

Annex I: Description of the Action (including the Logical Framework of the Action)

Project Title:	Support to Rural Entrepreneurship, Investment and Trade in Papua New Guinea (STREIT PNG)
Project symbol:	UNJP/PNG/010/EC
Recipient Country:	Papua New Guinea
Government(s)/other counterpart(s):	Government of Papua New Guinea, Department of Agriculture and Livestock, National Fisheries Agency, Department of Works
Expected EOD (Starting Date):	01 January 2020
Expected NTE (End Date):	31 May 2024
Contribution to FAO's Strategic Framework:	<ul style="list-style-type: none"> • Strategic Objective/Organizational Outcome: <p>SO4 - Enable more inclusive and efficient agricultural and food systems - OO: 402 - Agribusinesses and agrifood chains that are more inclusive and efficient are developed and implemented by the public and private sectors. 40203 - Value chain actors are provided with technical and managerial support to promote inclusive, efficient and sustainable agrifood chains. (65%) 40201 - Public sector institutions supported to formulate and implement policies and strategies, and to provide public goods that enhance inclusiveness/efficiency in agrifood chains (15%).</p> <p>SO 2 - Increase and improve provision of goods and services from agriculture, forestry and fisheries in a sustainable manner - Organizational Outcome: 201 - Producers adopt practices that increase and improve agricultural sector production in a sustainable manner. 20103 - Organizational and institutional capacities of public and private institutions and networks are strengthened to support innovation and the transition toward more sustainable agricultural production systems (25%).</p> • Country Outcome(s): The CPF for Papua New Guinea (2018-22) identifies three main priority areas, the third being Sustainable and inclusive economic development and job creation in rural areas and specifically: 3.1. Income, employment and food security is increase in the area of the intervention: 3.2. Strong and efficient agricultural and fisheries value chain enablers established. • Regional Initiative/Priority Area: Zero Hunger Challenge



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Env and Social Risk Classification	low risk <input checked="" type="checkbox"/> moderate risk <input type="checkbox"/> high risk <input type="checkbox"/>
Gender Marker ¹	G0 <input type="checkbox"/> G1 <input type="checkbox"/> G2a <input checked="" type="checkbox"/> G2b <input type="checkbox"/>
Total Budget:	EU contribution: USD 89,470,440.64 - EUR 81,300,000 ² FAO co-funding: USD 333,149.23 - EUR 300,000 Total amount: USD 89,800,589.87 - EUR 81,600,000

Executive Summary Papua New Guinea (PNG) is one of the most culturally diverse countries in the world with over 800 languages and 1,000 ethnic groups. Over 80 percent of its 8 million population live in rural areas. The agriculture sector employs an estimated 80 percent of the population and accounts for approximately 27 percent of GDP. In addition to significant energy and extractive industries, cocoa, vanilla and fisheries are important value chains in terms of both income generation as well as household food security and nutrition. Based on the development priorities of Papua New Guinea, this Programme entitled “**Support to Rural Entrepreneurship, Investment and Trade in Papua New Guinea**” (STREIT PNG) has been developed with the general objective to increase sustainable and inclusive economic development of rural areas. The two integrated specific objectives (SO) of the Programme are:

SO1: Increased economic return from three selected value chains in the selected regions with planned results in increased sustainable production and inclusiveness of the Cocoa, vanilla and fisheries value chains (riverine, coastal and aquaculture). Major outputs include increased volume, value and improved quality of cocoa, vanilla and fisheries products, more value addition and an increased number of enterprises and people engaging in and benefitting from both income increases and enhanced food security and nutrition at household level and;

SO2: Strengthened, climate resilient and more efficient value chain enablers with planned results in a more conducive business, trade, policy and regulatory environment for sustainable rural agripreneurs and MSME’s established; value chain support services strengthened and resilient to climate change impacts; increased production of and access to renewable energy systems and Improved and climate proof rural transport infrastructure. Major outputs include an increased number of people employed and agripreneurs and MSME’s engaged in the selected value chains benefitting from reduced transaction cost and time, improved access to finance, increased availability and used of digital tools and services. Increased availability of renewable energy, improved energy efficiency and access to improved transport to include rehabilitated and better maintained roads, jetties and landing sites are also foreseen.

These planned results and outcomes will be delivered through tailored activities designed to overcome the specific value chains limitations as identified under the EU Value Chain for Development such as production and disease/pest issues such as the Cocoa Pod borer in an environmentally sustainable manner as well as improving the business environment for local MSME’s to engage in and benefit from these value chains. In line with government policy, significant investments are planned in infrastructure such as roads, jetties, landing sites and provision is also made for supporting national level improvements in relevant value chain related policy, strategy and regulations. The Programme will enable ‘hard components’ (transport infrastructure, improved energy access) to be connected with ‘soft components’ such as financing, training, market access, trade and other value chain support services for commodities, facilitated by the sustainable implementation of digital technologies, services and solutions, under a conducive business environment in order to foster and stimulate climate-resilient rural development activities.

This Programme Document addresses the EU Action and Financing Agreement as approved by the Government of Papua New Guinea and EU and will be built around four mutually reinforcing pillars: i) business enabling environment; ii) support services, key for the development of value chains; iii) climate-proof physical infrastructure (including transport, telecommunication and renewable energy) and iv) community engagement, in particular of women and youth. The geographical scope of the programme will initially be focused on the East Sepik and Sandaun provinces. After the mid-term review of the programme, cocoa value chain development activities will be considered for expansion to the neighbouring provinces of Morobe and Madang for those activities that require heavier

¹ See FAO Guidance Note on ‘Gender Mainstreaming in project identification and formulation’

² As per infoReuro exchange rate of December 2019- 1.1005 USD/EUR

localised investment. The Programme could also include a scope for expansion to the regional and/or national level when possible. Throughout the Programme, particular attention will be paid to community engagement, with an emphasis on women and youth who are the most vulnerable part of the population.

The programme will be implemented as a United Nations Joint Programme in partnership with the Government of Papua New Guinea. The main institutional partners will be the Department of Agriculture and Livestock (lead counterpart), the Department of Trade, Industry and Tourism, the Department of National Planning and Monitoring (as currently hosting the National Authorized Officer of the European Development Fund), the Department of Works, the National Fisheries Authority and many more. Additional important semi-state partners will include the Cocoa and Spice Boards, local SME organizations such as SMEC, NGO's such as Women in Agriculture, SME groups and associations, Chambers of Commerce and academic and training institutions such as the Sepik Rural Technology College. The Food and Agriculture Organization (FAO) of the UN will be the signatory of a Contribution Agreement with the EU and manage the effective co-ordination and implementation of the project with its UN Partners ILO, UNCDF, UNDP and ITU as well as with other partners that will be identified during the inception phase.

The project will have a five-year duration with a one-year inception period included to ensure consultative processes and optimise risk management and effective partnerships.

Administrative and Physical Map of Papua New Guinea



Disclaimer: The designations employed and the presentation of the material on this map do not imply the expression of any opinion whatsoever on the part of the Food and Agriculture Organization of the United Nations or the European Union concerning the legal status of any country, territory, city or area or of its authorities, or concerning the delimitation of its frontiers or boundaries.



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ACRONYMS

AAACP - All ACP Agricultural Commodity Programme
ACP – African Caribbean and Pacific
ADB – Asian Development Bank
ANPR - Annual Narrative Progress Report
AWPB – Annual Work Plan and Budget
BH – Budget Holder
B2B – Business to Business
CN - Concept Note
CPF - Country Programming Framework
CSO – Civil Society Organizations
CTA – Chief Technical Advisor
CPF – Country Programming Framework (FAO- GoPNG)
DAL – Department of Agriculture and Livestock
DCIE – Department of Communications, Information and Energy
DNPM – Department of National Planning and Monitoring
DSA – Daily Subsistence Allowance
EC – European Commission
EDF – European Development Fund
EFA – Economic and Financial Analysis
EIB – European Investment Bank
EU – European Union
FAFA – Financial and Administrative Framework Agreement between the European Community and the UN
FAO - Food and Agriculture Organization of the United Nations
FO - Farmer Organisation
EU/FAO FIRST – Food and Nutrition Security Impact, Resilience, Sustainability Transformation Programme
FI - Financial Institutions
FNS - Food and Nutrition Security
FPIC – Free Prior and Informed Consent
GDP – Gross Domestic Product
GEF - Global Environment Facility
GI – Geographic Indication
GOE – General Operation Expenses
GoPNG - Government of Papua New Guinea
HACCP - Hazard Analysis Critical Control Point
HDI – Human Development Index
HRBA – Human Rights Based Approach
IBM – Inclusive Business Model
ICT – Information and Communications Technology
IFAD – International Fund for Agricultural Development
IFI – International Financial Institutions
ILO – International Labour Organization
IMF- International Monetary Fund
ITU – International Telecommunication Union
K – Kina (PNG)
K&M – Knowledge Management
LFM – Logical Framework Matrix
LLG – Local Level Government
LoA – Letter of Agreement
LTO – Lead Technical Officer
LTU – Lead Technical Unit



MoTI&T – Ministry of Trade, Industry and Tourism
 MRDBS - Ministry of Regional Development and the Bureau of Standards
 M&E – Monitoring and Evaluation
 NAO – National Authorizing Officer of the EDF (DNPM)
 NARI – National Agricultural Research Institute
 NGOs – Non-Governmental Organizations
 NICTA – National Information and Communications Technology Authority
 NIP – National Indicative Programme
 NPC – National Project Coordinator
 OO – Organizational Outcome
 P2P – Peer to Peer
 PA or PO – Producers Association or Producer Organization
 PGK – Papua New Guinea Kina (currency)
 PIMU – Project Implementation and Management Unit (Project Coordination Unit)
 PPAP – Productive Partnerships Agriculture Programme (WB, IFAD and EU funded)
 PSC – Project Steering Committee
 PSV – Public Service Vehicle
 PTF – Project Task Force
 RAP – FAO Regional office for the Asia Pacific
 RBB – Results Based Budgeting
 RBM – Results Based Management
 REDD - Reduced Emissions from avoided Deforestation and Forest Degradation
 SAMOA - SIDS Accelerated Modalities of Action
 SDG - Sustainable Development Goals
 SFVCD - Sustainable Food Value Chain Development
 SIDS - Small Island Developing States
 SLC - FAO Sub-Regional Office for the Caribbean
 SME – Small and Medium Enterprises
 SMEC – Small and Medium Enterprise Corporation
 SO - Strategic Objectives
 SP – Service Providers
 SPS – Sanitary and Photo-Sanitary
 TCP – Technical Cooperation Project
 TDS – Total Diet Study
 TOR - Terms of Reference
 TSS – Technical Support Services
 UNCDF – United Nations Capital Development Fund
 UNCT – United Nations Country Team
 UNDAF – United Nations Development Assistance Framework
 UNDP – United Nations Development Programme
 UNEG –United Nations Evaluation Group
 UNICEF – United Nations International Children’s Education Fund
 UNRC – United Nations Resident Coordinator
 VC – Value Chain
 VC4D – Value Chain for Development
 UN – United Nations
 WB – World Bank
 WTO – World Trade Organization



SECTION 1 – RELEVANCE

1.1 GENERAL CONTEXT

1.1.1 Rationale

Country context:

Papua New Guinea (PNG) is one of the most culturally diverse countries in the world with over 800 languages and 1,000 ethnic groups³. It has a total land area of approximately 460,000 km² comprised of 600 islands of various sizes. The country is separated into four regions – Highlands, Islands, Momase and Southern – and 22 provinces. In 2017, its population was estimated at 8 million⁴ and of this over 80 percent live in rural areas. PNG is a relatively stable democracy. Real GDP growth was estimated at 2.8 percent in 2017, and slowed further to 0.3 percent in 2018, largely due to a contraction in the extractive sector following the February 2018 earthquake in the highlands. The country is dominated by two main sectors: the formal, capital-intensive mining and energy sector and the agriculture sector which, employs an estimated 80 percent of the population and accounts for approximately 27 percent of GDP⁵. Despite considerable natural wealth and reasonable economic performance, PNG's rural population continues to face significant challenges. More details on PNG main socio-economic indicators are detailed in Appendix VII.

PNG's Human Development Index (HDI) ranking was 155 in 2010 and improved by one place to 154 in 2015, the second lowest in the Pacific². PNG has the fourth highest child stunting rate in the world (more than double the global average) with almost one in two children in PNG suffering stunted growth from chronic malnutrition. Malnutrition rates increased from 43.5% in 2005 to 49.5% in 2015. Stunting occurs in children across all wealth classes in PNG (varying from 36% for those from wealthiest group to 55% for the poorest). It is estimated that malnutrition had an estimated cost to the PNG economy of \$USD508 million in the 2015-16 financial year (2.81% of the reported annual GDP). Within PNG, the highest child stunting rates are reported in the Momase region and highlands.

The disparity between rural and urban living conditions is exacerbated by the country's difficult and disperse terrain and islands which increases hardship, poverty, and isolation in rural areas, and limits access to basic inputs and services, road infrastructure, transport and 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. Most of the rural population do not have access to any source of electricity. An estimated 15% of the population have reliable access to telecommunications.

PNG is ranked 136 out of 157 in the World Bank's Human Capital Index and 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. Gender inequalities contribute to the underperformance of the sector.

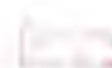
With its highly diverse terrain and locations along a major earthquake fault line, the country is subject to both El Niño and La Niña events and both can have significant impacts such as severe droughts, landslides and flooding from increased rainfall. The World Risk Report 2016 ranks PNG as

³ www.worldbank.org

⁴ PNG Systematic Country Diagnostic (October 2017 draft), World Bank.

⁵ PNG Economic Update (November 2017), World Bank.

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



10th, due to the country's high exposure to natural disasters and its high social and economic vulnerability to these events⁷. The February 2018 magnitude 7.5 earthquake and aftershocks affected 544,368 people across five provinces.

PNG is endowed with abundant renewable energy resources, yet only about 13% of the household population has access to electricity. Where power is available (generally in the main urban centres), the supply is often unreliable. PNG has significant underutilized indigenous energy sources such as hydro, natural gas, geothermal, solar-based systems and wind, development of these resources would accelerate PNG's potential to sustain economic growth and enhance the electrification rate (PNG National Energy Policy 2016-2020). Under the PNG Vision 2050, PNG will be 100% powered by renewable energy sources. In the path of achieving PNG Vision 2050, the Asia-Pacific Economic Cooperation (APEC, held in November 2018 in Port Moresby) announced 70% of PNG population will be connected to electricity by 2030. This announcement led to a partnership agreement with Australia, Japan, New Zealand and Japan to develop and roll out new electricity infrastructure in the country.

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. Riverine transport is important in the programme area for the focus value chains. These factors force farmers to walk long distances⁸ to meet local PSV or boat transport and pay high prices to move themselves and goods, reducing their profits and increasing the risk of lost produce due to weather, time and insecurity.

Sector context:

Agriculture is the predominant source of livelihood in PNG. It accounts for an estimated 80% of the total labour force and contributes 27% to GDP. *Cocoa, vanilla and coffee* are key cash crops while fisheries are important for both economic well-being as well as directly for food security and nutrition. PNG is considered a small cocoa but large vanilla producer in the international market. However the high quality of its vanilla and fine flavour cocoa is recognized and sought after. Smallholders supply 95 percent of the cocoa and vanilla produced in PNG and all coastal and inland fisheries in the Sepiks.

The World Bank suggests that agriculture in PNG continues to underperform, and is characterized by low productivity and lack of competitiveness. Constraints remain in place limiting the development of cocoa, vanilla and fisheries as agribusinesses for many smallholder farmers. These include: high transaction costs due to poor economies of scale; lack of access to information and technologies due to poor extension services; poor rural infrastructure; insecurity in transport; uncertainty about land ownership and tenure; and lack of access to finance. The private sector is comprised of many local small and medium enterprises, a few larger national agribusinesses and multinationals mostly engaged in cocoa and vanilla. Microenterprises are also important mostly as aggregators and transporters linking logistically isolated smallholders to markets and input and service providers. Multinationals continue to invest in tuna fisheries and associated onshore processing of tuna catches. Private sector investment in coastal and inland fisheries is principally by small and micro enterprises.

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. The main agricultural exports of the country include cocoa, coffee, coconuts, palm oil, rubber, and tea. The

⁷ El Nino + UNU-EHS, 2016. World Risk Report 2016

⁸ One vanilla producer interviewed in Maprik in 2018 had walked two days to get access to a PSV and then 6 hrs on the PSV to reach Maprik to sell his cured vanilla.



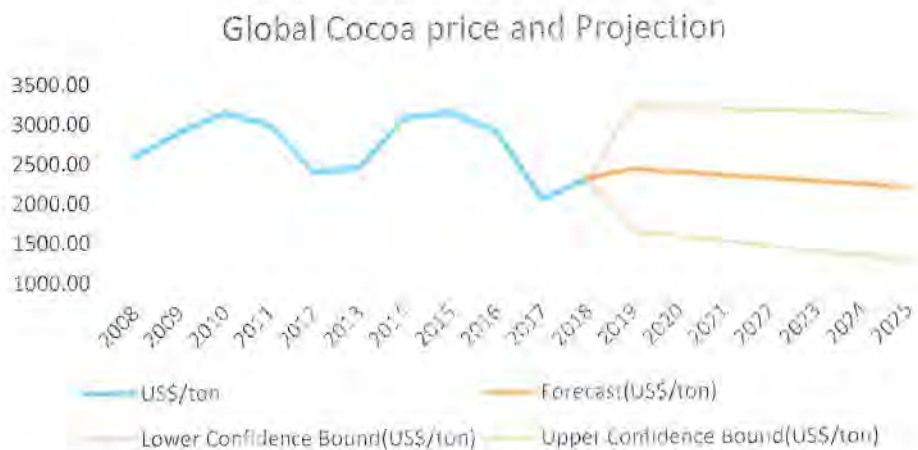
predominant mode of farming is in smallholder farms of less than 5 ha. Village agriculture, which supports over 80 percent of the population, remains dominated by subsistence food production. It generates some valuable cash income and is characterized by low productivity. Agriculture is dominated by subsistence production and 55% of the population active in subsistence agriculture are women, employing 70.3% of the female rural population. It provides employment for over 82% of the rural population. However there is little downstream processing and poor participation of smallholder producers in value chains and other productive economic and enterprise activities.

Cocoa is the third most significant agriculture crop in terms of its economic importance to PNG, after oil palm and coffee. It is a rural-based crop mainly cultivated by rural village farmers and contributes over K300 million (approx. USD 100 million) to the Gross Domestic Product (GDP) annually. About 151,000 households (representing over 2 million people) in the coastal regions of PNG depend on cocoa as a main cash crop and Cocoa production hugely affects the rural livelihoods.

At present, over 95% of Cocoa is produced by smallholder growers and less than 5% from the plantation sector. The Cocoa industry employs 31% of the national labour force (Cocoa Industry Strategic Plan, 2016-2025). Smallholders practice low-input and low-cost production systems. Average dry bean yield is just above 300 kilograms/hectare/year while the genetic potential of improved Cocoa hybrid clones is about 2,500 kilograms/hectare/year under improved management conditions.

The World Bank forecasts the Cocoa price will rise from USD 2.3/kg to USD 2.47-2.5/kg by 2022⁹. Based on the FAO and EU economic analysis of Cocoa production in the Sepiks in 2018/9, Cocoa production is profitable for smallholders when the dry bean price is >4.1PGK/kg¹⁰, equivalent to US\$1.24/kg. In the past few years, the dried bean price ranged from 5 to 7 PGK/kg, equivalent to US\$1.51- 1.81/kg during the production season. In April 2019, the price paid to farmers was 7PGK/kg of dried beans (delivered in Store e.g. in Maprik) by traders/Agmark. The basis for the project economic sustainability therefore appears quite positive for Cocoa Value Chain development with a highly conservative base figure of 5 PGK/kg dry beans delivering a minimum of 25% Internal Rate of Return (IRR) using traditional fermentary practices and a high IRR with the improved technologies/practices supported by the project.

Figure 1: Global Cocoa Price trend and projection



Source: ICCO website, accessed May 2019.

⁹ World Bank Group. 2019. Commodity Markets Outlook, April. World Bank, Washington, DC. License: Creative Commons Attribution CC BY 3.0 IGO

¹⁰ 90% capacity, using improved varieties tested by the WB/EU/IFAD and Cocoa Board under the PPAP project.



EG

Approximately 90% of the Cocoa beans produced in PNG for export are classified as “fine or flavour” beans by the ICCO Panel on Fine or Flavour Cocoa, compared to only 1% for Indonesian beans, most of which are “bulk” or “ordinary”. Fine or flavour beans, which make up around 40-50% of the total global cocoa market, command a premium price. As a result, they are used by major chocolate manufacturers in Western Europe and to a lesser extent in Japan, the US and Latin America to produce premium-quality chocolate.

The Cocoa Industry Strategic Plan (2016-2025) was developed in 2016 with a goal to improve livelihoods of farmers, processors, traders and other service providers involved in the Cocoa industry. The purpose is to improve productivity, quality and marketing systems; achieve optimal and environmentally sustainable scale of production; and provide a conducive business operating environment for productive partnerships and value addition. The Cocoa Board is the leading national body on cocoa sector development. It licences to exporters/fermenters/dry-bean cocoa dealers/etc. and monitors these value-chain players to ensure that fair pricing is maintained. There are no mechanisms in place/enforced by Cocoa Board on the pricing of dry cocoa beans¹¹. It is the middle players such as trader and exporters that decide on the pricing of the dry cocoa-beans, monitored by the Cocoa Board.

Cocoa was selected by the EU Delegation to PNG as one of the targeted Value Chains based on both the high production and capacity for dry bean production within the selected provinces of MOMASE¹² region¹³. Most importantly, Cocoa provides a regular income as cash for smallholder farm families. The major limiting factor for profitability at farm and indeed VC level is the significant (80%) reduction in cocoa production/profitability related to the infestation by the Cocoa pod borer¹⁴. While there are some fluctuations in the price, the price of Cocoa for the last ten years ranges from USD2,000/ton to USD3,134/ton providing good incomes for smallholder families in the project area. Projections by the International Cocoa Organization (ICCO) until 2025 range from USD2,000/ton to USD2,500/ton.

Vanilla

Only *V. planifolia* and *V. tahitensis* are grown commercially in PNG. Generally, *V. planifolia* are grown in PNG as this is of higher quality and is preferred by the market. Currently the vanilla industry is comparatively small but is expanding rapidly due to the ongoing high market price of cured vanilla beans. In PNG, vanilla is planted extensively at the household level on plot sizes mostly ranging from 0.1 to 0.5 ha. These subsistence farmers do not have a high level of knowledge on improved production practices (vine management, pollination techniques, harvesting etc.) and also on proper drying/curing, and other quality attributes (length, colour etc.).

Vanilla is currently a very attractive cash crop and also good complementary crop for diversification and for its attractiveness for women and youth whose role is important in vanilla production, particularly in pollination. The pollination requires steady hands, good eyesight and is tedious to perform. The distinctive flavour and fragrance of good quality vanilla is developed by a slow curing process that is labour intensive (often performed by women/girl/youth) and takes three to six months to complete.

The prevalence of significant risk of theft of green beans at farm level forces some farmers to harvest immature beans. Women and youth are particularly vulnerable to these kinds of threats which include farm level theft and armed robbery during transportation. A necessary condition for

¹¹ Source: Mr Boto Gaupu (CEO-Cocoa Board) and Ms Claire Parike (Senior Marketing Manager-Cocoa Board), pers comm.

¹² Morobe, Madang, Sepik

¹³ Action document, EU Port Moresby/Brussels, approved in November 2018.

¹⁴ Lescuyer, G., Helmes, R., Kerua, W., Syndicus, I., 2018. Cocoa Value Chain Analysis in Papua New Guinea. Report for the European Union, DG-DEVCO. Value Chain Analysis for Development Project (VCA4D CTR 2016/375-804), 144p + annexes.



producing quality vanilla is that the beans be harvested fully ripe. Beans that are immature when harvested will have low vanillin content and will quickly go mouldy regardless of how well they are cured.

From 2015, the market price of K1000/kg of cured beans for vanilla increased exponentially which attracted farmers into intensive vanilla farming. During a field visit in February 2019, it was found that village level price of cured beans ranges from 500 to 700 Kina/kg whereas the market value of the quality dried/cured vanilla bean is K1050/kg at Maprik, renowned as the major vanilla trade centre of the province.

Most East Sepik and bordering districts of Sandaun growers both men and women bring their cured bean to Maprik for sale where buying is conducted either by agents, intermediaries or by exporters themselves. All vanilla purchases are on a cash-on-delivery basis. Some local buying places of vanilla also exist where transactions are made in cash and even in gold. For security reasons larger volumes are often purchased on-farm. Larger companies (eg. AgMark, Paradise Foods) fund purchases from their own resources (Agmark financed by their overseas parent companies) whereas small companies found it difficult to generate a timely cash flow and often struggle to remain in the vanilla business.

Formal vanilla exports amounted to just under 111 tonnes worth just under K75 million recorded by the National Statistics Office in 2017, based on data collected by NAQIA. The average price was K676/kg; ranging from K1,248/kg to K26/kg, reflecting the different qualities and values of beans exported. Indonesia was largest export destination by volume and the USA by value.

In recent years, vanilla prices significantly increased due to adverse weather or political upheaval in Madagascar mainly. The EU decision/Government of PNG to focus on vanilla as a high potential value chain commodity is based on current market prices and high profit in ideal conditions.

Fisheries

PNG harvests approximately 15% of the global tuna resources and 35% of the regional tuna stocks. The value of recent average catches by this fishery is approximately USD 280 million/year. PNG licenses foreign purse-seine vessels to fish for tuna in its EEZ with a value of > USD 200 million/year. PNG has an important, locally-based, industrial fishery within its exclusive economic zone.

Coastal fisheries comprise demersal fish (bottom-dwelling fish associated with coral reef, mangrove and seagrass habitats), nearshore pelagic fish (including tuna, Spanish mackerel, rainbow runner, wahoo and mahi-mahi), invertebrates targeted for export, and invertebrates gleaned from intertidal and subtidal areas. The total annual catch is estimated to be >35,000 tonnes and worth > USD 60 million. Demersal fish and nearshore pelagic fish are both estimated to make up ~ 40% of the total catch.

The freshwater and estuarine fisheries in PNG mainly comprise barramundi, river herring, Papuan black bass, fork-tailed catfish, saratoga, tilapia, carp, rainbow trout and Macrobrachium. These species are harvested by commercial, artisanal, subsistence and recreational fisheries. Estimates of freshwater fish catch are > 17,000 tonnes, worth over USD 17 million. Pond aquaculture of tilapia and carp is growing rapidly to produce fish for the large inland population of PNG. Recent estimates indicate that > 15,000 small ponds have been constructed. Coastal aquaculture commodities in PNG include white pearls produced from the silver- or gold-lipped pearl oyster, seaweed and hatchery-based marine fish (mainly barramundi). Despite being an island nation, average national fish consumption in PNG is estimated to be 13 kg per person per year. This is below the recommended levels for good nutrition particularly in view of the nutritional value of fish in terms of essential oils, protein and vit D. Coastal and freshwater habitats in PNG are estimated to be able to currently supply

12 kg of fish per person per year. Improving access to fish for the large inland population of PNG is a priority policy for PNG. More details on the Sepiks are contained hereunder.

Programme context:

The Programme is focused on the targeted geographical area of the Sepiks initially. The economic potential of several provinces of PNG were analysed by the EU in consultation with the government of PNG ahead of selection, also considering the previous, current and planned assistance by Development Partners. Based on this analysis, three specific value chains (cocoa, vanilla and fisheries) were selected in order to ensure maximum impact. In particular, the choice is justified and agreed by the EU and Government of PNG as follows:

- Development needs of Sepik as one of the poorest regions in PNG. To date the Sepiks have not been the beneficiary of any large scale support from Government or any Development Partners unlike other provinces of the MOMASE region.
- Some areas in Sepik and Sandaun have an alarming malnutrition problem; the region scores second highest in PNG for stunting (over 45%), severe stunting and underweight children in PNG. There is also a strong link with water and sanitation issues.
- Excellent agro-ecological potential for development of existing crops, especially in the Torricelli foothills (including cocoa, vanilla, coffee, as well as traditional food-crops and new cash crops such as Eaglewood (or agarwood) produced in PNG with the local Thymelaeaceae tree *Gyrinops ledermannii* or Galip nut – *Canarium indicum*).
- An existing road network (national Highway, ring roads and feeder roads), albeit in need of maintenance and repair, connecting the producing areas to the market and trade centre of Maprik and the provincial capital of Wewak which has an international harbour, a gateway for export of goods, a tuna fish cannery and a diesel power plant. Apart from these two urban centres, there is no electrical power supply. Madang and Morobe Provinces have well developed road network linking one another and they benefit partially from one of the three electricity grids in PNG (the Ramu grid).
- The ongoing WBG-IFAD-EU programme Producers Partnership in Agriculture Project (PPAP) is developing activities in the Morobe, Madang, and some Highland provinces supporting cocoa and smallholder coffee development and will terminate in December 2019.

