholder consultations with representatives of ethnic groups in the North, indicate that ethnic groups do not contribute significantly to rice cultivation in lowland areas, where the project will be implemented. In line with the information provided above, ethnic groups that self-identify as indigenous peoples in the North are not dominated by rice farming activities, agriculture is dominated by other cash crops such as vegetables and fruit. On limited occasions, some ethnic groups from mid-highland and mountain peak areas may engage as hired temporary labour in lowland areas during rice harvest time. During consultations, it was identified that the Hmong, Lisu, and Yao do not normally accept jobs as labourers (including on rice fields) due to cultural norms. Whereas the Akha and Lahu are more willing to accept jobs as labourers (including on rice fields). Further, ethnic groups are not affected by rice farming in the lowland areas. The project will not affect access to lands or resources of the communities of ethnic groups that self-identify as indigenous peoples (Akha, Hmong, Karen, Lahu, Lisu, Yao).

These findings are analysed in detail in the EGP of the Thai Rice Project. The EGP includes measures to avoid, minimize and mitigate negative impacts and enhance positive impacts and opportunities for ethnic groups in the project as well as ensures that their needs and interests are appropriately taken into consideration.

- **Foreign labor**

Although field work has traditionally been carried out by local Thai farmers, in recent years labor has been imported from neighboring countries (mainly Myanmar and Cambodia). These workers are employed in other components of the rice value chain, especially in rice mills. Most of these workers are young, unskilled, poorly educated and highly mobile. They are considered vulnerable because they have limited access to the project and to the basic welfare services (health, safety and education) normally provided to local labor by the government, due to their low level of literacy in the Thai language.

- **Women in rural rice farming**

According to a 2018 Organization for Economic Co-operation and Development (OECD) report, women's participation in labor and their wages are both lower than men's, but the gap is smaller than the average for OECD countries. Moreover, Thailand outperforms many developed countries in terms of senior private sector management roles occupied by women (OECD, 2018). In general, a rather weak gender dimension in Thai policy has been observed by the Committee on the Elimination of Discrimination Against Women (CEDAW). In CEDAW's 2017 'Concluding Observations on the State of Gender Equality in Thailand', the Committee expressed particular concern for the situation of rural Thai women, including indigenous women. Ethnic and religious groups remain disproportionately affected by poverty and limited economic opportunities. CEDAW spells out that Thai women, in particular rural women, are also excluded from participation in the elaboration and implementation of policies and action plans on climate change and disaster risk reduction, despite the fact they are disproportionately affected by climate change and disasters. Besides the lack of clear policy directives on the integration of gender equality and the limited participation of women in the formulation and implementation of climate policies and plans, another key challenge in

gender and social inclusion in climate change action is the lack of sex-disaggregated data.

Discriminatory practices against women still exist in many rural areas in Thailand. These include discriminatory employment practices, unfair treatment of female workers, and lack of access to resources. More specifically, there is a lack of policy to promote economic empowerment and access to financial services for disadvantaged groups of women. Only 13.67% of women have borrowed from a financial institution. Under the 20-year Master Plan, Thailand aims to maximize the use of digital technology across all socioeconomic activities. Many women in rural areas, however, are not able to fully benefit from progress in information technology as the number of internet users in rural areas is rather low and online business skills need to be improved. Additionally, privatization and development policies translate into more difficulties for women, especially those living in rural, or conflict affected areas, in terms of gaining access to natural and economic resources.

The consultation with stakeholders, however, indicates that most stakeholders do not recognize that gender issues are a concern. Their perceptions are that there is generally no gender discrimination in the sharing of benefits and allocation of work and responsibility. Rather, the sharing of responsibilities is normally based on the nature of the work. For example, men generally deal with physically demanding work. Women are usually in charge of managing, communicating, accounting and financial work. Work during certain processes such as planting is equally shared by both men and women. However, as the CEDAW report described above indicates, gender inequality still exists in Thai rice cultivation. For more detailed information please see Gender Assessment and Gender Action Plan of the Thai Rice project (Annexes 8.a and 8.b).

3.4.2 Possible Means of Engagement of Vulnerable Groups

To ensure that vulnerable groups (the poor, the elderly, youth/children without parents, landless smallholders, ethnic groups, foreign workers, and women in rice farming) are fully engaged in the implementation of project, and to protect their rights and benefits, the project should consider appropriate measures. This might include:

- Wherever possible interventions shall be designed in a way that they cater to the needs and interests (and where possible support the livelihoods) of vulnerable households.
- Effective communication using appropriate methods (such as home visits, social media, or meetings) shall be organized, inter alia to foster understanding (including the grievance redress mechanism). Project staff will organize individual meetings at mutually convenient locations, at a mutually convenient time, to provide information and listen to their feedback.
- Transportation assistance for vulnerable people to attend project related meetings will be provided if required, and capacity will be built for the facilitation of the participation of vulnerable groups.

3.5 Stakeholder Engagement Plan

Stakeholders will be engaged with the project through various methods and channels, as described in the Table 6. Some of these are well-known and commonly used. Some engagement activities are integrated with local activities and norms (such as participating in local traditional and cultural festivals and distributing information through the radio broadcasting normally conducted in rural villages). The planning of engagement with each stakeholder involved in the project, including the planned means of engagement, the information or objectives to be disclosed, time frames, and proposed responsible entities, are summarized in the Table 3 and Table 4.

