Project Information Document (PID)

Appraisal Stage | Date Prepared/Updated: 30-Jan-2022 | Report No: PIDA30245

BASIC INFORMATION

A. Basic Project Data

Country	Project ID	Project Name	Parent Project ID (if any)
Indonesia	P173487	Agriculture Value Chain Development Project (ICARE)	
Region	**Estimated Appraisal Date**	**Estimated Board Date**	**Practice Area (Lead)**
EAST ASIA AND PACIFIC	27-Jan-2022	29-Mar-2022	Agriculture and Food
Financing Instrument	**Borrower(s)**	**Implementing Agency**	
Investment Project Financing	The Republic of Indonesia	Ministry of Agriculture	

Proposed Development Objective(s)

The Project Development Objective is to support environmentally and financially sustainable and inclusive agricultural value chains in selected project locations

Components

Component A: Strengthening value chains in selected Kawasan Pertanian
Component B: Strengthening institutional capacities for value chain development
Component C: Project management

PROJECT FINANCING DATA (US$, Millions)

SUMMARY

Total Project Cost	119.10
Total Financing	119.10
of which IBRD/IDA	100.00
Financing Gap	0.00

DETAILS

World Bank Group Financing

International Bank for Reconstruction and Development (IBRD)	100.00

Non-World Bank Group Financing	
Counterpart Funding	10.00
Borrower/Recipient	10.00
Commercial Financing	9.10
Unguaranteed Commercial Financing	9.10

Environmental and Social Risk Classification

Substantial

Decision

The review did authorize the team to appraise and negotiate

B. Introduction and Context

Country Context

Indonesia is the world's fourth most populous nation, 10th largest economy, and a stable democracy. Between 2015 and 2019, Indonesia maintained an average real GDP growth rate of 5 percent. However, this has been revised downward sharply to between 2.1 and -3.5 percent for 2020 following the onset of the global COVID-19 pandemic.[1] The economic rebound from COVID-19 continued in 2021 but was moderated by the COVID-19 Delta wave. The highly transmissible Delta variant led to increased viral transmission in June-September 2021 and held back the reopening of the economy. Growth slowed to 3.5 percent year-over-year during the third quarter, after accelerating to 7.1 percent in the previous quarter[2]. Notwithstanding, the economy showed signs of resilience. The economy is projected to rebound by 3.7 percent in 2021 and grow by 5.2 percent in 2022 assuming Indonesia does not experience a new severe COVID-19 wave[3].

Indonesia continues to make progress in reducing poverty, though the pace of decline has been slowing down in recent years and has been severely affected by the ongoing COVID-19 pandemic. Based on the internationally comparable benchmark of US$1.9 a day (2011 PPP), Indonesia is among countries that have made the fastest gains in poverty reduction in the last two decades. Between 2000-2015, the US$1.9 poverty rate in Indonesia declined by 2.1 percentage points a year. Based on the national poverty line, poverty has also continued to decline, going down to 9.4 percent in March 2019. However, the pace of poverty reduction post-2010 was about half of what it used to be between 2003 and 2010.[4] The Indonesia's official statistics reported a slightly higher poverty rate of 10.1 percent as of March 2021, in large part deriving from the COVID 19

[1] World Bank - *East Asia and Pacific Economic Update, April 2020* .
[2] World Bank – Indonesia Economic Prospect December 2021
[3] World Bank – Indonesia Economic Prospect December 2021
[4] Source: SUSENAS

pandemic impacts. This translates to over 25 million Indonesians falling below the National Poverty line[5]. The July 2021 surge in COVID-19 cases driven by the Delta variant may contribute to keeping the poverty rate higher than the pre-pandemic level.

Sustained growth in living standards has led to the emergence of a new middle class. As more and more Indonesians have escaped from poverty in recent decades, their children have enjoyed greater opportunities, with better access to education and health, cleaner and safer living conditions, and have entered the workforce with greater skills than their parents. The emergence of this new middle class has occurred within a single generation. From only 7 percent of the population in 2002, the Indonesian middle class has grown to 22.5 percent of the population in 2018[6]. Higher incomes of the middle class have contributed to increased demand for more diversified and processed foods, higher standards of food quality and safety, and emergence of an organized retail sector.

As a country that is vulnerable to the adverse impact of climate change and contributes to global greenhouse gas emission, Indonesia is highly committed to reduce GHG emission and improve resilience. Through Long Term Strategy for Low Carbon and Climate Resilience 2050, Indonesia has increased ambition on GHG reduction with exploring opportunity to rapidly progress towards net-zero emission by 2060 or sooner. To enhance resilience to climate change, adaptation ambitions in the Updated Nationally Determined Contribution (NDC)2021 were enhanced through programs, strategies, and actions aiming to achieve economic, social and livelihood, and ecosystem and landscape resilience.

Forty three percent[7] of Indonesia's population reside in rural areas and close to 29 percent[8] of the Indonesian workforce works in the agricultural sector. Primary agricultural production accounted for 13.7[9] percent of GDP in 2020. Agribusinesses, comprising of agro-input, agro-processing, agro-trading, agro-logistics, food retail and wholesale, employ significant workforce in the manufacturing and services sector and are crucial for meeting the rising demand of food and agro-industrial products.

Indonesia is undergoing an economic transformation that offers opportunities for green and resilient rural sector growth. While the process of structural transformation will lead to the share of primary agriculture in national GDP and employment to decline over time, a modernizing food system—comprised of farmers, service providers, food manufacturers, and distribution companies—has much to contribute to Indonesia's higher-level development objectives. Consumer demand for food among an emerging and rapidly expanding middle class is providing opportunities for the food system to grow, improving farmer welfare and enhancing the country's nutritional status in the process. Yet, this growth does not include many of the producers in rural areas, many of whom receive insufficient support to participate in markets and for whom a lack of resilience to the effects of climate change presents an ever-growing problem. A new, integrated support model is required that

[5] Indonesia - Poverty and Equity Brief, The World Bank, October 2021

[6] World Bank – Aspiring Indonesia – Expanding the middle class, September 2019.
[7] World Development Indicator, World Bank
[8] Statistics Indonesia (Badan Pusat Statistik), Government of Indonesia
[9] World Development Indicator, World Bank

addresses challenges along the value chain and enables stakeholders to respond to existing and future market opportunities.

Sectoral and Institutional Context

Indonesia's agriculture sector needs to become more inclusive while responding to evolving market opportunities and increasingly complex challenges

Indonesia's agriculture is dominated by small-scale farmers. There are 33.5 million farmers in Indonesia, spread across 27.7 million agricultural households. Close to 90 percent of farmers in Indonesia own less than 2 ha of land—within this group, two-thirds own less than 0.5 ha. In addition, 61 percent of farmers are above the age of 45 years old and 74 percent have only received primary education. Three out of four farmers still practice traditional and manual farming methods. These characteristics would make farmers more vulnerable to market and climate shocks. The fragmented and small scale of land holdings hinder achieving economies of scale and pose significant challenges with respect to procurement efficiency, accessing financial services, marketing, mechanization, and traceability, among others. Commercialization and the transformation of food supply chains offer new opportunities for smallholder farmers. However, responding to these opportunities require greater managerial skills and an ability to provide continuity of supply and meet food safety, certification and quality requirements, which would be more difficult to meet for farms operating at a smaller scale. If unable to adapt to the changing markets, smallholders may run the risk of becoming increasingly disconnected from modern value chains, turning into unviable economic units[10].