Based on an EU review of the value chains in the geographic region of the Sepiks, and supported by in depth studies carried out in 2017/8 under the EU Value Chains for Development (EU VC4D) initiative and related consultants and technical specialists review and reports, the EU and Government of PNG decided to focus the EU STREIT programme on the cocoa, vanilla and fisheries value chains which are further described as hereunder. Capacity development is a key element in the programme and three mutually reinforcing and interdependent levels of capacity development will be addressed by the programme: individual, organizational, and resulting from the enabling environment.

Important existing Value chains in the Programme area:

Cocoa: The development of cocoa production and cocoa industry is being strongly promoted by the Government of PNG. In the MOMASE region, the dry bean yield on smallholder farms is currently only 300 kg/ha whereas yield from improved plantations in ENB¹⁵ and AROB¹⁶ is up to 1,600 kg/ha (Cocoa Value Chain Analysis in PNG/VC4D, EU 2018). Therefore, development of an efficient and inclusive Cocoa Value Chain especially targeting the smallholder farmers is vital and extremely important considering its significance to the rural people's welfare and the national economy.

The Sepik region has a total population of 637,741, about 60% of which are engaged in cocoa production in 10 districts. As of 2017/2018, 3,801 fermentaries were established in 32 Local Level

¹⁵ East New Britain

¹⁶ Autonomous Region of Bougainville



Governments (LLGs) and wards from 10 districts and are registered under Cocoa Board. However, less than 50% of these are in operation (1,601). Sepik region (East and West Sepik) is the leading region in Cocoa production and at one time the production reached up to 18,000 tons per year in the 1990's.

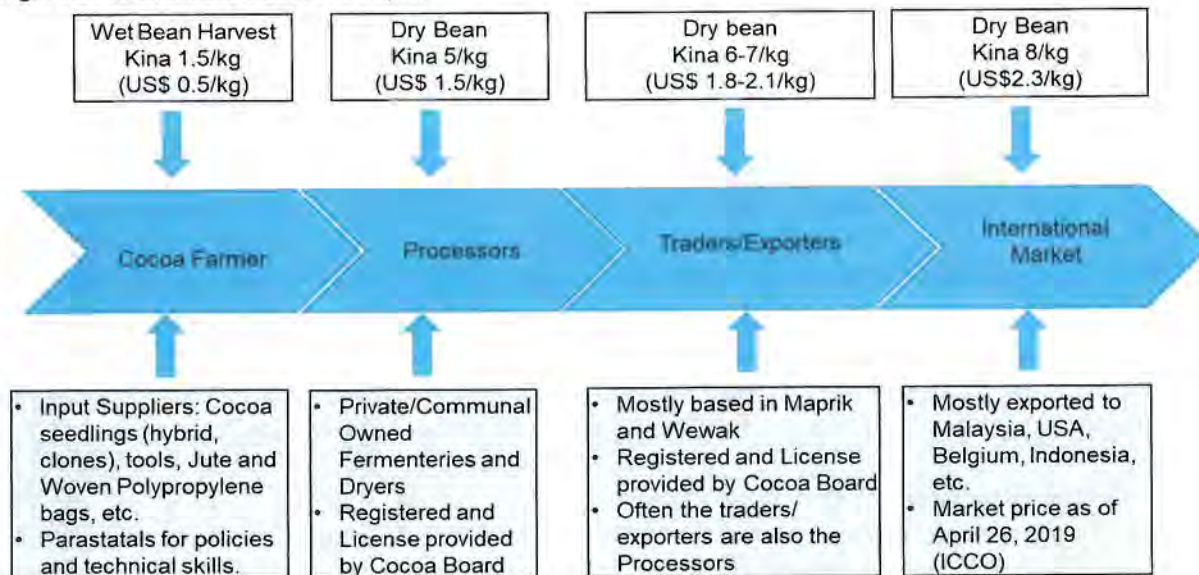
However, after the incursion of pest Cocoa Pod Borer (CPB) (*Conopomorpha cramerella*), the production has dropped significantly. In 2013, the total production in the province was 12,067 tons with the value of 30 million Kina whereas in 2016 production has reduced to 8,246 tons with the total value of 20.5 million Kina (Table 1). Cocoa Statistics of PNG published in 2017 reported that in 2015/16 Cocoa production in West Sepik (Sandaun) was 682 tons.

The invasion of CPB has forced farmers to gradually abandon the infested Cocoa trees and blocks. These led to the closing of 2200 (58%) out of 3801 cocoa seed fermentaries.

The cocoa pods are harvested and beans with pulps are removed from the pods. These Cocoa wet beans packed in a jute bag (weight of 62.5 kg) need to be transported to the fermentaries from the Cocoa blocks within 6 hours to maintain the quality. Generally, it takes around 5-6 days to ferment the Cocoa beans before it is ready for drying which takes an additional 3 to 4 days with the existing conventional wood burnin dryer model. The fuel wood consumption in the drying process is high and has a negative environmental impact. The losses occurring during the drying process range from 5 to 10% caused mainly by insufficient or over drying and beans tainted with smoke.

In Maprik town, there are reported to be 3 major Cocoa exporters who export c.72,000 bags (1 bag=62.5 kg) with the total value of 17.4 million Kina per year. Hereunder a description of the Cocoa Value Chain based on stakeholder meetings and mission findings is presented in Figure 2.

Figure 2: Cocoa Value Chain in Sepiks



The price of fresh (wet) bean is 1.0 to 1.5 Kina/kg whereas for dried bean price ranges from 5 to 7 Kina/kg (Source: Farmer/Trader during field visit in Maprik, Nov. 2017) during the production season. In April 2019, the price paid to farmers was 7K/kg of dried beans (Delivered in Store e.g. in Maprik) by traders/Agmark. This represents a positive trend in market price over the last 2 years although it may also be related to the early production price relative to the overall season when prices do fluctuate.

Cocoa in this area is a commodity that has the potential to become much more important in terms of both production and economic returns (for producers, fermentaries, traders and exporters).



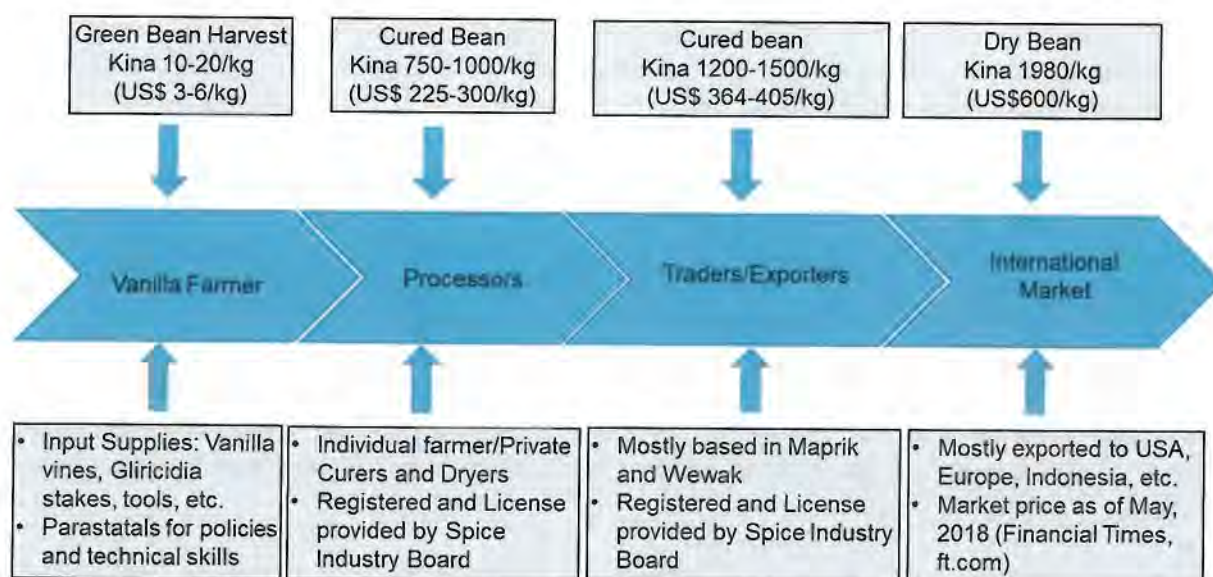
Smallholder production systems are prominent rather than large plantations, which bodes well for a more inclusive economic participation of smallholders, including women.

In line with the PNG Cocoa Industry Strategic Plan 2016-2025 and national development strategies and targets¹⁷, the cocoa-growing areas of the MOMASE region were therefore identified as the main beneficiary areas in consultation with stakeholders and through dialogue with the NAO.

Vanilla: With recent and current world market price (USD 600/kg), vanilla is an attractive cash crop in the favourable production areas of the MOMASE Region, and in the Sepiks in particular. Its high unit value and non-perishability (when properly cured) makes it particularly attractive for remote locations. Vanilla fits well into sustainable PNG agricultural systems in relation to time competition with food crops. Whilst vanilla provides significant cash return, and cocoa provides a regular income for smallholders, the bulk of farm families also have food gardens managed by the women for household consumption and local markets. With current prices¹⁸ and high market demand, producers in PNG and in the Sepiks in particular are now intensively increasing their vanilla production.

PNG vanilla production peaked at 1,000 tonnes in 2003 & 2004, but then shrank and by 2016 PNG was the 5th producer in the World with 502 tonnes (FAOSTAT). One of the reasons for the loss of market was the poorly organised value chain and also poor quality management for continued market access by traders/exporters and price volatility. The majority of vanilla trade is done through informal channels due to proximity to the Indonesian border as the major market. The cured vanilla is brought to the trading centre (such as Maprik which is the major buying centre, 3 major traders/buying houses are present and very active) or the trader collects the dried vanilla beans from the small holder farmers and exports in bulk to Indonesia by boat/combined with road transport. High variability of pricing reported for dried/cured vanilla beans – ranging from K300/kg at village level to K1000/kg at Maprik. The Vanilla Value Chain and sensitivity analysis of the vanilla price are presented in Figure 7 hereunder based on April 2019 stakeholder meetings and mission findings.

Figure 7: Vanilla Value Chain in Sepiks



Around 50–75% of PNG vanilla comes from East Sepik and Sandaun Province, with production concentrated in the Maprik, Dreikikir and Wosera/Gawi districts where 90% of a reported 90,106 households depend on income from vanilla. The East Sepik provincial DAL office recommends and

¹⁷ The cocoa board has set a production target of 100,000 tonnes of dry beans from Momase in 2021.

¹⁸ Cured vanilla trading at 1050K/kg from traders to farmers in Maprik in mid February 2019



promotes more integrated farming practices as a coping mechanism (if the price falls again) with vanilla-cocoa-eaglewood/galap nut and advise to plant 50 vanilla vines per person. In average, one pollinator can pollinate maximum of 200 flowers per day and recommend three flowers/plant.

Vanilla is a good complementary crop for diversification and for its attractiveness for women and youth whose role is important in vanilla production, particularly in pollination and also in processing. However specific technical knowledge and skills for pollination and vine management are needed to ensure good levels of production, timely harvesting, processing, curing, storage, quality management and sustainable national and international market access, competitiveness and trade.

Projected on-going strong market demand, highly suited agro-ecological conditions in PNG and existing basic know-how constitute favourable conditions for its further development. Vanilla was therefore selected as one of the focus value chains by the EU and the Government of PNG for this programme.

Fisheries: Fish is an essential part of the daily diet of riverine and coastal communities as well as a reliable source of regular income for smallholders in the Sepiks. In the low altitude villages fish consumption is the most important source of protein, comprising > 40% of all food from animal sources¹⁹. In middle and higher altitude villages, where fishing is limited to creeks and small rivers, consumption of animal proteins is more reliant on purchased sources such as preserved fish and canned products.

Within many riverine communities fishing is practiced for personal consumption with sale of excess fish providing an important source of income. Fisheries production in the Sepik has been the focus of limited past investments to address malnutrition and improve food security including the introduction of several exotic species by FAO mainly in the 1990's which is estimated to have improved yearly catches from < 3,000 t to a potential in excess of 10,000 t.

Preservation of fresh fish products has remained a persistent issue for post capture and local enterprise development. There has been limited success in establishing centralised preservation facilities that allow cool storage and the lack of proximity to markets has resulted in a reliance on traditional smoking for preservation and inland trade. Fish is traded for sago (as flour/starch) between the riverine/coastal and inland areas.

Malnutrition is highest in inland areas and access to improved supply of fish to these communities is a priority. Support is planned for the development of the fishery value chains (in-shore, aquaculture and riverine) on the basis of fisheries managed at sustainable levels, for improved incomes and household food security and improved market access and trade, including through increased adoption of ICT/digitalisation for capacity development and enhanced market access.

The National Fisheries Authority (NFA) is engaged in the area through Coastal Fisheries Management and its off-shore tuna fisheries. The NFA has initiated the deployment of In-shore Fish Aggregating Devices (IFAD) and coastal fish traps in the East Sepik Province to improve food security, income generation and alleviate poverty.

Riverine: The Sepik River catchment is the primary source of fish (including river prawns/crayfish) to the region and provides an essential transport and market route for Sepik communities. In the MOMASE region, fishing is mainly practiced by women using local canoes, some with small outboard engines, and basic fishing equipment.

¹⁹ See Van de Heuden (2002) and Charlton et al (2016)

It is estimated that >80% of women are associated with fishing livelihood and > 50% actively partake in fishing. Fish are marketed fresh but most are smoked/dried. Product may be sold or traded/exchanged for other products (e.g. sago, bananas, beetle nut).

There has been no assessment of the sustainability of the riverine fisheries in the last 20 years and government infrastructure and capacity to support the fishery is nascent. Aquatic weeds are a significant risk to riverine transport.

Aquaculture: is practiced, mostly by men, albeit at small scale throughout MOMASE. Over 10,000 small pond freshwater aquaculture enterprises operate in the Sepiks. Current knowledge and practices in terms of water supply management, breeding stock, fish pond management, feeding, and lack of storage, processing and marketing opportunities are some of the major challenges to the sustainable development of the aquaculture value chain. In the absence of efficient transportation networks aquaculture is a priority for communities without immediate access to riverine or coastal resources for food security and prevention of malnutrition, particularly stunting. Estuarine and marine aquaculture are nascent.

In shore/reef fishery: the activity is practiced along the coastal areas of MOMASE. Fishing is carried out by men, using mainly local outrigger canoes, some with small outboard motors and basic fishing nets and lines for both pelagic and high value benthic species.

Women and women's groups are often responsible for post capture handling of the product. Fish are marketed fresh to local markets and as smoked/dried products but there is very limited value addition to the fish catch. Trials of IFADs and inshore fish traps have improved catch rates and reduced costs for coastal fishers. There is some small export of frozen reef fish to specific markets (mostly restaurants) in Madang and Port Moresby.

Critical Problems the Project will address:

Missions by expert teams supported through the EU Value Chain for Development (VC4D) mechanism have taken place in 2017 and 2018 and combined with DAL consultations, provided a solid basis for analysis and planning of the following interventions on critical points in the vanilla and cocoa value chains. Data collected contributed to confirming existing assessments and were also complemented by in depth analysis and field missions by a series of FAO and other experts in programme preparation in close consultation with DAL. The EU Delegation is exploring more detailed work on fisheries by the EU VC4D in 2020²⁰. More detailed baselines will be established during the Inception Period of this Programme. The critical problems for each of the selected three value chains are outlined as hereunder.

1.1 Cocoa

- The major limitation for the realisation of production potential is the widespread infestation of cocoa pod borer or CPB (*Conopomorpha cramerella*). The CPB significantly reduces the productivity of the majority of available cultivars. However, whilst CPB tolerant cocoa cultivars have been developed in the country, these are not yet widely available in the Sepiks. An important lesson from ongoing projects indicates that the initiation of bud gardens is an important part of timely provision of improved planting materials for farming communities.
- Most farms have historically had some level of cocoa production on their plots. Very few practice improved water and (organic) nutrient management as well as so the required level of pruning or agronomic practices to optimise productivity and meet market demands.
- Weak institutional capacity, low level of resources and presence at producer level is also limiting the full engagement of smallholders in sustainable cocoa production. Low levels of

²⁰ To be confirmed with the EU Delegation, Port Moresby



financial literacy as well as limited access to finance are commonly reported in the selected programme areas.

- Cocoa is vulnerable to droughts, one of the impacts recognised in PNG's NDC. Climate-smart agricultural practices tailored to adapt to drought are needed: e.g. water-saving measures, producing and applying organic compost (this helps improve soil characteristics and resilience to dry seasons) or planting appropriate shade trees to help minimize heat stress and potential damage.
- Local MSME's such as fermentaries need support for both improved capacity in enterprise development. There are reports of up to 58% of the current existing fermentaries not functioning and/or not profitable.
- Fermentaries are registered and licensed by the Cocoa board and inspected periodically. However, the cocoa board has limited facilities and transport means to visit and support the improvement of all of these fermentaries.
- Smoke taint (caused by use of wood burning for drying) significantly limits market access, lack of suitable storage methods and facilities for cocoa result in lower grading and lower prices for smallholders. There are valuable experiences in reducing smoke taint through the use of improved combined renewable technologies such as from the WB/IFAD/EU funded PPAP project.
- Currently over 90% of the cocoa beans produced in PNG are exported as dried beans without any value-addition. Poor knowledge and limited market information, connectivity and market access (including available and affordable ICT/digital solutions, local roads), lack of quality certification and traceability also limit the level of participation and benefit for value chain stakeholders to engage in the cocoa value chain and benefit from increased trade.
- Poor road and river transport conditions resulting high transport costs are a limitation to MSMEs development and limit the volume of traders/buyers who have access to the production areas to enhance competitiveness. Feeder and ring roads are often seasonal (limited access in rainy season) with some cocoa also being brought to collection points and marketing centres using the river Sepik and its tributaries and there are reports of limited access to landing sites due to invasive river plants.

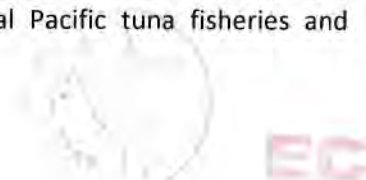
1.2 Vanilla

- At production level there are gaps in both availability of good quality planting materials (vines) as well as production practices. Vanilla plants start flowering three to five years after planting, and reach maximum production after seven to eight years and curing takes an additional four to six months, which adds most value to the beans.
- In vanilla production very few farms practice water management or plan for vanilla plot nutrient management, including for climate smart practices.
- The process of selectively pruning the vine is also important to optimise the number of pods which the vine will support. There appears to be a lack of understanding on the value of growing larger size pods which are preferred by traders and processors.
- A key element in successful vanilla production is the very delicate process of pollination. This labour-intensive work is mostly performed by women and youth. The vine flowers only for a few hours in the morning and highly expert handling and training is required to ensure pollination this is done successfully. Therefore, farmer restrict themselves to growing blocks of up to 0.5 ha which can be managed by their own household directly.
- The current production systems appear to be organic with no noted use of chemical inorganic fertilizers. However, the lack of traceability and certification systems also limits participation in international markets and trade and access to a higher market price for organic or other branded and certified vanilla and vanilla products.
- Insecurity at farm level is also a major issue for producers with individual green pods being widely reported as stolen at farm level due to their high value. There are also widespread reports and complaints from processors and traders that the vanilla is being harvested prematurely by the farmers due to risk of theft.

- The Spice Industry Board (SIB)/DAL extension service has been dysfunctional over a long period of time and there is a lack of skilled trainers and extension officers in the country. DAL is currently reviewing the SIB and its functions and staffing and this may be supported by the emerging WB DCAP project.
- Curing of the vanilla is also a very time consuming as well as labour intensive task, mainly but not exclusively done by the woman of the house. Most of the curing is done at household level with risk of theft as well as lack of knowledge and materials for improving and controlling the curing and drying rate to optimise price for the final product.
- Marketing of vanilla is a major risk area for men and women. With poor road and river infrastructure, producers appear to often sell their vanilla to traders, some of whom are offering low prices, as compared to the prices offered in important market centres such as Maprik where there is competition to purchase vanilla.
- There is a significant gap in knowledge and understanding of the traders and industry requirements in terms of vanilla size, colour, level of curing and water content at smallholder level resulting in lower pricing.
- Vanilla beans for different markets and end uses will have different specifications, for example in the moisture content, bean length and the method of packaging or the size of bundles. Different buyers may require different specifications for Vanilla depending on the intended end use of the beans. For example, the whole bean market requires Vanilla beans with a moisture content of about 20%. The essence market generally requires lower moisture content of about 17%. Growers who harvest premature Vanilla bean pods and curers and exporters continuing to buy immature Vanilla beans will not provide incentives for farmers or curers to improve their quality. Exporters have to be aware of the Vanilla quality they buy and pay a better price for good quality Vanilla.
- The risk of theft of both the vanilla and cash received is a significant and everyday risk to the producers, traders and processors. PSV's are subject to local illegal roadblocks as well as attacks on passengers and others. There is limited use of any digital payments/mobile money transactions and a very limited bank/branch network in the programme area.
- Lack of banks, unavailability and affordability of mobile banking (e.g. e-wallets) and access to savings, loans and local microfinance institutions further exacerbates this security risk and endangers farm families. Bank requirements for collateral and even national identification cards also limit smallholder, agripreneurs and MSMEs' access to a range of banking and other services.

1.3 Fisheries

- There are currently neither detailed Value Chain studies on the fisheries in the Sepiks, nor any market assessment of the demand for the diversity of fish and fishery products in the target project area. This absence of information on the quantity of product caught and retained for fisher consumption and that processed for subsequent sale and trade limits the planning for value chain interventions and targeting.
- There is a critical gap in knowledge and information technologies infrastructures that are both required to assess and plan for the sustainability of the Sepiks' riverine fisheries resources. Fishery product was estimated at the equivalent of 1 t fresh weight in the Maprik market when visited and the size class of fish were below breeding age. The latter is an indicator of the potential for unsustainable fishing in the longer term. If the volume observed is reflective of most market and market days, then it is likely that total catches are exceeding past estimates of potential yields for the Sepik.
- **Management of the riverine fisheries** is currently unregulated and unreported. The provincial government currently has no information technology and limited human capacity for management of the riverine fisheries. Support from the National Fisheries Authority, which has a local office in Wewak, is currently restricted to coastal fisheries initiatives and inspection protocols associated with the western and central Pacific tuna fisheries and international trade.



- Appropriately **trained and skilled fisheries enterprises and government support officers** in the Sepiks are lacking. The remoteness, high costs of travel and limited infrastructure exacerbates the lack of capacity.
- Fish and fish product play an essential role in **food security and nutrition** in the Sepiks. Fish caught in the coastal areas is either consumed directly by coastal communities or traded at markets.
- **Fish market facilities** are very basic and often not sufficiently well designed or planned to maintain product quality. Key fish markets are for example lacking in ice making equipment for cold storage, access to clean water systems and weather protection. This limits the market use and benefit for fish enterprises.
- There is a developing market in Maprik where there is high cash availability due to a high price of vanilla. The traditional “fish for sago” or other food staples trade continues to be highly important along the Sepik river and even more so on its tributaries where fish is often sold smoked, often with significant loss of nutritional value as compared to fresh or frozen fish.
- **Current fish drying and smoking** dehydration methods of open fire smoking are inefficient, reduce product nutritional value, and pose a health risk to fishers, particularly women who are responsible for fish smoking, preservation and marketing.
- Availability of **fingerlings for aquaculture** is limited with no local hatchery providing stocks to aquaculture enterprises in the region.
- Sepik fisheries are vulnerable to **climatic variability and change**. The recent El Nino (by example) has resulted in reduced rainfall and fish production. Water levels in the Sepik catchment were significantly lower than previous dry seasons. The impact of the drought on food security and livelihoods was significant in flood-plain and marsh zones with households reported to be eating less preferred food and having lower meal consumption. Malnutrition and under-nutrition in children aged 6-59 months were higher in vulnerable locations.
- The Sepik aquatic fauna includes species of crustaceans and coastal/estuarine species that are currently not utilised for **commercial fishing** or food security. This has been due to the requirement for significant infrastructure and finance to establish such industries. There appears to be a gap in capacity to undertake feasibility planning for new fishery enterprises to utilise currently under-exploited fisheries resources e.g. crayfish rearing in cages.
- El Nino-like conditions are expected to be more frequent under projected climate change scenarios. Implementation of adaptive strategies and **climate proofing** including in infrastructure such as roads, river facilities e.g. jetties, fish ponds, to build resilience to such events are required. Catchment and riparian vegetation clearance have resulted in bank erosion during extreme flooding events which has damaged infrastructure and reduced access to river resources. Exotic weed invasion (*Salvinia molesta*) is reported to be reducing river transport and access, including for cocoa transport/landing sites.
- Based on available information and multiple missions by fisheries technical experts, the project will prioritise the **critical problems** of low yields for fishing efforts, basic fishing practices, poor/unsafe equipment and storage access to cold chain infrastructure and losses due to poor handling and processing. The remoteness of the Sepik region may limit the current capacity for large export outside of the Sepik boundaries and this will be reviewed also under the transport/infrastructure component of the project during inception.

INTERVENTION LOGIC

As per the EU Action Document and Financing Agreement the intervention logic is based on a holistic approach to rural development in order to maximise the impact of the Programme in the area of action, focused initially on Sepik Provinces (Sandaun and East Sepik). After the mid-term review of the action, value chain development activities will be considered for expansion to neighbouring Provinces of the Momase region.

The **Overall Objective of the Programme** is to increase sustainable and inclusive economic development of rural areas.

This will be achieved through a combination of two integrated outcomes:

(1) increasing the economic returns and opportunities from three selected value chains (cocoa, vanilla, fishery) while in parallel;

(2) strengthening and improving the efficiency of value chain enablers including the business environment and supporting sustainable, climate proof transport and energy infrastructure development.

Under outcome 1, major outputs will include increased volume, value and improved quality of cocoa, vanilla, fisheries products, more value addition and an increased number of people and enterprises engaging in and benefiting from improved value chain development. Benefits planned include both increased income and enhanced food security and nutrition at household level and job creation.

Under outcome 2, major outputs planned include an increased number of people employed and agripreneurs and MSMEs engaged in the selected Value Chains benefiting from reduced transaction costs and time, improved access to finance, increased availability and usage of digital tools and services. Increased availability of renewable energy, improved energy efficiency and access to rehabilitated roads, landing sites, and lower transport costs are also planned.

Target beneficiaries will include a range of Value chain stakeholders including local agripreneurs and MSMEs, farm families and their organisations. Women and youth will be prioritised as beneficiaries with set targets and specific resources to be set aside to ensure their fullest engagement and benefit from Programme activities.

Planning for sustainability and ongoing and future climate change impacts was a key factor in the intervention logic. The target beneficiaries will receive a range of direct and indirect benefits which will motivate them to continue their engagement in the three value chains after the completion of the Programme and learn to integrate climate projections and adaptation in their operations.

Direct benefits include increased income for producers, traders, agripreneurs and local MSMEs and enhanced adaptive capacity to climate change, as well as food security and nutrition. Indirect benefits include an improved policy, regulatory, business and digital environment.

Based on lessons learned from previous EU funded programmes, substantive local government and community engagement in Programme planning and implementation is foreseen including throughout the planned 12 months inception phase. To ensure effective management, coordination and ensure timely delivery of such a large and integrated Action, a single and recognised technical lead agency, such as FAO, is required. Complementary blending actions will/can be considered under the investment window of the EU Pacific Regional Indicative Programme.

