



The World Bank

PNG Agriculture Commercialization and Diversification Project (P166222)

Combined Project Information Documents / Integrated Safeguards Datasheet (PID/ISDS)

Appraisal Stage | Date Prepared/Updated: 09-May-2019 | Report No: PIDISDSA25018

**BASIC INFORMATION****A. Basic Project Data**

Country Papua New Guinea	Project ID P166222	Project Name PNG Agriculture Commercialization and Diversification Project	Parent Project ID (if any)
Region EAST ASIA AND PACIFIC	Estimated Appraisal Date 20-May-2019	Estimated Board Date 06-Aug-2019	Practice Area (Lead) Agriculture
Financing Instrument Investment Project Financing	Borrower(s) Independent State of Papua New Guinea	Implementing Agency Department of Agriculture and Livestock, Coffee Industry Corporation, Cocoa Board	

Proposed Development Objective(s)

To facilitate the development of competitive and diversified agriculture value chains for selected commodities in targeted provinces.

Components

Institutional Capacity Building
Agriculture Feeder Roads
Productive Partnerships
Project Management and Monitoring and Evaluation
Contingency Emergency Response Component

PROJECT FINANCING DATA (US\$, Millions)**SUMMARY**

Total Project Cost	40.00
Total Financing	40.00
of which IBRD/IDA	40.00
Financing Gap	0.00

DETAILS

**World Bank Group Financing**

International Development Association (IDA)	40.00
IDA Credit	40.00

Environmental Assessment Category

B-Partial Assessment

Decision

The review did authorize the team to appraise and negotiate

B. Introduction and Context

Country Context

1. The Independent State of Papua New Guinea (PNG) is one of the most culturally diverse countries in the world with over 800 languages and 1,000 ethnic groups¹. It has a total land area of approximately 460,000km² comprised of 600 islands of various sizes, and hosts a remarkably varied number of species and ecosystems. The country is separated into four regions – Highlands, Islands, Momase and Southern – and 21 provinces. In 2017, its population was estimated at close to 8 million² and, of this, over 80 percent live in rural areas.
2. PNG is a relatively stable democracy and had an average GDP growth of 6.85 percent between 2005 and 2010, however like other resource-dependent countries, it is feeling the impacts of the fall in global commodity prices, with real GDP growth estimated at 2.8 percent in 2017, and slowing further to 0.3 percent in 2018, largely due to a contraction in the extractive sector following the February 2018 earthquake³. The country is dominated by two main sectors: the formal, capital-intensive mining and energy sector which relies heavily on the country's rich natural resources and accounts for most of the export earnings, and the agriculture sector which, while largely informal, employs an estimated 80 percent of the population and accounts for approximately 27 percent of GDP⁴.
3. Despite considerable natural wealth and reasonable economic performance, PNG's rural population continues to face significant challenges. The disparity between rural and urban living conditions is exacerbated by the country's difficult terrain which increases hardship, poverty, and isolation in rural areas, and limits access to basic services, infrastructure and economic markets. Less than 20 percent of rural households have access to electricity, 60 percent lack access to safe drinking water, and an estimated 80 percent lack access to improved sanitation².
4. The 2010 Household Income and Expenditure Survey found approximately 38 percent of the population lived below the extreme poverty line of US \$1.90 per day, about the same proportion as in 1996. PNG's Human Development Index (HDI) ranking was 155 in 2010 and improved by one place to 154 in 2015, the second

¹ www.worldbank.org² PNG Systematic Country Diagnostic (October 2017 draft)³ PNG Economic Update (February 2019)⁴ PNG Economic Update (November 2017)



lowest in the Pacific². It has the fourth highest child stunting rate in the world. An estimated 28 percent of children are underweight and 5-15 percent are wasted. The highlands region has the highest rates of stunting at 61.5 percent, and the island region has the highest wasting and underweight rates at 19 percent and 29.2 percent respectively. The economic cost of undernutrition is high, in 2015-2016, it was estimated to have cost the economy 2.81 percent of annual GDP (equivalent to US\$ 508 million)⁵.

5. PNG was an early adopter of the World Bank's Human Capital Index and is ranked 136 out of 157, finding that a child born in PNG today will be 38 percent as productive when they grow up as they could be if they enjoyed complete education and full health. PNG ranks 159 out of 160 countries in the 2017 Gender Inequality Index.³ Gender-based violence (GBV) is widespread, with over two thirds of women having experienced some kind of violence in their lifetime.⁶ GBV – both within the home and in public spaces – severely affects women's ability to contribute to the economy, participate in business activities, and support family livelihoods. For example, 90 percent of women and girls in a 2014 UN Women study reported experiencing some form of sexual violence while using public transport, including verbal sexual remarks, extortion, robbery, threats or intimidation, inappropriate touching, and indecent exposure. In the same study, 97 percent of female respondents reported feeling unsafe while using public transport.⁷ While these results were specific to Port Moresby, it is widely accepted that violence and crime are also high along the country's transport corridors where much of the rural population are engaged in agriculture, trade, and the transportation of goods.
6. PNG's risk and resilience profile is dominated by local ethnic relations, gender relations, and rising populations of underemployed youth, all potentially provide a basis for endemic, daily violence. These factors together have contributed to significant conflict around resources in specific places that have drawn in national security forces and had serious national implications and could easily do so again. Resources and their geographical dispersion are a very mixed blessing to PNG. Like similar economies and societies, PNG suffers from much weaker institutions because of its resource dependence, and not despite it. Resource enclaves have repeatedly become sources of grievance and conflict, as in the case of the Bougainville civil war. The Southern Highlands currently represents an emerging area of risk, with the region - which in February 2018 experienced one of the worst earthquakes in the country's history - having seen an upsurge in violent conflict. The impetus is multidimensional and includes lack of clarity over property rights and incomplete landowner identification, tensions related to the non-payment of royalties, the proliferation of arms, electoral manipulation and allegations of fraud, complex inter-clan dynamics, and a breakdown in state-society relations and traditional conflict mitigation mechanisms, amidst thin state presence and reach.
7. The country is subject to both El Niño and La Niña events and both can have significant impacts such as severe droughts, landslides and flooding from increased rainfall⁸. The World Risk Report 2016 ranks PNG 10th, due to the country's high exposure to natural disasters and its high social and economic vulnerability to these events⁹. The Climate and Disaster Risk screening report for this project also noted drought as the highest risk, impact and exposure both now and in the future, while extreme temperature and sea level rise are also high risks for the future. The February 2018 magnitude 7.5 earthquake and aftershocks affected 544,368 people

⁵ PNG Nutrition Study (P165595)

⁶ Nationally representative GBV prevalence data is not available for PNG; however, several robust, smaller-scale studies indicate high prevalence.

⁷ UN Women (2014), 'Ensuring Safe Public Transport with and for Women and Girls in Port Moresby'.

⁸ El Nino

⁹ El Nino + UNU-EHS, 2016. World Risk Report 2016



across five provinces. In the Southern Highlands and Hela provinces alone, it is estimated to have killed over 100 people, displaced 18,200 and left 270,442 people in need of immediate humanitarian assistance. It has also left 32% of health facilities closed¹⁰.