In rural communities of Indonesia, agricultural production activities are carried out by family units, and approximately 10 percent of agricultural households are female-headed. Women represent 24 percent of farmers, and own smaller holding size (0.2 ha), on average, compared to men (0.6 ha)[11]. As identified in the FAO's 2019 Country Gender Assessment of Women in Agriculture, women in the agriculture sector in Indonesia are marginalized and face multiple barriers, which include lack of access to financial resources, knowledge and technology to improve their crop yields and improve their livelihoods. Women are typically less involved in all kinds of agricultural groups and associations than men, which is a significant disadvantage in agricultural development since individuals without group affiliation are less visible to government representatives. Women are also less likely to receive training, benefit from bulk buying or gain access to other resources. To address these identified gaps, the project will include specific interventions to ensure significant women's participation in cooperatives formed under the program, and ensure women benefit from the technologies disseminated through the program.

Food prices in Indonesia are high, disproportionally affecting the poor and vulnerable, and limiting access to a nutritious diet. International estimates suggest that Indonesia's food prices, especially for high nutrition commodities such as fruits and vegetables, are the highest in the region[12]. This results from the high costs of

[10] FAO. 2015. The economic lives of smallholder farmers: An analysis based on household data from nine countries. https://www.fao.org/3/i5251e/i5251e.pdf
[11] Statistics Indonesia. 2018. Agriculture Intercensal Survey. https://www.bps.go.id/publication/2019/10/31/9567dfb39bd984aa45124b40/hasil-survei-pertanian-antar-sensus--sutas--2018-seri-a2.html
[12] https://www.numbeo.com/cost-of-living/

production, processing and distribution; high food losses along the supply chain due to poor connectivity and inadequate logistics infrastructure; and restricted trade coupled with insufficient domestic production of some commodities. While only 1.1 percent of Indonesians could not afford to consume sufficient calories in 2017, 34 percent could not afford a nutrient-adequate diet, and 68.8 percent could not afford a healthy diet[13]. High domestic food prices also do not benefit most farmers, since two-thirds of Indonesian farmers are net buyers of food and therefore face inflated food prices themselves. COVID-19-induced financial shocks led to a high prevalence of food insecurity among households. The share of households experiencing food shortages and eating less than they felt they should, nearly doubled, to between 31 and 38 percent within a few months of the onset of the COVID-19 outbreak in the country.[14] This amplifies the need to enhance the efficiency and resilience of Indonesia's food system.

While consumption patterns are beginning to shift to a more diverse range of food, particularly in urban areas, Indonesia's food supply system is slow to respond to market demand. With rising incomes and urbanization, food consumption and expenditure patterns are shifting to higher value and processed foods. Between 1998 and 2013, animal product consumption more than doubled, while the consumption of cereals declined. Over the same period, the share of processed foods in urban food expenditure rose from 15 percent to more than 30 percent[15]. This trend of diversification of consumption is projected to continue in the future and will rely on well-functioning and resilient food supply systems. The food crop mix in Indonesia, still largely dominated by rice and oil palm, is not keeping up with the changes in consumer diets and preferences. Much of the rising demand in processed food is satisfied by imports, since agricultural policies have not created incentives for Indonesian farmers, manufacturers, and services sector companies to boost domestic production and processing.

While the growing demand for a more diverse range of food products may present a significant opportunity for producers, processors, and other value chain actors, various binding constraints need to be addressed. Labor productivity in Indonesian agriculture is low and is lowest in the staple food crops sub-sector. Factors affecting low productivity and profitability in the agriculture sector include a lack of market access by producers, limited adoption of improved technologies, limited access to extension services, infrastructure bottlenecks (including limited access to irrigation, rural roads and other rural infrastructure), aggregation and product quality deficiencies, downstream logistics bottlenecks, weak food safety systems (especially for perishable products), inadequate value chain financing, and weak technical capacity and entrepreneurship skills. Poor agricultural practices also incur significant costs to the environment and increase vulnerability to climate change. Overuse of chemical inputs encouraged by the long-standing input subsidies threaten the long-term productivity of the agricultural sector and increase the susceptibility of crops to pests and diseases while increasing GHG emissions.

[13] World Food Program - Strategic Review of Food Security and Nutrition in Indonesia 2020
[14] World Bank. 2021. *Households' exposure to, and recovery from, COVID-19 socio-economic shocks in Indonesia: Insights from a year of High-Frequency Monitoring.*
[15] World Bank. 2015. Indonesia - Systematic country diagnostic: connecting the bottom 40 percent to the prosperity generation (English). Washington, D.C.: World Bank Group. http://documents.worldbank.org/curated/en/576841467987848690/Indonesia-Systematic-country-diagnostic-connecting-the-bottom-40-percent-to-the-prosperity-generation

The agricultural sector in Indonesia is not only a victim of climate change, but it is also a major direct contributor. Nearly 23,000 extreme weather events occurred between 1998 and 2018, which had severe implications for agricultural sector. While a 12 percent increase in annual rainfall has been recorded between 1990 and 2020, projections indicate increasingly erratic rainfall patterns in coming years. Annual rainfall is estimated to increase at the national level by 1- 5 percent by 2100, but large variations per season are expected, including a 4.8 percent decrease in dry season rainfall. Heavier concentrations of rain are likely to exacerbate the impacts of flooding and landslides, while less frequent rains and a delayed monsoon season will worsen drought and forest fires in Indonesia. Increased temperatures will help spread pests and diseases that harm humans, crops, and livestock. In coming decades, slow-onset climate shifts will decrease the crop suitability of several production systems. Agriculture, Forestry and Other Land Use (AFOLU) accounts for 48 percent of total national greenhouse gas (GHG) emissions and agriculture is one of the biggest drivers of land use change. Paddy (rice) cultivation accounts for approximately 5 percent, the livestock sector accounts for approximately 3 percent and food waste and loss accounts for another 7.3 percent of national GHG emissions respectively. The transition to a low carbon agricultural pathway, while contributing to improving farmers and consumers' welfare and building resilience of the food system, is a much-needed priority agenda for the Government of Indonesia. This project will facilitate adoption of climate smart agriculture technologies by farmers and supply chain actors and will contribute to climate change adaptation and mitigation.

The organized private sector is already playing an important role in alleviating some of the above-mentioned constraints, but greater public-private collaboration would be required to scale-up positive impacts, ensure that benefits are distributed equitably across the value chain, and reduce carbon footprints

Indonesia has a vibrant agribusiness sector comprising of large multinational corporations, local large agribusiness companies and micro, small and medium enterprises operating in multiple commodities. In the plantation crops, agribusinesses are directly engaged in the production of agricultural commodities through large-scale plantations while in other sectors, they are engaged as processors, buyers, input providers, logistics provider, and financiers. In recent years, local Indonesian entrepreneurs are becoming more interested in the agriculture and food sector which creates significant opportunities for developing new business models of supply chain integration.

There is a demand for greater public-private partnerships in agriculture to strengthen the inclusivity and sustainability of value chains. Integrated value chains of multiple commodities, led by the organized private sector, have evolved in Indonesia over the past few years. However, there are concerns that: a) many of these value chains can exclude smallholders' farmers, women, or marginal groups; b) a focus on short-term profit maximization can have adverse consequences in terms of environmental degradation, pollution, and higher carbon emissions; and c) they can at times contribute to jobless growth. To help support smallholder inclusion, greening of supply chains and job creation, there is a rationale for public sector intervention in strengthening value chains and in creating an enabling environment (including the development of critical infrastructure in remote/rural areas) to crowd-in and coordinate private sector investments, as well as setting the rules-of-the game for private sector participation.