1.1.2 Alignment and Strategic Fit

In the framework of the cooperation with the European Union (EU), Papua New Guinea signed the National Indicative Programme (NIP) under the 11th European Development Fund (2014-2020) in June 2014 for € 185 million, mainly to the Agriculture sector but also to Education and WASH. The agriculture allocation in its entirety will be committed through the Support to Rural Entrepreneurship, Investment and Trade in Papua New Guinea (STREIT PNG). The EU STREIT project will be implemented in close collaboration with other EU-funded projects such as emerging SPOTLIGHT on Gender Based Violence (jointly implemented, UNICEF, UNDP, UNFPA) and strongly linked to ongoing FAO and UN Partner Agency work such as the ongoing work on National Agriculture



Policy being supported under the FAO Technical Co-operation Programme, the UNDP led GEF programme on Climate and Energy and the PFIP²¹ being implemented by UNCDF

FAO's Strategic Framework. This project is mainly linked to two Strategic Objectives: SO4 – Enable inclusive and efficient agricultural and food systems and SO2 - Make agriculture, forestry and fisheries more productive and sustainable. In addition, the project falls under the umbrella of FAO's Regional Initiative for the Asia Pacific Region 2 – Zero Hunger Challenge.

The STREIT project is mapped to the following FAO Organizational Outcome (OO):

- OO 402 - Agribusinesses and agri-food chains that are more inclusive and efficient are developed and implemented by the public and private sectors,
 - 40201 - Public sector institutions are supported to formulate and implement policies and strategies, and to provide public goods that enhance inclusiveness and efficiency in agri-food chains (10%)
 - 40203 - Value chain actors are provided with technical and managerial support to promote inclusive, efficient and sustainable agri-food chains. (65%)
- OO 201 - Producers adopt practices that increase and improve agricultural sector production in a sustainable manner. In terms of concrete outputs, the project will contribute to the following outputs:
 - 20103 - Organizational and institutional capacities of public and private institutions and networks are strengthened to support innovation and the transition toward more sustainable agricultural production systems.

The programme elements are also aligned with three of the four priority areas of Papua New Guinea's Country Programming Framework (CPF) for PNG (2016-19) i) Food and Nutrition Security; ii) Food Safety, Quality and Certification systems; and iii) Value Chain Development for Strengthening Food Systems. This programme design is also consistent with existing regional platforms and initiatives such as the two Alotau Accords and the Small Island Developing States Initiative of FAO of which PNG is a part.

1.1.3 FAO's Comparative Advantage

FAO has been identified by the Government and the EU as implementation partner for the FAO/EU programme, on the basis of its comparative advantage and specialised technical expertise in agriculture and food systems development in Papua New Guinea working with both public and private sectors and having specific competences related to inclusive and efficient value chain development, improved trade, enterprise development and productive alliances.

The comparative advantage of FAO lies in its role as the recognized agency for agricultural knowledge, integrated capacity building, technical cooperation, support to rural and agricultural investment, and the collection and dissemination of global information. FAO's broader developing country experience and wider mandate would assure success of the Project in terms of meeting wider development goals such as gender equality, equitable benefits, and indicators under the Sustainable Development Goals (SDGs) and the SIDS Accelerated Modality of Action (SAMOA) Pathway.

A more project-specific comparative advantage, developed for this project, focuses on FAO's technical support in the following areas: a) Sustainable and Inclusive Food Systems and Value Chain development; b) Development of an enabling VC environment including work at national Policy, Strategy and Regulatory level.

²¹ Pacific Financial Inclusion Programme

- a) **Sustainable value chain development:** FAO has been involved in advising on policies and strategies to improve VC competitiveness, including fostering better coordination and linkages among business partners. It has been producing training materials, in particular for small farmers and for managers of agro-food processing enterprises who need technical, managerial and business planning training.
- i. In country, the EU already supports FAO in implementing an innovative new project on Forestry/Natural Resources, "Technical support to the Papua New Guinea Forest Authority to implement a multi-purpose National Forest Inventory". The purpose of the project is to support the Papua New Guinea Forest Authority to implement a continuous and multi-purpose National Forest Inventory to enable better future management and more effective use and benefit for the country.
 - ii. FAO provides technical support to the government in development of an Action Plan for the National Food security Policy, fisheries legislation and support for capacity enhancement for the NDC working on climate change.
 - iii. FAO is already implementing the EU funded Global wildlife Project which also covers PNG as one of the main countries of implementation.
 - iv. In addition to the EU funded projects with activities in PNG, FAO is currently implementing 165 EU funded actions with a total value of USD 1billion worldwide (data as per September 2019, including the recently signed Euro 40 million FISH4ACP project).
 - v. Throughout the last decade, FAO has been working on the promotion of Sustainable Food Value Chain Development network (SFVCD) which collaborates closely with the EU VCD groups, providing practical guidance on SFVCD by facilitating the spread of innovative solutions emerging from the field globally to a target audience of policy-makers, project designers and field practitioners, promoting and supporting the development of sustainable and inclusive food value chains.
 - vi. FAO has a long history of technical assistance to member countries in the Asia Pacific region targeted at agriculture and rural development through a range of projects covering areas related to improved market access, marketing and agribusiness, sustainable and inclusive value chain development, participatory and inclusive community engagement and development, sustainable intensification of plant production (including farmer field schools as a participatory extension approach) and digitalisation.
 - vii. Similar large scale food systems/value chain development programmes have been successfully implemented and are being up scaled in challenging and insecure situations including locations such as Afghanistan and Pakistan.
 - viii. Further afield, the FAO implemented a component under the EU funded All African Caribbean and Pacific states (ACP) Agricultural Commodity Programme (AAACP) supporting the professionalization and agribusiness skills of farmers' organizations in the region. The aim was to strengthen the organizations' business model. Under the AAACP, the Inclusive Business Models (IBM) approach was developed and pilot tested by FAO and will be applied in this programme.
- b) **Enabling Environment:** To facilitate local agro food enterprise development as well as trade, the FAO assisted the Government of Papua New Guinea with:
- i. Drafting the National Agriculture Development Plan
 - ii. Providing support for the development of the National Agriculture Strategy Plan in 2019.
 - iii. Food Security Policy drafting in line with the 2016 National Nutritional Strategy done by UNICEF.
 - iv. Preparing the eAgriculture Strategy for Agriculture in collaboration with DCIE. This project was implemented in close collaboration with NICTA and consultation with a



range of stakeholders from both the private and public sectors) and is now with DCIE for submission to cabinet for approval.

- v. Support for the development of the Coffee Industry Strategic plan in 2018/9
- vi. In 2017/8, FAO, through its Technical Co-operation Programme is supporting the development of a Gender Assessment in Agriculture. The first draft has been prepared and consultations are ongoing with the Women in Development colleagues of DAL as well as local governmental, civil society and the private sector. That Assessment will inform the development of new national level Gender in Agriculture policy/strategy to be developed in close consultation with the Government of PNG.

1.1.4 Stakeholder Consultation and Engagement

1.1.4.1 Stakeholders

The following stakeholders have been engaged in a consultative process during project formulation, mainly led by the EU and Government of PNG at country level which started in June 2016.

Entrepreneurs: are the main drivers of local sustainable agri-businesses development, entrepreneurs will be responsible for the success of selected actions. They are among key direct beneficiaries of the actions and will gain benefits from improved provision of services to an improved business environment and actors' capacities. Local entrepreneurs and particularly women will be supported to ensure their participation and direct benefit from the project. In addition, entrepreneurs will also benefit from certification support and enhanced access to finance and better roads and transport for improved market access and ease of doing business. The bulk of the project investments are planned with the local private sector/enterprises with an emphasis on MSME's.

Small-scale farmers: These are the end beneficiaries of the intervention. The programme aims to increase production, revenues and improved socio-economic conditions for small scale farmers (est. 30% women), including in isolated and disadvantaged communities. Farmers' groups, cooperatives and associations are few and in general very weak. Women farmers are a sub-group that will be specifically targeted by programme mechanisms.

Local Government/Office of the Governors/Provincial Administration: They are at the same time stakeholders and partners from formulation through to finalising the project scope and design. The Province has already engaged funds to prepare the ground: e.g through investments and engagements in cocoa nurseries, and other actions. The programme will continue to proactively engage with the local government structures and actions such as the SMART COCOA in the Sepiks to ensure close collaboration in implementation of activities on the ground.

Parastatals and Commodity Boards: the Cocoa Board will be an important partner for improving the productivity and efficiency along the cocoa value chain. They will also benefit from capacity development both as a service provider and recipient of specialised technical expertise, including for enhanced knowledge and market access and trade and quality improvements linked to the ongoing STDF. For Vanilla the Spice Board may be amalgamated into the DAL and can play a role in improved productivity as well as linkages to buyers and access to and contracting for international markets.

Department of Agriculture and Livestock, (DAL): Main programme counterpart, sector regulator and service provider for small-scale farmers. DAL also plays an important role in food safety capacities and standards, including responsibilities for laboratory analysis of raw products. Key services supported by the programme will be: Direction of Planning, Agricultural Production, and Extension at both central and provincial level.



Department of Communication, Information and Energy (DCIE)/NICTA: The national E Agriculture Strategy was recently approved, developed with the support of FAO. With the expanded remit of DCIE recently into energy, the department will be an important partner in both the ICT and renewable energy components which will heavily invest in solar powered renewables at project level. The programme will also link with PNG Lighting²² on solar equipment standards.

National Fisheries Authority, (NFA): with fisheries as one of the key Value Chains to be addressed, the NFA is mandated for fisheries development in PNG and will be a key partner both at the national and also at provincial level. Fisheries activities of STREIT will be integrated into the work plans of NFA.

Department of Works: In line with government policy, significant investments are planned in the maintenance and improvement of the road network and possibly also riverine basic infrastructure in the project area.

Ministry of Commerce and Industry: Responsible for trade related issues, including export of agriculture commodities as well as SME development. The Standards Bureau is a statutory body under this Ministry. The standards bureau is responsible for setting up food-related standards. The Ministry is also one of the key institutional players for standards and certification as well as SME development.

Civil Society Organizations and Associations: Direct beneficiaries of interventions across all value chains and they will play an important role in supporting disadvantaged farmers groups, traditional and isolated communities, linking them with programme mechanisms and enabling them to access expected benefits. They will also play a role in oversight and monitoring.

Academic and training institutions (The University of PNG, the newly established Sepik Rural Technology College in Maprik and local NGO's and Parastatals such as the Small and Medium Enterprise Corporation (SMEC)): National capacity development and research institutions supporting education as well as a range of services for VC stakeholders (entrepreneurs, farm families traders and exporters (including improved planting materials, training of trainers and quality control and certification services)

An in-depth review of the Key Activities developed by FAO with DAL and NFA to orient the project was held in Port Moresby in February 2019 with over 75 participants from state (central, provincial and district level) who reviewed and improved the Key Activities which were designed based on the EU defined outputs as per the EU Action Document approved in November 2018. These Key Activities then formed the basis for development of more detailed proposals from each of the participating UN Partners, including engagement of local, provincial and central government. The final Programme Validation Workshop was organized by DNPM following signature of the FA in August 2019.

Intensive stakeholder engagement will continue throughout the project including the setting up of stakeholder working groups around the three value chains and major investment areas such as roads, renewable energy and access to finance.

1.1.4.2 Targeting

This project will target the provinces of Sepik initially and pending the outcome of the Mid-term review may be expanded to Morobe after the Mid Term Review. Sepik province is currently organized in two sub provinces – East and West Sepik. The main beneficiaries will be agripreneurs and smallholder farm/fishing families which make up the bulk of the producers in the project area.

²² Lighting PNG, a WB/IFC initiative works with the government of Papua New Guinea to regulate solar products entering the market by submitting them to a quality certification process.



The roads component is expected to deliver significant benefits in terms of a high number of beneficiaries. The current EU AD indicator for roads is the number of persons living within a 2 km distance of a road which is rehabilitated or maintained by the project.

The programme will focus on the main producing areas of the three selected commodities which are cocoa, vanilla and fisheries. Most farms are smallholdings, with less than 0.5 ha, with three to four different crops as well as fruits and food gardens. Most small-scale farmers depend on their smallholder plot for their livelihood. Returns from farming are irregular, and reported to be low. According to DAL, there are currently over 700 established cooperatives registered in the project area, only a few are really functioning. There are many more informal producer groups. There are no stakeholders that may be potentially negatively affected by this project.

Specific focus will be given to women and farmers from tribal and indigenous groups (see hereunder) and specific numbers for targeting will be finalized during the one year Inception Period.

1.1.4.3 Stakeholder engagement

This project was prepared based on in depth consultations which were organized by the EU Delegation with a range of stakeholders in PNG since 2016, and which included FAO participation in five scoping and design missions, conducted in November 2017, March and May 2018, February and April 2019. Other UN Partners also undertook in country preparation missions in 2019.

A project preparation task team was assembled in RAP and PNG, with intensive consultations with the following Departments: Department of Agriculture and Livestock, Trade, Industry and Tourism, communications, Information and Energy, Roads, and the NAO (Department of Planning and Monitoring).

The EU Delegation held a series of consultations, workshops and briefing meetings during programme development with local, provincial and national government level when developing their Action Document. This included inter alia, visits undertaken to the Sepik province in November 2017 and included the following districts: Maprik, Wewak and Yangoru Saussia. The EU/FAO mission met with farmers, farmer groups (including women's sub groups), cooperatives, agro-processors and traders and exporters. In May 2018, February 2019 and April 2019, a number of the participating UN agencies fielded mission to the project target area to scope and assess the needs and issues as well as design of interventions for the Programme.

Project design also benefitted from an EU organized VC4D Cocoa value chains consultancy team (social, environmental and production) visit to PNG (including Maprik) in March 2018 and FAO also participated in their debriefing in Port Moresby. Wrap up sessions were held with representatives from the Stakeholders' task team, as well as the DAL, DAPM and additional stakeholders and development partners after each mission. Other missions and consultations were also undertaken by the UN partners involved in the programme.

More detailed Free Prior and Informed Consent (FPIC) processes will be conducted at the beginning of the project during the planned and necessary 12 months Inception Phase, and before specific activities will be implemented in the areas. Indigenous and tribal groups of farmers/ cooperatives will be specifically targeted under Component 1 through engagement in improved land use for VC development in the three selected value chains in which they are already engaged, using existing cocoa plantations and without changing in any cases the land use from current primary or secondary forests.

1.1.4.4 Grievance Mechanism

The **Project Implementation and Management Unit (PIMU)** will set up a grievance mechanism to receive concerns and complaints regarding project activities and how to improve project implementation. This grievance mechanism will consist of a phone number (hotline) and contact name and address for written communications prominently displayed in areas where the project is active, urging people to call and report grievances and complaints. Mobile phone coverage was confirmed in almost all of the project areas.

The response/contact point will be located at the Department of Agriculture and Livestock, planning section, who will relay complaints to the National Project Coordinator and the Project Co-ordinator of the PIMU, and monitor follow-up. The PIMU will record all grievances and note how these were handled. Serious allegations will be communicated to the NAO for information and possible action in consultation with the FAO PNG and RAP office and the EU Delegation.

1.1.4.5 Disclosure

Information regarding this project will be disclosed in the local media (newspaper) in English and the locally used Pidgin and Motu. FAO is leading the development and management of the communication and visibility plan of the project (see Annex 2 of the Contribution Agreement) which will adhere to the FAO and EU standards for quality of video, written and all published materials and include the agreed level of visibility of the EU²³ to be discussed and agreed in Port Moresby. By design, support to producers and producers' organizations will be demand-driven. All UN Partners will contribute to the regular communications products of the programme.

1.1.5 Knowledge Sharing and Lessons Learned

Experiences from EU and other projects carried out in PNG over the period 2010 to 2017 show that for programmes to be effective, attention must be given to strong engagement at community level and in-depth consultations at both provincial and national level. One of the largest ongoing agriculture development projects in the country the World Bank led Productive Partnerships in Agriculture Project recently provided the following key lessons learned:

- Engage communities and begin any grassroots and cocoa productivity activities such as nurseries early in the programme as these require at least 18 months after planting to be productive.
- Focus on less geographic area for impact and have transparency in beneficiary selection.
- Engage with the local institutions and private sector to build sustainability beyond the life of the project for value chains.
- Include socio-economic considerations in the design and implementation and to knowledge management for enhanced dissemination of results and greater awareness. Further, that it is important to facilitate private sector engagement and interventions.

Lessons learned during project implementation will be documented, communicated and disseminated as per the Programme Visibility and Communications Plan. This also includes substantial investment in sharing of knowledge between communities in the programme area as well as sharing and transfer of knowledge among and between enterprises and other value chain stakeholders.

²³ The programme Visibility and Communication Plan is attached to the Contribution Agreement as Annex 2.



1.2 EXPECTED RESULTS

1.2.1 Impact

The **Overall Objective** of the Programme is to increase sustainable and inclusive economic development of rural areas.

The **Specific Objectives** are:

SO1: Increased economic return from three selected value chains

With the following results:

Output 1.1: Increased sustainable production and inclusiveness of the Cocoa value chain

Output 1.2: Increased sustainable production and inclusiveness of the Vanilla value chain

Output 1.3: Increased sustainable production and inclusiveness of the Fishery value chain (coastal, riverine and aquaculture)

SO2: Strengthened, climate resilient and more efficient value chain enablers.

With the following results:

Output 2.1: Conducive business, trade, policy and regulatory environment for sustainable rural agripreneurs and MSMEs established

Output 2.2: Value chain support services strengthened and resilient to climate change impacts

Output 2.3: Increased production of, and access to renewable energy systems

Output 2.4: Improved and climate-proof rural transport infrastructure

The geographical scope of the Programme will initially be focused on the East Sepik and Sandaun provinces. After the mid-term review of the programme, cocoa value chain development activities will be considered for expansion to the neighbouring provinces of Morobe and Madang for those activities that require heavier localised investment.

In view of the recognised scarcity of data, and especially related to rural areas, a comprehensive baseline survey will be undertaken during the Inception phase in Year 1 to update the logframe and refine targets and indicators of the Programme.

Women and youth will be prioritised as beneficiaries with set targets and specific resources will be set aside to ensure their fullest engagement and benefit from Programme activities. The updated and detailed logframe will be presented to the Project Steering Committee co-chaired by NAO and EU for review and approval by month 11 of the one year Inception Period.

A more detailed breakdown of the planned results per output and some key activities are outlined hereunder by SO and Output.

SO1: Increased economic return from three selected value chains

Results

Output 1.1: Increased sustainable production and inclusiveness of the Cocoa value chain

Activities under this component have been developed to address the limitations to the expression of the full and inclusive potential of the Cocoa Value chain in the region of intervention. Key Activities under the Programme will promote high quality production and increase of revenue through the adoption of improved and certified sustainable practices along the value chain. Farm families and other value chain stakeholders will be the main target of support. In line with the findings of the VC4D cocoa value chain analysis, specific attention will be paid to the 'subsistence-oriented wet beans producers and rather than a 'silo' promotion of cash crop cultivation, an approach favouring

integrated production of food and commercial agriculture by farmers will be favoured as a guarantee of a healthy and sustainable basis for rural development in PNG. FAO will lead the delivery of this output with the support of the other UN Partners.

The existing VC study report will firstly be updated by FAO during inception, particularly with price data for the current economic models (see Appendix VIII) and the baseline carried out to set more detailed targets. Based on available data, scenarios and interventions to improve specific points in the cocoa value chain indicate an IRR of 72% for improved cocoa fermentaries and an IRR of 21%, up from 13% for cocoa producers from the current baseline. These scenarios appear are very positive and have been calculated based on a conservative dry bean price of 1.5 K/kg for producers and 5 K/kg dry bean price for fermentaries and will be updated during the Inception phase.

More detailed mapping of production and Value chains by FAO will further enhance programme design by the UN Partners and targeting for impact under a tailored joint M&E framework and in the development of joint Annual Workplans and Budgets.

Improving the availability of **Cocoa Pod Borer tolerant planting material** will be an essential and priority component of the action by FAO, together with improved management of cocoa plots to make them resistant to drought or other climate-related risks. This will include the expansion of **existing and some setting up of new cocoa bud gardens** as a priority based on lessons learned from the PPAP and other interventions as it takes 1.5 years to have planting materials then available for use by smallholders. In collaboration with the Cocoa Board and partners, these planting materials will be provided on a cost share basis to smallholders and their enterprises.

Support is also planned by FAO for **improvement/rehabilitation of existing cocoa plots** and the introduction of improved climate smart agriculture practices such as Integrated Pest and Disease Management, nitrogen fixation, improved water management, reduced soil erosion measures and shade management including the use of shade trees and diversification into other high value cropping trees and foods for improved family nutrition and marketing.

Substantial investments are planned by FAO in improving capacity through ToT and Farmer field Schools approaches for on **GAP as well as CS practices** and enterprise development and based on lessons from recent projects, periodic refresher training is also scheduled. Local farmer to farmer and community level learning tours to other more advanced cocoa production areas in PNG are also planned (ENDB and AROB for example).

FAO will promote and develop **improved drying and storage of beans** to ensure the **enhanced quality and eliminate smoke tainting**. The provision of improved combined solar driers to reduce smoke taint appears to be showing very promising results under the ongoing WBG-EU-IFAD project (PPAP). This may be linked/contribute to the increased availability and utilisation of renewable energy through the second component of this project but will focus on local skills and enterprise development in applying solutions such as use of stainless steel pipe/sheets by local agripreneurs in improved or combination dryers.

The option of enhancing local fermentaries/drying technology and of improving **market linkages** between producers, traders and exporters will be explored by FAO. This will include the application of renewable energy solutions for the cocoa drying and storage processes. This can represent as well an option to develop a better access to finance as well as improved agribusiness opportunities for local agripreneurs and MSMEs.

Specific resources are provided to support the **introduction and implementation of certification processes and standards** by FAO for a range of options for cocoa VC stakeholders including on food quality management such as Hazard Analysis Critical Control Point (HACCP) (ISO 22000), ISO 9000

series and also on Organic, Fair Trade, Rainforest Alliance, Carbon Neutral, Geographic Indication (GI) and territorial development and others. Some of these may require improvements in the national regulatory or policy frameworks and investments are provided for the expertise and capacity development required to improve these also.

Market coordination and improved producer capacity will be supported by FAO in the development of local MSME capacity and expansion of farmer clusters or collective marketing groups, linked to the district community resource centres and improved market information and product quality. Some support will be considered by FAO for a Business Incubation Centre, linked to the local partner SMEC which already has an operational training centre in Wewak. Options for **contract farming in cocoa** production will also be explored in collaboration with the local private sector.

Links to digitalised services (product, input and market information for example) and improved financial literacy and access to e-banking/mobile or local bank facilities and applications (due to theft risks) will also be supported through ITU and UNCDF. Through the facilitating the uptake and organization of improved market access and reducing cash transactions, security for VC stakeholders will be improved.

A local input/supplier and traders' directory will be developed to foster improved local agripreneurial development and sustainability by FAO.

Public-private partnerships are also envisaged by FAO with the local fermentaries and agripreneurs to engage with farms/groups/communities and explore and support **value addition and job creation**. This will include improved grading and quality inspection for the VC stakeholders as well as improved bagging, labelling and storage of cocoa to reduce losses and improve quality and preservation. This may include the development and set up of improved local level storage and grading facilities as well as production of cocoa powder, cocoa butter and related enterprises and include higher-level value addition such as partnerships with chocolate manufacturers, national and international. The MSME 's and the Cocoa Board will be directly supported and participate in making and ensuring delivery of these improvements.

Support through FAO for MSME's will also focus on the pull side of markets, supporting increased market opportunities for beans, semi-finished products as well as higher value added products (e.g., chocolate) in regional and international markets.

Significant investment are planned by FAO in **capacity development** ranging from improved production practices, financial literacy (relevant arrangements will be discussed during the inception phase) , cocoa sorting, quality and grading, enterprise and marketing skills HIV/AIDS, hygiene (linked to WASH) and enhancing nutrition, to reduce stunting specifically. A high level of participation by women is planned as they are responsible for many of the tasks but also in making daily important choices for family nutrition.

The Programme will also promote increased **transparency in terms of market pricing and transactions**, facilitated by digital services, including through enhanced knowledge of market demand and product quality requirements to optimise returns and market access for a range of VC stakeholders (smallholder farm families, local agripreneurs and MSMEs, traders and exporters.

Activities are also foreseen to improve local value addition and facilitate the development of certification of enhanced cocoa quality eg. Organic, Fairtrade and GI and Territorial Development. Support is also planned for organization and participation in provincial, national and international events related to cocoa industry development.



Gender issues will be strongly covered by FAO as well to ensure a fair participation of women in the benefit of increased cocoa production whilst preventing an increase of the burden of women compared to men. Women and youth will be specifically targeted and funds set aside, including for women trainers, to ensure their participation and benefit from dedicated resources for sustainable VC development.

FAO will strengthen industry and market coordination and capacity at Provincial and National level with the Cocoa Board and reinforce links between farm families and local agribusiness for improved access to market, technologies and services (e.g. through digital services and solutions).

Support for **improved labour saving technologies and practices** is planned by FAO for women and men. For women in particular, these technologies will aim to reduce drudgery at household level, including through solar pumps for water and tools and higher quality inputs for food production and marketing by women. This is linked to output 2.3 which also foresees the introduction of higher energy efficiency stoves for cooking to reduce women and girls workload in collecting firewood for daily household cooking needs. The use of renewable (solar) energy in cocoa drying at enterprise level will also be promoted among women and men in the target communities.

FAO will work with **local institutions and research organizations** such as the Sepik Institute of Rural Technology on the development and tailoring of suitable solutions in the project area. Practical and theoretical training will be provided and considered essential for P2P and B2B learning and adoption and in-service delivery.

The Programme team will also support enterprises in examining options for accessing blended financing e.g. from the EU and others for upscaling of local cocoa enterprises as well as development of higher value cocoa products in cooperation with local and international ingredient or chocolate companies.

Activities under this component **are intrinsically linked to component two** on VC support services development and national issues on access to finance, improved transport and road infrastructure, and increased access to renewable energy, ICT and national policy, strategy and regulatory development and dialogue. At local level, and from the onset of the inception period, the programme will explore collaboration with planned Provincial and district level investments (PSIP, DSIP) in the implementation of activities focused on sustainable Cocoa VC development to ensure complementarity and avoid overlapping of funding.

Output 1.2: Increased sustainable production and inclusiveness of the Vanilla value chain

The approach for this value chain will in some locations complement the support provided for the cocoa VC as some groups of farm families and VC stakeholders are involved in both VCs. The following are the Key Activities identified to deliver the above output. These Key Activities (highlighted) were developed based on the EU VC4D analysis of the vanilla VC, reviewed by DAL and then a national stakeholders workshop held in February 2019 in Port Moresby. FAO will lead the delivery of this output with the support of the other UN Agencies.

The VC study report will firstly be updated by FAO during inception, particularly with price data for the current economic models (see Appendix VIII) and the baseline carried out to set more detailed targets. Based on available data, interventions to improve specific points in the vanilla value chain indicate high Internal Rates of Return (171%) from this high value crop. Continued market access and quality improvements will be essential to not repeat past loss of valuable export markets and the reputation of PNG vanilla and have been planned by FAO.



More detailed mapping of Value chains by FAO will further enhance programme design and targeting for impact under a tailored M & E framework. Gender awareness sessions and gender trainings will be prioritised for delivery to the programme staff as well as through a TOT in the Inception Phase.

At Policy and strategic level support by FAO may be considered for the Spice Industry Board (SIB), possibly in collaboration with the emerging WB DCAP project and DFAT. This will be reviewed during the Inception phase as the scope and depth of the planned WB investment are still being refined in collaboration with DAL. Support is planned to national bodies on vanilla quality control standards, regulations and a Code of Practice may be developed in collaboration with the private sector and exporters.

At production level the provision of **improved vanilla vines** through FAO is seen as essential to enhance quality and productivity. This will be combined with improved climate smart agriculture practices such as improved water management and vanilla plot soil nutrient management (e.g. introduction of nitrogen fixing leguminous food crops) and climate proofing.

Support is also foreseen through FAO for **improved production practices** such as better tools and equipment, including labour saving devices for vine pruning and plot management for women and men to optimise production and reduce drudgery, including in water management for food crops. Some crop diversification for improved food production for household and local food markets is also foreseen.