Table 3. Stakeholder engagement method for project implementation

No.	Mean of engagement	Target stakeholder	Objective	Time frame	Responsible entity
1	Project website	All stakeholders	<ul style="list-style-type: none"> To update on project, its activities / progress / news & events announcement To disclose ESS information To disseminate knowledges related to climate smart technology & resilience 	<p>At the latest in 12 months after effectiveness.</p> <p>The website will be updated regularly after project effectiveness along with the developments in various aspects from project implementation.</p>	GIZ, RD, BAAC, ONEP, IRRI
2	Social media network (Line application, Facebook page, etc.)	All stakeholders	<ul style="list-style-type: none"> Update on group activity/event, promote new technology including availability of services among group members. 	Starting at the latest 6 months after effectiveness.	GIZ, RD, BAAC, ONEP, IRRI
3	Brochures and leaflets	All stakeholders	<ul style="list-style-type: none"> Information on technologies employed by the project. Knowledge on maintenance of tools and equipment, safety measures. 	Starting at the latest 12 months after effectiveness and maintained throughout project implementation.	GIZ, RD, BAAC, ONEP, IRRI
4	Handbooks and training materials	Farmers and service providers	<ul style="list-style-type: none"> To guide the effective application of CSA technologies. To provide safety protocols for use and handling of machines, drones, fertilizer, and chemicals. 	Starting at the latest 12 months after effectiveness.	GIZ, RD, BAAC, ONEP, IRRI

No.	Mean of engagement	Target stakeholder	Objective	Time frame	Responsible entity
5	Individual meeting with vulnerable groups	Stakeholders identified as vulnerable groups	To listen to concerns and provide assistance and suggestion as required.	As required by the project	GIZ, RD, BAAC, ONEP, IRRI
6	Consultations on extension strategy	Farmers	To get input for implementing new technologies/measures prioritized in different provinces	Starting at the latest 12 months after effectiveness.	GIZ, RD
7	Information session regarding GHG mitigation and climate resilient farming	All stakeholders	To provide information and enhance understanding of greenhouse gas mitigation and introduction to the low carbon and climate resilience agriculture.	By the end of the inception phase.	IRRI, GIZ, RD
8	Farmer-friendly and context-specific training formats, including time and space to exchange	Farmers and service providers	To provide space for community to learn about the project, and other interactions towards better understanding on overall project implementation. Both theoretical (in a classroom setting, including virtual formats and online training) and practical (in the field via training plots) formats.	Starting at the latest 12 months after effectiveness.	GIZ, RD
9	Participation in local festivals & events	Farmers and service providers	To support the conservation of local cultures and heritage	Throughout the implementation of the project	GIZ, RD, BAAC, ONEP, IRRI
10	Field and community visits	Farmers and service providers	To maintain good relationship, to support and to listen to the concerns	Throughout the implementation of the project	GIZ, RD, BAAC, ONEP, IRRI
11	Stakeholder forum	All stakeholders	To summarize and review the results and output of project implementation, to exchange views towards improving effectiveness in project implementation, and to strengthen networking among stakeholders	Once a year at the end of annual cropping cycle	GIZ

* Normally in Thai rural areas, communication within the village is ensured by village leaders via daily announcements using loudspeakers (radio). In most of the villages this system is installed to easily provide communication amongst villagers.

Table 4.Means of engagement for each target stakeholder

Means of engagement	Target stakeholder				
	Farmers	Service providers	Policy-makers	NGOs	SEs
Project website	X	X	X	X	X
Social media network (Line application, Facebook page, etc.)	X	X	X	X	X
Brochures and leaflets	X	X	X	X	X
Handbooks and training materials	X	X			
Wire broadcasting in the village	X	X			
Individual meeting with vulnerable groups	X				
Consultations on extension strategy	X				
Information session regarding GHG mitigation and resilient farming to climate change	X	X	X	X	X
Farmer-friendly and context-specific training formats, including time and space to exchange	X	X			
Participation in local festivals & events	X	X			
Field and community visits	X	X			
Annual forum	X	X	X	X	X

3.6 Disclosure of Information

Information for disclosure

It is recommended that information on environmental and social assessment, including all engagement activities documents, is accessible and disclosed with referencing source using the means of engagement as described in Table 4. Disclosure of ESS document, including ESIA, ESMP and ESMF, should be accessed on the project website within the time frame given by GCF information disclosure policy (30 days in advance for Category B project). Disclosure information will be located at convenient locations for affected people. Progress of implementation is being tracked and disclosed. Where possible and needed, disclosure of documents should be available in the local language in order to increase clear understanding of local stakeholders.

Document not to be disclosed

The project shall not disclose documents which are exempt to presumed disclosure to public by the information disclosure policy of GCF. The Grievance Redress Mechanism can be applied as a appeal mechanism in case of disclosure of documents not to be disclosed.

Procedures for accessing information

The project's Funding Proposal and relevant documents on stakeholder engagement, including ESS documents, will be disclosed on the project website within the time frame given by GCF information disclosure policy. The reports will be available in both English and Thai, and a public consultation period of at least 30 days is allowed through the project website. Progress and project evaluation results shall be disclosed during and after project implementation by the means of engagement described in Table 3.

3.7 Stakeholder Feedback to Inform Management Decisions

In this project, stakeholders include farmers, service providers, and enabling environment organizations, all of whom care about the outcome of the project. It is important to engage stakeholders before the start of the project, during project implementation as well as at the end of the project. Providing and receiving feedback gives stakeholders an opportunity that they are engaged in the project activities.

Feedback and the results of the project implementation will be shared with GIZ, EEs (RD, BAAC, ONEP), government organizations (such as DoAE and RID), local authorities, academic/research institutes, and NGOs, as well as any other relevant stakeholders, as key information for the facilitation of decision-making from an informed point of view. Proactive project management will be ensured, and project managers will respond to feedback as required to guarantee that the implementation of the project will proceed as planned while maintaining social and environmental safeguards.

The Executing Entities and GIZ will set up an Environmental and Social Safeguards Management team (ESM team) be responsible for overseeing social and environmental safeguards. They will be responsible for implementation of the Environmental and Social Management Plan (ESMP) and the Environmental and Social Management Framework (ESMF) throughout the entirety of the Thai Rice project, in addition to covering measures related to stakeholder engagement. At the local level, they will collaborate with representatives of the local government organizations, such as the Rice Research Centres, the Regional Irrigation Office, and the Provincial Offices of the DoAE and with NGOs. For details on the E&S management system please ESIA/ ESMP/ ESMF (Annex 6.a).