While several companies are already contributing to positive outcomes, critical public investments and/or interventions are still needed in some key areas to encourage the private sector's greater participation in the

agri-food system. Findings from private sector consultations that took place during project preparation suggest that some private companies are often doing more beyond their core businesses and contributing to positive outcomes. To ensure a consistent supply of farm produce that meet market standards, many private companies partake in the provision of technical advisory to farmers and are involved in the promotion of improved varieties and new technologies as well as in facilitating access to finance and inputs (e.g., through partnerships and value chain financing). Supporting the implementation of Good Agricultural Practices (GAP), used in international certification of product standards) can increase product competitiveness in global as well as domestic markets. Several companies train and hire members local communities as field agents or agronomists, thereby creating rural off-farm employment opportunities, including for women, and contributing to the development of the value chain ecosystem in rural areas. However, several common bottlenecks were raised, including low farmer technical capacity and digital literacy, perverse incentives for the use of unsuitable agricultural inputs due to the ongoing fertilizer subsidies, limited rural infrastructure and agriculture facilities, inefficient supply chains, high logistics costs due to poor transport connectivity, limited access to finance to farmers and smaller enterprises in supply chain, limited availability of locally-adapted improved varieties particularly for high-value commodities, and inadequate data availability on the agriculture sector. These are areas where the public sector could play a key. The demand of stronger public-private partnerships has been articulated by central and local governments, smallholder farmers, farmer associations, and private sector actors who all see value in aligning and coordinating public and private resources to support the development of inclusive and sustainable value chains

Digital agriculture is being regarded as a game-changer for Indonesia with agricultural technology (ag-tech) start-ups playing a major role. "Digital Agriculture" is the use of digital technology to improve agricultural yields, efficiency, incomes, and profitability. It can help farmers –smallest or large - make better technical and market decisions and use the resources available in the most productive and sustainable manner. Moreover, digital agriculture provides an opportunity to attract a new generation of millennial farmers and agri-entrepreneurs. The gains associated with new, low-cost, and data-intensive on-farm and off-farm digital technology applications in upstream, mid-stream and down-stream activities are potentially enormous. Indonesia has a vibrant and strong agriculture technology (Agri-tech) community: at least 55 agriculture-specific digital solutions already exist in Indonesia, developed by the private sector, at varying stages of maturity and scale.

Despite the growth of agricultural technology startups, they face significant challenges for scaling up. These challenges include: i) high cost of data acquisition, ii) client acquisition challenges, iii) technological and digital literacy level of farmers and consumers, iv) complex revenue models, v) access to finance, vi) overall regulatory and business enabling environment, vii) limited collaboration between public and private sector. ICARE will help address some of these challenges, among others by facilitating dialogue between ag-tech players and the public sector, enhancing the digital literacy of farmers, and enabling the piloting of relevant digital solutions in ICARE project locations.

The Government of Indonesia is supporting the transformation and modernization of the agri-food system

The project responds to the GoI's priorities that seek to diversify the country's food system by developing and strengthening higher-value and more nutrient-rich value chains. The National Medium-Term Development Plan (RPJMN) 2020-2024 has highlighted nutrition, crop diversification, export market development, and farmer

incomes as priorities. The Ministry of Agriculture (MoA) is adapting its programs accordingly, by prioritizing five key areas to support food system development, namely productivity enhancement, diversification, logistics, agriculture modernization, and export promotion. On exports specifically, the MoA is seeking to triple agriculture exports by 2024. Already, some horticultural products are becoming leading export commodities, such as mangosteen, mango, and snake fruit.

Strengthening digital technologies and approaches in agriculture and food systems is part of the Ministry of Agriculture's strategy for the transformation of the sector. MoA would like to harness the potential of digital technologies to support decision-making in agriculture, as well as support farmer operations by improving their access to inputs, finance, and markets. The MoA has established the *Agriculture War Room (AWR),* a decision-support system and command center, which is envisioned to host and analyze a wide range of agriculture-related data (e.g., climate, prices, production, market) to generate actionable insights to support higher-level decision-making. Data fed into the AWR will include data collected through *Kostratani (*Strategic Command for Agriculture Development) in over 5,000 sub-districts (expected to eventually cover all the 7,000+ sub-districts in Indonesia) by extension workers and other field officers, who in turn will act upon the insights generated by the AWR to support farmers. The MoA is exploring the integration of other ecosystem actors, including the private sector, into the platform. Other ecosystem actors may benefit from the rich information available to deliver services to farmers, and in turn feed further data into the AWR.

Over the past few decades, Indonesia has seen sizable investment in agricultural cooperatives and farmer groups. According, to the Ministry of cooperatives and SMEs, 45,498 agricultural cooperatives operated in 2019. These agricultural cooperatives can be classified into sections based on their main activities, namely marketing cooperatives, agricultural supply cooperatives, and service cooperatives. However, these cooperatives have been confronted with multiple challenges including limited commercial orientation, lack of professionalism, financial management challenges, limited member proactive engagement which limits their efficacy. To address these challenges and make them more commercial, the GoI have initiated the *Kawasan Pertanian* and *Korporasi Petani* models which places a heavier emphasis on ecosystem building, market linkages, and capacity development of farmers in business and financial skills.

To address challenges associated with small and fragmented land holdings, limitations with previous farmer cooperatives, and make farming more profitable for smallholder farmers, the GoI has developed a *Korporasi Petani ("*Farmer Group Enterprises*")* program, which was identified and prioritized by President Joko Widodo as a "Major Project" in the RPJMN 2020-2024. MoA Regulation No. 18/2018 on the Development of *Kawasan Pertanian* based on *Korporasi Petani* defines *Korporasi Petani (KP)* as a "farmer economic institution with legal status in the form of cooperatives or other types of legal entity, where the majority of the shares are owned by farmers". The KP concept revolves around mobilizing smallholder farmers into groups to form a farmer group enterprise in the form of a cooperative, a limited liability company or another legal entity in order to benefit from economies of scale and ease their integration into value chains. The KP is envisioned to operate within

designated agro-based clusters[16] termed *Kawasan Pertanian*[17]. Through improved value chain integration, farmers are expected to benefit from enhanced access to input and output markets, finance, technology and innovation. This, in turn, would enable farmers to diversify into producing higher-value commodities, improve crop/livestock productivity and engage in value-adding activities—thereby leading to enhanced income. According to the RPJMN, the development of KP should consider: (i) the application of Good Agricultural Practices and Precision Farming; (ii) the strengthening of farmer institutions; (iii) access to investment, financing, and insurance; (iv) partnerships for MSMEs and entrepreneurship; and (v) market facilitation. Given the country's diverse geography, there is a need to identify suitable operational arrangements for KP across a range of commodity-location combinations, that would enable farmers to benefit from its formation.

The Government of Indonesia (GoI) is committed to scaling up of *Korporasi Petani* and has targeted the development of at least 227 new *Korporasi Petani* in the coming years. BAPPENAS is in the process of finalizing a presidential decree on *Korporasi Petani* and subsequently resources will be allocated by the Ministry of Finance to relevant line ministries, including the Minitry of Agriculture, to scale up *Korporasi Petani* models. ICARE is one of the first project to operationalize *Korporasi Petani* and the experience and lessons learned from ICARE will help shape and inform the implementation and scale up of *Korporasi Petani* across Indonesia.