Substantial investments are planned by FAO in improving capacity through the development of updated and detailed training materials for delivery through ToT and Farmer field Schools approaches on **Good Agriculture Practices (GAP) as well as Climate Smart (CS) practices** and enterprise development. Based on lessons learned from recent projects, periodic refresher training is also scheduled. Local farmer to farmer and community level learning tours to other more advanced vanilla production areas in PNG (NARI, Lae) and beyond are also planned (Madagascar/Uganda for example).

With the **important role of women and youth** in the essential pollination process, significant resources will be allocated by FAO to ensure that women and youth will be included and benefit from targeted and detailed technical capacity development activities on improved pollination. To address insecurity at farm level, the option of traceability and certification of farmers is to be considered as well as other measures which are applied in other large vanilla producing nations such as Madagascar where a level of local tattooing or branding of the pods is now widely practices.

Timely harvesting and curing of the vanilla is an essential part of both developing and ensuring quality for a variety of market demands. Support will be provided through FAO in the form of kits as well as training in improved curing and drying linked to the introduction of renewable energy solutions for controlled curing, drying and improved packaging processes to reduce workload and improve market options for smallholders and their enterprises. Some support can be considered for larger curing enterprise such as community level curing houses currently being tested by DAL in Maprik. This will be assessed during Inception.

Enterprise development and improved profitability for the SME's is a key part of ensuring economic sustainability within the Vanilla Value Chain. Support will be provided by FAO for a range of interventions to support improving the efficiency as well as profitability of clusters/marketing groups/SME's including on basic financial literacy (also for producers/groups), accounting, calculations for cost benefit, marketing and business planning and operations, audit, reporting, linked to UNCDF work on improved access to finance. Women and youth will be specifically targeted and funds set aside, including for women trainers, to ensure their participation and benefit from dedicated resources for sustainable VC development.

Public private partnerships with the local vanilla exporters, traders and processors will be an important part of the vanilla VC development approach of FAO with co-operation and partnerships planned in a range of activities including in vanilla grading, market quality requirements, curing and drying processes, packaging, market information and access to finance. Future contracting of vanilla production will also be explored as well as support for organization of and participation in local, provincial, national and relevant international events and trade fairs. A local input/supplier and traders' directory will be developed to foster improved local enterprise and agribusiness development and sustainability.

To reduce the **risk of loss of vanilla income through theft, provision is also made for supporting the development, availability and rollout of improved mobile or digital banking systems** in the programme area. This will include the development of tailored and bankable products for the vanilla value chain which will be developed in consultation with the local banks and financial service providers, mainly by UNCDF with support from ITU. Linking these digitalised solutions will include also exploring support for improved and upgraded access to an improved local phone/mobile network and enabling financial services environment. This will link to support for future financial planning and investments for enterprises and families including for saving and other loan products to grow sustainable local SME's which will be progressed by UNCDF with financing from this programme.

Improved market information will be provided through a low cost Market Information Systems and improved market access is planned by FAO with significant investments for improving and maintaining feeder roads which lead to the provincial market centres and ultimately for export markets. Options for long term contracting as well as future contracting will be explored. Linked to output 2.2/3, support is also planned for improved access to upgraded and more affordable mobile services (with support from ITU) and e-banking (UNCDF). This may be linked also to the planned Community Knowledge Centres where VC stakeholders will be supported to access this type of valuable market information (see also 2.3).

In recognition of the natural or "organic" nature of the current vanilla value chain, provision is also made for the testing and **introduction of certification systems** by FAO for a range of possible market and trade requirements and preferences – to include organic, GI, rainforest Alliance and also voluntary ISO standards (for example the 9000 and 14000 and other series) which are preferred and required for improved trade into some export markets.

FAO will be working with **local institutions and research organizations** such as the Sepik Institute of Rural Technology on the development and tailoring of suitable solutions in sustainable value chain development. Co-operation with these local and national institutions is planned and will be essential for P2P and B2B learning and adoption and in service delivery.

The FAO team will also support enterprises in examining options for accessing blended financing e.g. from the EU and others for upscaling of local vanilla enterprises as well as development of higher value vanilla products) e.g. vanilla extract, paste and links to chocolate companies interested in vanilla) in cooperation with local and international ingredient or chocolate companies.

Activities under this component are linked to component two on VC support services development including Provincial level investments and National issues on access to finance (UNCDF), improved transport and road infrastructure (ILO), and increased access to renewable energy (FAO and UNDP), ICT/digitalisation (ITU) and national policy and strategy development and dialogue (all partners). At local level, and from the onset of the inception period, the programme will explore collaboration with planned Provincial and district level investments (PSIP, DSIP) in the implementation of activities

focused on sustainable Vanilla VC development to ensure complementarity and avoid overlapping of funding.

Output 1.3: Increased sustainable production and inclusiveness of the Fishery value chain (coastal, riverine and aquaculture)

The fisheries VC itself is more complex since the product is highly perishable. Support for fisheries VC development will aim at sustainably increasing productivity and profitability while also contributing significantly to food security and nutrition at household level. This output will be delivered by FAO mainly. Based on available data, interventions to improve specific points in the fishery value chain indicate an IRR of 17-52% for various types of interventions and pricing for coastal, riverine and aquaculture interventions. This is quite positive and will be updated during inception to ensure best trade-offs for impact in the fisheries sector for VC stakeholders.

Development of the Fisheries VC will be based on the result of the **Fisheries VC study and analysis and will be implemented by FAO**. During Inception, the project may also work with an EUVC4D team who may implemented a more in-depth fisheries VC study in 2020. Part of the VC analysis will include work on a **Market analysis** looking at cost efficiencies in the fishery product flows in and around the Sepiks. This will also contribute to the planning of locations where improved and climate proof transportation, infrastructure and communications for fisheries development can be best targeted for future market access and accessibility (within and outside the Sepiks).

Sustainable community based management of the existing fisheries resources will be a driving objective. Based on past work and a review of available information, a Fisheries Information System at local and provincial level may be needed to establish the baseline to assess sustainability of current fishing level (preferably linked to the NFA systems) as well as to assess the plan for sustainable fishing interventions. The FIS will form the basis for a **Sepik fisheries Sustainability and Development Strategy**, to be developed by FAO in collaboration with provincial level authorities and enterprises. Capacity development for provincial level NFA specialists for both collection and updating of data are planned.

To **support smallholder fishers for improved food security and nutrition**, FAO will consider options for a hatchery and fingerling distribution centre for good food value species. The Centre would also assist fisheries MSME's to make improvements in hygienic transport, storage and feed supplies, improve climate proofing of their enterprises and improve existing and new aquaculture enterprise management. Based in the Sepiks, this centre would provide aquaculture training, technical assistance and supply of fingerlings and support the development of suitable commercial fingerlings (e.g. tilapia) and feed supply enterprises. This centre will ideally be a sister facility to the Highlands Aquaculture Development Centre managed by NFA.

These **aquaculture enterprises** may be linked to local financial service providers in priority areas to ensure sustainability, supported by the FAO programme team. The fish-poultry-feed production integrated farming approach developed by NARI will be explored and capacity building activities will be carried out to optimise returns for fisheries enterprises in local conditions.

In **coastal areas**, improved traditional fishing techniques and equipment will be introduced including Inshore Fish Aggregating Devices (IFADs) by FAO as well as fish traps - a proven way to increase food security, income generation and alleviate poverty. IFADs appear to also reduce the pressure on benthic fish stocks. It will also include investments in improved fishing techniques, better handling, processing, storage, marketing and trade as well as essential transport infrastructure such as river jetties, landing sites and roads. Specific efforts will be dedicated to the development of improved access to sustainable feed sources for fish production.



With a low level of human capacity, FAO will **strongly invest in improving the human capacity** in the fisheries sector including enterprise training for MSME fishers to be provided in conjunction with NFA Fisheries College and SMEC; aquaculture extension services to support to aquaculture operators with technical advice and support; aquaculture training in modern fish husbandry and health management methods and materials; training of fishers in improved fish preservation for increased nutritional benefits as well as profitability and shelf life, diversification and fish quality/packaging and marketing; training in FIS for fisheries officers and planners and Fishery Development Plan; fisheries catch documentation training for fishers, training of fishers in improved modern fishing methods; training in market information systems and product marketing and support for resource sharing initiatives and promote fisher marketing collectives (in particular women's groups).

Women and youth will be specifically targeted and funds set aside and managed by FAO, including for women trainers, to ensure their participation and benefit from dedicated resources for sustainable VC development.

Within the **traditional value chains of fish-sago/food trade** along the Sepik river and its tributaries, modernisation of product quality control and diversification will be supported by FAO. This will include improved smokers (FAO Thiaroye method), improved packaging and introduction of renewable cool storage. The application of vacuum packaging of products will enhance food safety and preservation of products and will be explored.

Provision of **solar powered cold storage facilities** by FAO will allow greater diversity of product through retention of fresh product. New generation solar freezer and ice making equipment allows for such practice in remote areas where grid-based energy supply is not available or is unreliable.

The feasibility of **fish canning and processing at SME level** will be supported by FAO to further increase enterprise opportunities for preservation and diversification of product as well as trialed at household level. The project will identify a few fishing enterprises/communities where this modernisation will take place to demonstrate and refine its application. The programme will also support the development of service enterprises that will enable ongoing maintenance and infrastructure to be provided locally for the hygienic transport of products. All infrastructure investments will be implemented by ILO under 2.4.

For riverine fisheries, activities will include **improved production, direct marketing chains, cold chain, improved traditional curing of fisheries products (drying, smoking, packaging) is planned by FAO**. Activities related to this component will constitute a possible field of experimentation for research and innovation activities to be done in collaboration with the NFA. The feasibility of other freshwater caged or pond fisheries will also be examined including for crayfish, prawns and milk fish.

Modernisation of capture fisheries materials and equipment to increase catch per unit effort will be supported through FAO. Use of improved fishing gear in riverine and inshore fisheries will lead to 10-15% increases in catch rate efficiency. This is expected to improve the value chain by reducing the unit cost per kg of fish. For subsistence fishers this will provide greater opportunity to pursue other enterprises and for commercial fishers increase overall catch for sale and trade. These improvements to decrease catch efforts and VC costs will be implemented within the biologically sustainable level of each specific fishery.

Riverine transport is increasingly difficult due to choking of waterways by exotic weeds. Waterway clearance and weed control infrastructure and actions to make improvements will be evaluated in consultation with the beneficiary communities through ILO who are handling the infrastructure elements of the project under output 2.4, which may include jetties and landing sites. Options for various uses of weeds (mulch, compost etc.) will also be explored in collaboration with the fishing and possibly cocoa agripreneurs.



In collaboration with the provincial authorities and the **Ministry of Health**, **fish consumption** will be promoted as a local sustainable source of protein to specifically address stunting as part of a balanced diet by FAO. This will include promotion and training in the role and importance of the consumption of fresh fish and fish products as part of a balanced diet to address stunting and improve household nutrition for family households in the province and possibly at national level.

Similar to the other selected VCs, activities will include increased transparency in terms of **market pricing and transactions** including through enhanced knowledge of market demand and quality requirements to optimise returns and market access for a range of VC stakeholders (smallholder fisher folk, fish markets, local agripreneurs and MSMEs, traders and exporters). Trial marketing of Sepik fisheries products to develop national trade and possibly export opportunities will be supported, possibly linked to the EU or other blended finance facility. Pending the outcome of that market study in selected markets, training in Sepik may include a product traceability scheme for export of products to high value markets.

Provision is made by FAO to work with **local institutions and research organizations such as the National Fisheries College in Kavieng in New Ireland**, in the development and tailoring of suitable solutions including training using for P2P and B2B learning and adoption approaches and in-service capacity development for enhanced delivery for enterprises and state VC stakeholders.

All activities under this component will be carried out by FAO in close collaboration with fisheries agencies at Provincial and district level mainly, including through joint planning and possible co-financing with the NFA at national level. Possible co-financing with NFA will be discussed more in depth during the Inception period.

The Programme team will also support fisheries enterprises in examining options for accessing blended financing (e.g., from the EU and others) for upscaling of local fishing enterprises (FAO and UNCDF mainly) as well as development of higher value fishery products and improved market access and trade in cooperation with local and international enterprises.

SO2: Strengthened, climate resilient and more efficient value chain enablers.

Output 2.1: Conducive business, trade, policy and regulatory environment for sustainable rural agripreneurs and MSMEs established

The Programme will support the creation and enhancement of a climate, gender and age sensitive enabling environment (comprised of legislation, regulations and quality public services adapted to local climate projections) for MSME activity and improving the ease and cost of doing business in PNG aiming amongst others at maximising the opportunities offered to PNG through the Economic Partnership Agreement (EPA) with the EU. All UN Partners will contribute to this output which will link with a variety of ongoing partner initiatives e.g. ADB and WBG/IFC, but will focus on agriculture VC stakeholder needs e.g. licensing, registration, taxation, quality service provision and improved access to national and international markets and to effectively address SPS/TBT issues and VC constraints.

Support is also envisaged for enhanced and consultative national policy and strategy dialogue and development. Hence provision of specialised assistance is envisaged to contribute to (but not limited to): a new and updated National Agriculture Development Plan, the rollout of the new e-agriculture strategy, National Food Security policy, trade and investment in agricultural VC and export/marketing, extension service provision, including through digitalisation of training materials, quarantine regulations, fisheries management, labour related legislation, including when related to

women and youth, MSME development, financial inclusion and access to capital, sustainable utilisation of PNG natural resources, PNG's Climate Change Management Act and implementation of PNG's Nationally Determined Contribution under the Paris Agreement, Energy policy and strategy as well access to and availability of ICT/telecoms/digital solutions. This will include support for the development of relevant enabling legislation and regulations and will cut across the mandates of all the UN Agencies participating in implementation.

Potential synergies with other EU instruments and initiatives and blending platforms such as AgriFI, ElectriFI, Desira which may be complementary for the creation of an enabling environment for VC stakeholders will be proactively explored as well as collaboration with other Development Partners, including from the private sector. Similarly other development partners' initiative(s) that could provide positive synergies will be considered through the consultative processes of Development Partners' regular meetings and Project Steering Committees such as the newly formed Energy Alliance, set up after the APEC 2018.

Output 2.2: Value chain support services strengthened and resilient to climate change impacts

(i) Financial inclusion, mainly access to finance and financial literacy

Activities are planned to improve VC stakeholders' access to banking by UNCDF and enhance understanding of basic financing and on enterprise development, led by FAO. This will include both at household level on calculating production costs and labour requirements (including labour and task burdens) and at agripreneurs and MSMEs level on profitability and improved financial planning and management and access to finance (see also (iii) hereunder).

UNCDF will lead the work on improved access to finance and will support awareness raising and engagement with local Financial Institutions (FIs) to encourage the provision of an expanded range of tailored and inclusive saving, loan, banking, payment products and services for cocoa, vanilla and fisheries VC stakeholders in the target area. Specific support is also planned for VC agripreneurs under the FAO managed Innovation Fund, see (iii) hereunder.

This will include also encouraging the FI's to increase their presence in the programme area, possibly through a branchless banking/ agency banking programme. Linkages to financing may include through intermediary VC stakeholders e.g. exporters/buyers/traders. Options for larger risk sharing could include collaboration with the EU PNG Investment Window Facility and other blended financing instruments.

(ii) Enabling the use of digital solutions for improved service provision in the rural areas

A comprehensive approach will ensure that rural population is benefiting from a well-developed range of support services through digital solutions, mainly with ITU as well as FAO and UNCDF support. ITU activities will therefore include promoting the expansion of the coverage of telecommunications, improved availability, speed and affordability of telecom and banking services and facilities.

Access to knowledge products related to digital financial literacy, livelihoods, value chains commodities, production techniques and approaches, extension materials value addition and market information, better household nutrition and education and other related solutions will be made available through enhanced digital solution provision, led by ITU (in developing the digital means for content delivery) in close consultation with FAO and the other UN Partners. The digital content shall be provided by all UN Partners and shared also with mandated entities of the GoPNG such as NAQIA, NARI, Cocoa Board etc.



Support is also envisaged from ITU to engage information and communication technology tools for facilitating access by VC stakeholders to improved production practices and knowledge, early warning systems for weather and disaster, local and international market and trade information as well as competitive enterprise development. ITU will support linkages to key databases and information systems related to enabling services, including advising ILO on access to high-resolution Geographic Information System (GIS) based maps/systems, including for road/transport planning and improvements.. This will enable better visualisation, analysis and interpretation of key data and improved understanding of climate projections per region and development patterns and trends for national strategy and policy makers.

At national level, ITU will provide specialised technical support and advice to DCIE/NICTA in modernising and upgrading the country's ICT standards and infrastructure for enhancing the roll out of the e-agriculture strategy and development of a provincial level e-agriculture strategy. This may include public private partnerships linking telco and banking service providers, mainly led by ITU with UNCDF and with limited FAO support. Options for collaboration and leverage through blended financing from EU (e.g. Pacific Investment and PNG Investment Window type Facilities) and International Financial Institutions will be explored by all UN partners.

(iii) Increased capacity for business and entrepreneurship

To address specifically entrepreneurship and the necessary business acumen, the Programme will support capacity development activities for agripreneurs including both women, men and youth related to:

- a) development and delivery of tailor-made trainings for enterprise development, small agricultural/VC related business creation, profitability analysis, innovation, value-addition and management, preparation of business plans and bankable proposals for agripreneurs and MSMEs including options for at least each of the three selected value chains.
- b) This will be led by the FAO project team in close partnership with established government and national partners in Wewak such as SMEC, who have a training centre in Wewak and the Women in Development NGO amongst others.
- c) This will include an Agripreneur Innovation Fund managed by FAO to support local VC agripreneurs to engage in, improve and upscale their local enterprises, through PPP arrangements with FAO providing in-kind (technical or enterprise advice, equipment, capacity development) contributions using tailored screening and conditions which will be developed and tested during inception and closely integrated into planned activities in 1.1, 1.2 and 1.3 mainly.
- d) The viability of Knowledge/Resource Centres will be explored and may be set up using a one-stop shop approach to improve access to finance by UNCDF and on enterprise set-up and development led by FAO. This may include the establishment of business incubators in collaboration with local partners such as SMEC in Wewak and will be further examined and detailed during the Inception period.

Output 2.3: Increased production of, and access to renewable energy systems

The Programme will support the provision of renewable energy for enterprise and household level activities related to sustainable VC development. It will be implemented by FAO and UNDP. The use of standalone solar photovoltaic (PV) at household and enterprise level has been pre-identified by the EU energy expert teams to be the most appropriate source of renewable energy production for the project to utilize for agro-food value chain development.

FAO will manage the provision of solar powered renewable energy for enterprise and farm level activities related to cocoa, vanilla and fisheries value chain development as well as for resources centres ideally benefitting women and youth in labour-saving technologies. The project supports and promotes the successful and well-adopted technologies and practices identified by the FAO-

INVESTA²⁴ project suitable for PNG conditions. Major applications identified include the use of improved solar dryers and renewable energy sources for value addition including the drying of cocoa, the controlled drying of vanilla to optimise quality and the drying, preservation and storage of fish and fish products using Thiaroye technology and improved solar based cooling, preservation and marketing to be applied by FAO

Fisher folk living along the Sepik River and coastline will be supported with the establishment of solar energy based drying, preservation and packaging of fish and fish products by FAO. FAO has successfully developed an innovative fish smoking technology "FAO Thiaroye Processing Technique (FTT-Thiaroye) improved fish dryer"²⁵ which it is promoting mainly in Africa. This smoking and effective drying technique also has been found appropriate and suitable for drying fish in the Pacific region to increase the shelf life of the processed fish, reduce postharvest losses and improve fish safety and quality, while retaining the market preferred "smoky" taste. The project will introduce this improved fish dryer to the fisher folks in the project areas and train artisans to manufacture this locally to ensure ready availability, maintenance and sustainability.

At the enterprise level, FAO will test, support and promote local manufacture/sourcing of improved cocoa fermentaries with a solar-cum-fuel/wood efficient dryer as successfully tested during the WB/IFAD/EU PPAP project; establish a sustainable cold chain powered by renewable (solar) energy eg. for fish, food markets and possibly controlled/modified atmosphere storage facilities to enhance market access and profitability. The cocoa fermentaries will be tested with a fan attached to a kiln pipe powered by portable solar photovoltaic for better and uniform hot air exchange in the drying area to enhance cocoa drying and improve and ensure consistent beans quality.

Vanilla beans are dried and cured at household level, resulting in large variations in drying and curing methods and variable quality. Improved farm level processing of vanilla beans will be supported by FAO through locally developed, **efficient and effective passive solar dryers** and improved curing kits. The project will review planned efforts by DAL in the project area on the establishment of community vanilla curing collective centers at enterprise level during the inception phase.

Provision has also been made for support in the testing and upscaling of a solar powered cold chain, including storage to enhance fisheries market access and options for expanding their market reach. This will include collaboration through PPP's in the programme area with local enterprises led by FAO and link with other ICT related applications on market demand and pricing, linked to ITU.

FAO will also provide specific support for women and youth to apply renewable energy systems in the reduction of drudgery. This includes the introduction and support at large scale for the local manufacture and provision of **efficient and low labour clean cooking stoves**²⁶ at the household level and provision of solar-powered water pumps²⁷ for water supply for enterprises, household use, irrigation and fish farming that has been successfully applied by FAO in a number of countries including Bangladesh and Pakistan.

Village level Knowledge centres will also be supported through FAO to adapt and utilize renewable energy sources to power improved facilities including for market access and product quality as well as linking to e-Agriculture solutions. Support may also be provided through FAO for entrepreneur

²⁴ FAO Investing in Sustainable Energy Technologies in the Agrifood Sector (INVESTA) project supports innovative and sustainable approaches to accelerate the uptake of clean energy solutions in agri-business in developing countries and emerging regions. GIZ funded project as a contribution to the international initiative *Powering Agriculture – An Energy Grand Challenge for Development*.

www.fao.org/energy/agrifood-chains/investa

²⁵ <http://www.fao.org/3/a-i8301e.pdf>

²⁶ <http://catalog.cleancookstoves.org/stoves>

²⁷ [solar-powered irrigation system toolbox developed by FAO and GIZ](#)



level initiatives such as solar powered charging stations for enhanced ICT and internet/information access and improved market knowledge and e-commerce, linked to the provincial level e agriculture strategy being led by FAO supported by ITU.

Solar photovoltaic units will be installed for electricity generation at enterprise and household level for enhancing the livelihood of VC beneficiaries, powering food/agriculture needs, lighting, charging phone/radio and village resource centres, including market centres for improved cooling, storage and lighting, led by FAO.

UNDP will lead the provision of specific technical **support at policy and strategy level on renewable energy** to the Government of PNG. This will include an increased focus and inclusion of food and agriculture needs for, and applications of, renewable energy development based on project experiences to be provided through the project team in Wewak.

UNDP will lead on setting up **solar power generation at select public facilities** in the programme area such as schools and health centres to promote awareness of sustainable and renewable energy. During the inception phase, a feasibility study will be conducted on the improvement of Sepik Institute of Rural Technology with access to quality digitally enhanced knowledge and training facilities powered by appropriate renewable energy systems. This will link with the ongoing UNDP implemented, GEF funded project, which already partners with the same college in the delivery of training on energy efficiency.

Each of the UN agencies will explore and support the development of proposals for linking enhanced uptake of renewable and more efficient energy resources through EU and other blended financing mechanisms.

Output 2.4: Improved and climate-proof transport infrastructure

Linked with the VC activities planned in the first component, this component, implemented by ILO will support the rehabilitation, climate-proofing (e.g. against landslides or floods), maintenance and upgrading of existing so called 'ring roads', branching from National Highways. National Highways are under the responsibility of the State and will not be supported. Further, support focusing on feeder roads, leading to the 'ring roads' will originate from the District Service Improvement Programme (DSIP) and possibly also the Provincial Service Improvement Programme.

Selection of the ring roads will be done by ILO according to those prioritised for improving market access and accessibility for the selected value chains, based on the main production areas and prioritising improved access to markets as a guiding criterion. This support may also include works on improving riverine access for cocoa transport and storage for example and will be implemented in close consultation with FAO and other UN partners.

As per the most recent guidance of the Department of Works to embed sustainability in road development and maintenance programmes, provision is foreseen to engage in community-based maintenance rather than focusing on one-off action with specialised companies. Communities will be trained by ILO to carry-out routine maintenance, with a high level of involvement and benefit accruing to women and youth, including capacity development for local contractors for long term involvement and engagement in labour intensive infrastructure works.

Support from the Programme is also foreseen for improved and new jetties and landing sites as may be required and sustainable for local communities and the level of river accessibility will also be reviewed in the Inception phase. This will link with the planned work on improving safety in transport (including boats) and efficiency in market access with local enterprises being implemented under 1.3 on fisheries VC development by FAO.

The feasibility for air cargo transport facilities (e.g., for enhanced vanilla trade and marketing) in the programme area will be examined in the Inception Phase as both government and other partners are currently considering investing in these facilities and a number of initiatives/studies are already underway.

Selection of these activities/investments will be done according to those prioritised for improving market access and trade for the selected value chains and partnerships with other interested public and private partners will be explored by the project team. Options for collaboration and leverage through blended financing from EU (eg. Pacific Investment and PNG Investment Window Facilities) and International Financial Institutions will be actively explored to enhance transportation systems (including the acquisition of adapted boats).

1.2.2 Assumptions

The three main assumptions²⁸ underlying the achievement of the STREIT outcomes include:

- No severe natural disasters: part of the the programme area can be subject to some adverse natural disasters, due to flooding, extreme weather events and possibly earthquakes and tsunamis. Effective risk management and climate proofing has therefore been planned in the programme activities.
- Political stability at provincial, district and ward level: Local elections were held in 2017 and no major changes are expected at provincial, district or ward levels in the coming 2 years²⁹.
- Political will to engage, develop and implement improved legislation and regulations: PNG is engaged in a range of measures to improve its political economy as well as foster and support economic growth. Improved governance is being considered for support in the upcoming collaboration agreement between the GoPNG and the EU.

SECTION 2 – FEASIBILITY

2.1 RISK MANAGEMENT

2.1.1 Significant risks facing the project

Risks faced by the STREIT project include the following broad areas:

Programme co-ordination and management complexity. This is a large-scale project with a number of complex and inter related mechanisms to ensure timely delivery of results. It will require significant co-ordination and joint planning for effectively delivery of planned results by all participating UN agencies as well as other partners.

Weak institutional capacities and unclear coordination mechanisms at different levels in Government. Within the government structures and institutions there can be significant gaps in capacity and in coordination regarding implementation of value chain improvements at local, regional and national level.

Delays in implementation of the project. Past experiences with the EU funded RED II and other large programmes indicate that significant delays can be incurred in project implementation when multiple

²⁸ Based on the Action Document, approved by the EU in Nov. 2018.

²⁹ See also Annex IV on risks



partners are involved with limited planning and interactions, particularly when intervening in a variety of locations throughout the country.

Subsistence producers are not responsive and do not transition to market-oriented operations. Traditional methods of production and past experiences in having limited market access may dissuade agripreneurs and farm families from engaging in more market-oriented operations.

Insecurity is an ongoing concern across the project area with reports on insecurity in both the rural areas as well as criminality/theft in the urban area. Provisions have been made for ensuring the security of all staff in accordance with the established UNDSS requirements, including training as well as escorts to high risk areas.

Land tenure system may hinder value chain development to meet market demands (eg. Drying facility for cocoa). Provision and some level of ownership of land for local enterprises may be a limitation for local enterprises engaging in the programme.

Details on how these and environmental and social risks (see hereunder) will be managed, a risk analysis and scoring as well as detailed mitigating action and responsibilities are detailed in 2.1.3.

During the inception period, the risk matrix will be validated and, as required, updated. During Inception and periodically during implementation, FAO and its UN partners may review and revise the level of various inputs, needs and services required for effective programme delivery in consultation with the Provincial Authorities, the Project Steering Committee and ultimately the EU Delegation in Port Moresby. This may include reallocating funds between budget lines and/or providing additional funds to FAO and UN Partners based on the local situation, needs and conditions as will be documented during implementation. Based on needs identified, the EU Delegation can allow the use of the STREIT Contingency funds³⁰ in agreement with the GoPNG (NAO).