Sectoral and Institutional Context

8. **Sectoral context:** PNG is characterized by its diverse agro-ecological environments (highlands, lowlands, islands/atolls), favorable climate and fertile soils allowing the farming of many different agricultural products, including the cultivation of both cash and staple food crops, as well as livestock production. While PNG's export economy is dominated by minerals (gold and copper), oil and liquified natural gas, the contribution of agricultural exports in the renewable resources sector is significant, at around 23.1 percent. The main agricultural exports of the country include cocoa, coffee, coconuts, palm oil, rubber, and tea. The predominant mode of farming is in smallholder farms of less than 5 ha. Village agriculture, which supports over 80 percent of the population, remains dominated by subsistence food production. It generates little cash income and is characterized by low productivity.
9. ***Coffee and cocoa are key cash crops.*** PNG is considered a small coffee and cocoa producer in the international market, but the high quality of its coffee and fine flavored cocoa is recognized and sought after. Nearly 30 and 20 percent of the total labor force is engaged in the production of coffee and cocoa, respectively. Smallholders produce 95 percent of the national coffee produced in PNG and the industry has seen a general increase in the value of coffee exports over the past decade. PNG coffee production in the last decade averaged 995,000 bags (59,700 tonnes)¹¹ a year, although factors (diseases, climate, elections) can strongly affect it.
10. ***A robust internal fresh food and livestock products market exists;*** however, value chains are not well developed, and this represents an opportunity to expand the PPAP approach to other commodities. Livestock production, except for pigs and poultry, remains static or on the decline since the 1970s. Meat consumption in PNG on the other hand, has increased steadily over the last two decades, and is predicted to increase at a conservative rate of 5 percent per annum. This increased demand is currently met by meat imports.
11. ***Agriculture has under-performed,*** including low productivity and lack of competitiveness, as constraints remain in place, limiting the development of coffee and cocoa production as an agribusiness for many smallholder farmers and constraining opportunities for other commodities to expand. These include: high transaction costs due to diseconomies of scale, lack of access to information and technologies due to poor extension services, poor rural infrastructure, insecurity of land ownership and tenure and lack of access to rural finance. The private sector is comprised by few multinationals mostly engaged in coffee and cacao, few larger national agribusinesses, and various small and medium enterprises. Microenterprises are also important mostly as aggregators and transporters linking logically isolated smallholders to other agribusinesses. The private sector is better organized for value-chains with a well identified market, such as export-oriented commodities (coffee, cocoa, oil palm and to a less extent, vanilla and coconut). For infant or rebuilding value-chains, such as livestock or spices, it is weak and sometimes characterized by some monopoly situation (in poultry or spices for instance) that are struggling to get the supply of quality raw products required.
12. PNG's road network plays a large role in smallholder farmers' abilities to earn a profit from their produce.

¹⁰ NDC, UNDAC OCHA 2018

¹¹ Coffee Industry Corporation – <http://www.cic.org.pg/2017/03/22/png-coffee-production-export-statistics/>



PNG's road network is highly fragmented and poorly maintained with only about 35 percent of national roads sealed² and no roads connecting most provinces and ports. PNG's vulnerability to climate risks and hazards further exacerbate problems resulting in an estimated 75 percent or more of the road network becoming impassable at some point during the year². These factors force farmers to walk long distances to meet transport and pay high prices to move goods, reducing most of their profit and increasing the risk of lost produce due to weather and time.

13. Finally, important gender inequalities contribute to the underperformance of the sector. In December 2014, the World Bank delivered a study on the role of women in the agriculture sector in PNG¹², notably related to coffee, cocoa and fresh produce. Analysis of these supply chains indicated gender-specific barriers to access key services (extension and financial) and insecurity affect the quality of the final product. In early 2018, a specific gender time-use study among PPAP farmers¹³ highlighted an imbalance between male and female time-use in domestic and productive work and a gap between men and women in the control and management of money. The average number of hours spent in cocoa production by men is almost triple that of women in the cocoa-growing areas and double in the coffee growing areas. On the other hand, women work on average 2.8 hours more in domestic activities than men in the coffee-growing areas and 4.1 hours more in cocoa-growing areas. The study found that household awareness and training on gender dynamics and increased responsibilities of women could improve welfare outcomes for all household members. The domestic workload may be reduced by technological interventions to reduce labor inputs, or by a more equal sharing of domestic tasks between household members through awareness-raising.
14. Some reasons for hope exist. For instance, the World Bank (WB), International Fund for Agricultural Development (IFAD) and European Union (EU) co-funded Productive Partnerships in Agriculture project (PPAP) is demonstrating in the coffee and cocoa sectors that this productive partnership model can help overcome some of these bottlenecks and facilitate the integration of smallholder farmers into effective supply/value-chains and link them to markets, which remains a priority for the Government of PNG (GoPNG). In the PPAP model, farmers join a partnership coordinated by a Lead Partner (LP) (the private sector in 70 percent of cases) through a small fee. The LP accesses a grant from the project to purchase tools and seedlings (including innovative cocoa clones) to be distributed to farmers, renovate processing facilities or organize training on a broad range of topics: technical, gender, HIV-AIDS, nutrition, etc. This increased proximity between LPs and the smallholder farmers has greatly benefitted participating farmers who have almost doubled their yield per annum, doubled their incomes and farmers are now using improved coffee management practices on more than 16,000 hectares¹⁴. PPAP has seen commendable success:
 - At institutional and governance level, where the cocoa and coffee Acts have been reviewed and reformed, and corresponding Boards strengthened to better fulfill their mandates. This work must now start in other commodities, while in cocoa and coffee, deeper involvement from the CIC, CB and other industries governing bodies towards improved quality, standards setting, facilities' licensing and relevant fee-leveraging for self-sustainability is now required;
 - At farm level, where productivity in households (HHs) involved in partnerships has greatly increased, and the quality of processed products (dry cocoa beans, green coffee beans) started improving through training and equipment (modern fermentaries, pulper machines, sun-dryers, etc.), thanks to

¹² *The fruit of her labor – Promoting Gender-Equitable agribusiness in Papua New Guinea. WB, Dec. 2014*

¹³ *Household allocation of time and efficiency in PNG. WB, Feb. 2018*

¹⁴ April 2018 PPAP Aide Memoire



the innovative PPAP delivery model. It is estimated that PPAP has reached about 10% of coffee and cocoa smallholder farmers and this work must be expanded, including to new Provinces, to reach about 30% of them to have a durable impact on national production quantity and quality. The natural evolution is also to assess whether PNG can climb the value chain ladder and export more sophisticated processed or industrialized products that can provide higher incomes, instead of mainly exporting raw commodities. In other diversified value-chain, this basic work to increase on-farm productivity and improve local access to market of raw or low-processed products must start using the PPAP model.

15. Under PPAP, farmers have realized the benefits of being organized in associations as essential to addressing bottlenecks to production and market access collectively, and there is now the opportunity to build the capacities of cooperatives and farmers' groups and to introduce new, sector-wide initiatives, to further support their development and enable meaningful collaborations with the private sector.
16. Institutional context: The complexity in the PNG agricultural sector has evolved with political, administrative and institutional reform over the last 50 years into a shared responsibility of the three tiers of government as well as statutory commodity boards. Despite the institutional complexity of service providers, the extension service is industry specific, supply driven and highly dependent of public funding. With the declining budgetary support over the years the quality of service deteriorated with limited coverage nationwide. The policy outcome paved the way for the establishment of Provincial Governments, and the transfer of development functions and financial powers from the National Government. A key function decentralized was agriculture service but is performed as a concurrent function of provincial and national agencies, hitherto. In 1990, the Government adopted a corporatization policy under which key commodity organizations for coffee, oil palm, cocoa and coconuts were created as separate legal entities. The move entailed further devolution of research and development, extension and marketing functions from the National Department of Agriculture and Livestock (DAL). Provincial and district program priorities are often determined independently of national agencies. In 2013 the National Executive Council commissioned a functional expenditure review (FER) on commodity boards to address what it considered to be the most pressing issues. The FER team found the sector was uncoordinated, unaccountable and in many cases, ineffective in delivering improved technologies, extension and other services to agriculture¹⁵.
17. These governance systems and institutional fragility remain major challenges affecting the agriculture sector. Despite good intentions, the three tier levels of governments, commodity boards and agencies have provided village farmers with little help to raise their productivity and to enable them to participate more effectively in commercial activities. Translation of new knowledge to business and commercial opportunities has been lacking for many years. Major crops, except for cocoa, coffee and palm oil, have historically been marketed by statutory marketing boards, including in the past stabilization funds (coffee, cocoa, palm oil and coconuts) which may have impeded agricultural development through inefficiency and over-regulation.
18. The previous GoPNG's National Agriculture Development Plan (NADP) 2007-2016 (currently being updated) recognized the importance of the agricultural sector in developing the economic potential of the country, sustaining the basic livelihoods of its population, increasing social wellbeing, and providing food security for all. However, its implementation has faced several challenges relating to the limited capacity of the DAL and

¹⁵ Towards Agriculture Transformation and a New Direction for Enhancing Productivity in Agriculture; Functional Expenditure Review of Agriculture for Commodity Boards and Agencies; 2014



the roles of the sub-national governments to enhance implementation performance and monitor progress of outcomes in the sector.