Rationale for the ICARE Project

There is increasing recognition in the Ministry of Agriculture to shift from a supply-driven to a demand-driven model. To respond to emerging demand from the markets, farmers need to make adjustments in their production systems and commercialization strategies and integrate more closely with organized private sector. To help that transition, the Ministry of Agriculture would need to change its role from a direct provider of goods, services, and assistance to a facilitator. This facilitator function would focus on crowding-in of organized private sector, supporting partnerships between public and private sectors, integrating farmers into value chains, and providing core public services which are not being provided by the private sector.

The evolving opportunities and constraints facing the agriculture and food sector require an innovative set of integrated support measures. The Ministry of Agriculture recognizes that a new support model needs to be developed and tested, which includes the introduction of a systems approach that incorporates market-led technology dissemination and value addition, and enhanced climate change adaptation and mitigation. Responding to the need to introduce a new farmer support model, the ICARE Project has been designed to help operationalize a transformative approach involving value-chain based partnerships and assist in adapting MoA's institutional capacity to provide catalytic support to stakeholders**.** The MoA is also in the process of transforming the R&D-focused Indonesian Agency for Agricultural Research and Development (IAARD) into an agriculture systems-focused institution that would be suited to focus on a market-based approach to technology

[16]FAO defines agro-based clusters as a concentration of producers, agribusinesses and institutions that are engaged in the same agricultural or agro-industrial subsector, and interconnect and build value networks when addressing common challenges and pursuing common opportunities. (FAO. 2010. Agro-based clusters in developing countries: staying competitive in a globalized economy. https://www.fao.org/3/i1560e/i1560e00.pdf)

[17] An agglomeration of agricultural production centers that exceed the minimum threshold for economies of scale for enterprise development and for effective management of sustainable regional development, that are functionally inter-linked in terms of natural resources, socio-cultural conditions, production factors and availability of supporting infrastructure (MoA Regulation No. 18/2018 on the Development of Kawasan Pertanian based on Korporasi Petani).

dissemination, which ICARE would be well-suited to pilot. Improving resilience to changing climate and reducing the carbon footprint of agriculture activities would require collective action by farmers, adoption of appropriate technologies and practices, greater integration of supply chains, and improved delivery of services by the private and public sector, which could be achieved through the *Korporasi Petani* model. The models being piloted by ICARE can provide ample learning opportunities to inform the design of other national programs aimed at enhancing food security, climate change adaptation and mitigation, as well as serve as an alternative to large-scale, state-led agriculture development projects, such as the "food estates" program.

Over the past two decades, there is a growing momentum to professionalize farmer organization in form of corporations, farmers companies, and/or professional cooperatives across the globe. In India, more than 5,000 farmer producer companies have been created in the past and the Government of India plans to create 10,000 new farmer producer companies by 2028. In China, US$140 million Guizhou Rural Development Project (P133261), financed by the World Bank, have created over 70 commercial farmers cooperatives. Similar projects to support producers' organizations has been financed by the World Bank in India, Philippines, Vietnam, etc.

Relevance to CPF

The proposed Project fully aligns with the World Bank Country Partnership Framework (CPF) approved in 2021 for the period FY21–FY25 (Report No. 157221-ID), under the objective 4.2: Improve agriculture and natural resources-based livelihood of the engagement area 4: "Sustain Management of Natural Assets, Natural Resource-Based Livelihoods, and Disaster Resilience". Three cross-cutting themes of the CPF– digitalization, gender, and climate change – is mainstreamed in this operation. By supporting smallholder farmers, this Project will directly address the WBGs twin goals of alleviating poverty and boosting shared prosperity.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

The project's development objective is to support environmentally and financially sustainable and inclusive agricultural value chains in selected project locations.

Sustainability in the project context is defined by two attributes: 1) environmental sustainability wherein the project interventions will help improve resilience and minimize carbon footprint and 2) financial sustainability wherein project interventions will demonstrate commercial profitability. Sustainability will be pursued through multiple means. The promotion of climate-smart agriculture practices and technologies is expected to help improve the production systems' resilience to climate change. In addition, farmer groups will be equipped with the key technical, managerial, and business skills required to manage a viable farmer enterprise/Korporasi Petani and by integrating them into value chains. The institutionalizing of partnerships with multiple levels of government (i.e. national, provincial, and district) and the private sector is important to ensure that the relationships established will continue after the project ends. Inclusivity will be sought through the integration of smallholders and agribusiness MSMEs into value chains and ensuring the participation of men and women farmers as well as youth in the project..

Key Results

The achievements of the PDO will be measured through the following indicators:

- Proportion of project-supported Korporasi Petani members with increased sales through commercial channels (Percentage)
- Percentage increase in productivity of selected crops and livestock[18] from incorporating climate smart agriculture technologies amongst project beneficiaries (Percentage)
- Number of partnerships facilitated by the project (Number)
- Farmers reached with agricultural assets or services (CRI, Number)

D. Project Description

To achieve the PDO, the project will develop transformative models of smallholder support that are demand-led and market-oriented and based on value chain partnerships. At its core, the project seeks to pilot three core interventions: i) development of *Korporasi Petani* (KP) models; ii) shift of the Ministry of Agriculture from a direct delivery to a facilitation model; iii) integration of the private sector in the delivery of goods and services to farmers. Models will be developed, finetuned, and operationalized for a selected range of commodity-location combinations. To ensure the integration of climate change adaptation and mitigation technologies and practices in the models, the project will foster large-scale climate-smart technology adoption by farmers, promoting alternate crops to help farmers switch from paddy to lower GHG emission crops, deployment of intermittent irrigation to reduce emission from paddy, feed improvement practices for livestock sector, improved soil health management, minimization of food loss, and use of alternative energy sources in broader supply chains. The project would provide an opportunity to demonstrate the different yet complementary roles of public and private actors in value chain development. Lessons from the project would guide further replication and adaptation of successful models in other areas, as well as inform the design of other government initiatives aimed at sustainably increasing agriculture productivity, improving farmer income and enhancing food security.

ICARE's project design combines value chain development (Component A) with the strengthening of the country's agriculture innovation system to become more market-driven (Component B) through public-private partnerships. The project comprises three components:

Component A: Strengthening value chains in selected Kawasan Pertanian (agri-zone clusters) (Total 64.39 M (IBRD: US$ 55.29 M; Beneficiary[19]: US$ 9.10 M)

Component A will provide integrated and site-specific support for the development of viable value chain models in selected agri-zone clusters, an integral element of which is helping farmers better adapt to changing climate and reduce the carbon footprint of the selected value chains. This will be primarily achieved through the mobilization and strengthening of existing farmer groups and/or farmer cooperatives into farmer group enterprises or *Korporasi Petani*.

[18] The determination of 2-3 key crops to be monitored will be determined in the early stages of project implementation. Crop productivity will be measured in terms of yield per hectare while livestock productivity will be measured in terms of yield of the various commercial outputs (e.g., meat, dairy, eggs) per livestock unit.

[19] Beneficiary contribution assumes a minimum of 20 percent *Korporasi Petani* contribution for matching grants

In addition, to strengthen the climate-smart value chain models, this component will align and mobilize public and private resources to co-finance critical value chain investments, including rural infrastructure; as well as promote climate-smart and digital technological innovations to drive productivity enhancements, product diversification, and value-addition. Recognizing the underrepresentation of women in farmers groups, Component A will specifically target existing women's farmers groups for inclusion in the project and support the formation of new dedicated women's farmers groups.