2.1.2 Environmental and social risks

Overall the project can be categorized as of low environmental impact³¹. The project will support improved agricultural production and commercialization, including among indigenous and tribal peoples. The project will carefully evaluate, mitigate against and monitor environmental and social risks. The environmental risks largely are those related to potential negative impacts on natural ecosystems. The social risks largely relate to potential negative impacts of the project on indigenous and tribal communities and informal access to land. The risk management approach and strategy for both types of risk is described below.

Impacts on primary forests and biodiversity: As per the guidance of the EU and agreed with the GoPNG, no land use change from primary of secondary forest to cocoa or vanilla production will be supported. The project will focus on cocoa and vanilla production areas which are already under active or past cultivation. By clearly identifying this as a criterion for siting of project investments, we thereby ensure that any agricultural expansion under the project will not affect primary or secondary forests and thus a shift in land use. The project will also avoid financing or executing projects that involve significant conversion or degradation of critical habitats, natural areas of cultural or religious value, areas that are legally protected, officially proposed for protection, or of high conservation or biodiversity value.

³⁰ As per Section 2.3 of Financing Agreement. Euro 3 million is reserved for Contingencies.

³¹ <http://www.fao.org/3/a-i4413e.pdf>



Impacts of agricultural inputs (especially pesticides and fertilizers): The project does neither promote nor support the use of inorganic fertilizers and pesticides. In close collaboration with Cocoa Board and Provincial Department of Agriculture and Livestock, the project will organize and support specialized training on Integrated Pest and Disease Management (IPDM) for smallholder Cocoa and Vanilla farmers, including agro- ecological approaches. This will include composting of farm and fermentary level products, mulching and use of bio nutrients for enhancing soil fertility and plant protection.

Reduced participation of women farmers and processors: Youth and individual female farmers may not be confident and assertive enough or do not have the capacity and literacy needed to submit concept notes and business plan proposals and the project fails to reach its gender target. The STREIT programme will provide specific training geared towards women and youth and strengthen extension workers and ensure women and youth participation through specific gender and youth targeting and inclusion criteria. The programme will formulate gender sensitive indicators for project's results framework during the Inception period and collect sex-disaggregated data on results and benefits for verification throughout the life of the programme. The project provides for a specific window (budget) for an Innovation grant for Women and Youth specifically. It will also finance specific gender awareness activities at local and national level, including linking to the emerging EU funded Spotlight programme and linked to the Country Gender Policy and Strategy development and roll out in the programme area.

Individual members or organization of Indigenous and Tribal groups: Due to their disadvantaged historical and geographic position, these groups or individuals are not able to submit timely proposals and take advantage for the project. The STREIT will strengthen/train the representatives of local producers' organizations or grouping as well as agripreneurs.

2.1.3 Risk management strategy

The Project Co-ordinator leads much of the risk management as he/she will be based at the project site and working with the range of implementing partners and collaborators. Lessons from the EU funded RED II project have also informed improved processes, joint work planning and implementation measures such as a shared project based located in the programme area and planned joint work planning through Annual Work Plan and Budget.

In its lead role as the Administrative Agent, FAO will monitor overall project risks in co-ordination with each agency. The Pillar Assessed internal control framework of the UN bodies will be applied fully during implementation with management arrangements outlined hereunder.

A detailed risk analysis has been carried out and reflects the main risks identified in the EU Action document as well as an assessment of their potential impact (I) and likelihood (L), as well as proposed mitigation measures. (See Appendix IV for which include effective and timely risk management responsibilities). Responsibilities for mitigation action will be reviewed, and major risks will be reported upwards. The Project Steering Committee meetings will review the risk log and monitor progress of mitigation of key risks.

The PIMU will perform a review revision of the risk log on a quarterly basis, as part of the annual work plan and budgeting process, based on the risk log established at formulation and recommend significant changes to the PSC. With a comprehensive national and international team in situ in the programme area, reaction times to any risks arising is expected to be rapid and will be led by the Programme Co-ordinator.



2.2 IMPLEMENTATION AND MANAGEMENT ARRANGEMENTS

The project is a national project and as such requires the leadership and the participation of state actors. The project will be overseen by a Project Steering Committee (PSC), jointly chaired by the EU and the National Authorizing Office of the EDF. The main institutional partners will be the Department of Agriculture and Livestock (DAL), which will be the lead counterpart and the Departments of Works, Communications, Information and Energy, Trade, Tourism and Industry and the National Fisheries Authority. Additional important parastatals include the Cocoa Board, Small and Medium Enterprise Corporation and NARI. It may also include other members in observer capacity, such as civil society organizations and this will be decided during the initial meetings of the PSC.

A **Project Implementation and Management Unit (PIMU)** hosted in DAL, in Wewak, will be established to support the day-to-day management, coordination and monitoring of project activities. Sub office(s) will also be located in Maprik and possibly also in West Sepik. The PIMU will be led by the FAO Programme Coordinator and consist of the staff from each of the UN Partner Agencies. The Head of the PNG FAO Country Office and the UNRC will be also be remote members of the PIMU. In line with recent UN reforms, the UNRC will guide and support the smooth implementation of the programme.

The main purpose of the PIMU will be to ensure timely and effective project coordination and execution through rigorous and efficient implementation of joint annual Work Plan and Budget. The PIMU will act as Secretary to the PSC and will coordinate all inputs and closely follow up on the execution of project activities, manage daily project work and requirements, coordinate project interventions with other ongoing activities, and ensure a high level of collaboration and joint planning among participating institutions and organizations at all levels (national, and local). It will follow up on project progress and ensure timely delivery of inputs and outputs and results. The PIMU will organize at least quarterly meetings at regional level to quickly address possible bottlenecks and ensure a smooth implementation of the support. Each beneficiary institution will nominate a focal point to attend those meetings, where the NAO and the EU Delegation will be able to attend quarterly meetings of the PIMU as observers.

2.2.1 Institutional Framework and Coordination

A multi-stakeholder Project Steering Committee³² will be established to oversee and validate the overall direction and policy for the implementation of the project as per good Government, EU and FAO practices. This Committee will be jointly chaired by the EU Delegation and the NAO. Specifically, the PSC will:

- a) Provide guidance to the Project Implementation and Management Unit (PIMU) to ensure that project implementation is in accordance with the project results;
- b) Review and approve any proposed revisions to the project results framework and implementation arrangements;
- c) Review and approve budget revisions and re-allocation of funds.
- d) Review, amend (if appropriate) and endorse joint Annual Work Plan and Budget prepared by PIMU;
- e) Sets allocation criteria and approves resources/funds disbursement;
- f) Review Annual Narrative progress and Financial Reports
- g) Provide comments and approve TORs for evaluations;
- h) Advise on issues and problems arising from project implementation, submitted for consideration by the PIMU or by various stakeholders;
- i) Facilitate cooperation between all project partners and facilitate collaboration between the Project and other relevant programmes, projects and initiatives;

³² The Steering Committee is a mix of compliance to both the Financial Agreement with Government described one and the UNJP expected one as per Guidance Note of the UN joint programmes

- j) The PSC will have the mandate and flexibility to establish specific management committees as needed.

The PSC will meet every six months and shall review the progress of the project. For decisions on urgent matters the PIMU, led by the FAO project co-ordinator, will bring the relevant proposal to PSC that could operate virtually via email or skype. The Steering Committee will include representatives of each of the participating UN Partner Agencies, Senior Government Officials from the participating government bodies including, *inter alia*, the Department of Agriculture and Livestock, DCIE, Commerce and Industry, the Department of Works, as well as representatives from the European Union Delegation in Port Moresby and from FAO as the PSC Secretariat, including the Project Coordinator. In addition, the PSC will also have representatives from the provincial level authorities, local private sector, civil society and farmers' organizations. The Project Implementation and Management Unit will serve as the Secretariat to the PSC.

Table 6 Key institutional partners, their national responsibilities and roles³³

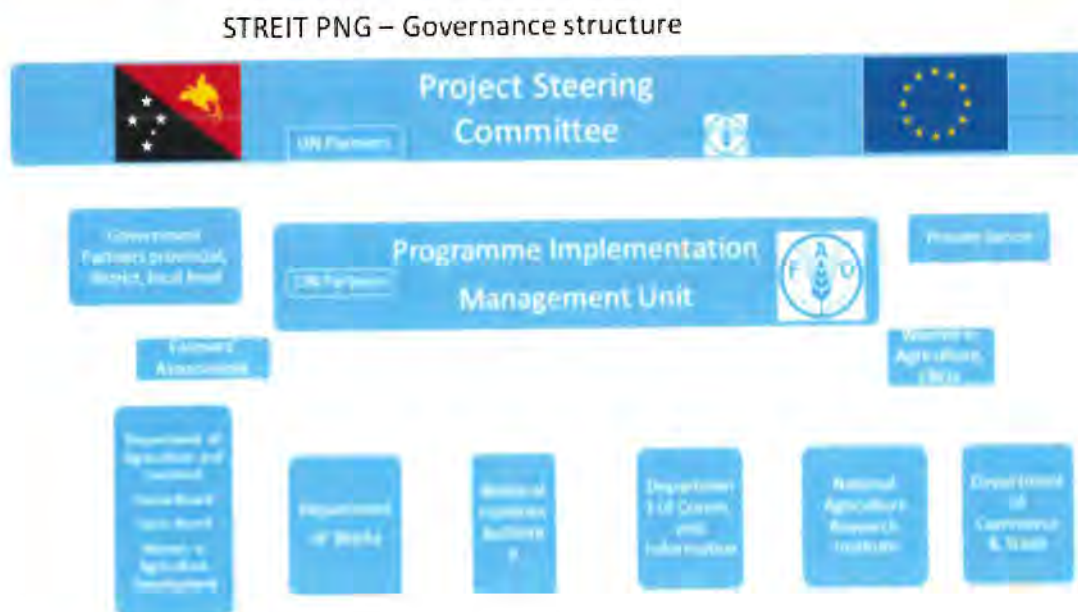
Institution	Role and Responsibilities
NAO of EU	PSC co chair
EU Delegation, Port Moresby	PSC co chair
DAL	PSC members, key partners at national and provincial level
DoW	PSC members, key partners at national and provincial level on roads, infrastructure
NFA	PSC members, key partners at national and provincial level, may become co-financiers (TBC during Inception)
DTTI	PSC members, key partners at national and provincial level
DCIE	PSC members, key partners at national and provincial level, with NICTA
FAO	Lead partner and lead agency for Output 1.1, 1.2, 1.3, 2.1, 2.3 and enterprise development under 2.2. PSC member and Secretariat.
ILO	Roads and infrastructure (Output 2.4) PSC member.
UNDP	Energy policy/strategy and public facilities renewables (Output 2.3, contribution to 2.1) PSC member.
UNCDF	Improved Access to Finance (Output 2.2, contribution to 2.1, 1.1, 1.2,1.3) PSC member.
ITU	ICT and Telecoms (Output 2.3) PSC member.
UNRC PNG	Co-ordination of the UN partners. PSC member.
Head of FAO Country Office	Mandated representative of the FAO in PNG

³³ May be amended during Inception phase



Project Implementation structure

This structure represents the various bodies mentioned in this section. The PSC provides guidance and is the ultimate body for setting strategic direction for the Programme implementation and is co-chaired by the EU Delegation and NAO.



Role of FAO: FAO is leading the consortium made up of UN agencies for the implementation of this UN Joint Programme as the Administrative Agent and the Convening Agency for the programme.

As the Convening Agent (CA) FAO is accountable for the coordination of programmatic activities and narrative reporting, compilation of annual work plans, monitoring of annual targets, convening and reporting on PSC meetings and facilitating evaluation

As the Administrative Agent (AA), FAO is responsible for the financial and administrative management of the EU funds in compliance with the Rules and Regulations of FAO, the General and Special Conditions of the Contribution Agreement signed with the EU as well as the conditions of the MOU signed between the UN agencies. The AA will manage contributions received from EU and disburse the funds based on the PSC's decisions and instructions, as well as consolidate periodic financial reports and final financial reports for submission to the donor.

- a) Oversee project implementation, as part of the PSC, in accordance with the project document, work plans, budgets, agreements with co-financiers and the rules and procedures of FAO;
- b) Provide technical guidance to ensure that appropriate technical quality is applied to all activities;
- c) Carry out at least one supervision mission per year; and
- d) Report to the EU, through the annual narrative progress and financial reports.
- e) Identify opportunities for sharing project progress and highlighting the involvement of key stakeholders and donors.

As a UN Joint Programme, each of the MoU signatory agencies take on full financial and fiduciary responsibility for the element of the programme as outlined in this UN joint Project document. The PIMU leads the overall implementation of the project. The PIMU implements the programme and contracts services providers, procures goods and services and manages the matching grant scheme.



Project activities are implemented directly by the UN Partner Agencies or via Service Providers, semi state enterprises or partners/private sector.

2.2.2 Strategy/Methodology

The project will focus on developing the capacity of the three identified value chains to identify and produce to the quality and quantity demanded by markets. The project will take a twin-track approach: simultaneously working with the local private sector enterprises to identify market potential and co-invest in the productive capacity to overcome value chain constraints to achieve the needed product quality and quantity.

Investments will be made in infrastructure, equipment, human capital, improving private-sector and farmers' organizations capacities (PPP's). In addition, the project will support the public sector to effectively and efficiently deliver the public goods needed to create a framework under which the private sector can make the appropriate investments to promote inclusive value chains development.

Moreover, the project will support the strengthening of public institutions capacities to deliver needed services (e.g. extension service for cocoa and vanilla) in the context of global agricultural trade (e.g. market information systems). Thus the project will have support windows for both the private sector and public sector at local, provincial and national level.

The PIMU will organize workshops and annual meetings for monitoring project progress and preparing an Annual Work Plan and Budget (AWPB) for submission to the PSC for their approval. An outline workplan has been developed to facilitate early startup for the first year an Inception phase (See Appendix 2). The PIMU will also be responsible for implementing the project's monitoring and evaluation plan, managing the monitoring system and the project's communication programme, preparing and consolidating the Annual Narrative Progress Report and facilitate access to all information needed for the mid-term and final evaluations. It will submit the annual Narrative progress report to the PSC together with annual financial report for review and submission to EU by the AA.

The PIMU will have a blend of national and international staff³⁴ with open and transparent processes of recruitment and advertisements for all posts and employment opportunities as per the UN country level practices. During the project inception period, the PIMU will review the project's procurement; implementation and M&E plans and propose refinements, as necessary. In preparation for a rapid startup, a draft Inception (first year) workplan has been developed by the Partners and includes some 'low hanging fruits' based on lessons learned from past interventions (see Appendix 6). This includes the early set up and expansion of Cocoa bud gardens in the Sepiks, the local contracting of road maintenance works, improved market access for local enterprises, engagement with a range of banking and telcom providers as well as national level policy support and improvement.

2.2.3 Technical Support

Direct placement of a comprehensive management and technical team at the project site(s) in the Sepiks will ensure both effective delivery and mentoring of national counterparts for sustainable and in-situ capacity development. Where available, preference will be given to the sourcing of competent national expertise by all UN partners. Full-time staff will be selected based on a competitive and open process to ensure the best technical expertise available is provided to deliver the planned project outcomes. Provision is also made for the engagement of short-term technical experts to complement the team capacities, including management and technical consultants to guide start-up in the earliest stage of project establishment.

³⁴ See annex V for a detailed indicative list of key international/national project staff



The project team will develop TOR for additional expertise to be recruited for specific needs of the project based on the subject areas to be covered. These needs will be reviewed and updated during the Inception Phase and included in the subsequent narrative progress report. FAO Technical expertise seconded from the Regional office and HQ will also be part of the project team and support the project. To enhance delivery and rapid startup, a number of specialized management and technical experts will be fielded as consultants for the project startup.

Within FAO, there is extensive expertise on Food Systems, Value Chains, Agribusiness, Plant production, Nutrition etc. available at the Regional Office in Bangkok and in the PNG country office, which can be used to provide technical support and coordinate the provision of high-level technical expertise and advice to the PNG project as required. Additional expertise is also available from the Headquarters specialized teams in value chain development, crop production, fisheries, energy, infrastructure etc. This expertise will be mobilized on a needs basis and sourced on the principle of subsidiarity to ensure value for money.

2.2.4 Government Inputs

The contribution of the Government of PNG will be its commitment to facilitate project activities and to ensure the availability of Ministry staff to participate in project activities, including extension staff at local government and provincial level.

DAL has agreed to house the project base/office and provide space in its main office complex in Wewak and at the provincial compound in Maprik where the project will procure and install offices for the full range of UN partners to ensure cost effectiveness. DAL will also ensure the provision of all necessary staff, for the project activities. A National Project Counterpart/Coordinator (NPC), fully dedicated to the implementation of this project will be appointed by the Department of Agriculture and Livestock/Provincial authorities in Wewak, and will work closely with the Project Co-ordinator for facilitation of project activities. The programme team will engage with the provincial level authorities to explore joint work planning and programme implementation with ongoing successful provincial, district or local level initiatives on the selected value chains. This may for example include the SMART COCOA programme of East Sepik, set up in 2018.

The Government will be responsible for:

- (a) Making available collaborating technical personnel as may be necessary for the successful implementation and completion of the project;
- (b) Ensuring facilitation for staff to participate in the various training and workshop activities as well as in the project steering committee to be established.
- (c) Providing required customs clearance for equipment, clearance of international personnel as may be required,
- (d) Participating in the Steering Committee

2.2.5 Resource Partner Inputs

Support in the form of equipment, training and specialized technical expertise will be provided by the programme. This will include equipment for improved and sustainable cocoa, vanilla and fisheries enterprise development as well as expertise to address specific bottlenecks in national legislation or regulations which limit local SME development (e.g. licensing requirements).

Roads, infrastructure and renewable energy are a major part of the programme and will be implemented and or provided through by local contractors/suppliers, under the close supervision of the programme to ensure quality and value for money.



Details of the inputs planned are covered in the itemized budget in Appendix III detailed by the standard UNDG Harmonised budget categories.

2.2.6 Management and Operational Support Arrangements

The project will be managed by FAO through the PIMU, led by the Project Co-ordinator, which will be in charge of procuring goods, works and services. In addition to the salary of the core PIMU staff (long-term officers, either national or international), project management will also include travel, fuel, and some limited equipment.

The PIMU will be guided by the PSC which provides oversight and guidance as well as higher level decisions on programme delivery and implementation. The PIMU will arrange the PSC meetings and engage with the PSC as required for the review and approval of the joint AWPB.

Operational costs will also include the Monitoring and Evaluation budget as well as the Communication and Visibility budget. Technical Support Services to provide backstopping have been included in their respective component, as has the cost of the specialized expertise/consultancies that the PIMU will hire, both at national and international level.

Equipment and goods procured under the project will be provided directly to the project beneficiaries with an immediate transfer of assets from the participating partners and implementing agencies. Longer-term assets such as the kit house(s) which will serve as the project office and vehicles will be transferred to DAL and the respective government and parastatal partners in the province upon termination of the project.

2.3 MONITORING, PERFORMANCE ASSESSMENT AND REPORTING

2.3.1 Scope and Purpose

Conducting monitoring and evaluation (M&E) activities systematically is critical for supporting the effective implementation of the STREIT towards its intended objectives. In particular, setting up a dedicated monitoring system for the Project is instrumental to provide regular feedback on the performance of the Project, to inform its decision-making processes and to facilitate the reporting of its contribution to the national relevant policies.

The monitoring and evaluation system of the Project will build on a Results Based Management (RBM) approach i.e. *"a broad management strategy aimed at achieving improved performance and demonstrable results"* (United Nations Evaluation Group, UNEG). The RBM approach emphasizes the importance of linking Planning, Monitoring and Evaluation processes for enhancing the effectiveness of policies, strategies, programmes and projects. In all these contexts, the establishment of M&E systems is instrumental to support the effective interconnection of the complementary processes of Planning, Monitoring and Evaluation.

FAO and partners will design the Monitoring and Evaluation System jointly. The M&E system plan will specify the impact, outcome and output indicators, the activities to be performed, the methodology, and clarify actor's roles and responsibilities. An indicative set of performance indicators are provided in the logical framework annexed to this proposal and will be further detailed during the planned one year Inception period. The system will be based on clear and precise joint annual work plan. The implementation of the annual work plan, including the update of the project activities will be tracked on a six-month basis and shared with the PSC as an interim informal update. An Annual Narrative Progress and Financial report will be submitted to EU as per general conditions. This will feed the mid-term and final evaluations.



FAO, in close consultation with Government Counterparts and UN Partners, will undertake a baseline survey during the one year inception phase, to generate data for the respective indicators of outputs and outcome. They will also conduct an end-line survey to establish Project performance and impact.

The European Commission may undertake additional project monitoring visits, both through its own staff and independent consultants, recruited directly by the Commission for independent monitoring reviews (or recruited by the agent contracted by the Commission for implementing such reviews).

FAO Project Implementation and Monitoring Unit and Project Task Force staff and Government counterparts will conduct joint Project supervision missions. At least one supervision mission will take place every year. Experts on the various sub-components of the Project perform supervision missions. The Project contemplates research related activities that will also provide relevant inputs for monitoring and evaluation.

M & E activities will provide information on best interventions and approaches for achieving maximum impact for sustainable value chain development. Feedback loops will be established to improve and correct performance as these emerge.

2.3.2. Focus on Achievement of results (Outputs and Outcome)

The monitoring and evaluation approach will focus on results, based on the agreed indicators (with their baseline and target) for the outputs and outcome. These have been established in the logical framework and will be further refined during the one year inception period. While the overall approach is participatory, it is the ultimate responsibility of the Project Budget Holder to coordinate the preparation of the Annual Narrative Progress and Final Report.

It is the responsibility of the Lead Technical Officer to ensure technical validity of the reports as well as to ensure inputs from other Technical Officers from within the PTF and from other partners as needed.

During the one year inception phase and throughout the programme, established and agreed reporting and M & E joint framework format will be used by all UN partners which will be linked to the joint annual workplan and budget.

In line with agreed reporting requirements, the following will constitute the main narrative reporting obligations of the Project:

- **Inception phase report:** detailing what has been put in place (in terms of institutional arrangements, staff recruitment, assignment/deployment and other arrangements); overall direction of the Project, baseline study, annual work plans of the different components, problems/constraints encountered and adjustments needed in specific cases, etc.
- **Annual Report:** The PIMU, in collaboration with counterparts and partners, undertake a review of the progress with respect to annual work plan and produce the Annual Narrative progress report. The report will be reviewed by the PSC and submitted to EU as per General Conditions.
- **Final Report:** At the end of the Project, a final report will be prepared and submitted to the EU. The final report will cover the entire implementation period and will follow article 3.8 of the General conditions. The final report will include:
 - Full description of activities actually carried out with an explanation for any variances with the original plans, agreed modifications or adjustments and a description of accomplishments and difficulties encountered;
 - Description of the process of implementation modalities and the degree to which actual implementation met the original plans in the project document;



- Project performance detailing the degree to which planned activities actually led to the accomplishments of expected outputs and the expected outcome. In the case of variations, a full account of the circumstances, which prevented progress or delivery of services and the measures, should be included;
- The most significant lessons learned from the success or failure of the Project;
- Sustainability plan put in place;
- Recommendations and suggestions for improvements in the financing and execution of related projects.

The annual and final narrative reports will be accompanied by relevant financial reports. Moreover FAO will ensure that special communication and visibility material (such as technical manuals publications, press releases and relevant updates) will also be communicated to the EU delegation, the Government and relevant stakeholders when they are issued.

2.4 COMMUNICATION

In accordance with the relevant provisions under the Financial and Administrative Framework Agreement (FAFA) and as laid down by the Contribution Agreement, visibility actions for this Project will be developed following the Joint Visibility Guidelines for EC-UN Actions in the Field, issued in April 2008. In line with EU requirements, a Communications and Visibility Plan has been developed by FAO and is attached as Annex VI of the Contribution Agreement. This will form the basis for the project to ensure high visibility for the project activities based on EU provided support.

Communication activities will focus on the results and purpose of the Project, targeting general and specific audiences in Papua New Guinea, as well as member countries of the European Union and the wider international community. Communication actions will be aligned with FAO's corporate communication strategy and benefit from the existing expertise and facilities of the Organization's Office for Corporate Communication (OCC).

The main communication and visibility plan activities include the following:

- (i) Preparation and dissemination of relevant communication materials on various aspects of the Project design, implementation and M & E;
- (ii) Project launching and other national visibility events in collaboration with Government Counterparts;
- (iii) Sensitization campaigns for awareness raising within Government Counterparts, partners and relevant stakeholders;
- (iv) Field visits and impact coverage from beneficiary perspectives;
- (v) Production of visibility items such as t-shirts, caps and signposts;
- (vi) Printing EU logo in all items procured by the Project.

FAO will take advantage of its expert team and lessons learnt in the application of the Communication for Development approach. Communication for Development (ComDev) is a key driver in agriculture and rural development. It is a results oriented communication process based on dialogue and participation, that allows rural people to voice their opinions, share knowledge and actively engage in their own development. Through a broad range of methods and tools, including local media and ICTs, Communication for Development can maximize the impact of development initiatives, fostering multi-stakeholders dialogue, informed decision making and collective action³⁵.

All UN Agencies are contributing in the communication and visibility plan related activities and outputs and will provide the necessary updates in each annual report.

³⁵ For further reference see: <http://www.fao.org/communication-for-development/en/>



2.5 PROVISION FOR EVALUATION

The logical framework presented in Appendix I is the agreed framework for monitoring and evaluation based on the EU approved Action Document and Financing Agreement. The UN joint M&E system (based on the annualized joint Annual Workplan and Budgets) will be detailed during the one year inception period and includes relevant quantitative and qualitative indicators agreed to track project progress, outputs and outcomes. The overall results of the M&E will be presented in the interim progress reports and the project completion report, prepared by FAO based on inputs provided by each respective UN agency.

During the inception phase (months 1-12), the current logical framework will be reviewed and updated, particularly with reference to baseline data for key indicators as well as the streamlining and refinement of indicators. FAO will work with its partners to further ensure that activities of the Project and related indicators are accurate and measurable thus allowing to assess the project efficiency and effectiveness in achieving the expected outputs and outcome, which constitute part of the key parameters to determine the impact of the Programme.

In addition, the EU will contract independent consultants to lead a separate mid-term and final evaluation, financed by a separate envelope. The Commission shall inform the implementing partner at least three months in advance of the dates foreseen for the evaluation missions. The implementing partner and other participating UN agencies shall collaborate efficiently and effectively with the evaluation experts, and inter alia provide them with all necessary information and documentation, as well as access to the project premises and activities. FAO has budgeted resources to conduct comprehensive mid-term evaluation and will proactively reach out to the EU to align with or join the EU evaluation exercises and will ensure that the other UN participating agencies and partners on the ground also adequately join the EU evaluation exercises.

An independent Final Evaluation is planned within six months prior to the actual completion date (NTE date) of the project. It will aim at identifying project outcomes, their sustainability and actual or potential impacts. It will also have the purpose of indicating future actions needed to assure continuity of the process developed through the project. The FAO Office of Evaluation, in consultation with project stakeholders and in close co-ordination with the Government, will be responsible for managing the evaluation.³⁶

The evaluation reports will be shared with Government Counterparts and other relevant stakeholders. FAO and the EC, in close collaboration with the other participating UN Agencies, will analyze the conclusions and recommendations of the evaluations and, where appropriate, in agreement with the Government of PNG, jointly decide on the follow-up actions and any required adjustments, including, if indicated, the reorientation of the Project.

For each UN Agency, the project shall be subject exclusively to the internal and external auditing procedures laid down in their respective Financial Regulations, Rules, and directives.

SECTION 3 - SUSTAINABILITY OF RESULTS

3.1 ENVIRONMENTAL SUSTAINABILITY

The Programme will support the Government in its endeavours to foster sustainable development by discouraging unsustainable agriculture and land use by providing alternative economically attractive

³⁶ Project evaluation services are considered direct project costs, as part of technical support provided by FAO.

and sustainable options (cocoa, vanilla, fisheries). With the aim to promote and enhance sinks of Green House Gases, **the Programme will specifically avoid the conversion of land use from primary or secondary forest for the production of cocoa or vanilla** and, more generally, will help mitigate value chain (including production) emissions.