4. Grievance Redress Mechanism

4.1 Objective and Strategy

According to the GCF's E&S policy, the purpose of the Grievance Redress Mechanism (GRM) is to receive and facilitate the resolution of concerns and grievances about the environmental and social performance of GCF-financed activities. In the context of the Thai Rice Project, the specific objectives of the GRM are to:

- Provide a communication channel to receive feedback and grievances from stakeholders (including, but not limited to, farmers, service providers, local authorities, NGOs and others), ultimately with the goal of resolving grievances amicably where possible and minimizing the use of the legal system.
- Establish a grievance procedure with clear responsibilities and reporting lines in order to process stakeholder grievances in a timely and transparent manner.
- Establish a system for recording grievances and the measures (if any) put in place to respond to the grievances.
- Provide a single GRM for general and Sexual exploitation, abuse and harassment (SEAH)-related grievances.

The project's GRM is predicated upon the following basic principles:

- **Transparency:** the receipt and processing of grievances will be conducted transparently, in a culturally appropriate and gender-sensitive manner, and in the appropriate language.
- **Consistency:** open channels of communication will be maintained between the claimant and the GRM for the duration of the grievance process.
- **Accessibility:** all stakeholders will be able to freely access the GRM.
- **Disclosure:** all grievances will be recorded and archived, regardless of whether the grievances are justified or not (the subsequent investigation will determine if the grievances are justified).
- **Discussion:** all justified grievances will be followed up by one or more discussions with the claimant – accompanied, if useful or relevant, by a site visit by a project representative.
- **Privacy:** the GRM will be consistent with Thai data protection law and will respect complainant confidentiality and privacy.

4.2 Types of Grievance

During project implementation, misunderstandings and disagreements among actors, stakeholders and implementers can arise. Two categories of grievance can be identified:

- 1) **A grievance that is not related to project implementation.** This occurs when a claimant raises a grievance that may geographically or temporally overlap with the project, but which nonetheless lies outside of the conceptual project boundary. For example, a farmer may complain about unfair distribution of water from irrigation channels, or about BAAC's

eligibility conditions for loans, or about time delays associated with insurance pay-outs under the TRIS. Such grievances would arise in the absence of the Thai Rice Project, are not created by the project and are not ultimately addressable by the project.

This type of grievance is beyond the scope of the GRM. As per standard GRM practice (see below), a preliminary screening and investigation will be undertaken if a grievance is reported to the GRM. If the grievance is found to be out of scope of the GRM, the complainant will be informed. If the complainant agrees, the grievance will be forwarded (where relevant) to the appropriate institution (e.g. the Royal Irrigation Department or BAAC) to be dealt with according to that institution's own processes.

2) A grievance that is related to project implementation. Such a grievance stems from implementation of project Outputs, Activities and Sub-Activities that lead to adverse impacts on stakeholders. This type of grievance can be direct or indirect:

- **Direct:** a project-delivered intervention fails to satisfy the recipient in some way. For example, a farmer may not be satisfied with the quality of training received, may not be invited to a workshop or may experience an intolerable delay in receiving support. The initiator of the problematic intervention is the project (implemented by the relevant Executing Entity) and the complainant is a targeted project beneficiary (e.g. a rice farmer).
- **Indirect:** a set of conditions established by the project may impose harm or inconvenience on a stakeholder. For example, a service provider that receives technical support from the project may subsequently provide unsatisfactory LLL services to farmers, or an insurance product developed with project technical support may subsequently be sold to farmers who would have benefitted from an alternative product, or SSNM may fail to reduce farmers' fertilizer costs to the extent expected. The grievance is not about a project-supplied service and the complainant may not necessarily be a targeted project beneficiary (for example, it might be a farmer outside the project boundary), but the grievance could probably not have arisen in the absence of the project.

This type of grievance is within the scope of the GRM.

Stakeholder consultations during preparation of the Thai Rice Project suggest that grievances, if they materialize, are most likely to revolve around rice cultivation and may take the following forms:

- Disagreements among farmers (potentially in farmer groups) over competing demands for machinery during land preparation and harvesting.
- Air pollution caused by rice straw burning from neighboring fields.
- Contamination of waterways and disposal / storage of left-over agro-chemicals.
- Disputes between farmers and service providers – e.g. over the quality of services provided.

Applying the GRM scope principles to these examples leads to the following (stylized) conclusions:

- Disagreements over farmers' use of machinery are out of scope if the machinery is unrelated to the Thai Rice Project. If the machinery was purchased with project support (e.g. using BAAC green loans that benefitted from project technical assistance or awareness-raising) then the grievance is, in principle, in scope. However, the culpability of the project, and the extent to which the project can practically address the grievance, are limited in this context.
- Air pollution from rice straw burning is out of scope. The project seeks to reduce straw and stubble burning with the specific objective of reducing GHG and particulate emissions; any residual burning activity undertaken by farmers is in spite of project activities, not because of them.
- Contamination of waterways is out of scope. The project seeks to reduce fertilizer and pesticide use; any residual agro-chemical use by farmers is in spite of project activities, not because of them.
- Disputes between farmers and service providers are out of scope if the service providers are unrelated to the project (i.e. they have not received technical or financial support from the project). If project-supported service providers are involved, such disputes are, in principle, in scope and will be considered by the GRM. The precise actions taken will be context-specific and could range – for example – from no action to retraining of the service provider to a recommendation to BAAC to discontinue a loan to the service provider (if the service provider is found to have contravened the loan conditions).

SEAH-related grievances will be channelled through a parallel GRM structure that reflects tighter confidentiality, gender and cultural sensitivity considerations (see below). The same scope considerations apply to SEAH-related grievances.

For the Thai Rice Project, SEAH risks exist in the context of project-supported training and extension support, agricultural service provider activities (regarding both potentially exploitative relationships with farmers and contacts between service provider staff and members of the public), and access to financial support.