19. The GoPNG's Alotau Accord II outlines the government's priority list for achieving the Vision 2050; and operationalizes the National Strategy for Responsible and Sustainable Development through the Medium-Term Development Plan (MTDP) III. Agriculture is listed as a priority, particularly the revival of coffee, cocoa and tea sectors, as well as increasing access to funding support for small-scale farmers, as demonstrated by its greater prominence in the 2018 budget allocation. To emphasize this commitment, the government held the first ever National Agriculture Summit in November 2017 to exchange experiences on successful models. The key priorities from the summit are to: (i) grow the economy; (ii) promote import substitution; (iii) promote more accessible and affordable credit; and (iv) place greater focus on institutional strengthening. The PACD will directly contribute to achieving these objectives through expanding the work done under PPAP, to include more coffee and cocoa farmers, as well as to diversify the commodities, and therefore farmers' access to extension services, finance and markets.

C. Proposed Development Objective(s)

Development Objective(s) (From PAD)

To facilitate the development of competitive and diversified agriculture value chains for selected commodities in targeted provinces.

Key Results

20. In the PACD, competitive value-chains will be measured by their increased productivity and higher quantities sold to markets by both smallholder producers and intermediate MSMEs.
21. The PACD aims at consolidating the work done by the PPAP in the main coffee and cocoa producing areas. This implies some diversification from only cocoa and coffee to be promoted at both household (risk management against crisis and disasters) and community levels to facilitate the emergence of new value-chains (spices, coconut, small livestock), and the synergistic integration into existing farming systems, such as apiculture for coffee and galip nuts for cocoa.
22. The PDO level Indicators include:
 - a) Competitive value-chain, including Increased productivity for cocoa, coffee and diversified value-chains, measured by (i) increased yields of selected crops (cocoa wet beans, coffee green beans, spices), and (ii) increased piglets weaned per sow and per year;
 - b) Competitive value-chain, including increased access to markets for cocoa, coffee and diversified value chains, measured by increase in the annual gross sales of benefitting MSMEs and producer organizations.
 - c) Diversified value-chains measured by the number of farmers from coffee- and cocoa-producing areas diversifying to new commodities (honey, galip nut, spices, small livestock, coconut);
 - d) Total number of beneficiaries - disaggregated by gender.

D. Project Description

23. The PACD will look at what is needed to reach competitive and diversified value chains. First, a conductive enabling environment is needed. PACD will strengthen institutions (DAL, commodities Boards) to play their role as enabler and facilitator and to review policies and regulations. It will also improve the condition of



feeder roads, which is a crucial infrastructure to facilitate access to markets. Second, an increase in human capital is needed. PACD will strengthen the skills at several levels of the value chains, providing vocational and business development training to staff in the related institutions, to the farmers, producer organizations and MSMEs that are involved in aggregating, processing and marketing of the small-holder produce. Third, it looks at markets for products and if there is fair market competition. PACD will facilitate the coordination between value chain stakeholders to increase the market access for smallholders and make production more demand and market driven. It will also strengthen producers' organizations (POs) and link them to markets, since global experience has shown that this model can have the highest gain for farmers. On the other hand, it will help buyers getting the raw material on a timely manner in the quantities and qualities requested. It will also incentivize financial actors to co-finance investments at farm, POs and MSME levels. And forth, it needs a strong innovation ecosystem. PACD will promote an entrepreneurial culture among MSMEs and POs, incentivize applied R&D in partnerships and the transmission of new technologies to farmers to increase their productivity and the sustainable use of their resources.

24. The PNG Agriculture Commercialization and Diversification Project (PACD) - interventions will be delivered through five components:
25. **Component 1: Institutional capacity building (IDA US\$5.9 million).** The specific objective would be to improve the performance of sector institutions and to enhance industry coordination in cocoa, coffee, spices, coconuts and small livestock. Recommendations from the 2013 FER will lay the foundations for such strengthening of institutional capacity in the different commodities. On the model of coffee and cocoa during PPAP, existing stakeholder platforms for coconuts, spices, and small livestock would be consolidated to address short- and long-term issues such as sector governance, skills development in the industry, improvement in extension services, industry strategy on threats to quality and quality promotion, information within the industry, market development and crop diversification. The support will address institutional capacity gaps at two levels:

(i) *Sub-component 1.1. - Department of Agriculture and Livestock (DAL),* at central and regional levels, but also the Provincial Department of Primary Industry, under the coordination of the Project Coordination Unit (PCU). It will seek to strengthen government efforts in: (i) planning, coordination, monitoring and evaluation capacity at national and decentralized levels, with emphasis through the DAL's Policy and Technical Divisions; (ii) support GoPNG where necessary in reviewing their policy and regulatory framework, notably on climate-smart agriculture, extension and veterinary services, promoting the multisectoral approach to nutrition, quality standards and food safety; (iii) support the transition of the Livestock Development Corporation (LDC) and Spices Industry Board currently under the umbrella of the DAL, to independent statutory bodies including reviewing the related Acts; (iv) at the decentralized level – leverage the provincial and district capacity to deliver services: extension, advisory and veterinary services and access to inputs; this will include implementing a *Structured Outreach Program* together with the Cocoa Board (CB) and Coffee Industry Corporation (CIC) where funding will be allocated for technical assistance that would continue supporting PPAP farmers to provide technical and financial management advice and monitor their progress under PACD, given the length of tree-crops replanting to reach productivity peaks and the need for continuous support at the cooperative infant stage brought by PPAP; and (v) design and implement sector-wide and project-specific communication and public awareness strategy.

(ii) *Sub-component 1.2. – Commodity Boards,* notably the CB, CIC and Kokonas Industri Koporesen



(KIK – Coconut Industry Corporation) under the coordination of the two Project Management Units (PMUs) hosted by the CB and CIC. This sub-component will: (i) improve the performance of the two industry coordination committees (ICC) to support sector dialogue and policy development in the cocoa, coffee, livestock, spices and coconut subsectors, including operating and meetings costs. Their composition will be modified to welcome representatives from other commodities; (ii) in coffee and cocoa, consolidate the PPAP work of strengthening CB and CIC governance and launch similar efforts to strengthen the KIK, including institutionalizing and expanding the Management Information System (MIS) necessary to inform policy development and stakeholders' decisions. It will also support the evolution of these Boards towards quality promotion and enforcement of standards developed under sub-component 1.1. Where appropriate, the adoption of certified sustainability practices (such as Organic, Fair Trade, Rainforest Alliance, and quality certification schemes (HACCP in coconut processing notably)) will be promoted. Parallel technical assistance from the IFC will be explored to increase the efficiency and impact of this activity; (iii) in collaboration with the National Agriculture Research Institute (NARI), strengthen the platform for sustainable production and multiplication of plant and animal germplasm and the genetic base (nurseries), the enhancement of existing networks through R&D and extension capacity building, with a focus on climate-smart agriculture practices, in the project areas, (iv) design and implement commodities-specific communication and public awareness strategy and campaigns; and (v) rehabilitate offices, including the CB office in Kokopo.

26. **Component 2: Agriculture Feeder Roads.** The objective of this component is to improve the condition of feeder roads, which represent a major bottleneck for farmers' capacity to access more lucrative value chains. Together with the productive investments under Component 3, the feeder roads will improve access to markets for farmers, by cutting time and cost of transport and increase the quality of the transported products, besides having many other positive externalities for the communities. Building on the experience of, and lessons learned from, PPAP, this component will finance the improvement of priority agricultural feeder roads that provide access to PACD and PPAP partnership smallholder farmers / out-growers. The sub-projects' prioritization will be based on a transparent comparative socio-economic benefit / cost ranking of all identified candidate roads, as well as free, prior and informed consultation with representatives of the partnership, impacted people and local authorities. The prioritization process will be detailed in the Project Implementation Manual (PIM) and safeguards instruments. A sustainable long-term maintenance framework for each selected road will be established in advance of construction through a Memorandum of Understanding (MoU) between these private and public parties, setting out the roles and responsibilities of the respective parties, who will also receive hands-on maintenance training under the project.
27. To ensure a rapid implementation start, a first round of around five feeder roads will be implemented out of a pool of already prioritized roads under the PPAP project. A second round of around seven feeder roads will be prioritized under PACD and thereafter implemented. As per the PPAP model, feeder roads will be designed and constructed to be more climate resilient, through increased resistance to heavy rains occurring during wet seasons: they will be well cambered to shed runoff quickly from the road surface, and all longitudinal drainage (lined and unlined side drains) and cross drainage (pipe / box culverts and log bridges) will be designed to accommodate anticipated increases in frequency, duration and intensity of rainfall due to climate change.
28. Difficulties navigating between domestic, local farm and market spaces can be particularly burdensome for people combining market activity with care responsibilities, who generally are women. Women are also more disadvantaged than men by unsafe roads and facilities. Attention will thus be paid to the web of secondary



feeder roads, foot bridges, foot paths and tracks women use for accessing markets, taking care of domestic chores and also for accessing health and administrative services. Invariably, it is women who must compensate for the lack of roads through an increased investment of their labor e.g. walking to markets, clinics, shops; carrying goods and water. Improving women's access to services via road improvements will positively affect the amount of time women can use on economically productive activities.