The Programme will contribute to climate change adaptation through the promotion of climate-smart agricultural practices attuned to specific regional and local climate impacts, providing rural population with enhanced capacity to face slow-onset and extreme climate-related events (e.g. linked to El Niño/La Niña): education, training and public awareness on basic climate adaptation concepts adoption of climate-resilient varieties, diversification and new agricultural systems through an easier access to information and cultivars, promotion of climate proofing of essential transport and renewable energy infrastructures and maintaining the focus on the integration of climate change adaptation into national policy, plans and programmes.

The Programme will benefit from the experience gained in the food security sector by NARI who is implementing an EU-funded project "Strengthening food production capacity and the resilience to drought of vulnerable communities". Based on lessons learned, measures are also planned for the use of soil and water conservation (cocoa boundaries) as well as use of organic fertilizers and composting at farm level and it is also planned to optimise the market potential of the organic but not yet organically certified value chains for improved returns for VC stakeholders and local entrepreneurs.

The planned increased availability and use of renewable energy from the project will not only cut the country's emissions but also allow for decentralised electricity sources without recourse to fossil fuel supplies. To ensure sustainability the use of solar energy kits has been pre-identified as highly suitable for use at farm and enterprise level and will facilitate also local entrepreneurship development for not only supply but also maintenance and repair³⁷.

Integrated with economic sustainability, support is planned to provide renewable energy equipment and technologies to local enterprises that will include cutting down processing costs sustainably for entrepreneurs and, in general, leading to a better processing of cocoa, vanilla, fish and other local food staples such as sago, an important food item that can be stored for long period if properly processed, dried and packaged. It will also include improved use of solar power for improving access of enterprises to improve market access and enhance their communication, banking and access to finance e.g. through the rollout of charging stations and possibly partnering with telcom providers in the use of renewable energy for local towers and banking access points.

Energy efficiency will also be promoted by the Action, for example through the use of higher energy efficiency stoves, with women having a lead role. Environmental sustainability will be supported through ensuring the protection of natural eco-systems, and mitigating against risks to biodiversity and genetic resources. In addition, the project will demonstrate the use and application of renewable energy options at a number of public institutions (schools, hospitals) to demonstrate its applicability and foster increased national capacity to continue to create the appropriate framework and services for the adoptions of renewable energy resources in a sustainable manner and well as to promote the use of high energy efficiency standards and equipment throughout the country.

3.2 GENDER EQUALITY (INCL. YOUTH)

More than 50 percent of the female labour force is engaged in agriculture and women comprise nearly 35 percent of the economically active population in agriculture. Rural women play a prominent role in subsistence food production, agricultural value chains and rural livelihoods. They

³⁷ Based on EU Expert Renewable Energy mission consultations in April 2019 in Wewak and Port Moresby.

actively participate in livestock and poultry production and in fish farming. Nevertheless, women receive lower wages for agricultural labour, earn less than men from the sale of cash crops, are unequally represented in social forums, and are overlooked both as contributors and beneficiaries in productive economic activities.³⁸

Despite non-discriminatory legislation, women face severe challenges in access to and control over productive resources (land, water, labour, inputs and technology), services (extension, training and credit), markets, and their participation in decision making is limited. Men make important decisions around land use and land management, and women are systematically excluded from access to resources, essential services, and decision making. Overall, highly patriarchal social norms dictate that men make important decisions at all levels, and even though women are beginning to take on more leadership roles, the notion of the 'big man leadership' means that leaders are generally expected to be men. Women's lack of access to collateral means they cannot access financial loans and even though micro-credit initiatives have been established, these have not been successful for female entrepreneurs as they normally use their loans to meet household expenses. Women are less educated and less literate than men and this limit their ability to engage at higher levels of value chains, upgrade their skills, or access ICT for marketing. In addition, women shoulder the bulk of care and community work, which makes them considerably time poor and constrained in engaging in additional activities.

PNG also has extremely high levels of violence against women, which have been connected to household level conflict over negotiation for resources. As a result of all of the above, PNG is ranked in the bottom ten countries of the Gender Inequality Index.

Youth represent over half of the country's population. Young people under 25 make up about 60 per cent of the population in Papua New Guinea (PNG), equating to about 7.3 million inhabitants (UNFPA, 2019). While potentially a key resources for the socio-economic development of the country, youth face many challenges including lack of access to quality education and skill trainings for the labour market, to productive resources and voice. This makes them particularly vulnerable to poverty and involvement in crime and violence as a result of the lack of social and cultural integration, economic opportunity and employment. Young women and girls are further marginalized due to existing social norms and are thus at risk of early marriages and pregnancy.³⁹ Improving youth access to productive resources, pursuing strategies aiming to make agriculture more productive and helping small-scale producers and enterprises to cluster and shift into higher value-added activities in the supply chain can have significant potential to generate decent jobs and reduce poverty.

The deep-rooted discriminatory norms and structural constraints described above mean that women and youth face a number of challenges that need to be overcome in order for this project to succeed. The project will attempt to break down these constraints through an explicit focus on women and youth's socio-economic empowerment, including through voice and collective action, as well as the integration of gender equality and social inclusion across the Action. In addition, it will foster the transformation of gender and social norms through awareness, dialogue and behaviour change communication strategies, among others.

More specifically the project will use a multi-pronged approach including but not limited to: 1) creation of an enabling environment for gender equality and social inclusion; 2) mainstreaming of gender equality throughout the Action; 3) designing and implementing women- and youth- targeted interventions; 4) promotion of awareness raising and behaviour change; and 5) continuous monitoring and feedback loop to allow improvement and adjustment as needed.

³⁸ FAO. Country Gender Assessment of Agriculture and the Rural Sector of Papua New Guinea (forthcoming)

³⁹ <http://png.ureport.in>; Oaktree, 2016. The Youth Bulge in Papua New Guinea: Challenges and Opportunities



Through gender mainstreaming, the project will ensure that all activities include both women and men as beneficiaries, setting minimum quotas for women and male and female youth as needed, and monitoring progress through gender-, age- and ethnicity- responsive indicators. This will also entail ensuring gender balance in project staffing at different levels.

At the onset of project implementation gender, social inclusion and vulnerability analyses will be conducted to detect the existing gender roles, gaps and constraints and identify leverage points for change in the specific context of the project locations and interventions, including but not limited to the selected value chains. The information needed and data relevant to gender equality and women's and youth's socio-economic empowerment will be also identified through the gender analysis and will contribute to establishing a gender, age and ethnicity/tribal disaggregated baseline. Based on the analysis, the gender strategy and action plan for the project will be formulated.

The project will include enhancing opportunities for women and youth in entrepreneurship, job creation, training and literacy, improved access to livelihoods-related information services through improved digital solution delivery and improved rural-urban linkages. Furthermore, the project will ensure that job creation complies with decent work standards and criteria. This will also include that eventual labour rights violations in the targeted value chains will be assessed, for example in relation to instances of child labour, and consequent actions will be included in the project from both risk management and results perspectives. This is in line with the specific country situation and it is fully aligned with Agenda 2030, - including SDG1: End poverty, SDG5: Achieve gender equality and empower all women and girls, SDG8: Decent work and economic growth and SDG10: Reduce inequality within and among countries - the new European Consensus on Development and the four pivotal areas of the EU Gender Action Plan II 2016-2020.

Some specific examples of project activities include but are not limited to: improvement of market facilities and road infrastructure; provision of gender-responsive labour saving technologies (e.g. solar powered pumps, solar dryer, grinders, improved cooking stoves, etc); financial literacy and capacity development on selected agricultural activities along the selected value chains; awareness raising and access to ICT for improved access to information and markets; establishment of a small grant facility for women's income-generating activities and entrepreneurship; women's group formation, leadership training and empowerment; youth's leadership training, gender awareness and group formation.

The creation of an enabling environment will entail sensitizing project staff, key counterparts and project beneficiaries on the benefits of gender equality and social inclusion. Key gender and youth champions will also be identified among clans, community and religious leaders and community youth who can support the dissemination of gender equality and equity messages at different levels and venues. By taking a proactive approach to promoting awareness raising and dialogue, including through listeners' clubs and behaviours change communication strategies, the project will proactively seek to change perceptions and behaviours that marginalize youth and discriminate against women including in relation to access to resources (e.g. land, inputs) and opportunities (e.g. education, trainings), intra-household division of labour and distribution of care work, and gender based violence. To ensure sensitivity to existing social norms as well as transformation of unequal power relations, the project will seek to engage husbands and wives and households together in value chain activities, while also supporting the formation of women's groups to promote the active participation of women. Additionally, the project may use FAO consolidated methods such as the Dimitra⁴⁰ approach, which has proved successful in changing gender norms and relations and strengthening the participation and voice of women and girls and other marginalized groups by stimulating

⁴⁰ <http://www.fao.org/dimitra/about-dimitra/en/>



community dialogue and problem solving around key issues of rural development and gender roles and relations. Furthermore, the projects will promote the participation of and facilitate exchange among women's and youth's groups in provincial and national level policy dialogues and fora and proactively feed lessons into national policy processes.

The project also aims to improve availability of data and generation of gender statistics through the generation, compilation and analysis of sex-disaggregated data. The project will collect and maintain sex, age and ethnicity disaggregated and gender-sensitive data for all project activities and promote its systematic use. The data will be included in quarterly and annual reports. Based on yearly gender and social inclusion analyses, further activities might be designed to support women farmers' and youth's empowerment and entrepreneurship and increase the number of female and male youth beneficiaries. The project Gender Specialist in the project team will be actively involved in performance monitoring activities and work closely with the Monitoring and Evaluation (M&E) Specialist to ensure the inclusion of gender-sensitive indicators in activity plans.

The project will showcase successes of women farmers and women and youth entrepreneurs through case studies. Women's and youth's voices will be captured in documentary shootings so to inspire other women and young people, especially young women. The Project will also showcase stories of changed gender relations including for instance men (fathers, brothers, husbands, religious/community leaders, government, market intermediaries etc.) who support women in their process of empowerment.

During the inception phase of the project, a gender-sensitive and rural youth-focused communication diagnostics will also be conducted in the project areas. The diagnostics will look into the needs, practices and information and communications resources available for rural young women and men. Emphasis could be given to assess the adoption and use of ICTs and social media, given the comparative advantage that they represent to provide access to information and communication services to the rural youth. Due attention should be given to the specific needs and concerns of youth of indigenous communities and young rural women.

Once the diagnostic is conducted a subsequent activity could look into Supporting the expansion and development of communication services that could facilitate youth access to employment and agricultural-related information and training, such as digital platforms, social media channels, community media and mobile applications.

Throughout the project, linkages and collaboration will be fostered with the emerging EU-funded SPOTLIGHT project on Gender Based Violence which is also planning to have some activities in the project area as well as the ongoing Markets programme, currently being implemented by UN Women.

3.3 INDIGENOUS PEOPLES⁴¹

The indigenous population of Papua New Guinea is one of the most heterogeneous in the world with approximately 312 diverse indigenous tribes and 836 distinct Indigenous languages. Clans inhabit long-standing customary land, and tribal identities and practices remain fundamental to Papua New Guinean society. Up to 97% of the land is held under customary tenure and controlled by different clans (wantok), some of which are matrilineal. Some remote Papuan tribes still have very little contact with the outside world. There is evidence that some rural residents migrate to urban areas to escape tribal violence in their home communities.

⁴¹ Indigenous peoples is the internationally agreed term (United Nations Declaration on the Rights of Indigenous Peoples) and it encompasses tribal peoples, natives, First Nations, pueblos originarios, pueblos autóctonos, nomadic and pastoralists, aboriginal and traditional peoples.

Consistent with FAO's mandate and Policy on Indigenous and Tribal Peoples (FAO, 2010), the project will promote and implement Free Prior and Informed Consent (<http://www.fao.org/3/a-i6190e.pdf>) to ensure respect, inclusion and promotion of indigenous peoples rights and concerns. Within the project, indigenous peoples in Papua New Guinea are considered fundamental stakeholders and partners, wherefore all communities affected will be equally involved in the participatory mapping to ensure their priorities are taken into account in the project formulation and implementation, as well as their inclusive participation throughout all stages of the project.

In this sense, FAO will follow the six-step procedure to facilitate the Free, Prior and Informed Consent (FPIC) process to minimize risks, build a trust-based relationship and increase ownership and sustainability:

- (1) Identify the Indigenous Peoples' concerned and their respective representatives
- (2) Document geographic and demographic information through participatory mapping (land usage, spiritual practices, traditional ethical codes natural resources, and customary rights)
- (3) Design a participatory communication plan and carry out iterative discussions over which project information will be disclosed in a transparent way
- (4) Reach consent, document Indigenous Peoples' needs that are to be included into the project, and agree on a feedback and complaints mechanism
- (5) Participatory monitoring and evaluation of the agreement
- (6) Document lessons learned and disclose information about project achievements

During project preparation, the design team met with and considered proposals from the Provincial level government as well as 6 visits to various villages in the East Sepik region. These consultations were essential in enabling a cleared understanding of the needs expressed by the stakeholders consulted (producers, (men and women and youth) with focus group discussions with all groups) as well as viewing at first hand their situations and limitations in the three selected value chains.

The project will continue its dialogue with stakeholders and provincial level and local government level stakeholders during the 6 months Inception Period. This will include more in-depth consultations and mapping of the various value chains actors, their roles and needs and current opportunities where the project can intervene to support them. There is agreement that there are many opportunities for indigenous (and tribal) farmers, especially indigenous women to participate in the project but these consultations are essential to ensure that they are effectively reached and benefit from the programme.

3.4 HUMAN RIGHTS BASED APPROACHES (HRBA), INCLUDING RIGHT TO FOOD, DECENT WORK, ACCOUNTABILITY TO AFFECTED POPULATIONS

Through prior and continuous consultation and engagement with the affected populations (farmers, cooperatives, traders, processors, indigenous and tribal peoples), the project will seek to insert and maintain squarely centred a Human Rights Base Approach (HRBA) to its activities and objective. Dialogue will be opened and maintained with indigenous and tribal leaders, the communities, and relevant national and local government agencies to ensure full disclosure and adherence to a HRBA.

The initial value chain assessment will also consider existing human right violations in the specific chains, including labour rights violations such as child or forced labour, and current commitments of existing MSMEs towards improved labour standards.

3.5 CAPACITY DEVELOPMENT



The programme will make significant investments in improving the capacities of enterprises, local agripreneurs as well as government and value chain stakeholders. The project will work within a framework of capacity development, in which the following principles are actively promoted:

- Country ownership: STREIT and its UN Partners will work directly closely with government and the private sector/entrepreneurs. Specifically DAL/Cocoa Board and relevant public and private partners will be involved in developing, implementing and designing sustainability into the project activities and investments to ensure future continuation and sustainability. Combining public and private interests will also foster and improve capacities for future economic sustainability and enterprise development and growth in the three value chains.
- Low national capacity is a risk and the project will work to strengthen the capacity of key government officials, farmers, private sector actors, youth as well as the capacities of key institutions such as the DAL extension service at local government level as well as at the Provincial level. Enhancing the local capacity at LLG, and Provincial level will positively contribute to providing an evidence base for enhanced policy engagement and development environment.
- A strong technical (national and international) team will be fielded in the province mainly to support, mentor and foster national capacity enhancement including through engagement of government officers such as extension officers and collaborators such as the Cocoa Board in training of VC stakeholders and monitoring and evaluation activities of service providers.
- Collaboration for capacity development with the Cocoa Board and NFA is planned, specifically in the areas to support local enterprise and technical capacity development, e.g., using the Fisheries Training College in Kavieng, as well as the emerging Sepik Rural Technology College which may be a base for more localised training as well as B2B and P2P visits to other islands such as East New Britain and New Ireland for cocoa VC stakeholders and Ley and other areas for Vanilla.
- The private sector will have a key role in the future sustainability of the selected value chains. Support will be provided to develop and improve their key skills in not only enterprise management but also in proactively exploring and securing improved markets for higher value added products such as cocoa powder and chocolate in regional and international markets and trade events.
- At provincial level, linkages will be explored with ongoing programmes e.g., SMART COCOA, an initiative under the East Sepik Provincial Government as well as co-financing arrangements. Expansion of existing nurseries and distribution networks (public and private) is planned and will also be used for capacity development and to facilitate rapid startup of the programme in the Sepiks.
- Specific and substantial support will be provided to women as beneficiaries. This will include through dedicated Innovation Fund, with a specific target of 50% for women, including capacity development for use of renewable energy options for lighting, improved stoves for cooking and reduction of drudgery through improved production practices and tools at household and enterprise level.
- With improved knowledge and experiences in sustainable and inclusive value chain development, the capacities of organizations and individuals involved will contribute to an enabling environment. The role of the PSC and consultations with partners have therefore been mainstreamed in the project design and include state, parastatal and non-state actors.
- Capacities of local service and inputs providers will also be strengthened to enable more direct provision of inputs and services in the programme area. This may for example include the early expansion of local bud nurseries as one of the key learnings emerging from the PPAP project and is included in the Inception Workplan.
- The STREIT exit strategy will rest on the viability of the enterprises and supporting environment that are being promoted and supported, improved access to technology, better access to finance and to markets. The financial and economic viability has been examined

and a number of models developed which confirm the viability of improving local enterprises in vanilla, cocoa and fisheries⁴².

⁴² A detailed financial and economic analysis is provided in Appendix VIII indicating that the project interventions in the cocoa and vanilla value chains have high potential but also some risks for which measures have been developed to ensure sustainability. Estimates on returns are also conservatively estimates and include a sensitivity analysis.



Appendix I FAO Logical Framework Matrix

The activities, the expected outputs and all the indicators, targets and baselines included in the logframe matrix are indicative and will be updated during the agreed first year of project inception, no amendment being required to the financing decision. When it is not possible to determine the outputs of an action at formulation stage, intermediary outcomes should be presented and the outputs defined during inception of the overall programme and its components. The indicative logframe matrix will evolve during the lifetime of the action: new lines will be added for including the activities as well as new columns for intermediary targets (milestones) for the output and outcome indicators whenever it is relevant for monitoring and reporting purposes. Note also that indicators will be disaggregated by sex whenever relevant.

Results chain	Indicators ⁴³	Baselines (incl. reference year)	Targets (incl. reference year)	Sources and means of verification	Assumptions
To increase sustainable and inclusive economic development of rural areas	OO1 - Proportion of the population living below \$1.90 (PPP) per day by sex, age, employment status and geographical location (urban/rural) (SDG 1.1.1, EURFLIT1)**	TBD in inception phase	(2024) TBD in inception phase	HIES	
	OO2 - Prevalence of stunting (moderate and severe) in children aged below five years (EURFLIT9)	66% in 2010 for PNG, 70% for MOMASE ⁴⁴	Reduction of x% from baseline	WHO	
	OO3 - Renewable energy (excluding biomass) as a proportion of total energy production (SDG 7.2.1, EURFLIT12) (Region+ PNG)*	TBD in inception phase	Increase of the value TBD by x%	Dedicated baseline and end line survey	
SO1: Increased economic return from three selected value chain	SO 1.1 Annual value of cocoa/vanilla/fishery products produced in the project area	TBD in inception phase	Increase of x% from baseline	Dedicated baseline and end line survey	Price of high end quality cocoa and vanilla remains at current level at least.
	SO 1.2 Number of people engaged in the focused value chains (before/after; disaggregated by sex, age and positioning in the value chain)	TBD in inception phase	Increase of x% from baseline	HIES	Local market price of fisheries produces in the Sepiks remains at current level. No major climatic or natural disasters hits the areas of

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When not specified statistics and data will relate to the areas of intervention of the Action within the MOMASE region
Short Changed: the Human and Economic Cost of Child Undernutrition in Papua New Guinea – Save the Children June 2017

	<p>SO2: Strengthened, climate resilient and more efficient value chain enablers</p>	<p>SO 1.3 Annual net income reported by participants of the cocoa/vanilla and fishery products value chains, disaggregated by sex and age</p> <p>SO 2.1 Number of people employed by MSMEs disaggregated by sex and age*</p> <p>SO 2.2 Number of value chains stakeholders benefiting from improved access to value chain related financing disaggregated by sex and age*</p> <p>SO 2.3 Usage (number, range, frequency/intensity) of ICT tools and services (knowledge and market information), disaggregated by sex and age</p> <p>SO 2.4 Amount / Percentage of renewable energy (excluding biomass that may induce land-use change) used by VC related agripreneurs and MSMEs in the project area as part of their total energy consumption*</p> <p>SO 2.5 Number of people/households who live within 2 km of all-season roads rehabilitated with project support and sustainably maintained (SDG 9.1.1)</p>	<p>TBD in inception phase</p> <p>TBD in inception phase</p> <p>TBD in inception phase</p> <p>TBD in inception phase</p> <p>TBD in inception phase</p> <p>TBD in inception phase</p> <p>TBD in inception phase</p>	<p>Improvement from baseline study</p> <p>Increase of x% from baseline</p> <p>Increase of x% from baseline</p> <p>Increase of x% from baseline</p> <p>Increase of x% from baseline</p> <p>Increase of x% from baseline</p> <p>Increase of x% from baseline</p>	<p>HIES</p> <p>Dedicated baseline and end line survey.</p> <p>Dedicated baseline and end line survey.</p> <p>Dedicated baseline and end line survey.</p> <p>Dedicated baseline and end line survey.</p> <p>Dedicated baseline and end line survey.</p> <p>Dedicated baseline and end line survey.</p>	<p>implementation of the Action</p> <p>Rural development remains a priority for PNG</p>
<p>Outputs</p>	<p>Output 1.1: Increased sustainable production and inclusiveness of the Cocoa value chain</p>	<p>O 1.1.1 Number and proportion of family farmers producing cocoa using sustainable and/or climate-smart management practices supported by the project disaggregated by sex and age groups</p> <p>O 1.1.2 Profitability of cocoa of smallholder farmers producing cocoa using sustainable and/or climate-smart management practices supported by the project disaggregated by sex and age groups</p>	<p>TBD in inception phase</p> <p>TBD in inception phase</p>	<p>Increase of x% from baseline</p> <p>Increase of x% from baseline</p>	<p>Dedicated baseline and end line survey.</p> <p>Dedicated baseline and end line survey.</p>	<p>No new serious pest and disease threat for cocoa is developing in the area of intervention</p>

<p>Output 1.2: Increased sustainable production and inclusiveness of the Vanilla value chain</p>	<p>O 1.1.3 Proportion of women in managerial positions for cocoa based activities</p>	<p>TBD in inception phase</p>	<p>Increase of x% from baseline</p>	<p>Dedicated baseline and end line survey.</p>	<p>No serious pest and disease threat for vanilla is developing in the area of intervention</p>
<p>O 1.2.1</p>	<p>Number and proportion of smallholder farmers producing vanilla using sustainable management practices supported by the project disaggregated by sex and age groups</p>	<p>TBD in inception phase</p>	<p>Increase of x% from baseline</p>	<p>Dedicated baseline and end line survey.</p>	<p>No serious disease outbreak for fishery livestock is developing in the area of intervention.</p>
<p>O 1.2.2</p>	<p>Area under vanilla where sustainable and/or climate-smart management practices are applied in proportion to total areas under vanilla in the implementation area</p>	<p>TBD in inception phase</p>	<p>Increase of x% from baseline</p>	<p>Dedicated baseline and end line survey.</p>	<p>No climatic disaster is affecting the industry.</p>
<p>O 1.2.3</p>	<p>Proportion of women in managerial positions for vanilla based activities</p>	<p>TBD in inception phase</p>	<p>Increase of x% from baseline</p>	<p>Dedicated baseline and end line survey.</p>	<p>No climatic disaster is affecting the industry.</p>
<p>Output 1.3: Increased sustainable production and inclusiveness of the Fishery value chain (coastal, riverine and aquaculture)</p>	<p>O 1.3.1 Number and proportion of smallholder fishers producing fishery products using sustainable management practices (e.g. in accordance with Maximum Sustainable Yields or other fish stock sustainability indicators) supported by the project disaggregated by sex and age groups</p>	<p>TBD in inception phase</p>	<p>Increase of x% from baseline</p>	<p>Dedicated baseline and end line survey.</p>	<p>No climatic disaster is affecting the industry.</p>
<p>O 1.3.2</p>	<p>Number and outreach of productive smallholder fishery partnerships established</p>	<p>TBD in inception phase</p>	<p>Increase of x% from baseline</p>	<p>Dedicated baseline and end line survey.</p>	<p>National Government and Provincial and district authorities remain engaged in the various processes envisaged.</p>
<p>O 1.3.3</p>	<p>Number of quality control system for fishery products and value chain processors and traders established and operational</p>	<p>TBD in inception phase</p>	<p>Increase of x% from baseline</p>	<p>Dedicated baseline and end line survey.</p>	<p>National Government and Provincial and district authorities remain engaged in the various processes envisaged.</p>
<p>Output 2.1: Conducive business, policy and regulatory environment for sustainable rural</p>	<p>O 2.1.1 Provincial Platform for Public Private Sector dialogue on sustainable and inclusive cocoa, vanilla and fisheries development established and functional.</p>	<p>Non-existent</p>	<p>Existence</p>	<p>Dedicated baseline and end line survey.</p>	<p>National Government and Provincial and district authorities remain engaged in the various processes envisaged.</p>

agripreneurs and MSMEs established	O 2.1.2 E-agriculture and climate-smart strategy implemented in the project area	Non existent	Existence	Dedicated baseline and end line survey.
Output 2.2: Value chain support services strengthened and resilient to climate change impacts	O 2.1.3 Availability and accessibility of financial products and services for VC stakeholders	TBD in inception phase	Increase of x% from baseline	Dedicated baseline and end line survey.
	O 2.2.1 Number of MSME and agriculture specific financial products developed and available to rural population	TBD in inception phase	Increase of x% from baseline	Dedicated baseline and end line survey.
	O 2.2.2 Enrolment/uptake by Region residents (disaggregated by sex and age) of project-supported MSME-focused training initiatives (financial/business/management/ICT)*	TBD in inception phase	Increase of x% from baseline	Dedicated baseline and end line survey.
Output 2.3 Increased production of, and access to renewable energy systems	O 2.2.3 Number of relevant ICT mobile applications available to MSME and value-chain stakeholders (weather forecast, extension services, market information, value chain specific, financial etc.)	TBD in inception phase	Increase of x% from baseline	Dedicated baseline and end line survey.
	O 2.3.1 Number of renewable energy generation facilities (except biomass) in operation in the project area established with project support	TBD in inception phase	Increase of x% from baseline	Dedicated baseline and end line survey.
	O 2.3.2 Annual amount of electricity (in KW) generated from renewable energy sources established with project support in the project area *: **	TBD in inception phase	Increase of x% from baseline	Dedicated baseline and end line survey.
	O 2.3.3 Number (/proportion) of MSMEs in the project area having access to project-supported renewable energy systems (except biomass)	TBD in inception phase	Increase of x% from baseline	Dedicated baseline and end line survey.

Financial Institutions remain engaged and willing to venture in novel areas

Beneficiary population will remain interested and engaged in upgrading their skills and in adopting new technologies

Cost of renewable energy systems (solar, minihydro) remains competitive

The Department of Works and the local districts remain engaged for road

Output 2.4: Improved rural transport and climate-proof infrastructure	O 2.4.1 Number and length of rural roads and other access ways rehabilitated under the project *, **	TBD in inception phase	Increase of x% from baseline	Dedicated baseline and end line survey.	assessment and road improvement with communities
	O 2.4.2 Number and total length of rural roads maintained under community-based management agreements in the project area, disaggregated by women and youth.	TBD in inception phase	Increase of x% from baseline	Dedicated baseline and end line survey.	
	O 2.4.3 – Income earned by communities from community-based road management and maintenance agreements in the project area, disaggregated by sex and age.	TBD in inception phase	Increase of x% from baseline	Dedicated baseline and end line survey.	
	O 2.4.4 – Number of length of rural roads and other access ways where climate change projections have been integrated in the project.	TBD in inception phase	Increase of x% from baseline	Dedicated baseline and end line survey.	