4.3 Process description of Grievance Redress Mechanism

A grievance is initiated by a complainant. The complainant submits a grievance to the project. This grievance is recorded, screened for scope eligibility and, if found to be eligible, is then processed. In either case – eligible or non-eligible – the grievance submission is acknowledged to the complainant within a defined time period (5 days).

The project's ESS Manager, a member of the Project Management Unit (PMU), is responsible for day-to-day management of the GRM and for maintaining systematic records of grievances received and how they are addressed.

Grievances can be submitted through a number of channels:

- Project website, social media channel or phone number.
- A local project representative: e.g. a government extension officer, a village head, a trainer.
- A local event: e.g. a meeting or a workshop.
- A grievance box located at an appropriate location.
- The local Damrongdhama Centre, located in the provincial offices in the project area. The Damrongdhama Centres fall under the authority of the Ministry of Interior, which was established in 1994 as a de facto Grievance Redress Mechanism for members of the public. The Centre has officials located in all provincial government offices throughout the country and has the following 4 missions:
 1. To promote fairness and facilitate justice to citizens. As part of this mission, the Centre is empowered to gather public complaints and to support dispute resolution among community members.
 2. To enable citizens to ask for help from the government.
 3. To enable private sector engagement and support for the work of the Centre.
 4. To promote good citizenship and provide moral knowledge and ethics for the general public.

All grievances are recorded in writing by the recipient of the grievance and are then forwarded to the project ESS Manager. The ESS Manager screens grievances for scope eligibility and, if found to be in scope, delegates the grievance to the appropriate Grievance Consideration Unit (GCU).

The GRM is based upon an escalatory model. Grievances are processed locally to the extent possible. Where the local-level GCU is unable to address a grievance to the satisfaction of the complainant, the grievance is escalated to a GCU in the next level of the GRM hierarchy.

GCU's are temporary structures that are convened to consider specific grievances and are then dissolved after successful resolution of the grievance or when the grievance is escalated up to the next level. This ensures that GCU's can be constituted with the appropriate technical, cultural or geographical expertise to address context-specific grievances.

There are 3 hierarchical levels in the GRM and complementarity with a fourth (GCF) level:

- Local: a local-level GCU consists of a committee of local stakeholders (a minimum of 3 such stakeholders). The definition of 'local' will vary from case to case but will typically operate at the level of a village or a district. The composition of the committee will also vary from case to case, depending upon the nature of the grievance. A local-level GCU could, for example, consist of a village head, a district-level extension official or an official of the Damrongdhama Centre, and a local civil society representative. The project ESS Manager or a delegated member of the PMU serves as an observer to the local-level GCU. The local-level GCU conducts an investigation of the grievance, which might involve (for example) discussions with the complainant and other stakeholders and a site visit. The local-level GCU submits one or more

recommendations in writing to the ESS Manager on how the grievance should be addressed. If the ESS Manager agrees with the recommendations, they are communicated to the complainant. If the complainant is satisfied, the recommendations are implemented and the grievance is recorded as closed. If the complainant is not satisfied with the proposed actions, the grievance is passed on to the next (national) level of the GRM hierarchy.

- National: a national-level GCU consists of a committee of national stakeholders (a minimum of 5 such stakeholders) chaired by the ESS Manager. The composition of a national GCU varies case to case but could, for example, consist of representatives of government ministries and departments, the Damrongdhama Centre and the private sector. The national-level GCU considers the grievance, potentially relying upon the investigation undertaken by the local GCU or potentially conducting its own supplementary investigation (which might, in serious cases, involve site visits or visits to interview stakeholders). The national-level GCU issues one or more proposed actions to respond to the grievance. If the complainant is satisfied, the actions are implemented and the grievance is recorded as closed. If the complainant is not satisfied with the proposed actions, the grievance is passed on to the next (GIZ) level of the GRM hierarchy.
- GIZ: If the grievance is unable to be addressed within the project structure (local or national), the grievance will be considered by the GIZ Thailand Country Office, using GIZ's standard grievance procedures. When considered necessary in particularly challenging situations, the GIZ Country Office may transfer the case to the (international) GIZ Ombudsman. The GIZ compliance and integrity case management process can be seen in Figure 9.