29. **Component 3: Productive Partnerships.** The objective of this component is to increase the integration of smallholder producers, producer organizations (POs) and micro, small and medium sized enterprises (MSMEs) into performing, remunerative and diversified value chains. A first subcomponent will directly benefit smallholder producers and will build on the PPAP model and its lessons learned. It will develop and implement productive partnerships between smallholders and the private sector aimed at improving market linkages in the project areas. The focus will be to increase inputs, on-farm and post-harvest productivity and quality. A second subcomponent will benefit POs and MSMEs that have been or are participating in productive partnerships of PPAP or this project, to increase their competitiveness with focus on aggregation, logistics, processing and marketing. This will ensure that aggregators and processors of smallholder produce can increase their absorption capacity and quality, and therefore increase the competitiveness of the value chains. The two subcomponents complement each other and are linked to ensure that value chains and their stakeholders can get more competitive, considering all its segments.

(i) *Subcomponent 3.1: On farm and post-harvest productivity, and formation of producer organizations.* This subcomponent will address the following two main binding constraints: first being the limited aggregation of smallholder produce and lack of planning and coordination among stakeholders along the selected value chains leading to limited market integration of smallholders; and second, the low productivity and quality of the smallholder produce. The subcomponent will channel project funding through legal entities in the private sector and civil society (Lead Partners (LPs)), which have already been successfully engaged with smallholders to increase output, productivity, quality and sustainability and which are interested in scaling up those activities by forming partnership with the smallholders. The subcomponent will step up its effort to facilitate the formation of POs and the management of common services, including marketing and initial processing. The subcomponent will finance: (i) awareness raising campaigns; (ii) support to LPs and associated farmers for the preparation of their partnership proposals and plans; and (ii) co-financing for competitively selected partnerships, including:

- *Investments:* farming equipment, infrastructure and other related inputs, such as improved planting material (nurseries), support for rotational replanting and garden rejuvenation, more efficient and environmental friendly post-harvest and processing technology, etc. Investments will promote innovative technologies, notably on climate-smart agriculture (agro-forestry, water collection and micro-irrigation, drought- and pest- resistant varieties and intensification of small livestock production and bio-digesters) that have the potential for positive impacts on the environment.
- *Technical Assistance:* good agricultural practices, modern and improved technologies, post-harvest handling, financial literacy, livelihood training, PO formation and management, etc.

(ii) *Subcomponent 3.2: Aggregation, value-addition and marketing.* This subcomponent will directly address the following two main binding constraints: first, the lack of knowledge and access to finance of POs and MSMEs needed to become competitive players; and second, the lack of value addition that is undertaken in the country, instead of abroad, needed to ensure higher incomes to rural households and



the local economy in general. This subcomponent will use a matching grant mechanism to competitively selected POs and MSMEs to co-finance technically feasible and financially viable business plans. Eligible are LPs (type 3 and 4)¹⁶ being MSMEs, or legally established POs. Criteria will also be developed to strengthen the ability of women entrepreneurs and farmers to compete for and win matching grants. The subcomponent will finance: (i) awareness raising campaigns and support to POs and MSMEs for the preparation of their Business Proposals and Plans; and (iii) co-financing for competitively selected business plans, including:

- *Investments*: equipment (transport, office, ICT tools, storage, product processing, etc.), infrastructure (storage, warehouse, fermentation facilities, etc.), and other related inputs. The investments will need to finally also benefit the producers. While investments will be demand-driven, priority will be given to investments that contribute to climate change adaptation and/or mitigation.
- *Technical Assistance*: such as in logistics, storage, marketing, agronomy, accounting, financial literacy, food processing, good manufacturing practices, packaging, labelling, traceability, quality control, food safety and hygiene, legal and environmental aspects. A specific focus on women entrepreneurs will be put in business and technical skills, including in business planning and grant proposal development to help them upgrading from smaller to larger local markets as well as export-oriented commercial products.

30. **Component 4: Project Management and Monitoring and Evaluation.** This activity would support all Project Coordination Unit (PCU) and two Project Management Units (PMUs)' activities required to manage IDA funds, procure IDA-funded goods and services, conduct project M&E and comply with safeguard mitigation measures. It will finance the required consultant staff for the length of the project to ensure efficient management of the PACD, including the Project Coordinator in DAL Port-Moresby and the two Project's Managers in the CB PMU (Kokopo, ENB) and CIC PMU (Goroka, EH). It would provide training and equipment to modernize DAL operations (computer hardware and software, office furniture, vehicles) at the central level and in the field as needed for project activities. It would also support the development and implementation of a communications strategy, as well as general awareness and sensitization campaigns about project activities.

31. **Component 5: Contingency Emergency Response Component (Total Cost: US\$0).** This component will only be used in the event that an emergency response is required. Experience from the past, and notably the recent earthquake in Southern Highlands, has demonstrated how natural disasters can have devastating impacts on agriculture production and other sectors in PNG.

32. Following an eligible crisis or emergency, the Recipient may request the Association to re-allocate project funds to support emergency response and reconstruction. This component would draw from the uncommitted grant resources under the project from other project components to cover emergency response. A CERC Project Operations Manual, acceptable to the Association, for the implementation of the Contingency Emergency Response Plan, will be prepared and constitute a disbursement condition for this

¹⁶ LPs can be divided into 5 types (1. Multinationals; 2. Consolidated larger PNG exporters; 3. SMEs that are aggregating and processing and selling products to type 1 and 2 LPs, and are or have the potential to be exporting themselves; 4. microenterprises (intermediaries, which mostly are trying to aggregate and transport the products to type 1,2, or 3 LPs); 5. NGOs and civil society.



sub-component.

Strategic Alignment

33. **Citizen Engagement.** Taking into account beneficiary needs and feedback will be an important part of the PACD. For feeder roads rehabilitation, the prioritization process will be strongly based on stakeholders' empowerment, using a bottom-up approach. Pre-feasibility studies will include extensive consultations with potential beneficiaries through focus group discussions and potentially participatory training for sections of Component 3. The project's communication and outreach strategy tools will also support effective citizen engagement. The ESMF includes consultation with key project stakeholders to provide information on the proposed project, the potential social and environmental risks and source their contribution to overall project design. PACD will ensure that citizen engagement during project implementation is effective and will monitor whether beneficiary feedback is indeed taken into account. The Results Framework includes two intermediate indicators (i) Beneficiaries that feel project investments reflect their needs (disaggregated by gender), and (ii) Grievances registered related to delivery of project benefits that are addressed.
34. **Climate Change and Climate co-benefits.** The PNG Multi-Sectoral National Nutrition Policy 2018 notes that PNG experiences frequent episodes of natural and human induced disasters ranging from weather events such as floods and landslides, to tribal disputes resulting in violence and displacement. The impact of changing climate, influencing phenomena such as weather patterns, rainfall and sea level rise is also being increasingly reported among many communities and agriculture experts. Discussions with the agricultural sector indicate that the impact of this is potentially significant in terms of agricultural production, availability and access to foods, and consequently on the health and nutrition of many communities¹⁷.
35. The project will promote the use of climate smart technologies and techniques, in order to minimize the potential impacts. Under Component 3, the project will positively weigh matching grant applications which are climate resilient. As the Climate and Disaster Risk Screening Report found drought to be high risk, exposure and impact both now and in the future, water-conscious designs will also be prioritized. Component 2 (infrastructure networks and logistics) will also integrate climate-informed designs, such as curved roads for rainfall run-off and investigate climate and adaptation opportunities for other investments under this component.
36. PACD's proposed interventions are by nature (agro-forestry – perennial tree-crops) designed to maximize mitigation potential. GHG accounting (see Annex 4) demonstrates that the project can constitute a sizeable net carbon sink of slightly over 390,000tCO2 eq per year over 20 years, thus -7.8 million tCO2 eq in total, mainly due to sustainable land use change from abandoned/ill-managed blocks to perennial tree-crops systems. The risk of deforestation will be closely supervised and totally avoided through the Productive Partnership model. The introduction of improved management practices in existing perennial systems and agricultural management practices such as water conservation techniques will contribute to the sustainability of existing gardens. On the contrary, limited sources of GHG emission are: (i) the increase small livestock herd size (pigs and poultry), despite better productivity, and (ii) the minor increase in insecticide use, notably to fight against coffee and cocoa pests.
37. **Nutrition.** Malnutrition continues to be a serious issue in PNG which has negative implications for human development and the economy. Agriculture can improve nutrition outcomes through multiple pathways,