Appendix II – Workplan (Year 1 in detail, years 2-5 TBD)

SN	Project Output/activity	Work Plan - Project Year 1 (Inception Phase)			
		1st QTR	2nd QTR	3rd QTR	4th QTR
	Project Management and Co-ordination				
1	Recruit and field consultants and staff				
2	Setup project office and equipment in Wewak DAL premises and Maprik				
3	Set up PIMU, convene PSC and hold meetings meeting, review and approve TOR				
4	Conduct baseline study and define the M and E framework.				
5	Develop joint AWPB for year 2 for PSC review				

	SO1: Increased economic return from three selected value chains				
SN	Project Output/activity	Work Plan - Project Year 1 (Inception Phase)			
		1st QTR	2nd QTR	3rd QTR	4th QTR
1	Update VC study and market analysis of cocoa, vanilla in the project areas				
2	Liaise with EU on fisheries VC study development in Sepiks				
3	Detail mapping of cocoa and vanilla blocks and development of selection criteria for the identification of areas and blocks				
4	Explore and establish linkages and joint planning with the local partners including Cocoa Board, DAL/Spice Board, NAQIA, NFA and Provincial programmes				
5	Arrange partnerships for expansion of existing Cocoa bud gardens and nurseries				
6	Procurement and distribution of improved cocoa clone seedlings and quality vanilla vines				
7	Develop and promote climate-change adapted practices and mitigation measures				
8	Develop and promote improved drying/fermentaries, piping and storage facilities				
9	Develop and promote improved drying/curing, packaging, storage and marketing/certification of Vanilla beans				



10	Procurement of vanilla bean curing kits				
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SO2 Enabling Env		Work Plan - Project Year 1 (Inception Phase)			
SN	Project Output/activity	1st QTR	2nd QTR	3rd QTR	4th QTR
1	Enterprise dev - upskill and contract local service provider(s) to improve and tailor materials for agripreneurs.				
2	Develop a tailored Innovation grant and criteria				
3	Design/ develop financial literacy trainings; and baseline study, initiate partner selection to develop tailored FI for branchless banking and products for VCs				
4	Support local enterprises to develop concepts and proposals for blended financing				
5	EngageTelcoms for improved accessibility/coverage in the project area. Link to banks work.				
6	Support Province to develop e-agriculture strategy for MOMASE region with focus on Vanilla, Cocoa and inland fisheries				
7	Carry out rehabilitation/contracting of local maintenance works. Roads surveys and mapping.				
8	Energy - contribute to national level policy dialogue and pilot local level options for MSME's, households and select public facilities.				



Appendix III – Budget (See Annex III)



Appendix IV: Risk Matrix			Mitigating action	Action owner
Impact	Likelihood			
M	L	Programme co-ordination and management complexity	<p>Programme Steering Committee role and functions well defined and operational.</p> <p>As Lead Agency, ensure synchronization and joint work planning for timely delivery of results and expected impacts.</p> <p>Detailed Programme Monitoring and Evaluation system set up and operational</p> <p>Timely reporting and communication guidelines/timelines established and agreed with all partners.</p> <p>Clearly defined roles for delivery of Key Activities in the UN to UN and other more detailed agreements.</p>	<p>PC/FAOR EU Delegation and NAO</p> <p>PC/FAOR/PTF</p> <p>PC/PTF</p> <p>PC</p> <p>PC/FAOR PTF</p>
M	H	Weak institutional capacities and unclear coordination mechanisms at different levels in Government	Engage with relevant national, de-centralised levels of government (provincial, district and ward level) and other stakeholders and related initiatives in a consultative partnership building process.	PSC/FAOR and EU delegation
M	H	Delays in implementation of the project	Robust joint programme design and joint implementation planning for PNG conditions. Effective and timely programme management and coordination.	PTF
L	M	Subsistence producers are not responsive and do not transition to market-oriented operations	The project will consult with communities to better target and engage value chain stakeholders. In addition, there will be improved infrastructure for market access that is adapted to climate change vulnerabilities.	PC/UN Partners/IPs

Insecurity	M/H	M	Applicable security protocols to be applied by the implementing partners	UNDSS and Agencies as well as IP's and local partners.
Land tenure system may hinder value chain development to meet market demands (eg. Drying facility for cocoa)	H	L	Beneficiaries will be customary landowners from the targeted communities or already have access to land.	PTF/UN Partners/IPs/Government



Indicative⁴⁶ Terms of Reference of Key Programme Personnel⁴⁷

Programme Coordinator – IAD

Background, reporting lines:

The Programme Coordinator will work under the administrative supervision of the FAO office in PNG and under the technical guidance of the FAO Lead Technical Officer in consultation with the subject specialists of the FAO Regional Office for the Asia Pacific Region and supporting technical divisions at FAO headquarters (ESN/A and AGP) and in close collaboration with the Project Steering Committee (PSC) and Project Stakeholder Group. More specifically, the incumbent will:

Tasks and responsibilities:

- The PC will familiarize himself / herself with all relevant project documentation including: The Action document; the Programme Proposal, Logical Framework Matrix and Budget; FAO Procurement Rules and the EU Communication and Visibility Strategy;
- Coordinate the timely planning and inputs of the Partner UN Agencies to ensure timely and synchronised work planning and implementation.
- Lead the PIMU to provide support to PSC and manage and provide overall supervision for all staff in the PIMU. Provide technical advice to the PSC when needed. Manage and lead all activities of the Project Implementation and Management Unit (PIMU);
- Supervise the timely and cost-effective implementation of the project activities as described in the Project Proposal and Budget;
- Manage and effectively and timely address risks as they arise, based on the current risk matrix.
- Ensure that all expenditure strictly adheres to the project's Budget and that it is properly recorded, documented, and accounted for in accordance with FAO rules and regulations.
- Make frequent visits to the project sites to supervise the implementation of project activities and for the collection of information and data required for project monitoring and reporting, including interim and final narrative and financial progress reports and forecasts. Prepare all the necessary periodic programme progress reports required by the FAO and the EDF.
- Monitor and update the implementation/action plans for the project with clear milestones, deliverables and outputs including the procurement and recruitment plans and arrange for timely purchase and arrival of equipment in line with the agreed upon work plans and the timely recruitment of services;
- Manage the day-to-day implementation of the project including: (a) preparing TORs for international consultants and contracts (b) participation in the identification and selection of international consultants, (c) monitoring the quality of the work of consultants and service providers, (d) review and evaluation of consultant products and (e) prepare draft TOR for the Project Steering Committee (PSC) to be discussed with the stakeholders.
- Ensure project coordination between various stakeholders (propose draft MOUs specifying the roles of civil society organizations in the project to be considered by the stakeholders and PSC) and support to implement the project in accordance with the approved Project Document and in

⁴⁵ TOR of other short assignments will be developed during Inception and reported on in the Annual Report.

⁴⁶ These terms of Reference will be reviewed and confirmed at the latest one month after the signature of the Contribution Agreement through formal exchange between the contracting parties of this agreement.

⁴⁷ All positions to be 100% funded by the Programme unless otherwise indicated.



compliance with the EDF requirements, rules and procedures. Integrate the stakeholder analysis into the participation strategy and update it as needed.

- Ensure the visibility and promotion of the project goals and objectives, contribute to their achievement, through targeted outreach as advised by the Communications Team. Ensure that all printed materials (leaflets, brochures, folders, training materials, signs, etc.) are produced in accordance with the guidelines contained in the EU Communication and Visibility Manual.
- Familiarize himself / herself with and maintain regular contact with key project stakeholders including the FAO Country Office, FAO technical team; representatives of the other on-going projects (World Bank, UNDP, IDB and FAO); Ministry of Agriculture officials; representatives of other donor agencies
- Assist in the preparation and conducting of the project inception workshop and all other awareness activities to be undertaken at project sites.
- Engage with and ensure a close collaboration with the directly involved line Departments at provincial level including Department of Agriculture and Livestock (DAL, which will be the lead counterpart), the National Fisheries Authority, the National Roads Authority, the Department of Health, the Departments of Trade and Industry, the Department of Planning and Monitoring (also National Authorizing Officer of the EDF), the Ministry of Regional Development, the Bureau of Standards and participate in meetings when required.
- Provide overall management and supervision of all project components, the coordination of all of the project activities and lead the management of the project office;
- Review and finalize the detailed implementation plans and costing for the activities under the two components of the project for monitoring of project progress and timely identification of implementation and budget related problems;
- Ensure project sixth monthly project progress reports and the terminal statement are prepared in a comprehensive and timely manner;
- Provide technical and administrative briefings to all project staff and incoming consultants as well FAO support services and do a first review of consultants and mission reports;
- Supervise the administrative services of the project and facilitate timely procurement and delivery of equipment and materials and supplies to beneficiaries and groups;
- Lead or supervise the organization of all capacity building events and demonstration under both the components of the project and ensure sound reporting and documentation;
- Provide continues support to national agribusiness association and/or producer organization during the implementation of action plans and facilitate identification;
- Manage the Project Imprest Account
- Perform any other duties as may be required

Qualifications/Experience:

- Tertiary qualifications in agricultural economics, agribusiness, commerce or related disciplines;
- A minimum of 12 years of progressively responsible experience in project management in value chain development, preferably in the Pacific/Asia region;
- Substantial professional experience in assessing and applying interventions in agricultural value chains;
- Substantial professional experience in the undertaken of needs analysis. Familiarity with marketing skills training would be an advantage;
- Previous agri-business experience in the Pacific region would be an advantage.
- Well-developed inter-personal skills and a demonstrated experience of working in a cross cultural environment;
- Working knowledge (level C) of English; working knowledge of Pidgin English is an advantage

Duty Station:

Wewak, Papua New Guinea



Duration:

53 months. Initial one year contract, renewable subject to performance

Value Chain Development/Deputy Programme Coordinator - FAO**Background, reporting lines:**

The Deputy Programme Coordinator will work under the supervision of the Programme Co-ordinator, the administrative supervision of the FAO office in PNG in consultation with the subject specialists of the FAO Regional Office for the Asia Pacific Region and supporting technical divisions at FAO headquarters (ESN/A and AGP) and in close collaboration with the Project Steering Committee (PSC) and Project Stakeholder Group. More specifically, the incumbent will:

Tasks and responsibilities:

- The Deputy Programme Co-ordinator will familiarize himself/herself with all relevant project documentation including: The Action document; the Programme Proposal, Logical Framework Matrix and Budget; FAO Procurement Rules and the EU Communication and Visibility Plan
- Familiarize him/herself with and maintain regular contact with key project stakeholders including the FAO technical team; and senior technical contact points of the other on-going projects (World Bank, UNDP, IDB and FAO); Ministry of Agriculture officials; representatives of other donor agencies
- Lead the preparation and conducting of the project inception workshop and all other awareness activities to be undertaken at project sites
- Coordinate the timely planning and inputs of the project components for which FAO is responsible;
- Support the PC in liaising with and acting as Secretary to the PSC and manage and provide overall supervision for all staff in the PCU in the absence of the PC. Provide technical advice to the PSC when needed
- Lead the development activities of the Project Coordination Unit (PCU)
- In coordination with the PC, supervise the timely and cost-effective implementation of the project activities as described in the Project Proposal and Budget
- Ensure that all expenditure strictly adheres to the project's Budget and that it is properly recorded, documented, and accounted for in accordance with FAO rules and regulations
- Make frequent visits to the project sites to supervise the implementation of project activities and for the collection of information and data required for project monitoring and reporting, including interim and final narrative and financial progress reports and forecasts. Prepare all the necessary periodic programme progress reports required by the FAO and the EDF.
- Monitor and update the implementation/action plans for the project with clear milestones, deliverables and outputs including the procurement and recruitment plans and arrange for timely purchase and arrival of equipment in line with the agreed upon work plans and the timely recruitment of services;
- In collaboration with the PC, manage the day-to-day implementation of the project including: (a) preparing TORs for consultants and contracts (b) participation in the identification and selection of consultants, (c) monitoring the quality of the work of consultants and (d) review and evaluation of service providers and (e) prepare draft TOR for the Project Steering Committee (PSC) to be discussed with the stakeholders.
- Ensure project coordination between various stakeholders (propose draft MOUs specifying the roles of civil society organizations in the project to be considered by the stakeholders and PSC) and support to implement the project in accordance with the approved Project Document and in



compliance with the EDF requirements, rules and procedures. Integrate the stakeholder analysis into the participation strategy and update it as needed.

- Ensure the visibility and promotion of the project goals and objectives, contribute to their achievement, through targeted outreach as described in the project Communications Plan. Ensure that all printed materials (leaflets, brochures, folders, training materials, signs, etc.) are produced in accordance with the guidelines contained in the EU Communication and Visibility Manual.
- Respond to the technical needs of the Department of Agriculture and Livestock (DAL, which will be the lead counterpart) the Ministry of Health, the Ministry of Trade and Industry, the Ministry of Finance (also National Authorizing Officer of the EDF), the Ministry of Regional Development, the Bureau of Standards and participate in the meetings when required.
- Support the PC in the management and supervision of all project components, the coordination of all of the project activities and contribute to the management of the project office;
- Lead the development of detailed implementation plans and costing for the FAO led activities under the two components of the project for monitoring of project progress and timely identification of implementation and budget related problems;
- Ensure good coordination and contribute to joint work planning with the project staff of the other UN partners, DAL and other government bodies as well as provincial and district level authorities;
- Lead the preparation of project six monthly project progress reports and the terminal statement are prepared in a comprehensive and timely manner;
- Provide technical and administrative briefings to all project staff and incoming consultants as well FAO support services and lead the technical review of consultants and mission reports in consultation with the PC;
- Ensure timely procurement and delivery of equipment and materials and supplies to beneficiaries and groups;
- Lead or supervise the organization of all capacity building events and demonstrations under both the components of the project and ensure good quality reporting and documentation;
- Perform any other duties as may be required

Qualifications/Experience:

- Tertiary qualifications in agriculture, agricultural economics/agribusiness, enterprise development or related disciplines;
- A minimum of ten years of progressively responsible experience in project management in value chain/enterprise development, preferably in the Pacific/Asia region;
- Substantial professional experience in assessing and applying interventions in sustainable agricultural value chain development;
- Substantial professional experience in the undertaken of needs analysis. Familiarity with marketing skills training would be an advantage;
- Previous agri-business experience in the Pacific region would be an advantage.
- Well-developed inter-personal skills and a demonstrated experience of working in a cross cultural environment;
- Working knowledge (level C) of English; working knowledge of Pidgin English would be an advantage

Duty Station: Wewak, Papua New Guinea

Duration: 53 months. Initial one year contract, renewable subject to performance



Background, reporting lines:

The CVE specialist will work under the supervision of the Programme Coordinator, the administrative supervision of the FAO Office in Papua New Guinea in consultation with the subject specialists of the FAO Regional Office for the Asia Pacific Region and supporting technical divisions at FAO headquarters (ESN/A and AGP). More specifically, the incumbent will:

Tasks and responsibilities:

- Familiarize him/herself with all relevant project documentation including: the Action document, the Programme Proposal, Logical Framework Matrix and Budget, FAO Procurement Rules and the EU Communication and Visibility Plan;
- Coordinate the timely planning and inputs related to Cocoa, Vanilla and Energy (for food and Agriculture uses) of the project components for which FAO is responsible;
- Contribute to the preparation and conducting of the project inception workshop and baseline study and all other awareness activities to be undertaken at project sites;
- Lead the development of a Detailed Annual Workplan and Budget to be submitted to the PSC for approval;
- Develop and supervise the implementation of the Cocoa improvements in the value chains including at production level (provision of seedlings, grafting etc.) and ensure delivery of planned capacity development both directly and with project partners;
- Develop and supervise the implementation of the planned improvements in the Vanilla value chains including at production and processing/marketing level (provision of improved planting materials etc.) and ensure delivery of planned capacity development both directly and with project partners;
- Lead the design and implementation of the farm and enterprise level renewable energy component;
- Work closely with other UN and other partners who are involved in the development of enterprises and their capacities to address identified VC constraints to local MSME development;
- Identify and lead the supervision of service providers and partners in the implementation of contracted or joint activities at field level including for example DAL, the Cocoa Board and others;
- Make frequent visits to the project sites to supervise the implementation of project activities and to ensure the collection of information and data required for project monitoring and reporting, including interim and final narrative and financial progress reports and forecasts;
- Prepare all the necessary periodic programme narrative progress reports on progress in the cocoa, vanilla and energy components as required by FAO and the EU;
- In consultation with the DPC, monitor and update the implementation/action plans for the project with clear milestones, deliverables and outputs including the procurement and recruitment plans and arrange for timely purchase and arrival of equipment in line with the agreed upon work plans and the timely recruitment of services;
- In collaboration with the DPC, manage the day-to-day implementation of the vanilla, cocoa and energy components of the project including: (a) preparing TORs for technical consultants and contracts for service providers and partners (b) participation in the identification and selection of consultants, (c) monitoring the technical quality of the work of consultants and (d) technical review and evaluation of service providers;
- Contribute to the planned outputs as planned in the project Communications Plan;
- Lead the development of close collaboration and where possible joint planning and development of synergies with other agencies and partners, including private sector;
- Lead the development of detailed implementation plans and costing for the FAO led activities under the two components of the project for monitoring of project progress and timely identification of implementation and budget related problems;

- Ensure good coordination and contribute to joint work planning with the project staff of the other UN partners, DAL and other government bodies as well as provincial and district level authorities;
- Provide timely inputs to planned project six monthly project progress reports and the terminal statement are prepared in a comprehensive and timely manner;
- Provide technical and administrative briefings to all project staff and incoming consultants as well as support services and lead the technical review of consultants and mission reports in consultation with the PC;
- Ensure timely procurement and delivery of equipment and materials and supplies to beneficiaries and groups;
- Lead or supervise the organization of all capacity building events and demonstrations under both the components of the project and ensure good quality reporting and documentation;
- Perform any other duties as may be required.

Qualifications/Experience:

- Tertiary qualifications in agriculture, agronomy and post-harvest or related disciplines.
- A minimum of seven years of progressively responsible experience in provision of technical advisory role in project management in crop and value chain/enterprise development, including renewable energy preferably in the Pacific/Asia region;
- Substantial professional experience in assessing and applying interventions in sustainable agricultural value chain development;
- Substantial professional experience in improving crop productivity, post-harvest management and application of sustainable energy solutions;
- Well-developed inter-personal skills and a demonstrated experience of working in a cross cultural and team environment;
- Working knowledge (level C) of English; working knowledge of Pidgin English would be an advantage;
- Previous work experience in the Pacific region would be an advantage.

Duty Station: Wewak, Papua New Guinea

Duration: 53 months. Initial one year contract, renewable subject to performance

Monitoring and Evaluation Officer P, FAO (75%)⁴⁸

Background, reporting lines:

Under administrative supervision of the FAO Office in Papua New Guinea and under technical supervision of the Programme Coordinator, the Monitoring and Evaluation (M&E) Officer will be in charge of the design, technical backstopping and implementation of the M&E System of the Programme. The M&E Officer will work in close collaboration with Government counterparts, partners and relevant stakeholders.

Tasks and responsibilities:

- Coordinate the effective and timely set up of the project M&E framework to ensure Programme progress and delivery monitoring in a consultative manner in the Programme area;
- Ensure mainstreaming of M&E in joint work planning and contribute to annual work plan review and planning sessions;
- Coordinate the implementation of the detailed baseline study in the Programme area;

⁴⁸ 25% to be funded by the UNW led EU Spotlight project.

- Contribute to recruitment of the national team, engagement of service providers and selection of related support services;
- Ensure that beneficiaries are selected in a fairly and equitably manner and that all sub-projects and interventions under the Programme take into account a Framework for Gender Equality Programming;
- Develop data collection and assessment methodologies for all relevant elements in the M&E System;
- Contribute to the establishment of a Programme Management System (MIS);
- Contribute to periodic results reports on the progress of the Programme and ensure timely analysis and dissemination of project M&E findings;
- Support the engagement with the various parts of the Government of Papua New Guinea and development of innovative and inclusive partnerships with local enterprises/private sector on the three selected value chains;
- Develop as well as to mentor, supervise and support Government counterparts, project staff and consultants on M&E requirements, content, formats and frequencies;
- Monitor Programme risks and assumptions and contribute to identifying and implementing suitable risk mitigation measure if required;
- Ensure that M&E findings are disseminated to all staff and all relevant stakeholders;
- Ensure that the results of M&E and lessons learned are fully captured and actioned through feedback loops in improved joint work planning and project communications and reporting;
- Propose measures for fine-tuning of Programme implementation on the basis of M&E findings;
- As requested, provide inputs into the Programme Mid-Term Review and Final Evaluation;
- Undertake any other duties as may be assigned.

Qualifications/Experience:

- Advanced University degree in Agriculture/Food science, Agricultural Engineering, Economics or a related discipline with at least seven years appropriate technical experience in the agricultural/food security sector.
- Experience in working with/or in government departments, national and international NGOs and other UN agencies is highly desirable.
- Good writing and researching skills, computer literacy (statistical packages as SPSS and STATA, Microsoft Office Suite, GIS packages) and fluency in English.
- Proven experience in designing and implementing M&E systems, knowledge of appropriate data collection methodologies in the agriculture sector, evidence of strong research and analytical skills, and, ideally, in building M&E capacity.
- Good inter-personal skills
- Working knowledge (level C) of English; working knowledge of Pidgin English would be an advantage.

Duty Station: Wewak, Papua New Guinea

Duration: 44 months. Initial one year contract, renewable subject to performance.

Value Chain and Enterprise Development specialist – FAO

Background, reporting lines:

The VCED will work under the supervision of the Programme Coordinator, the administrative supervision of the FAO office in PNG in consultation with the subject specialists of the FAO Regional Office for the Asia Pacific Region and supporting technical divisions at FAO headquarters (ESN/A) and in close collaboration with the Project Steering Committee (PSC) and Project Stakeholder Group. More specifically, the incumbent will:

Tasks and responsibilities:

- The VCED will familiarize him/herself with all relevant project documentation including: The Action document; the Programme Proposal, Logical Framework Matrix and Budget; FAO Procurement Rules and the EU Communication and Visibility Plan
- Familiarize him/herself with and maintain regular contact with key project stakeholders including the FAO technical team; and senior technical contact points of the other on-going projects (World Bank, UNDP, IDB and FAO) in the project area; Ministry of Agriculture, NFA and other officials; representatives of other donor agencies
- Contribute to the preparation and conducting of the project baseline, inception workshop and all other awareness activities to be undertaken at project sites.
- Co-ordinate and lead the timely planning and implementation of the project outputs related to sustainable value chain and enterprise development.
- Lead the design and tailoring of the grant scheme to be used for the engagement and inclusion of women and youth in enterprise development for the three selected value chains. This will be based on lessons learned from similar interventions in the region and beyond and tailored in line with existing grant/financing in the area.
- Support agripreneurs in the development and implementation of grant proposals for the three selected value chains.
- Ensure the timely engagement with the local value chains stakeholders, agripreneurs and their associations/local service providers and NGO's/INGOs, groups, government (Ward, District and Provincial level) in the Inception Phase.
- Oversee and lead the design and delivery capacity programmes on enterprise development, financial management and engage appropriate local partners in project implementation including local training in financial literacy, SME development and improvement, Business development skills, marketing and improving market access for the focus value chains.
- Work closely with the other project UN Partners on specific issues and engage in joint work planning based on detailed Annual Workplans and Budgets.
- Mentor, engage, guide and support local staff in improving capacity and effectively engaging with local communities (with a focus on women) in the project areas.
- Make frequent visits to the project sites to supervise the implementation of project activities and for the collection of information and data required for project monitoring and reporting, including interim and final narrative and financial progress reports and forecasts. Prepare all the necessary periodic programme progress reports.
- Ensure the visibility and promotion of the project goals and objectives, contribute to their achievement, through targeted outreach as described in the project Communications Plan. Ensure that all printed materials (leaflets, brochures, folders, training materials, signs, etc.) are produced in accordance with the guidelines contained in the EU Communication and Visibility Manual.
- Respond to the technical needs of the Department of Agriculture and Livestock (DAL, which will be the lead counterpart) the Ministry of Health, the Ministry of Trade and Industry, the Ministry of Finance (also National Authorizing Officer of the EDF), the Ministry of Regional Development, the Bureau of Standards and participate in the meetings when required.
- Support the PC in the management and supervision of all project components, the coordination of all of the project activities and contribute to the management of the project office;
- Lead the development of detailed implementation plans and costing for activities under the EU STREIT programme for monitoring of project progress and timely identification of implementation and budget related problems;



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- Ensure good coordination and contribute to joint work planning with EU STREIT programme staff, DAL and other government bodies as well as provincial and district level authorities;
- Lead the preparation of six monthly project progress reports and ensure that the terminal statement are prepared in a comprehensive and timely manner;
- Provide technical and administrative briefings to all project staff and incoming consultants as well as FAO support services and lead the technical review of consultants and mission reports in consultation with the PC;
- Ensure timely procurement and delivery of equipment and materials and supplies to beneficiaries and groups;
- Perform any other duties as may be required

Qualifications/Experience:

- Tertiary qualifications in food/agribusiness, agricultural economics/agribusiness, enterprise development or related disciplines;
- A minimum of 5 years of progressively responsible experience in value chains/enterprise development preferably in the Pacific/Asia region;
- Substantial professional experience in working with producer groups/associations and specifically with women's groups and associations in sustainable food/agricultural value chain development in a developing country context;
- Substantial professional experience in SME development, preferably in a private sector or co-operative or similar context in developing countries.
- Familiarity with marketing skills training and in delivering capacity development programmes to MSME's would be an advantage;
- Well-developed inter-personal skills and a demonstrated experience of working in a cross cultural environment;
- Working knowledge (level C) of English; working knowledge of Pidgin English would be an advantage

Duty Station: Wewak, Papua New Guinea

Duration: 53 months. Initial one year contract, renewable subject to performance

International Reporting and Communications Specialist – FAO (75%)⁴⁹

Background, reporting lines:

The International Reporting and Communication (IRC) specialist will work under the direct supervision of the Programme Coordinator, with the administrative supervision of the FAO Office in PNG, and in coordination and consultation with the FAO Regional Communication Officer, based in Bangkok, Thailand, to ensure coherence with FAO's corporate communication policy and operational guidelines for all communication and information outputs. S/he will also work closely with, and coordinate with, communication colleagues at the office of the resource partner and with those in the other agencies providing services under this project.

Tasks and responsibilities

- The IRC specialist will work under the close supervision of the International Programme Coordinator and will also ensure the timely provision of inputs and particularly successes from the other Implementing partners such as the UN Agencies participating and the various governmental, parastatal and non-state actors;

⁴⁹ 25% to be funded by the UNW EU Spotlight project.



- The International specialist will be required to work in close contact with the FAO Regional Communication Officer (Asia-Pacific), based in Bangkok, who would provide significant backstopping support. Together, for this latter area of the work, they would concentrate on raising the level of visibility to a greater audience across the Asia-Pacific region, globally and to the EU target audiences in Europe;
- Familiarize him/herself with all relevant project documentation including: the Action Document; the Programme Document, Logical Framework Matrix and Budget; FAO Procurement Rules and the EU Communication and Visibility Plan;
- Coordinate the timely planning and delivery of communication outputs related to the EU STREIT Programme;
- Contribute to the preparation and conducting of the project inception workshop and baseline study to raise visibility and all other awareness activities to be undertaken at project sites;
- Lead the development of a Detailed Annual Communication and Visibility Workplan and Budget to be submitted to the PSC for approval;
- Work closely with other UN and other partners who are involved in the project to ensure a holistic and coordinated approach results in maximum visibility for all project successes;
- Make frequent visits to the project sites to record and document the implementation of project activities and to ensure the collection of information and data required for project monitoring and reporting, including interim and final narrative and financial progress reports and forecasts.
- Prepare all the necessary periodic programme narrative progress reports on progress in the various targeted outputs of the project;
- In consultation with the DPC, produce reports, written clearly and succinctly, with deadline;
- In collaboration with the DPC, the RCO in Bangkok and the resource partner, develop a plan to bring journalists and media to the field to record project interventions and successes to include a video;
- Deliver and monitor timely planned outputs as outlined in the project Communications Plan.
- Prepare press releases, brochures, other visibility materials (including video and still photography) as required;
- Work with a national communication officer to raise visibility through social media and the project Website;
- Perform any other duties as may be required;
- Split of time allocation for reporting, communications is 50-50 for FAO

Qualifications/Experience:

- Tertiary qualifications in communications, journalism, mass communication, knowledge management or related disciplines;
- A minimum of five years of progressively responsible experience in provision of technical advisory for communication for development (C4D) and knowledge of reporting requirements for international organizations, and/or INGOs as well as donors. Experience in working with/for EU projects a distinct advantage, preferably in the Asia-Pacific region;
- A minimum of seven years of experience working in journalism or mass media, with an emphasis on content development for broadcast or publication;
- Well-developed inter-personal skills and a demonstrated experience of working in a cross cultural and team environment;
- Working knowledge (level C) of English;
- Previous work experience in the Pacific region would be an advantage.