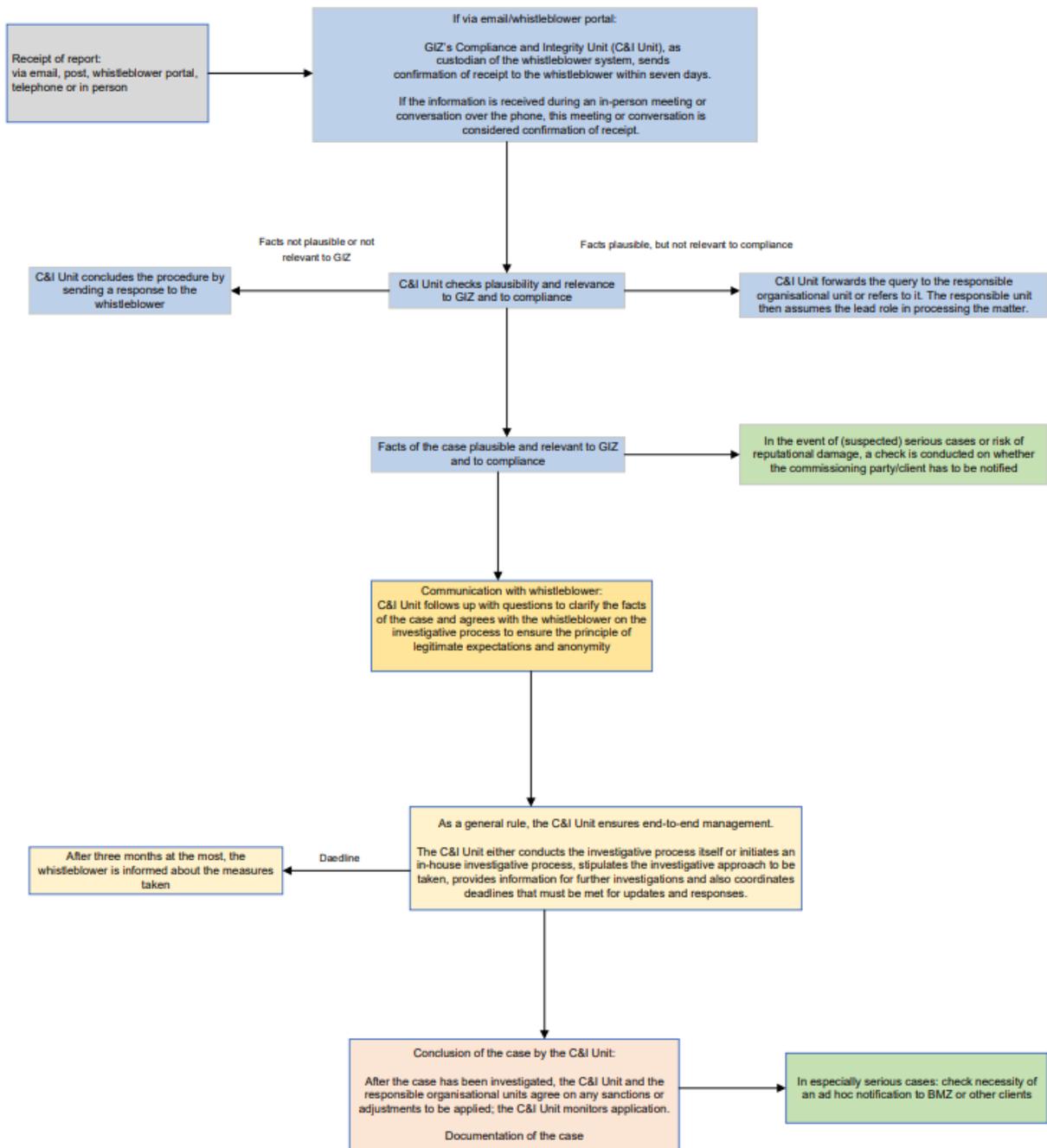


Figure 9. GIZ compliance and integrity case management process

- GCF: At GCF-level, the independent Redress Mechanism addresses grievances and complaints filed by people and communities who may be, or have been, affected by adverse impacts in connection with the potential failures of the GCF-financed activities to implement measures pursuant to the operational policies and procedures of GCF, including its ESS standards. In the event of a grievance being filed with the Independent Redress Mechanism instead of or in addition to the project's own GRM, GIZ, as the Accredited Entity, will cooperate with the Independent Redress Mechanism and the GCF to ensure that the grievance is appropriately considered and addressed.

At each hierarchical level, a grievance will be considered and remedial actions proposed within 30 days of the grievance being first received (local level) or the grievance being escalated to the next level (national or GIZ).

Table 5. Steps to resolve grievance with responsible entity

Step to resolve grievance	Responsible entity
Step 1: Submission of grievance to the project	Stakeholders
Step 2: Registration of grievance	GIZ officer to record the claim.
Step 3: Screening for scope eligibility	ESS manager
Step 4: Investigate of grievance by hierarchical levels	Consider and propose remedial actions by local-level GCU or national-level GCU or GIZ Thailand country office or GCF
Step 5: Closure of grievance	ESS Manager record, documents and formally closes grievance case.

Table 6. Grievance analysis according to degree of severity.

Level of grievance	Description	Actions
Not justifiable	Grievance or concern is not related to the project.	Communicate and explain real situation to claimant. Register as not justified.
Negligible	Grievance is related to project with no damage. Resolution can be done immediately.	Communicate and explain real situation to claimant. Solution will be consider based on the grievance treatment system
Minimum	Grievance is related to project and causes small damage and/ or oversmall area. Negotiation is required.	Communicate, explain real situation, disclose data and information if needed, discussion with claimant for solution. Solution will be considered based on the grievance treatment system
Moderate	Grievance is related to project and causes moderate damage with expansion of area. Negotiation and consultation are required.	Communicate, explain real situation, disclose data and information if needed, discussion with claimant and any other stakeholder involved for solution. Solution will be considered based on the grievance treatment system
Serious	Grievance is related to project and causes large damage and/ or over vast area with difficulty to control.	Communicate, explain real situation, disclose data and information if needed, discussion with claimant and any other stakeholder involved for solution. If necessary, local-level GCU nominated to resolve the issue. Usually nominated GCU contains a respected person in a village. Solution will be considered based on the grievance treatment system
Catastrophic	The grievance is related to project and damage cannot be controlled; typically requires complicated resolution.	Consult national-level GCU authority for solution of grievance cannot be addressed by local-level GCU.

SEAH-related grievances

SEAH-related grievances follow a different process.

SEAH-related grievances have the potential to be qualitatively different – and potentially more serious – than non-SEAH grievances:

- Potential conflicts of interest: the complaint may relate to the behaviour of a project stakeholder who might normally be involved in the consideration of grievances.
- Privacy: a complainant making serious allegations of sexual harassment or abuse may not wish his/her identity to be widely known.
- Gender and cultural sensitivity: a complainant, particularly if traumatized, may wish to discuss a grievance only with someone of their own gender or in a culturally acceptable context.

Accordingly, the Thai Rice Project incorporates a survivor-centred and gender-responsive GRM for SEAH-related grievances.

Individuals who wish to submit a SEAH-related grievance will be encouraged to use a dedicated project phone number (different from the general GRM phone number) or a dedicated project e-mail address (different from the general GRM e-mail address). To minimize the number of project stakeholders initially involved in or aware of SEAH-related grievances, SEAH-related grievance submissions through other channels – government extension officers, workshops, etc. – will be discouraged. A full description of the SEAH GRM process will be provided on the project website as well as in project literature (leaflets, workshop notes, etc.).