To fill gaps not met through partnerships, ICARE will finance complementary value chain investments through *Korporasi Petani* (KP) matching grants and competitive technology grants. KP matching grants will be used to finance initial KP business needs as outlined in viable business plans. The competitive technology grants will finance the adaptation and collaborative dissemination of locally relevant Gender-responsive climate-smart technologies.

Sub-component A.1: Development of *Kawasan Pertanian (agri-zone clusters) Models* and value chains (IBRD: US$ 8.91 M). Site-specific planning will take place in the first 18 months of project implementation. The planning process will follow a participatory approach and involve multiple stakeholders, including governments of different levels (central, provincial, and district), the private sector (including financial service providers and agribusiness SMEs), extension agents and farmer groups. The development of the agri-zone cluster models and value chains involves the following steps.

- **Validation of project locations and beneficiaries and participatory assessments of existing value chains.** The project will organize consultations, workshops, and meetings, to validate the final list of villages that comprise each agri-zone cluster, potential farmers organizations (i.e., farmer groups, farmer cooperatives, other forms of farmer economic institutions) to mobilize into a *Korporasi Petani,* and project beneficiaries. Local value chain assessments will also be financed to identify and assess site-specific market opportunities (including through demand studies) as well as key areas for interventions based on existing gaps (i.e., in infrastructure, technology, and skills) in each agri-zone cluster.
- **Development of agri-zone cluster agribusiness development plans and public-private sector stakeholder platforms.** To align public and private investments to support the development of climate-smart value chains in each location, building on the results of the value chain assessment, agribusiness development plans will be finalized for each agri-zone cluster. These plans will result in development of memorandum of understandings (MOUs) between all the parties (public and private sector) involved, to outline the roles of each stakeholder and the cooperation mechanisms needed to operationalize the agri-zone cluster agribusiness development plans (e.g., investments in rural roads, irrigation, electricity, agri-logistics, storage and other rural infrastructure). Support will also be provided to establish public-private stakeholder platforms to enable coordination and joint action in value chain development.
- **Strengthening agriculture services for value chain support based on gaps identified in the agri-zone cluster agribusiness development plans**. These could include services such as 1) soil testing services to help rationalize fertilizer use; 2) disease identification service; 3) product quality assurance services (protein content, aflatoxin, mycotoxin, etc.) and 4) equipment calibration services.

Sub-component A.2: Supporting the development of *Korporasi Petani* (Total US$ 55.48 M (IBRD: US$ 46.38 M; Beneficiary: US$ 9.10 M). This component will finance the following:

- **Developing farmer groups into *KPs* and strengthening their technical, business, financial, and organizational skills.** The project will facilitate the mobilization of existing farmer groups, including women and youth farmer groups, in selected project locations into KPs. The project will adopt appropriate screening tools for determining eligible farmer groups and KPs to participate in project matching grant scheme. Technical assistance (TA) and advisory support will be provided to existing farmer groups, including through third-party service providers, in establishing the organizational and governance structure, as well as obtaining legal status for the new KP. Its formation is a pre-requisite for business plan development and KP matching grants financing and would therefore need to be completed within the first 18 months of the project to ensure sufficient time to realize project benefits. The newly formed KPs will receive technical assistance and advisory support to strengthen their institutional capacity in managing the organization and business, including to produce goods that meet market requirements and add value, manage climate and market risks, as well as engage in value chains. The support will include training on specific topics, visits to well-established farming and/or processing facilities, and exchanges with successful farmers enterprises or KPs, including those in other ICARE project locations. As part of the TA to KPs, the project will also provide facilitation support for the establishment of formal contracts between KPs and private agribusiness companies, subject to arising opportunities.

- **Development of viable *Korporasi Petani* business plans.** Once formed, each KP will receive technical assistance to develop viable climate-smart business plans, which aligns to agri-zone cluster agribusiness development plans developed for each project location and describe the overall value chain arrangements, participant responsibilities and benefits, intended markets and how those would be reached, as well as the financing arrangements. Every KP business plan will be screened for climate change adaptation and mitigation and activities that contribute to enhanced resilience and reduced emission will be prioritized.

- **Provision of matching grants to co-finance *KP business plans*.** KPs will be eligible to apply for matching grants to co-finance their KP business plan. The grant can cover expenditures such as goods, works and training, specifically those supporting climate-smart-farm production as well as post-harvest and marketing operations. These may include energy efficient small equipment and small-scale works (such as small building rehabilitation) for the storage, packaging, sorting, grading and processing of agricultural produce, and marketing advisory services for market prospection and contract negotiation, transport and shipment. The maximum amount for the KP grant is US$700,000, with the KP and individual farmers expected to contribute at least 20 percent of the total cost of the investment (10 percent cash or in-kind contribution if the group is women-, or youth). It is expected that at least 70 percent of the KP matching grant will contribute directly to climate change adaptation and/or mitigation. The competitive grants implementation arrangements including the eligibility criteria, negative list for financing, proportion of private sector matching contribution, and proposal evaluation process, etc. will be described in the KP Matching Grants Operational Manual.

Component B: Strengthening institutional capacity for value chain development (Total US$ 44.71 M (IBRD US$ 44.71 M).

Component B aims to strengthen public and private sector institutional capacity to deliver on climate-smart agriculture and value chains in the targeted project locations. The project will enhance the facilitation skills of relevant MoA and subnational governments (provincial and district) field staff to crowd-in private sector and build collaborative partnerships to enable large scale adoption of climate-smart agricultural technologies. The project will identify currently available climate-smart innovations from both the public and private sectors that would be relevant for the development of value chains under Component A for further refining, adaptation, packaging, dissemination, and scaling up. The majority of resources under this component will be used to finance competitive grants to support collaborative technology adaptation, dissemination and implementation, linked to the complementary investments financed by the KP matching grants under Sub-component A.2, and beyond.

Sub-component B.1: Collaborative dissemination of priority technologies through partnerships (IBRD: US$ 39.71 M). Building on experiences from the recently completed Sustainable Management of Agriculture Research and Technology Development (SMARTD) project, this activity contributes to the acceleration of climate-smart technology adoption through public-private partnerships in technology dissemination, market-driven advisory and extension systems. This activity will focus on the dissemination of locally adapted climate-smart technologies, relevant to the local value chain plans developed under Sub-Component A.1. and the KP business plans under Sub-Component A.2. This sub-component will finance the following: a) competitive technology grants for collaborative technology dissemination and b) Supporting the transfer and adoption of existing and market-relevant technologies. Gender-responsive technologies that support climate change adaptation and mitigation in agriculture will be prioritized.

- **Competitive technology grants will be used to promote the dissemination and adoption of priority climate-smart and digital technologies to support value chain development**. The grants will focus on the adaptation and dissemination of relevant on-the-shelf technologies to support the development of selected value chains. Proposals must incorporate elements of climate-smart agriculture. These may include drought- and flood-tolerant varieties, improved water management technologies, technologies that encourages the shift to clean energy alternatives along the value chains, and climate advisory services, among others. Proposals also including elements of digital technologies, reduction and/or management of agricultural contaminants and waste, food safety, and control of zoonoses will be prioritized. In addition, proposals that address constraints faced by women farmers and entrepreneurs and promote women's uptake of appropriately designed technologies will be prioritized. The private sector, in partnership in academia, research institutes (government and non-government), and NGOs will be invited to submit proposals that address challenges identified in the agri-zone cluster agribusiness development plans (Sub-Component A.1) and relevant to the *KP* business plans (Sub-Component A.2). The maximum amount for the competitive technology grants is $150,000 and may be in the form of cash and/or in-kind. Private entities are expected to provide a matching contribution. The majority of private sector contribution is expected to fall within the range of 30 to 50 percent of the proposal value. Further details on the competitive grants implementation arrangements, including provisions on eligibility criteria, negative list for financing, proportion of private sector matching contribution, and proposal evaluation process, etc. will be further outlined in the Competitive Technology Grants Operational Manual, which will be a requirement for Loan Effectiveness.