¹⁷ PNG Multi-Sectoral National Nutrition Policy 2018



including as a source of food, income and women empowerment. Increasing income is alone insufficient to achieve nutrition impacts. Evidence from a recent study (IFPRI, 2018) demonstrated that while calorie intake increased within non-poor households, diet quality remained insufficient: predominately based on starchy staple foods with little-to-no consumption of micronutrient rich foods such as animals source foods, fruits and vegetables. As such, the PACD will create an enabling environment in which income generated by the project can be utilized to improve diet quality - a direct contributor to nutrition. Continuing from the nutrition education component piloted in PPAP, targeting and delivery mechanisms will be improved on. Activities will support the implementation of the PNG Multi-Sectoral National Nutrition Policy, specifically by contributing to achieving objectives 1,2,3 and 4, through financing the following (see details in Annex 2):

- Undertake a household survey to conduct a rapid situation analysis and needs-based assessment to better target PACD nutrition activities;
- Finance nutrition education and behavior change modules that create incentives to allocate income generated via the PACD towards nutrition;
- Promote activities that improve the access to diversified nutritious and local foods all year;
- Advocate for activities to improve nutritional value of food products using nutrition sensitive value chain approaches on the PACD commodities.

38. **Direct beneficiaries:** The primary beneficiaries of the PACD will be the smallholder farmers (and their families), their groups and cooperatives (POs) and MSMEs¹⁸ engaged in crops (cocoa, coffee, coconut, spices) and small livestock production, collection, processing and marketing. MSMEs targeted under the project will include not only farmers, but also the private sector along the value chain. Smallholder farmers refer to farmers who cultivate tree-crops in individual gardens of less than 5 ha or in collective “blocks” of 5 to 20 ha involving several households.

39. GoPNG’s emphasis is on agriculture to accelerate economic growth and generate revenues, this may require a targeted approach towards farmers willing to move from subsistence to semi-commercial or commercial farming (therefore being more selective than in the case of PPAP). However, the smallholder farmers remain the primary direct beneficiaries of the new project, together with the groups and cooperatives formed by those better-off and willing to address common issues collectively. While building on PPAP, the PACD will incorporate a complementary window targeting the more progressive farmers and those who are ready to take risks and form into more commercial alliances under a common set of constraints and opportunities will be explored. Additional direct beneficiaries will be MSMEs (mainly micro- and small private enterprises) involved in agri-business activities (storage, processing, marketing, inputs supply). DAL and Commodities Board staff will also benefit from capacity building interventions.

40. **Commodity Selection.** Through the experiences of PPAP and other agricultural projects in PNG, it has been found that many commodity options do not have the strong entities, LPs and extension services required to provide expertise to farmers. For this reason, the PACD restricts commodities to three, in addition to coffee and cocoa. Coffee and cocoa will remain within the PACD scope because of the sector-wide initiatives (e.g. new tree planting and pest control) that are still important for their development and the need to consolidate achievements started under the PPAP and expand to new Provinces. For more remote communities where

¹⁸ Definition from the PwC Commentary on PNG Government’s SME Policy 2016



access to markets can be a challenge, a focus on low-volume, high-value commodities (such as non-perishable spices) may be a plus.

41. The selection of commodities has been done through commodity analysis during project preparation, using seven agreed criteria for selection¹⁹ – including their synergetic integration into cocoa or coffee farming systems, such as apiculture for coffee and galip nuts for cocoa - and include spices (vanilla, ginger, chili, turmeric, nutmeg, etc.), coconut and small livestock (pigs and poultry). This review will factor in, as much as possible, the multiple priorities outlined below including climate change, nutrition, gender, market access, private sector potential and value-chain viability.
42. Regarding the **geographical scope**, the MTDP III identifies ten “Economic Corridors” for priority services delivery, defining zones for development of public transport and utilities network, social services and integration of economic plans including agriculture. The PACD will align its geographical scope to this GoPNG strategy by selecting provinces that are included or connected to some of these corridors, based on transparent selection criteria, notably (i) consolidating achievements of the PPAP while expanding to new Provinces that should benefit from PPAP delivery model, (ii) converging with GoPNG’s priorities for roads infrastructure network enhancement (notably Ramu Highway and Gulf Corridor); and (iii) harmonization and complementarity with other donors-funded projects (notably the IFAD and EU two new projects). Accordingly, targeted provinces are (i) for consolidation, diversification and stronger focus on quality, markets and POs: Eastern Highlands, Chimbu, Western Highlands, Enga, Jiwaka and Southern Highlands, as well as Madang, East-New Britain (ENB) and the Autonomous Region of Bougainville (AROB), and (ii) for Productive Partnership model expansion on cocoa: Morobe, New Ireland and West New Britain.
43. **Gender.** The PNG Systematic Country Diagnostic (SCD) found that two key impediments to reducing poverty and boosting shared prosperity are (i) gender inequity and gender-based violence; and (ii) limited opportunities for youth. Subsistence agriculture and local trading in both urban and rural contexts are key sustaining elements for women in the economy, who have limited access to formal economic opportunities, services, control over land and household resources. The Guidelines to Support Integration of Gender into WBG Agribusiness Project Design and Implementation found several constraints for women to participate in agribusiness, notably access to land, finance, markets and transport. It also noted that failure to consider the changes needed for both women *and* men in household responsibilities and local norms and values can lead to pushback, or even worse, backlash. To mitigate these constraints, the following will be implemented:
 - Strengthen approaches that promote joint household planning, budgeting and management by adapting and strengthening training packages to shift unequal household gender dynamics, building on approaches successfully tested by partners (notably ACIAR and CARE).
 - Attention will also be paid to closing gender gaps in women’s access to economic opportunities, with a focus on business ownership and management. Just 8 percent of SMEs in PNG are wholly female owned and only 2 percent of Farming SMEs. The management ranks in SMEs are also dominated by men, with 68 per cent of SMEs being wholly/majority male managed, while currently 0 percent

¹⁹ Agreed criteria comprise: (i) competitiveness and existence of a market justifying good return on investments, (ii) availability of technical advisory and extension services for these specific commodities, whether of public or private origin, (iii) tradition of integrating the selected commodities in cocoa and coffee farming system, as a diversification strategy, (iv) importance of women participation in the specific commodities, (v) share of the value-chains’ income remaining with the smallholder producers, (vi) size of the population involved or benefiting from the selected commodities, and (vii) commitment of different level of Government (including Provincial and District) to it.



farming SMEs have majority female management. Therefore, direct Matching Grants (finance), entrepreneurial training, information and infrastructure to improve market access will be provided to increase the numbers of (i) women and men who co-own and/or co-manage farming MSMEs and (ii) women ownership and management of farming MSMEs.