If a SEAH-related grievance is inadvertently submitted through one of the non-SEAH channels (e.g. because the complainant is unaware of the separate procedures for SEAH), it will be forwarded to the ESS Manager per standard procedure. The ESS Manager will then redirect the grievance onto the SEAH-related grievance track.

SEAH-related phone calls and e-mails will be directly received by the ESS Manager. SEAH-related grievances will be recorded separately from non-SEAH grievances.

Depending upon the nature of the grievance, the ESS Manager will develop a bespoke response approach for each grievance (see below). Given the range of possible grievances, and the range of possible levels of seriousness of allegations, a one-size-fits-all model is not considered desirable. Nor also may the standard escalatory model – start locally and then, if necessary, escalate to the national level and then the GIZ level – be appropriate: for example, if the allegations relate to local project representatives or if there is a danger of the identity of the complainant becoming known to the local community (against the wishes of the complainant).

SEAH-related grievances will always be considered with compassion and sensitivity. Where the ESS Manager is not best placed to lead the investigatory response (e.g. for gender or linguistic reasons), he/she will nominate a Grievance Focal Point who is better positioned to do so. The Grievance Focal Point may be a member of the PMU, a member of the broader

project implementation team (e.g. an Executing Entity staff member) or an outside expert. In all cases, the Grievance Focal Point will be bound by tight confidentiality requirements.

As a starting point, the Grievance Focal Point will follow up with the complainant – by phone, e-mail or in-person (as appropriate) – to elucidate the details of the complaint and to understand the ‘ground rules’ that the complainant wishes to operate under (e.g. whether his/her identity is to be kept confidential, whether he/she is happy for other relevant stakeholders to be interviewed, what sort of resolution the complainant is seeking, etc.). This will then define the options available to the project to investigate the grievance and, if found to be legitimate, to put in place appropriate response measures. The Grievance Focal Point and the ESS Manager (if they are not the same individual) will, together, formulate a bespoke response approach based on the nature and seriousness of the allegations and the wishes of the complainant.

If a complainant is unhappy with the response approach that is developed or the actions that are proposed to address the grievance, the complainant can escalate the grievance to the GIZ Country Office.

Possible project responses to SEAH grievances are diverse and context-specific, making generalizations difficult. Examples of responses could, conceivably, include actions such as: referral of complaints to Executing Entities’ own GRMs, education of trainers on gender- and SEAH-related topics to ensure inappropriate behaviour is not repeated, removal of personnel from project roles, expanded SEAH awareness-raising among farmers, women-only or ethnic group-only (as appropriate) training workshops, or, in extreme cases, referral of grievances to relevant regulatory or law enforcement authorities.