- **Supporting the transfer and adoption of existing and market-relevant technologies.** This activity will include the establishment of demonstration plots for selected key technologies, onboarding of agribusiness MSMEs (e.g., agri-kiosks) and other local value chain actors to support the dissemination and piloting of new technologies, as well as

training for agribusiness MSMEs and farmers on the use of newly disseminated technologies. The project will also foster collaboration in digital agriculture between agri-tech startups and digital technology providers with local governments and the public agriculture innovation and extension systems to adapt, test, and integrate existing digital solutions in selected value chains.

Sub-component B.2: Institutional capacity building (IBRD: US$ 5.00 M): To support the implementation of the agri-zone cluster agribusiness development plans, the project will strengthen the capacities of value chain actors (e.g. MSMEs, startups, processors, etc.) and financial institutions to engage in value chain partnerships, and public sector personnel (technical staff of the Ministry of Agriculture, relevant provincial and district governments, as well as extension workers) to facilitate the development of such partnerships and in delivering public services in agriculture. The content of trainings and types of public services delivered should align with agri-zone cluster agribusiness development plans developed. This component will finance the following:

- **Strengthening the capacity of value chain actors** (micro-, small- and medium-scale agribusiness enterprises, including specialized technical service providers, input dealers, product aggregators, processors, traders; and commercial financial institutions) to support better value chain integration. The project will support trainings on a variety of topics (e.g., efficient production and processing technologies, business and financial management, marketing, and the use of digital tools), the provision of advisory to entrepreneurs in establishing enterprises, facilitation of dialogues with potential partners, and visits/exchanges to well-established agribusiness firms/facilities. This will also include working together with commercial financial institutions to better deliver financial services (i.e., credit, savings, insurance) to farmers, *KPs,* and other value chain actors, to enable them to adopt practices and make investments to enhance value-addition and climate resilience. This will be achieved through i)) training facilitated by financial institutions to value chain actors on loan proposal development, financial management, and managing risks through financial products; and ii) TA to facilitate development of value chain financing arrangements[20]. Trainings would also target women-led agribusiness MSMEs and/or household industries that typically engage in the post-harvest processing of agricultural products.

- **Training for public sector personnel,** including staff of the Ministry of Agriculture and aligned ministries, subnational governments, as well as extension workers. This will include, among others, (i) training for government staff to enhance their capacity in facilitating local agriculture value chain development and agriculture finance (including in facilitating value chain financing arrangements), as well as (ii) training of trainers, including internships and apprenticeships in the private sector, with a focus on enhancing capacity of extension staff and capacity of other local technical staff to support agricultural and food production system and value chains at the subnational level. The latter will include training for women facilitators, to deliver training for women farmers and value chain actors, in locations where cultural norms require such arrangements.

Component C: Project management Total US$ 10.00 M (IBRD US$0: GoI US$ 10.00 M)

[20] Items ii) and iii) will also be delivered to farmers.

Component C will finance project management and facilitate learning and knowledge management to ensure that successful models developed by the project are well-documented to support scaling up. This component will cover the following activities: a) **Project management:** Coordination, implementation, financial management, environmental and social risk management, and monitoring at the national, province and district levels; b) **M&E:** A project-level M&E System will be established as part of the project's management structure with a robust Management Information System (MIS), with Geographic Information System (GIS) capabilities (e.g., GEMS) to allow effective project monitoring, which will also include clear and transparent performance assessments of KPs; and c) **Knowledge management for scaling up and mainstreaming,** to document processes, approaches, and learnings derived from the development of *Korporasi Petani* models and facilitate knowledge exchange to support the GoI's objective of scaling-up successful *Korporasi Petani* models at a national scale. This activity will finance studies/assessments to evaluate models developed by the project, as well as the preparation of policy briefs/reports, workshops/learning events, and other communication materials to disseminate findings to a wider audience to support the scaling up and replication of successful models. This would also include activities to incentivize competition, good performance, and learning among farmer groups and KPs, such as organizing annual *Korporasi Petani* meetings to showcase success stories, peer-to-peer and cross-country exchange and learning event/visits, creation of KP community of practice, communication channels and materials including social media.

Geographic and commodity focus

Project locations and value chains have been identified by the Ministry of Agriculture, primarily targeting high-value subsectors (horticulture, livestock, and estate crops). The MoA has identified a maximum of 14 potential agri-zone clusters across nine districts in nine provinces to be supported by the project. Each cluster is a geographically contagious unit comprising of 10-25 villages. Of these 14 clusters, 9 clusters are indicated to be single commodity clusters and 5 clusters indicated to be integrated clusters (i.e., comprising of two commodities). Each district will select a maximum of two commodities. The table below presents a summary of 14 clusters where the project will be implemented. Corresponding to each cluster, one *Korporasi Petani* will be established. To help coordinate the project activities in the cluster, the project will recruit a cluster coordinator. Each *Korporasi Petani* will develop business plans and the project envisages supporting 61 business plans. To ensure performance-based processes, upon successful completion of the first KP business plan, the KP may apply for project financing for the second business plan. Each KP can submit multiple business plans in a phased manner over multiple years.

The selection of proposed agri-zone clusters and value chains was determined based on a number of criteria, including economic and financial viability of the proposed product, the presence of market opportunities and existing supporting infrastructure, availability of existing farmer organizations and farmer capacity, as well as the potential for co-financing by beneficiaries, local government, and private sector partners. Agri-zone cluster agribusiness development plans developed in the first year of the project will determine which locations will continue to receive project support in subsequent years. More specifically, the agri-zone cluster agribusiness development plans will identify a subset of villages that comprise a particular agri-zone cluster for the project to focus on. The project seeks to develop models that will respond to the universal need of establishing market linkages for farmer groups, based on public-private partnerships. This need is location- and commodity-agnostic, and thus the overall demand-driven approach should be scalable across different commodity-geography combinations, although adaptations would be needed to adjust the finer details to meet the specific needs of the different value chains in selected locations. The project will devise a

mechanism to ensure equitable distribution of resources across geographies based on i) commodity needs and ii) performance.

Table 1. Indicative list of agri-zone clusters to be supported by the project

No.	Agri-Zone Cluster	Province
1.	Tanggamus Integrated Coffee – Goat Cluster	Lampung
2.	Garut Potato Cluster	West Java
3.	Garut Sheep Cluster	
4.	Brebes Integrated Lowland Rice[21] – Banana Cluster	Central Java
5.	Pasuruan Maize Cluster	East Java
6.	Pasuruan Mango Cluster	
7.	Sambas Upland Rice[22] Cluster	West Kalimantan
8.	Sambas Citrus Cluster	
9.	Central Lombok Maize Cluster	West Nusa Tenggara
10.	Central Lombok Chicken Cluster	
11.	North Minahasa Integrated Coconut – Maize Cluster	North Sulawesi
12.	Gowa Dairy Cattle Cluster	South Sulawesi
13.	Gowa Potato Cluster	
14.	East Kolaka Integrated Cocoa – Cattle Cluster	Southeast Sulawesi

Project sequencing and phasing

Local planning processes will be an important first step in determining the value chain and geographic areas supported by the project. During the first year of implementation, agri-zone cluster agribusiness development plans as well as *Korporasi Petani* business plans will be developed in consultation with relevant stakeholders including local governments, financial institutions, the private sector, and farmer groups, including women and/or youth farmer groups. Only agri-zone cluster agribusiness development plans and *Korporasi Petani* business plans that meet the jointly agreed criteria, and therefore deemed viable, will proceed to implementation stage to be financed by the project (Figure 1). Plans that do not qualify may be revised to meet the selection criteria and re-submitted. Agri-zone cluster agribusiness development plans and partnership opportunities identified in the first year will inform the scope of project activities in the following years. Agri-zone clusters which are unable to meet the criterion of the first 18 month will self-select out of the project.