44. As noted previously, GBV is an important barrier in women's successful participation in agricultural and other economically productive activities; addressing GBV prevention and response can therefore contribute to the overall success of the project. It is also important that the project follows a Do No Harm approach; that is, that the project does not create any increased risk of GBV for participants. To achieve these objectives the following actions will be implemented:

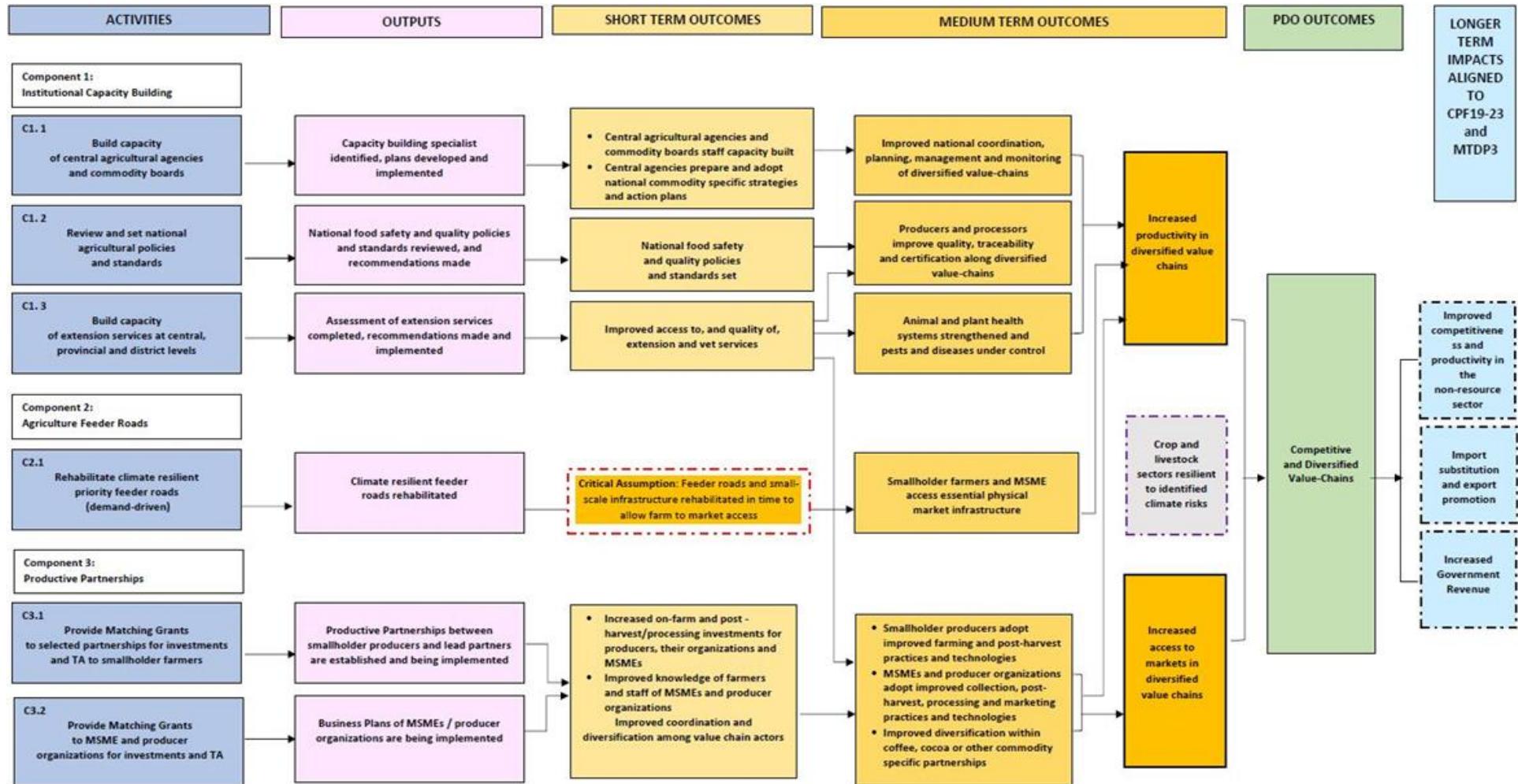
- Partner with an organization such as UN Women to improve the safety of women and girls in public transport and in marketplaces, for example by using Safe Cities and Safe Markets methodologies which identify and respond to risks with and for women and girls.
- Address potential GBV cases and provide appropriate support by: (i) Mapping existing GBV-related services in project areas, (ii) Developing Information, Education, Communication (IEC) materials on these services; (iii) Conducting regular awareness-raising sessions on GBV, consequences and available services in project areas; and (iv) Training project staff on GBV and responding to any disclosures of violence.

D. Results Chain

45. The project's *Theory of Change* (ToC) responds to the following problem statement: "*Weak extension services and lack of access to inputs, infrastructure and markets prevent smallholder farmers and micro, small and medium enterprise (MSME) producers from increasing productivity and competitiveness.*" PACD's activities address the problem statement by focusing on three areas of change: (i) strengthening the institutional capacity of agricultural agencies, commodity boards and extension services; increasing human capital at several levels of the value-chain; and reviewing and reforming key agricultural policies; (ii) rehabilitating rural feeder roads; and (iii) providing finance and technical assistance to smallholder farmers and MSMEs. Expected medium term outcomes include better coordination, planning, management and monitoring of the agriculture sector; animal and plant pests and diseases under control; improved access to essential infrastructure networks and logistics; and improved farming and post-harvest practices and better integration into diversified value chains. The expected PDO level outcomes of increased competitiveness through improved productivity and access to market and diversification of the value-chain beyond coffee and cocoa align with the GoPNG's MTDP3 long term goal of improved export promotion and import substitution.



Diagram 1. Theory of Change





E. Implementation

Institutional and Implementation Arrangements

46. The project will build on the momentum of PPAP where DAL will host a PCU that will coordinate and hire *advisers* in key areas that have proven to be challenging under the PPAP; fiduciary, M&E, safeguards and project management. Under the PACD, the PCU will have a greater role of building capacity within the DAL, the Spices Commodity Board and the Livestock Development Corporation (LDC) and continue to support the two current PMUs (coffee and cocoa) which will remain in place. The two PMUs will also look at diversification towards other commodities (coconut, spices, small livestock) and subject-matter specialists will be hired by the two PMUs in addition to the existing staff under the PPAP. No additional implementing agencies will be added to minimize the complexity it would bring.
47. The Regional DAL offices based in Goroka (for the Highlands), Lae (Momase and Madang) and Kokopo (ENB), as well as the Department for Primary Industry (DPI) in AROB, will play a role in ensuring that PACD interventions are well aligned with national and regional priorities. These offices will help coordinating interventions in their respective geographical areas, while receiving direct support from the project to build their internal capacity to deliver services to producers. They will also be trained to continue supporting PPAP farmers and monitor their progress (consolidating POs, increased productivity of pruned or replanted trees (notably clones in cocoa)), through a specific *outreach program* under Component 3.
48. The two Industry Coordination Committees (ICC) for cocoa and coffee established under the PPAP will remain and continue providing oversight and strategic guidance. Their composition is made of representatives from (i) the private sector, (ii) the CIC or CB, (iii) the Provincial Government, and (iv) the central and regional DAL. Representative from the KIK, Spices Commodity Board and LDC will be added for the PACD as both coffee and cocoa production areas may invest in coconut, spices and small livestock production. The ICC will also provide final approval on the proposed new Partnerships to be financed under the Component 3 and the Matching Grants sub-projects.
49. Experience from the PPAP demonstrated the difficulties of having commodity boards (CB and CIC) responsible for implementing infrastructure works. There is a need for mainstreaming such processes in the specialized Ministry, therefore the Department of Works (DOW), as the main agency responsible for roads, will be responsible for processing procurement of the *Component 2: Infrastructure networks and logistics*, and will support the implementation of the accessibility component including feeder roads.
50. PACD's M&E System is designed to assess whether the expected changes described in the Theory of Change (see Diagram 1 above), and translated into indicators in the Results Framework, effectively take place. It includes a Management Information System (MIS), internal progress reporting and impact evaluation surveys on production and Matching Grants. The overall M&E Framework is built on the experience and lessons learnt from PPAP. While data collection and verification has remained an inherently weak point during PPAP, the system under PACD will include mitigating measures to strengthen these processes.
51. *Management Information System (MIS):* The MIS will be an important part of the project's M&E system, recording and presenting information on many indicators of the Results Framework and supplementing the impact evaluation surveys. It will be modelled on the system developed for PPAP and draw from its implementation. As with the PPAP, it will perform two important functions: (i) a management tool with the capability to monitor project activities effectively and efficiently; (ii) a strategic information resource with a growing database of farmers, farms, yields, sales, and other key sector-wide information, designed to



become the foundation of comprehensive sectoral and national information systems in the future. With the expansion of value chains, activities and geographical coverage envisaged in PACD, both aspects assume even greater importance. The availability of accurate and timely monitoring information will be fundamental to the project's ability to scale up its current operations.