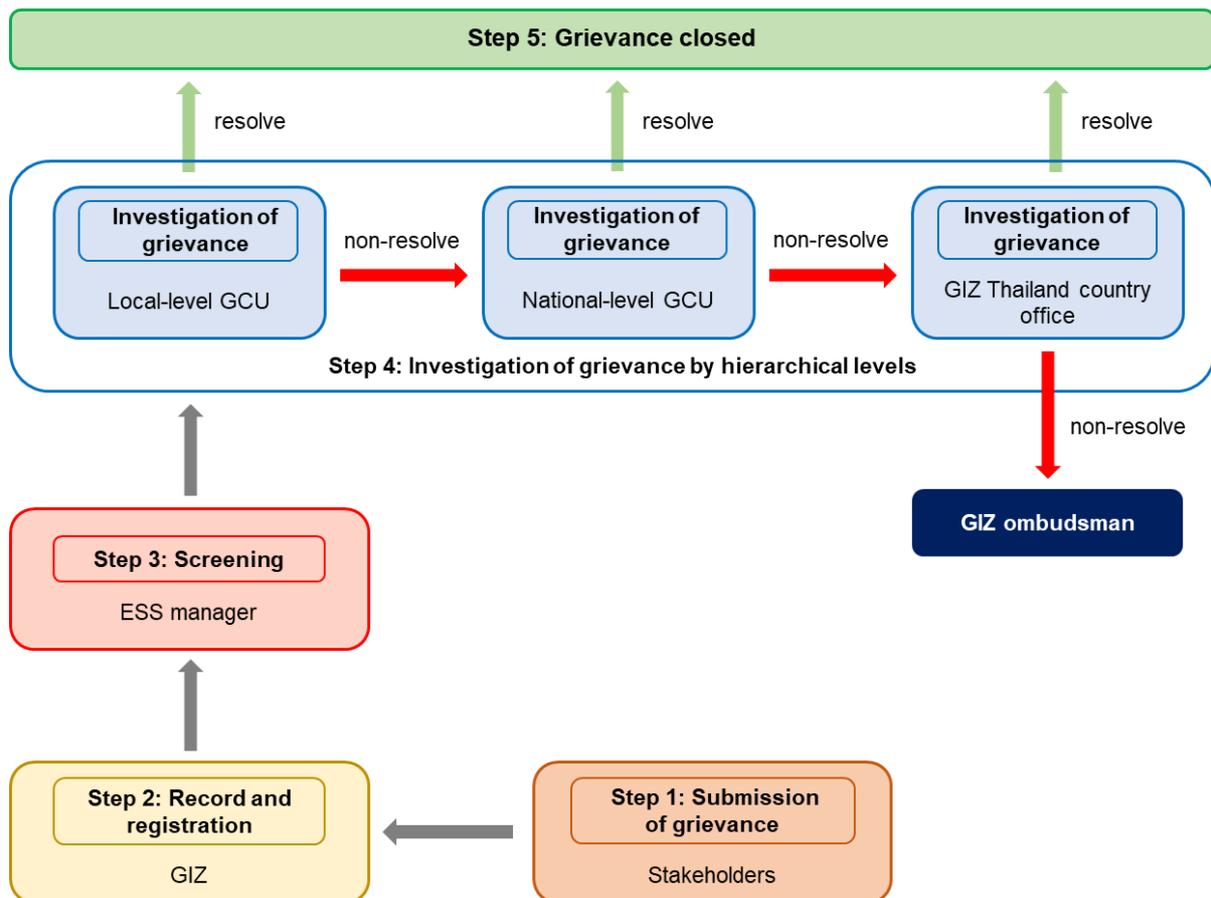


Figure 10. Procedure to solve grievances

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Annex

Annex I. Guiding questions for SEP

This set of question was be used to receive information from stakeholders relevant to Thai Rice project implementation. The data was be analyzed and used for the formulation of stakeholder engagement plan with the view to meet GCF's requirements as part of the project submission. Some questions were for different stakeholder types as seen in the table below. Note that answers have also informed the ESIA/ESMP/ESMF. During the interviews these guiding questions were accompanied by further questions to get more detailed information on specific topics the interviewees were knowledgeable on.

No.	Question	Answerer/ interviewee		
		Farmer	Service provider	Enabling environment
1. Role and responsibility				
1.1	What are your activities/actions that involve/support in rice cultivation?	✓	✓	✓
1.2	Will your activities/actions that involved/support to project implementation will be different/change or not in what degree and how?	✓	✓	✓
1.3	What are the most concerns on the negative/positive impacts when project will be implemented?	✓	✓	
1.4	How do you tackle the solution of your concern? Do you need any assistance and from whom with what type of media?	✓	✓	
1.5	How often do you request assistance to academic person, supplier, marketing, government?	✓	✓	
1.6	View on the project and how this project implementation support to your service?		✓	
1.7	What are the roles of Government (RD, OAE, Local) to support Thai rice project implementation?			✓
2. Communication				
2.1	Are you aware that project will be implemented in your area? How do you know?	✓	✓	
2.2	What kind of information/ message that you would like to know in order to facilitate implementation and what media is easy for you to access and how often?	✓	✓	✓

No.	Question	Answerer/ interviewee		
		Farmer	Service provider	Enabling environment
2.3	What are the appropriate ways to communicate with actors and supplier?			✓
2.4	What are the mechanisms that government can assist actors and supplier?			✓
3. Disagreement and grievance				
3.1	If project happen, do you foresee the disagreement between stakeholders, project implementer, in what situation such as water provision and consumption, fertilizer distribution etc. and what are your solutions?	✓	✓	✓
3.2	Are these disagreements lead to grievance redress issue? Can it be solved?	✓	✓	✓
3.3	Do you think grievance mechanism is necessary? How to process complaints?	✓	✓	✓
3.4	What is the most convenient route to process?	✓	✓	✓
4. Vulnerable group				
4.1	Who do they think is the most vulnerable group? (economics and social vulnerability)	✓	✓	✓
4.2	Ratio of women and men and children during rice cultivation?	✓		
4.3	Are women allow to work equality?	✓	✓	✓
4.4	Any possibility that project implementation induce the discrimination or sexual harassment and in what types and how to reduce this possibility?	✓		✓
4.5	Are indigenous people impacted by the project implementation? In what form?			✓

Annex II. Guiding questions for ESIA/ ESMP/ ESMF

This set of question was be used to receive information from stakeholders relevant to Thai Rice project implementation. The data was be analyzed and used for the formulation of stakeholder engagement plan with the view to meet GCF's requirements as part of the project submission. Some questions were for different stakeholder types as seen in the table below. Note that answers have also informed the ESIA/ESMP/ESMF. During the interviews these guiding questions were accompanied by further questions to get more detailed information on specific topics the interviewees were knowledgeable on.

No.	Question	Answerer/ interviewee		
		Farmer	Service provider	Enabling environment
1. Anticipated positive or negative impacts				
1.1	Before planting rice for the next crop, do you have a plan to manage your field such as			
	1.1.1) Cropping calendar that includes timing of planting, fertilization, watering, and pesticides & herbicide application, etc.?	✓		
	1.1.2) Groups of farmers, number of clients, and estimated revenues. etc.?		✓	
	1.1.3) Meeting with relevant stakeholders, provision of information especially for irrigation supply scheduling, and plans in case there are problems such as disease outbreak, dry spell, etc.?			✓
1.2	What have been reported on complains from implementation of Thai Rice NAMA?			✓
1.3	What are the advantages of Thai Rice NAMA or other similar projects in your own perspectives?	✓	✓	✓
1.4	How normally the farmlands are being levelled?	✓	✓	✓
1.5	Do you have concerns about the following issues (if yes, you could provide the information on how you dealt with each issue it would be very appropriated)			
	1.5.1) For farmers a) water shortage b) yield loss c) rice diseases d) high prices or excess use of fertilizer and chemicals e) low price of rice f) high investment than in the past	✓		

No.	Question	Answerer/ interviewee		
		Farmer	Service provider	Enabling environment
	g) heat waves h) unpredictable rainfall g) others (please identify)			
	1.5.2) For service providers a) short demand for machine & equipment you are providing the services to your clients b) insufficient knowledge and skill to meet the expectation of your client c) competitors d) shortage of workforces e) revenues f) others (please specify)		✓	
	1.5.3) For enabling environment a) cooperation from farmers in implementing the project to reach the goal b) demand for water and other production inputs will exceed the supply/or it is difficult to manage the supply of water, seeds, fertilizer, etc. c) law enforcement d) others (please identify)			✓
2. Environmental and social assessment and managements systems				
2.1	In your opinion, what is the most important problem in rice cultivation that needs to be taken care of immediately?	✓	✓	✓
2.2	Is there any problem on heavy metal pollution, soil salinity?	✓	✓	✓
2.3	What kind of fertilizers are used (chemical or organic), how much and when normally they are applied?	✓	✓	✓
2.4	In case when there is a problem concerning the cultivation of rice in your area, who you will contact, through which channel?	✓	✓	✓
2.5	If you want to know about the information on rice cultivation in your area, where you will get it?	✓	✓	✓
2.6	What kind of tools do you have to deal with environmental and social problems? (e.g., legal tools, rules and regulations, technological tools, etc.)			✓
2.7	How do you make sure that the use of machine, fertilizers, chemicals are not about to cause serious environment problems?	✓	✓	✓