Legal Operational Policies

	Triggered?
Projects on International Waterways OP 7.50	No
Projects in Disputed Areas OP 7.60	No

Summary of Assessment of Environmental and Social Risks and Impacts

[21] Also called wetland rice, is rice grown on land that is flooded or irrigated.
[22] Rice grown in rainfed, naturally well-drained soils without surface water accumulation or irrigation.

The overall environmental and social risk rating is substantial. Although the project will bring positive environmental and social benefits through integrated public and private investments for sustainable agricultural practices that divert agricultural systems away from environmentally damaging crops and practices and support livelihoods of farmers and the community, exposure to chemical and biological hazards through primary production and post harvest operations carry the risks of cumulative impacts, pollution, contamination, and health and safety.

Environmental and Social Standards (ESSs) that are currently relevant for the project includes: ESS1 (Assessment and Management of Environmental and Social Risks and Impacts); ESS2 (Labor and Working Conditions); ESS3 (Resource Efficiency and Pollution Prevention and Management); ESS4 (Community Health and Safety); ESS5 (Land Acquisition, Restrictions of Land Use and Involuntary Resettlement); ESS6 (Biodiversity Conservation and Sustainable Management of Living Natural Resources); and ESS10 (Stakeholder Engagement and Information Disclosure). MoA has developed the following instruments to address relevant ESS requirements: (i) Environmental and Social Management Framework (ESMF) that includes outline of Environmental and Social Impact Assessment (ESIA), Environmental Code of Practices (ECOPs) Resettlement Plan Framework (RPF), Labor Management Procedure (LMP), and Integrated Pest Management Plan (IPMP) as well as protocols on COVID-19 prevention, and managing potential asbestos and electronic wastes; (ii) Environmental and Social Commitment plan (ESCP); and (iii) Stakeholder Engagement Plan (SEP) that includes a Feedback and Grievance Redress Mechanism (FGRM). The ESMF provides the principles and guidelines to screen, assess and mitigate the potential environmental and social risks and impacts of each activity in accordance with requirements of applicable national regulations, ESS and WBG EHS guidelines. The drafts instruments were disclosed and consulted with project stakeholders and were submitted for the Bank's review. After obtaining the Bank's clearance, MoA will disclose the updated instruments on MoA website to meet the requirement of ESS10. MoA will develop a Project Operation Manual to include, among others, details on beneficiary criteria as part of KP matching grant manual, incident reporting mechanism that includes incidents on child labor and other project related incidents. The project does not impact any international waterways and therefore does not fall within the scope of application of OP 7.5 "project on international waterways" and is not implemented in any disputed areas, thus, OP 7.60 "project in disputed areas" is also not triggered.

The Ministry of Agriculture (MoA) has demonstrated that it is fully committed in implementing the environmental and social risks management policies requirements through past projects supported by the World Bank. Given MoA is new to the ESF, continued support for the MoA and the implementing agencies (IAARD and local agricultural agencies) will be required to ensure capacity building on ESF and the allocation of budget and resources to apply the ESSs. The assessment of MoA and IAARD's current capacity to manage environmental and social risks and impacts are included in the ESMF along with the required capacity building plan.

Environmental Risk Management

The environmental risk rating is substantial due to risks associated with potential pollution and contamination, occupational and community health and safety through use of pesticides, animal disease-causing agents/pathogens (bacteria, fungi, mites, viruses); the unknown number and precise footprint of each investment may cause important cumulative impacts; and the limited capacity of local institutions and farmer

groups on environmental risk management. The potential risks of pollution and harm to the environment include physical-chemical degradation of soils and soils loss; inappropriate use of fertilizers and excessive use of poor-quality water resulting in salinization; soil erosion and sedimentation; contamination of soils, groundwater and eutrophication of surface water resources from surface runoff, application of pesticides, feed/animal/processing wastes, and nutrient leaching; non-crop wastes and potential hazardous wastes (asbestos and/or electronic wastes) from small to medium scale rennovation and/or construction works; emissions and odors from machinery, fertilizers use, combustion of by-products and crop residues. The ESMF provides measures to screen, assess and mitigate potential environmental risks and impacts through application of a negative list, risk screening, environmental management plans, ECOPs and guidance on use of pesticides and disposal of asbestos and electronic wates.

Social Risk Management

The social risk rating is moderate. These risks are related to small to medium scale land acquisition for project financed related infrastructure works; social inclusion and unequal access of farmer groups to project information and benefit; and low to moderate risk level on child labor in farming activities, which expose children to extreme environmental conditions and to agrochemicals. Risks of expropriation of property, physical displacement, and restriction on land use issues are not envisaged as project activities prioritizes using the farmers own lands. Risk associated with labor influx, Sexual Exploitation and Abuse/Sexual Harrashment (SEA/SH) or Gender-based Violence (GBV), and Community Health and Safety (CHS) are considered low as civil works are small to medium in scale and will mostly employ local laborers and the communities themselves. There is no impact on Indigenous Peoples as there is no indication that Indigenous Peoples (IPs) reside in the target locations. Risks related to forced labor are not envisaged. The project is expected to have positive direct and indirect social benefits, including improved community livelihoods as it supports small-holders production and resilience. The ESMF provides measures to screen, assess, manage and mitigate through application of land due diligence procedure, Resettlement Policy Framework (RPF) that also includes Voluntary Land Donation Protocol (VLD), application of beneficiaris criteria, mechanisms for equal distribution of information. The SEP also covers engagements with vulnerable peoples (smallholder farmers, women and youth farmers) while the LMP includes provisions on working conditions, OHS, grievance arrangements for project workers, procedures to prevent, address and monitor child labor, and applicable requirements for contractors (including reference to relevant national laws, ESS2 requirements, and the requirement to include and implement codes of conduct in C-ESMPs to prevent child labor and SEA/SH or GBV. LMP also provides provisions to limit children's participation (between the ages of 14-18) in farm-based project activities to light works, and the prohibition of certain tasks that may jeopardize the health, safety, educational and spiritual wellbeing of children.

E. Implementation

Institutional and Implementation Arrangements

The Executing Agency for this project is the Ministry of Agriculture of the Republic of Indonesia (MoA), with the Indonesian Agency for Agricultural Research and Development (IAARD) serving as the leading Implementing Agency. A Project Management Unit (PMU) will be established under the IAARD Secretariat, and which is expected to be staffed with those having experience in the previous SMARTD project. The PMU will manage the day-to-day project operation, including technical staff to coordinate project activities. The PMU will

be supported by contractual technical assistance to support the implementation of Component A and B such as value chain development, entrepreneur development, as well as to support project management such as monitoring and evaluation, and procurement specialist.