F. Project location and Salient physical characteristics relevant to the safeguard analysis (if known)

PNG is characterized by diverse agricultural and ecological environments, tropical climate and fertile soils. Physical characteristics vary considerably between regions and will be described once project location and sectors are confirmed. The geographical scope of the project will consist of core coffee and cocoa producing areas in the Eastern Highlands, Chimbu, Western Highlands, Enga, Jiwaka and Southern Highlands (Highland Region), as well as Madang, East-New Britain (ENB) and the Autonomous Region of Bougainville (AROB) (Islands Region). Information outlined in the National Research Institute's District and Provincial Profiles (2010) is presented below: - The 6 Provinces in the Highlands are characterized by an average population density of between 21 people (Southern Highlands) to 48 people (Western Highlands) per km². Enga has only one major linguistic group – the Engans, while EHP has 27 of them. HHs are mainly engaged in coffee, food crops and small livestock. - Madang (28,886 km², population of 365,106 (47.9% female), density of 12.6 people per km²). There are approx. 174 linguistic groups. The province includes the Ramu, Sogera and Golgol valleys. HHs are engaged in food crops (76.3%), betel nut (70.7%), coconut (58.6%), cocoa (39.7%) and pigs (39.3%). The East Cape highway runs from Bogia to Madang and the Ramu highway connects Madang with Lae (Morobe Province). - AROB (9,384 km², population of 175,160 (48.6% female), density of 18.7 people per km²). There are approx. 29 linguistic groups. The province includes the main island of Bougainville, Buka island and several smaller islands. HHs are engaged in coconut (79.5%), food crops (76.7%), cocoa (71.0%), betel nut (64.9%) and poultry (55.8%). The most productive agricultural areas are located in northern Bougainville and Buka. - ENB (15,274 km², population of 220,133 (47.4% female), density of 14.4 people per km²). There are approx. 29 linguistic groups. The province includes the Gazelle Peninsula, Baining Mountains, Keravat and Warangoi valleys and Watom and Duke York islands in the north; and the Nakanai mountains and Ania, Melkoi and Megigi valleys in the south. The main agriculture production area is situated on the Gazelle peninsula. HHs across the province are engaged in food crops (74.4%), betel nut (66.1%), coconut (64.0%), cocoa (60.4%), and pigs (37.2%). Water transport is common along the coast and major rivers in the coastal/islands Provinces covered by the PACD.

G. Environmental and Social Safeguards Specialists on the Team

Thomas John Callander, Social Specialist

Nicholas John Valentine, Environmental Specialist

Nathalie Suzanna Noella Staelens, Environmental Specialist

**SAFEGUARD POLICIES THAT MIGHT APPLY**

Safeguard Policies	Triggered?	Explanation (Optional)
Environmental Assessment OP/BP 4.01	Yes	<p>The project has been determined as Category B. The proposed investments are small-scale and potential adverse impacts can be managed. There are no potential large-scale, significant or irreversible impacts associated with the project.</p> <p>The project will finance small collective infrastructure for partnerships (Component 3) including innovative technologies, notably on climate smart agriculture (agro-forestry, water collection and micro-irrigation, drought resistance varieties, intensification of small livestock production (poultry, pigs) and bio-digesters) that have the potential for positive impacts on the environment; and small processing facilities (small pulpers and wet processing plants for coffee, or fermenting and drying equipment for cocoa). Negative environmental and social impacts associated with these activities are expected to be minor, localized and temporary primarily because of their small-scale nature and household/community focus.</p> <p>The project will invest in infrastructure networks to improve access to market (Component 2). This will involve the rehabilitation of feeder roads and the development of small-scale community infrastructure (e.g. small-scale slaughter house and laboratories). These small-scale investments have the potential to cause some minor adverse environmental and social impacts however these are readily managed through standard mitigation measures.</p> <p>An Environmental and Social Management Framework (ESMF) has been prepared as specific locations of the investments will not be known until implementation and will be determined through the partnership/grant process. The ESMF has incorporated the requirements of the World Group's</p>



		<p>Environmental, Health and Safety Guidelines (EHSGs) and industry specific guidelines for agribusiness, food production and pesticides management.</p> <p>The project also includes a Contingency Emergency Response Component to support emergency activities that ensure continued achievement of the project development objective. The ESMF outlines the approach and principles for managing potential E&S impacts and risks of the CERC including a screening process in accordance with the World Bank's Rapid Response to Crises and Emergencies: Procedural Guidelines.</p>
Performance Standards for Private Sector Activities OP/BP 4.03	No	<p>The Borrower/ Lead implementer is the Government, not a Private Entity.</p>
Natural Habitats OP/BP 4.04	No	<p>The project will not finance any activities that significantly convert or degrade any protected areas or natural habitats as the screening procedures in the ESMF excludes all subprojects with these impacts.</p>
Forests OP/BP 4.36	Yes	<p>Potential project target sectors including coffee, cocoa and spices are frequently associated with agro-forestry in PNG, often in a positive way. No adverse impacts on forests are anticipated. The ESMF contains measures to properly manage the risk of any unforeseen adverse environmental impacts of these activities.</p>
Pest Management OP 4.09	Yes	<p>The project will support the sustainable use of chemical fertilizers and pesticides within an holistic farm management model and integrated pest management approach. The client has reviewed and updated the current PPAP Integrated Pest Management (IPM) following the standards and requirements set forth in OP4.09 and the World Group's Environmental, Health and Safety Guidelines (EHSGs) for agribusiness and food production. The project will include measures to strengthen the institutional capacity for implementing IPM in project areas. This will include a stronger focus on health and safety.</p>
Physical Cultural Resources OP/BP 4.11	No	<p>The project will not finance any activities that will have impacts on physical cultural resources. Screening and chance find procedures are included</p>



		<p>in the ESMF to exclude all subprojects with these impacts.</p>
Indigenous Peoples OP/BP 4.10	Yes	<p>The project is likely to be located in areas where Indigenous Peoples are the sole or the overwhelming majority of direct project beneficiaries. Accordingly, a separate Indigenous Peoples Planning Framework (IPPF) has not been prepared. Rather, in accordance with the provisions of OP 4.10, the elements of an IPPF have been included in the overall project design.</p>
		<p>The ESMF outlines steps for ensuring free and prior informed consultation are undertaken and broad community support is achieved for each Partnership and Infrastructure activity under Components 2 and 3 respectively. This includes a Beneficiaries Partnership Framework and Consultation Guidelines.</p>
		<p>A Social Assessment has been conducted across target sectors/provinces during project preparation to inform project design and included consultations with farming communities, local level government representatives, grower associations and cooperatives, youth and women's groups, extension workers, the private sector, and other relevant stakeholders.</p>
Involuntary Resettlement OP/BP 4.12	Yes	<p>No involuntary land acquisition is expected under the project. The majority of sub-projects will be undertaken on customary land with the voluntary participation of grants scheme recipient landowners. The only exception will be the feeder roads rehabilitation which will be either on Government-owned land or land secured via voluntary land donation. A Resettlement Policy Framework (RPF) has been prepared to address these potential scenarios. The RPF includes a voluntary land donation protocol to ensure that this approach is properly used, verified and documented.</p>
Safety of Dams OP/BP 4.37	No	<p>The project will not finance any dams as defined under OP 4.37.</p>
Projects on International Waterways OP/BP 7.50	No	<p>The project does not impact or relate to any known international waterways as defined under the policy.</p>
Projects in Disputed Areas OP/BP 7.60	No	<p>The project is not located in any known disputed areas as defined under the policy.</p>



KEY SAFEGUARD POLICY ISSUES AND THEIR MANAGEMENT

A. Summary of Key Safeguard Issues

1. Describe any safeguard issues and impacts associated with the proposed project. Identify and describe any potential large scale, significant and/or irreversible impacts:

The Project is expected to have a positive impact on rural communities and local economies in PNG by increasing improving the livelihoods of smallholder farmers and micro, small and medium enterprises (MSMEs) and supporting greater economic empowerment for women.