No.	Question	Answerer/ interviewee		
		Farmer	Service provider	Enabling environment
3. Labor and working conditions				
3.1	Who are the main workforces?	✓	✓	✓
3.2	How many or what fraction of women are in your workforce?	✓	✓	✓
3.3	Do you use workforce from outside your community, if yes, from where?	✓	✓	
3.4	Normally are child below 15 years of age employed in the field?	✓	✓	✓
3.5	Have any complaints or petition concerning the use of illegal labor, sex harassment, discrimination and any others of being unfair received recently?			✓
3.6	Do you expect to have more jobs created with the project? Or are you afraid of losing your job because the project will bring more people from outside your community?	✓	✓	
3.7	Are you satisfied with the current working conditions, how?	✓	✓	✓
3.8	Do you want to increase knowledge to participate in/get job from the project?	✓	✓	
3.9	Are you worried about potential gain/loss of incomes through rice yield change and increased investment cost?	✓	✓	
3.10	Locally, is there any entity/organization to support and find solution in case there is conflict, problem, accident?		✓	✓
4. Resource efficiency and pollution prevention impact				
4.1	In your opinion, what would be the impacts of climate change mitigation from the project?			✓
4.2	From where do you use the water for rice cultivation, is the ground water being used?	✓	✓	✓
4.3	Is water normally drained out of the field during rice cultivation?	✓	✓	✓
4.4	What the adverse effects of climate change on rice cultivation you have experienced in the past, or foresee to happen in the near future (up to 15 years)?	✓	✓	✓
4.5	Do you know what carbon footprint is? How is carbon footprint related to your own business and to rice cultivation?	✓	✓	✓
4.6	Do you use fossil fuels in rice cultivation, like pumping water, in the machine? Do you think about using some renewable energy such as solar power in some of your works?	✓	✓	✓
4.7	Any concerns arising from application of technologies for reducing GHG emissions?	✓	✓	✓
5. Community health, safety, and security				
5.1	What kind of pesticides or herbicides are used, and how these are being used to comply with safety protocols?	✓	✓	✓

No.	Question	Answerer/ interviewee		
		Farmer	Service provider	Enabling environment
5.2	Do have any concerns if technologies to reduce GHG emission are implemented in your area such as <ul style="list-style-type: none"> • those risks related to deteriorating water quality, • increase in the amount of waste generated or treated, • and improper use or overuse of chemicals during rice cultivation, • burning of straw that may pollute the environment and affect health, • crime brought about by people from outside, • safe use of machines and equipment, • others (please specify) 	✓	✓	✓
5.3	Do think that the followings will be useful to prevent health, safety, and security problem <ul style="list-style-type: none"> • raising awareness to avoid open burning of agricultural residues, • increase knowledge of farmers and stakeholders in the issues related to the effects of mitigation technology on health, safety, and security, • networking/coordination with health (such as local hospital, health service providers), safety and security offices, • establish a monitoring system, • others (please specify) 	✓	✓	✓
5.4	Do you have safety equipment and tools available to use on site (glasses, hand groves, mask, protective clothes, booth, etc.) for handling chemicals in pest management, pesticides and herbicides?	✓	✓	✓
5.5	Do you always have an emergency /first aid kit available in your working place?	✓	✓	✓
5.6	How are the hazardous wastes (chemical containers, expired chemicals) managed and treated after use?	✓	✓	✓
5.7	In case you encounter the damages from climate-related factors, how normally do you cope with it? What kind of supports (from local government or other entities) you think necessary?	✓	✓	✓
6. Land acquisition and involuntary resettlement				
6.1	Do you own your farmland currently? If not, what is the status of land ownership?	✓		
6.2	What is/are the main problem(s) with regards to land acquisition in the area?			✓
6.3	Are there any forced resettlements in your area currently or in the near future?			✓

No.	Question	Answerer/ interviewee		
		Farmer	Service provider	Enabling environment
6.4	What do you think on the impacts of the project will be on involuntary resettlement?			✓
7. Biodiversity conservation and sustainable management of living natural resources				
7.1	Is rice being cultivated in designated-protected area such as national forest, conservation wetland areas?			✓
7.2	Do you have a fraction of land preserved for a habitat of wild animals/plants?	✓		
7.3	Do you have alien plants/animals being grown/domesticated in your farmland?	✓	✓	✓
7.4	What kinds of plants or animals you have observed in the rice cultivation areas? Do they increase in the number or the type recently according to your observation?	✓	✓	✓
7.5	Do you have any data and information on biodiversity in the area?	✓	✓	✓
7.6	Are you concerned about the loss of some plants or animals in rice cultivation area? Or do you feel that there is something changes with plants or animals you are familiar with?	✓	✓	✓
7.7	Currently is any entity who provide you the information on biodiversity conservation? If yes, what kind of information you get from that entity?	✓	✓	
8. Indigenous peoples				
8.1	Are there any indigenous people in the area, if yes, please identify? (note: also ask IPs or their representative directly whether they feel they are not appropriately involved in the activities)	✓	✓	✓
8.2	Do you think the project will affect, in any way, the indigenous people?	✓	✓	✓
8.3	Are you willing to employ/do you have indigenous people working in your organization?		✓	✓
9. Cultural heritage				
9.1	What kind of cultural heritage (site or tradition) consider important in your area/community?	✓	✓	✓
9.2	How are the current patterns of rice cultivation connected with the existing cultural heritage?	✓	✓	✓
9.3	How important is the local heritage/culture/tradition for rice cultivation?	✓	✓	✓