At the sub-national level, Project Implementation Units (PIUs) will be established under Assessment Institutes for Agricultural Technology (AIATs) in each project location, which would be responsible for coordinating project implementation in each project location. Each PIU will collaborate with relevant institutions at provincial and district levels, including other potential partners such as financial service providers, input suppliers, processors, and off-takers, etc. Each PIU will report the progress of project implementation to PMU periodically.

Relying on AIATs as the vertical structure of IAARD to implement the project at the local level would strike a good balance between coordination across locations and local ownership. ICARE will not adopt the on-granting mechanism to channel resources to the subnational level, but rather leverage on the vertical units of IAARD present at the provincial level—namely the AIATs. The direct reporting relationship between the AIATs to IAARD would ensure strong coordination and learning between different project locations, particularly as the proposed locations covers a broad geography. Given the model development nature of this project, which spans across a diverse set of commodity-location combinations, strong coordination and communication between project locations would be key to ensure that good practices and partnership practices are shared periodically to be replicated in other locations. While channeling resources directly to sub-national governments would help build a strong sense of ownership at the local level, coordination between locations might be more challenging given Indonesia's decentralized nature. However, given their mandate to disseminate agriculture technologies at the local level, AIATs have a strong working relationship with provincial and district governments, extension workers, the private sector, and farmers to ensure local buy-in, as confirmed from the previous SMARTD project as well as stakeholder consultations that took place as part of the project preparation.

To support the PMU and PIUs, in project implementation, a National Steering Committee (NSC), responsible for overall policy guidance and the coordination required between government institutions at the national level will be established. As per the existing GoI convention, membership of the NSC should include all GoI units relevant to the project to strengthen ownership of, and effectively implement, ICARE activities. The Steering Committee will be chaired by the Secretary General of the Ministry of Agriculture with membership adopting a two-tiered system. Core NSC members will comprise of: (1) Director of Food and Agriculture, Bappenas; (2) Director of Debt Management, Ministry of Finance (4) Director of Planning Bureau, Ministry of Agriculture; and (5) Executive Secretary of IAARD. In addition to the core members, the NSC will include *ex-officio* members who will attend meetings on an ad hoc basis. These include representatives from IAARD National and Commodity Research Institutes, other Echelon I units of the Ministry of Agriculture[23], and the private sector, as represented

[23] Namely (1) Director of Indonesia Center for Horticulture Research and Development, IAARD, (2) Director of Indonesia Center for Estate Crops Research and Development, IAARD; (3) Director of Indonesia Center for Animal Research and Development, IAARD; (4) Director of Indonesia Center for Food Crops Research and Development, IAARD; (5) Inspector III, Ministry of Agriculture; (6) Director of the International Cooperation Bureau, Ministry of Agriculture; (7) Executive Secretary of Directorate General of Horticulture; (8) Executive Secretary of Directorate General of Livestock and Animal Health; (9) Executive Secretary of the Directorate General of Food Crops; (10) Director of Agricultural Financing of the Directorate General of Facilities and Infrastructure, MoA; (11) Executive Secretary of the Directorate General of Estate Crops; (12) Executive Secretary of the Food Security Agency; (13) Executive Secretary of the Agricultural Extension and Human Resources and Development Agency.

by the Indonesia Chamber of Commerce (KADIN). The NSC will formally convene on an annual basis, where attendance could be delegated to personnel from the same unit in case of absence of the primary member. Additional meetings on specific topics and/or value chains may be held to seek guidance from relevant NSC members on a case-by-case basis.

A **Technical Team** will be established by the Director General of IAARD to provide technical support to PMU and AIAT in the implementation of activities under Component A. The Technical team will comprise of various experts from IAARD National Research Institutes (NRI) and Commodity Research Institutes (CRI). Relevant IAARD Research Institutes will work with AIATs to adapt and disseminate technologies relevant for the selected value chains. For example, to climate-proof and enhance the responsiveness of the selected mango value chain to market demand. The Technical Team will work under the guidance of the National Steering Committee.

To assist in the delivery of project activities at the local level, a **Cluster Coordinator** will be appointed for each agri-zone cluster by the PIU, and will be responsible for coordinating project activities and its delivery at the agri-zone cluster level with a consortium of partners, which will comprise of different stakeholders, including the provincial and district governments[24], private sector, farmer representatives, as well as other value chain actors. Where appropriate, PIUs will hire **third-party service providers** (either firms and/or individual consultants) to support delivery of project activities (e.g., provision of training and technical assistance to *KP* and its members; facilitating value chain assessments and agri-zone cluster agribusiness development plans development; facilitating the KP business plans development; etc.).

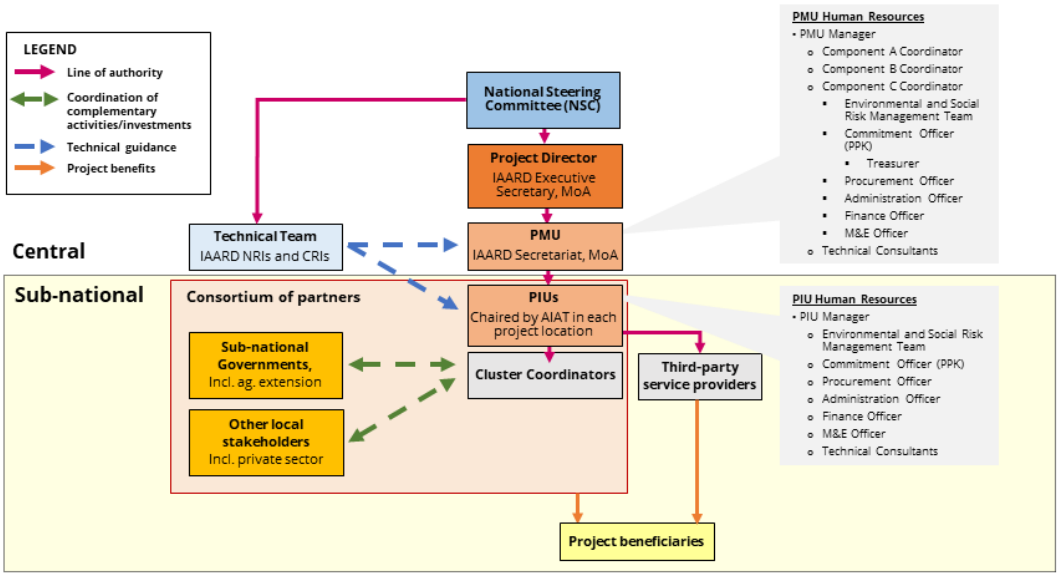

Figure 1 Organizational chart for ICARE project implementation

[24] This includes technical teams comprising of relevant sub-national government working units appointed by the respective provincial and district governments to support coordination and encourage complementary investments for ICARE project implementation.

Citizen and stakeholder engagement. ICARE requires and promotes continuous and meaningful consultation with individual farmers, farmer groups, and local private and public sector stakeholders. The project will use different techniques, from participatory rural appraisals, informant and household interviews to focus group discussions, to ensure that different groups of beneficiaries are being addressed and their voices heard. It is understood that meaningful consultation goes beyond the disclosure of information: it is a two-way process, designed to receive feedback from project beneficiaries that will inform the design and implementation of the project. Stakeholder engagement will be facilitated and reported on by project staff and extension workers. The process of citizen engagement and farmer consultation informing the design of KP business plans and agribusiness plans will not only help ICARE close the feedback loop, but also ensure sustainable use of project investment and stewardship. Further, the proposed GRM and the MIS are complementary tools that ensure appropriate and timely feedback.

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