Increased incomes have the potential to lead to community health and safety issues including increased alcohol abuse and gender-based violence and spread of sexually transmitted diseases. Labor influx associated with feeder road construction also presents similar health and safety risks, especially in remote communities. Project interventions supporting economic empowerment for women also have the potential to compromise safety and well-being of women. Key issues include increased workloads, conflicts with spouses, and increased risk of gender-based violence. These issues will be managed through a 'do no harm' approach integrated into project design including strengthened approaches that promote joint household planning, budgeting and management; partnering with organisations to improve safety of women and girls in public transport and in marketplaces, and strengthening awareness about GBV related services in project areas and the capacity of project staff to respond to any cases that may arise.

No involuntary land acquisition is expected under the project. Activities involving the siting of collective infrastructure facilities and feeder roads which will be either on Government-owned land or land secured via voluntary land donation. These activities may result in the minor damage/loss of food gardens, economic assets and small structures and in turn affect rural livelihoods. A Resettlement Policy Framework (RPF) has been prepared to address these potential scenarios.

The project will be implemented across a wide geographical area, targeting a diverse mix of IP groups, with different governance structures, customs and language and pre-existing tribal relationships/conflicts. This heightens risk of community dissatisfaction regarding perceived or real inequities during project implementation including people's ability to join partnerships, access to community infrastructure, allocation of PO's and MSME grants and the prioritization of target feeder roads as well as the potential for disproportionate impacts on vulnerable groups. These impacts are expected to be readily managed through free, prior and informed consultation and rigorous grievance redress.

2. Describe any potential indirect and/or long term impacts due to anticipated future activities in the project area:

The project is not associated with any expected negative indirect or long-term impacts. The investments in agriculture productivity and local infrastructure are expected to provide a long-term benefit for farming communities. Furthermore the productivity of these enterprises is dependent on the maintenance of healthy natural habitats; hence communities will be incentivized to ensure that habitat values are not compromised.

3. Describe any project alternatives (if relevant) considered to help avoid or minimize adverse impacts.

Not relevant.

4. Describe measures taken by the borrower to address safeguard policy issues. Provide an assessment of borrower



capacity to plan and implement the measures described.

The project will be implemented by the Department of Agriculture and Livestock (DAL - lead agency) through a Project Coordination Unit (PCU), with two specific Project Management Units (PMUs) established in the Cocoa Board (CB) and Coffee Industry Corporation (CIC).

Capacity for implementing safeguard policies is currently weak. The project will utilize/strengthen the current PPAP's PCU and PMU structures to address safeguard capacity gaps identified during the review of PPAP and the PACD ESMF development process. The PCU will hire an Environmental and Social (E&S) Adviser to coordinate the implementation of safeguards requirements across the project and support PMUs to resolve emerging safeguards issues. The E&S Adviser will develop and coordinate safeguards related project training/capacity building activities. Safeguard capacity within the PMU's will also be strengthened with the hiring of (2) Environmental and Social Safeguard Officers (ESSOs) who will provide safeguards support for both component 2 and 3 activities.

5. Identify the key stakeholders and describe the mechanisms for consultation and disclosure on safeguard policies, with an emphasis on potentially affected people.

The key stakeholders include smallholder farmers (and their families), their groups and cooperatives and micro-, small and medium enterprises (MSMEs) engaged in crops (cocoa, coffee, spices) and small livestock production, collection, processing and marketing. MSMEs targeted under the project will include not only farmers, but also the private sector along the value chain. Other stakeholders include the DAL, statutory bodies in charge of commodities (Cocoa Board, Coffee Industry Corporation, Kokonas Indastri Koporesen (KIK – Coconut Industry Corporation), Spices Industry Board, the Livestock Development Corporation (LDC)), provincial administrations, local level governments (LLGs); central agencies with potential roles in permitting/approvals including the DoW, Conservation and Environment Protection Authority, Department of Commerce and Trade (DCT) (cooperatives), and Department of Lands and Physical Planning; and other international development agencies working in agricultural sectors.

B. Disclosure Requirements

Environmental Assessment/Audit/Management Plan/Other

Date of receipt by the Bank	Date of submission for disclosure	For category A projects, date of distributing the Executive Summary of the EA to the Executive Directors
01-May-2019	03-May-2019	

"In country" Disclosure

Papua New Guinea

06-May-2019

Comments

ESMF notably disclosed on Cocoa Board Website - <http://www.cocoaboard.org.pg/ppap-pacd/>
CIC Website - <http://www.cic.org.pg/2016/07/14/ppap/>
KIK website - <http://www.kik.com.pg/market-reports/#PACD>
and DAL Website - <http://www.agriculture.gov.pg/projects/ppap/>

Resettlement Action Plan/Framework/Policy Process



Date of receipt by the Bank
01-May-2019

Date of submission for disclosure
03-May-2019

"In country" Disclosure

Papua New Guinea
06-May-2019

Comments

RPF notably disclosed on Cocoa Board Website - <http://www.cocoaboard.org.pg/ppap-pacd/>
CIC Website - <http://www.cic.org.pg/2016/07/14/ppap/>
KIK Website - <http://www.kik.com.pg/market-reports/#PACD>
and DAL Website - <http://www.agriculture.gov.pg/projects/ppap/>

Indigenous Peoples Development Plan/Framework

Date of receipt by the Bank
01-May-2019

Date of submission for disclosure
03-May-2019

"In country" Disclosure

Papua New Guinea
06-May-2019

Comments

Social Assessment included in the Safeguards Impacts Baseline Report (volume 2 of ESMF)

Pest Management Plan

Was the document disclosed prior to appraisal?

Yes

Date of receipt by the Bank

01-May-2019

Date of submission for disclosure

03-May-2019

"In country" Disclosure

Papua New Guinea
06-May-2019

Comments

IPMP included in the ESMF as Annex 7

If the project triggers the Pest Management and/or Physical Cultural Resources policies, the respective issues are to be addressed and disclosed as part of the Environmental Assessment/Audit/or EMP.

If in-country disclosure of any of the above documents is not expected, please explain why:

**C. Compliance Monitoring Indicators at the Corporate Level (to be filled in when the ISDS is finalized by the project decision meeting)****OP/BP/GP 4.01 - Environment Assessment**

Does the project require a stand-alone EA (including EMP) report?

Yes

If yes, then did the Regional Environment Unit or Practice Manager (PM) review and approve the EA report?

Yes

Are the cost and the accountabilities for the EMP incorporated in the credit/loan?

Yes

OP 4.09 - Pest Management

Does the EA adequately address the pest management issues?

Yes

Is a separate PMP required?

No

If yes, has the PMP been reviewed and approved by a safeguards specialist or PM? Are PMP requirements included in project design? If yes, does the project team include a Pest Management Specialist?

NA

OP/BP 4.10 - Indigenous Peoples

Has a separate Indigenous Peoples Plan/Planning Framework (as appropriate) been prepared in consultation with affected Indigenous Peoples?

No

OP/BP 4.12 - Involuntary Resettlement

Has a resettlement plan/abbreviated plan/policy framework/process framework (as appropriate) been prepared?

Yes

If yes, then did the Regional unit responsible for safeguards or Practice Manager review the plan?

Yes

OP/BP 4.36 - Forests

Has the sector-wide analysis of policy and institutional issues and constraints been carried out?

NA



Does the project design include satisfactory measures to overcome these constraints?

Yes

Does the project finance commercial harvesting, and if so, does it include provisions for certification system?

No

The World Bank Policy on Disclosure of Information

Have relevant safeguard policies documents been sent to the World Bank for disclosure?

Yes

Have relevant documents been disclosed in-country in a public place in a form and language that are understandable and accessible to project-affected groups and local NGOs?

Yes

All Safeguard Policies

Have satisfactory calendar, budget and clear institutional responsibilities been prepared for the implementation of measures related to safeguard policies?

Yes

Have costs related to safeguard policy measures been included in the project cost?

Yes

Does the Monitoring and Evaluation system of the project include the monitoring of safeguard impacts and measures related to safeguard policies?

Yes

Have satisfactory implementation arrangements been agreed with the borrower and the same been adequately reflected in the project legal documents?

Yes

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Implementing Agencies

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