Duty Station:

Wewak, Papua New Guinea, with regular travel within the country.

Duration:

44 months. Initial one year contract, renewable subject to performance.

Gender, youth and social inclusion officer – FAO**Background, reporting lines:**

The Gender, youth and social inclusion (GYSEI) specialist will work under the supervision of the Programme Co-ordinator, the administrative supervision of the FAO Office in PNG, in consultation with the subject specialists of the FAO Regional Office for the Asia Pacific Region and supporting technical divisions at FAO headquarters (ESP) and in close collaboration with the Project Steering Committee (PSC) and Project Stakeholder Group.

Tasks and responsibilities:

- Familiarize him/herself with all relevant project documentation including: The Action document; the Programme Proposal, Logical Framework Matrix and Budget; and the EU Communication and Visibility Plan;
- Provide technical inputs to key national stakeholders in the processes of revision of existing or formulation of new policies, strategies, plans and programmes from a GYSEI perspective;
- Actively participate in meetings, workshops and any other relevant events organized by the national partners of the programme and key agriculture, gender, employment and rural development stakeholders;
- Co-ordinate closely with the Gender Desk in DAL and other relevant stakeholders and support national and provincial level policy and awareness raising activities on gender that the project will address;
- Lead the design and conduct of the gender analysis and contribute to the stakeholder analysis ensuring timely inputs into the project workplan;
- Contribute to the preparation and conduct of the project inception workshop and baseline study and all other awareness activities to be undertaken at project sites;
- Based on the above, draft and lead the implementation of the Gender, Youth and Social Inclusion Strategy of the project, including timely monitoring and reporting in coordination with the M&E officer;
- Coordinate the timely planning and inputs related to gender, youth and social inclusion of the EU STREIT programme, including for all components and in partnership with the other UN sister agencies and other partners.
- Contribute inputs to the development of a Detailed Annual Workplan and Budget to be submitted to the PSC for approval;
- Coordinate with other UN agencies (e.g. ILO, UN Women etc.), as well as other relevant stakeholders to ensure overall coherence and coordination of the gender and youth activities;
- Work closely with other UN and other partners who are involved in the development of enterprises and ensure that proper targeting and design of activities, capacity development curricula and trainings;
- Identify and lead the supervision of service providers and partners in implementation of activities at field level including for example women's and youth CSOs and grassroots organizations;
- Make frequent visits to the project sites to supervise the implementation of project activities and to ensure the collection of information and data required for project monitoring and reporting, including interim and final narrative and financial progress reports and forecasts. Prepare all the



necessary periodic programme narrative progress reports on the gender and youth components as required by FAO and the EU;

- Contribute to the planned outputs as planned in the project Communications Plan;
- Contribute to the development of close collaboration and where possible joint planning and development of synergies with other agencies and partners , including private sector;
- Contribute to joint work planning with the EU STREIT programme staff, DAL and other government bodies as well as provincial and district level authorities;
- Provide timely inputs to planned six monthly project progress reports and the terminal statement are prepared in a comprehensive and timely manner;
- Organize and lead gender and social inclusion awareness and capacity development to all project staff and incoming consultants as well as FAO support services;
- Perform any other duties as may be required

Qualifications/Experience:

- Advanced University Degree in gender studies, development studies, social science or related fields
- A minimum of seven years of progressively responsible experience in provision of technical advisory role in project management in agriculture, gender, decent rural employment and/or youth employment preferably in Asia Pacific;
- Extent of experience in policy assistance and/or programme management in the field of agriculture or rural development and/or employment and entrepreneurship policies and programmes, with a special focus on gender, youth policies and programmes;
- Extent of field experience relevant to rural development, agriculture, livelihoods diversification programmes, women’s economic empowerment, youth employment;
- Well-developed inter-personal skills and a demonstrated experience of working in a cross cultural and team environment;
- Working knowledge (level C) of English; working knowledge of Pidgin English would be an advantage;
- Previous work experience in the Pacific region would be an advantage.

Duty Station:

Wewak, Papua New Guinea

Duration:

53 months. Initial one year contract, renewable subject to performance

Operations Officer – FAO

Background, reporting lines:

The incumbent works under the general supervision of the FAO PNG office and the direct supervision of the Programme Coordinator. He/she liaises with other FAO personnel from within the Organization and with government officials to ensure effective implementation of the project. He/she interacts on a day-to-day basis with project personnel.

Tasks and responsibilities:

- Acts as a focal point for matters related to daily operations of the project;
- Plans and prepares project task force consultations on behalf of the PC and Budget Holder and ensures proper operational support for such meetings;



- Ensures timely provision of inputs for personnel, technical support services, sub-contracts, training, equipment/supplies and other needs related to the project's operations in line with the project's work plan and procurement plans;
- Contributes to the preparation of project work plans, monitors progress and, where necessary, identifies corrective measures to overcome operational constraints; coordinates the timely preparation and submission of project progress reports;
- Supports with the management of the project budget and prepares revisions as required and upon annual receipt of funding allocations from the EU;
- Liaises as necessary with UN partners on the progress of each Agency's implementation of activities and delivery rates as per the approved workplan;
- Liaises with UN partners to ensure timely reporting to the EU.
- Identify any problems facing the project and draw these to the attention of the PC, responsible officers/units concerned; provides guidance and advice to the PC on procedural issues relating to project operations;
- Reviews the project accounts and ensures there are proper payment authorizations including the preparation of appropriate expenditure documents;
- Supervises the National Operations Assistants;
- Manages the project's financial records and advises on the financial status of the project;
- Ensures the maintenance of up-to-date financial records, including the preparation of bank and other reconciliation statements;
- Controls and manages the disbursement of funds within the approved budgetary allocation in accordance with established rules and regulations and within the delegated authority;
 - Ensure the quality of project data and expenditures in the Field Programme Management Information System.
 - Monitors the progress of the project, and follows up to ensure the timely submission of the Terminal Report and operational and financial closure of the project.

Qualifications/Experience:

- Advanced degree in public or business administration, finance, accounting, economics, social sciences or other fields related to the FAO mandate;
- Seven years of relevant experience in project management/operations and support;
- Good inter-personal skills and demonstrated experience working in a cross cultural environment;
- Working knowledge (Level C) of English and working knowledge of Pidgin English would be an advantage.

Duty station:

Wewak, Papua New Guinea

Duration:

53 months, initial one year contract, subject to renewal based on performance

Administrative/Finance Officer FAO

Background, reporting lines:

The International Administrative/Finance Officer will work under the supervision of the Programme Coordinator, the administrative supervision of the FAO Office in Papua New Guinea in consultation with the Administration Unit and Country Support Group of the FAO Regional Office for the Asia Pacific Region and relevant supporting divisions at FAO headquarters.



Tasks and responsibilities:

- supervise, oversee and/or contribute to the delivery of financial reporting, general accounting, project accounting, and/or investment activities/services in accordance with FAO policies and regulatory framework;
- lead planning, coordinating and implementing administrative and financial activities for the EU STREIT programme;
- analyze financial information for inclusion in statutory reports, management reports, financial statements, and/or reports to donors as well as other specific reports for FAO, the EU and other stakeholders;
- Project Financial and Management Accounting System: Ensure that accounting records are kept up to date, are reliable and are maintained according to FAO accounting practices;
- prepare and ensure project budget revisions, field budget authorization and financial statement as per FAO and EU requirements;
- monitor cash flow and initiate the request for call for fund and inform the management of any budgetary constraints;
- Internal Controls: ensure that FAO policies and procedures are followed, the control system is effective, and the accounting system is reliable;
- Financial Reporting and Performance Monitoring: Consolidate project information based on reports received from the provincial offices on a monthly basis, and prepare periodic financial statements and project progress reports;
- manage all payments to suppliers in accordance to support documentation and invoices
- disbursements from the project fund: ensure that withdrawals from the project are made only to meet expenses in connections with the project as they are actually incurred;
- budgeting and forecasting: prepare annual work programs, with detailed estimates of the amount of physical work to be completed during the year for each province;
- prepare financial reports in accordance with EU reporting requirement: follow the usual FAO practices for the timing of the reports and audit; and
- act as Certifying Officer for payments and monitors all cash-advances and verifies supporting documentation for payment, monitors availability of funds under all programmes of the programme; ensures that financial commitments and expenditures are accurate and consistent with established guidelines;
- develop and follow up on the implementation of standard operating procedures related to procurement; and ensures consistency in the application of FAO rules and procedures;
- oversee all logistics, administrative and HR arrangements related to the implementation of the programme;
- train and supervise staff and field programme personnel on all administrative and operational matters in line with the Organization's regulations, policies and procedures;
- perform other duties as required.

Qualifications/Experience:

- Advanced university degree in business administration, finance, accounting or related fields;
- Five years of progressively responsible experience in the fields of field operations, administration, procurement, finance and human resources management;
- Working knowledge (Level C) of English and working knowledge of Pidgin English would be an advantage.

Duty Station: Wewak, Papua New Guinea

Duration: 53 months. Initial one year contract, renewable subject to performance.



National Operations Officer, National Project Personnel (2 officers) - FAO

Background, reporting lines:

Under administrative supervision of the FAO Office in Papua New Guinea and under direct supervision of the International Operations Officer, the National Operations Officer will be in charge of the coordination and operational assistance based on the knowledge of the local conditions, culture, language and institutions in PNG. The incumbent will ensure the smooth functioning of projects operations, consistent service delivery, and continuous evaluation and readjustment /improvement of the operational environment.

Tasks and responsibilities:

- Acts as a focal point for all matters related to the daily operation of the field project(s) assigned
- Prepares project task force meetings and ensures the availability of secretarial support
- Ensures timely provision of inputs for personnel, technical support services, sub-contracts, training, equipment/supplies and other needs related to project operations
- Participates in the preparation of project work plans, monitors progress and, where, necessary, identifies corrective measures to overcome operational constraints
- Assists with the management of the project budget and prepares revisions as required
- Coordinates the timely preparation and submission of project progress and terminal reports required (as specified in the project agreements), as well as contributing to the preparation of analytical reports
- Coordinates actions related to timely field project completion/closure, including identification of project follow-up requirements
- Contributes to the preparation and/or assessment of new projects
- Ensures the quality of data/documentation in the Field Programme Management Information System (FPMIS) for all pipeline and operational field projects in the country
- Undertake any other duties as may be assigned.

Qualifications/Experience:

- Advanced university degree in a field related to business or public administration
- One year of relevant experience in office management, administration, accounting and/or audit, budget or finance
- Working knowledge (Level C) of English and working knowledge of Pidgin English would be an advantage.
- Good inter-personal skills

Duty Station: Wewak, Papua New Guinea

Duration: 53 months. Initial one year contract, renewable subject to performance.

Fisheries Officer, FAO

Background, reporting lines:

The Fisheries specialist will work under the supervision of the Programme Coordinator, the administrative supervision of the FAO office in PNG and in consultation with the subject specialists of the FAO Regional Office for the Asia Pacific Region and supporting technical divisions at FAO headquarters and in close collaboration with the Project Steering Committee (PSC) and Project Stakeholder Group.

Tasks and responsibilities:



- Familiarize him/herself with all relevant project documentation including: The Action document; the Programme Proposal, Logical Framework Matrix and Budget; FAO Procurement Rules and the EU Communication and Visibility Plan.
- Co-ordinate the timely planning and inputs related to the fisheries project components for which FAO is responsible.
- Contribute to the preparation and conducting of the project inception workshop and baseline study and all other awareness activities to be undertaken at project sites.
- Lead the development of a detailed Annual Workplan and Budget for the fisheries project components to be submitted to the PSC for approval.
- Develop and supervise the implementation of the Fisheries improvements in the value chains including capture and post-harvest processes and infrastructure and ensure delivery of planned capacity development both directly and with project partners
- Lead the design and oversee implementation of Sepik aquaculture training and fingerling hatchery infrastructure.
- Work closely with other UN and other partners to address identified VC constraints to local MSME development.
- Make frequent visits to the project sites to supervise the implementation of project activities and to ensure the collection of information and data required for project monitoring, evaluation and reporting, including interim and final narrative and financial progress reports and forecasts. Prepare all the necessary periodic programme narrative progress reports on progress in the fisheries component as required by FAO and the EDF.
- In consultation with the DPC, monitor and update the implementation/action plans for the project with clear milestones, deliverables and outputs including the procurement and recruitment plans and arrange for timely purchase and arrival of equipment in line with the agreed upon work plans and the timely recruitment of services.
- In collaboration with the DPC, manage the day-to-day implementation of the fisheries component of the project including: (a) preparing TORs for technical consultants and contracts for service providers and partners (b) participation in the identification and selection of consultants, (c) monitoring the technical quality of the work of consultants and (d) technical review and evaluation of service providers.
- Contribute to the planned outputs as planned in the project Communications Plan.
- Lead the development of close collaboration and where possible joint planning and development of synergies with other agencies and partners, including private sector.
- Lead the development of detailed implementation plans and costing for the FAO led activities under the fisheries components of the project for monitoring of project progress and timely identification of implementation and budget related problems.
- Ensure good coordination and contribute to joint work planning with the project staff of the other UN partners, NFA and other government bodies as well as provincial and district level authorities.
- Provide timely inputs to planned project six monthly project progress reports and the terminal statement are prepared in a comprehensive and timely manner.
- Provide technical and administrative briefings to all project staff and incoming consultants as well FAO support services and lead the technical review of consultants and mission reports in consultation with the PC.
- Ensure timely procurement and delivery of equipment and materials and supplies to beneficiaries and groups including for renewable energy, value addition and improved smoking of fish and fish products.
- Lead or supervise the organization of all capacity building events and demonstrations under both the components of the project and ensure good quality reporting and documentation.
- Perform any other duties as may be required.



Qualifications/Experience:

- Tertiary qualifications in fisheries production/management, natural resource sciences or management.
- A minimum of seven years of progressively responsible experience in provision of technical advisory role in project management in fisheries and value chain/enterprise development preferably in the Pacific/Asia region.
- Substantial professional experience in assessing and applying interventions in sustainable fisheries value chain development.
- Substantial professional experience in fish trade, fishery development, aquaculture, fisheries management, or fisheries science.
- Well-developed inter-personal skills and a demonstrated experience of working in a cross cultural and team environment.
- Working knowledge (level C) of English; working knowledge of Pidgin English would be an advantage.
- Previous work experience in the Pacific region would be an advantage.

Duty Station: Wewak, Papua New Guinea

Duration: 53 months. Initial one year contract, renewable subject to performance.

International Procurement Office, FAO

Background, reporting lines:

The Procurement Officer reports to the Chief Procurement Service (CSDA), FAO HQ Rome, and for functional and policy guidance and administratively to the FAO Office in Papua New Guinea.

The Procurement Officer performs procurement of goods and services and Quality Assurance for Letters of Agreement in compliance with FAO's established policies and procedures reflecting best practice for public procurement.

Tasks and responsibilities:

- Plans, develops and manages all procurement and contractual aspects of significant complexity;
- Advises requisitioning units on the full range of procurement issues, providing support and guidance at all stage of the procurement cycle, meeting objectives under tight deadlines;
- Prepares solicitation process, identifies method of solicitation, drafts tendering documents, identifies sourcing strategy and distributes invitations to tender, also using e-tendering system and supports bid/proposals evaluations while ensuring the solicitation process is fair, objective and transparent and that it follows the general principles, as set forth in the FAO Manual Section;
- Prepares and presents cases to the relevant Procurement Committees;
- Participates in and conducts site inspections, bidder's conferences and contract negotiations;
- Conducts market research to keep abreast of market developments; researches and analyses statistical data and market reports on the world commodity situation, production patterns and availability of goods and services;
- Contributes to updating procurement policies and related tools, provides procurement reporting as well as clarification/information for auditing purposes;
- Participates in the development of training and related training materials and promotes best practices and capacity development at HQ and the Decentralized Offices;
- Provides guidance to new/junior staff and stakeholders; Ensures entry of accurate data using the Organization ERP and related systems;
- Makes initial determinations and recommendations concerning disputes or claims arising from contractual instruments or procurement processes;
- Prepares monitoring reports, reviews and analyses data and make recommendations based on



findings;

- Performs other duties as required;
- Undertakes the Buyer function in conformity with FAO rules and regulations;
- Reviews Letters of Agreement in conformity with the Quality Assurance function as set forth in FAO rules and regulations;
- Identifies and makes initial determinations and recommendations concerning disputes or claims arising out of procurement actions;
- Organizes and participates in, as appropriate, local tender opening panels and the Local Procurement Committee (LPC);
- Coordinates with forwarding agents relating to custom clearance, packing, and shipment of goods and maintain logistics records of such procurement-related activities.

Qualifications/Experience:

- Advanced university degree in Law, Business, Administration, Economics, Public Administration or Commerce or a related field;
- Five years of relevant experience in procurement related activities with at least three years of supervisory experience;
- Working knowledge (Level C) of English, and working knowledge of Pidgin English would be an advantage.
- Demonstrated knowledge of internationally recognized procurement standards and of all phases of international procurement techniques and operations used in contracting for a diverse range of goods and services;
- Extent and relevance of experience in public sector procurement dealing with complex contractual issues including revising, drafting of contract, formulating options and proposing recommendations;
- Extent and relevance of experience in identifying clients' procurement-related needs and in providing support and guidance from clients' point of view;
- Demonstrated ability to draft complex tender/procurement related documents in English is considered a strong asset;
- Work experience in more than one location or area of work, particularly in field positions is desirable.

Duty Station: Wewak, Papua New Guinea

Duration: 53 months. Initial one year contract, renewable subject to performance.

Infrastructure Specialist - (ILO)

Background, reporting lines

This ILO technical assistance forms part an integral part of a larger development support programme delivered by a host of UN agencies under the overall coordination of FAO. Within this framework, the Infrastructure Specialist will take charge of all activities within the scope of the project infrastructure component. As such, the Infrastructure Specialist will be the key resource person responsible for the development and implementation of rehabilitation and maintenance of selected transport infrastructure in the project area.

Ultimately, the Infrastructure Specialist reports to the Director of the ILO Country Office in Suva. The Infrastructure Specialist will receive technical guidance and advice from a team of specialists in Bangkok, including (but not limited to) employment-intensive infrastructure works (EIIP), contractor development and decent work in the rural economy.



Within the above context, the Infrastructure Specialist will take charge of planning, programming and implementation of all project infrastructure activities in line with work plans, projects documents, ILO policies and strategies, and in accordance with country programmes and administrative and financial procedures.

Tasks and responsibilities

In collaboration with project partners, local authorities, technical agencies, business associations and others, the Infrastructure Specialist will engage in a number of activities, including but not limited to the following:

- Ensure timely provision of inputs of personnel, technical support services, consultants, civil works contracts, training, equipment, supplies and other needs related to the project infrastructure component in line with the planned joint programme work plans and procurement plans.
- Overall management of financial records and maintaining an up-to-date financial status of the project infrastructure works.
- Mobilise government counterpart agencies and their technical staff to secure their full involvement in the planning and implementation of infrastructure activities covering both planning and works implementation stages in close consultation with FAO as the lead partner.
- Explore partnerships and co-funding arrangements with existing government development schemes and budgets thereby increasing the effectiveness of project activities.
- Assess the capacity of government counterpart agencies to take over and continue technical support services provided through the project and design appropriate measures where capacity constraints are observed.
- As a key resource person prepare and conduct of technical training for national staff, counterparts, local contractors, community-based maintenance groups and other beneficiaries, including the development of appropriate course material and organising the translation of selected material into local languages.
- Participate in the preparation of manuals and guidelines documenting the planning and implementation methods and technology introduced through the ILO technical assistance.
- Organise stakeholder consultations as part of the planning and implementation of infrastructure works to secure adequate local ownership of improved practices and infrastructure.
- Ensure that standard conditions of employment reflecting ambitions of the ILO decent work agenda is achieved in the infrastructure works, introducing adequate inclusive measures that secure the full involvement of women, youth, disabled and other groups requiring particular attention.
- Participate in the planning and programming of the overall programme, thereby securing effective coordination and complementarity with other project components.
- Represent the ILO technical assistance team and its work in various fora under the guidance of the programme manager and ILO Country Office.
- Develop and maintain strong links with ILO Decent Work Team specialists in Bangkok and other colleagues in the field and HQ on specific technical areas requiring comprehensive and collaborative interventions.
- Periodically report, monitor and facilitate the evaluation of the infrastructure works according to project documents and work plans. Contribute to required progress reports and ad hoc reports on the status of project planning and implementation.
- Ensure high-level communications to increase the project's visibility at the national and international levels. This includes the responsibility to liaise with the UN country team, and other key stakeholders, to ensure effective coordination with relevant national strategies and related programmes. Under the guidance of the project management and the project CO maintain relations with mass media in order to increase the impact of the project in society as a whole.

- Establish an inventory of the existing transport network in the project area, how this is managed, key geographical features, main rivers and water transport, ports, jetties, airstrips and assess current condition, access and constraints.
- Organise field surveys to existing transport infrastructure in the project area and in particular where other project components are envisaged and present findings to project partners and beneficiaries in a clear and concise manner.
- Initiate and oversee the appraisal and planning of rehabilitation works on existing transport infrastructure as well as the establishment of effective maintenance schemes.
- Introduce and promote appropriate technologies including the use of employment-intensive work methods in the rehabilitation and maintenance of transport infrastructure under this project and in related government schemes.
- Identify and engage with medium, small and micro entrepreneurs within the local construction industry who possess relevant skills for the infrastructure works.
- Assess capacity of government technical agencies and local contractors and on this basis organise the design of training programmes for workers, artisans, supervisors, technicians, engineers and other relevant staff in order to secure the necessary competence to carry out planned infrastructure works.
- Establish technical design standards, work methods and organisation, standard bill of quantities, work norms and appropriate unit rates for civil works activities in close collaboration with relevant National authorities/legislation.
- Organise quantity surveys, preparation of designs, cost estimates of infrastructure works, preparation of bidding documents and civil works contracts and conduct tenders through national competitive bidding, local market surveys and community contracting.
- Supervise the design of structural works such as bridges, culverts, drifts, jetties and other structures based on hydrological assessments and other ground conditions.
- Facilitate the testing of gravel, aggregate and other building materials obtained from local quarries identified during the design stage. Review results of material testing and provide necessary design recommendations.
- Provide overall supervision of civil works contracts including:
 - Approval of contractors' work programmes, methods statements, material sources, etc. and any proposed modifications or variations.
 - Take remedial action during events or circumstances that significantly impact on works contracts in terms of quality and time.
 - Secure and monitor quality assurance measures for compliance with design specifications.
 - Organise regular inspection and measurement of works, foundations, quality of materials and as-built drawings.
 - Secure the timely certification and payment of works.
 - Assess maintenance and repair work to be carried out during defects liability periods.
 - Monitor payments of work, forecast project expenditure and update budgets and initiate payment requests.
 - Devise sustainable maintenance and operation arrangements that secure all-weather access and protect past and current infrastructure investments.
 - Organise stakeholder consultations as part of securing adequate local involvement in the planning and implementation of maintenance works.
 - Develop appropriate design measures, maintenance procedures, inspection arrangements and continuity plans to secure the necessary climate and natural disaster resilience for the transport infrastructure.

Qualifications/Experience

- University degree in civil engineering.

- 10 years of experience in managing rural transport infrastructure works, of which 7 years relate to rural road works. Proven experience in working and engaging with governments' agencies, private sector, donor and UN agencies, and a heterogeneous team composed of consultants, specialists, and local collaborators of different educational and cultural background, in remote/difficult settings.

Technical requirements

- Proven knowledge in the planning and implementation of rural transport infrastructure works,
- Extensive experience in the development and implementation of employment-intensive (labour-based) public works and a solid understanding of the ILO decent work agenda,
- Past experience in training of and working with local contractors,
- Good knowledge of community and project stakeholder consultations and mobilisation,
- Skills development and institutional strengthening.
- Working knowledge (level C) of English; working knowledge of Pidgin English would be an advantage.

Duty station

Wewak, Papua New Guinea

Duration

53 months, initial one-year contract, subject to renewal based on performance

Training Officer – ILO

Background, reporting lines

The Training Officer will be responsible for the finalization and implementation of the overall capacity development programme, and the coordination of all capacity building activities related to the infrastructure works programme. He/she will also be responsible for guiding the development and institutionalization of the same activities within the sub-national government agencies and support institutions and also have a key role in guiding the knowledge management.

The Training Officer will work under close guidance and supervision of the Infrastructure Specialist of the project. The Infrastructure Specialist will be responsible for regularly reviewing work in progress with the Training Officer and for discussing continuous project implementation issues that may arise.

The Training Officer will receive technical guidance and support from the EIIP Specialists of ILO Bangkok as well as other specialists as needed.

Tasks and responsibilities

- Contribute to and manage an integrated capacity development framework, including enhancing gender equity and other cross-cutting outcomes, in support of programme activities. This includes capacity assessments of partners and communities and the use of this information to further detailing the capacity development framework;
- Establish agreed and realistic targets for capacity development within the overall context of the ILO supported outputs;
- Work with the ILO team and other specialists and partner agencies to ensure that capacity development impacts are appropriately monitored and reported. Also, document opportunities for ongoing capacity development within the overall context of ILO supported activities;
- Liaise with key partner agencies to ensure that the objectives and outcomes appropriately reflect and take into account government policy and practices associated with institutional strengthening, skills development and private sector support;

- Work with the ILO team and stakeholders to ensure that infrastructure works are carried out by staff with the requisite knowledge and skills;
- Participate in the conduct of training needs assessment of the various cadres of staff from government and private sector;
- Plan, organise and coordinate training activities;
- Develop and manage a training management system including mobilising trainers, selection of trainees, performance evaluation, certification, registration, etc.;
- Train counterpart staff and provide instructors and trainers with guidelines on training methodology for practical oriented courses for adult professionals;
- Participate in the conduct of training courses, seminars and workshops;
- Organise post-evaluations of the performance of courses and other training activities;
- Monitor and report on results of training, subjects covered, duration, location, number of trainees, etc., thereby contributing to the overall project progress reporting;
- Participate in development of course material and refining these after the first courses, taking into consideration the experience made during the initial courses;
- Facilitate and organise study trips and participation in technical seminars and workshops outside the confines of the project area.
- Ensure timely provision of inputs for technical support services, sub-contracts, training, equipment/supplies and other needs related to the ILO training activities in line with the work and training plans;
- Support the management of the project budget and prepare revisions as required and upon annual receipt of funding allocations from the EU;
- Liaise as necessary with UN partners on the progress of each Agency's implementation of activities on areas of common interest and collaboration, as per the approved work plan;
- Monitor the progress of the outputs under his/her responsibility and follow up to ensure the timely submission of inputs to the Terminal Report and operational and financial closure of the project.

Qualifications/Experience

- University degree in civil engineering or other fields related to the training initiatives to be carried out;
- Three to five years of relevant experience in technical skills training, general business training, as well as training initiative management and support;
- High standards of integrity, professionalism, personal discipline and impartiality;
- Strong organizational skills, in particular on training activity scheduling and implementation;
- Excellent interpersonal skills and ability to work in a team;
- Ability to understand and formulate new training concepts and methodologies;
- Ability to develop training materials, alternative courses of action and project proposals,
- Flexibility and openness to learn and develop personally as well as professionally;
- Good communication skills, both written and verbal, including the ability to write accurate reports;
- Ability to work independently with a minimum of supervision;
- Ability to work under time and political pressure and meet deadlines;
- Working knowledge (level C) of English; working knowledge of Pidgin English would be an advantage.

Duty station

Wewak, Papua New Guinea

Duration

24 months, initial one-year contract, subject to renewal based on performance

Field Engineers – GS Level (2 officers), (LO)

Background, reporting lines

Under the supervision and guidance of the Infrastructure Specialist based in Wewak, the Field Engineers will take charge of the works operations within the transport infrastructure component of STREIT. Each Engineer will be given the responsibility of a cluster and/or category of infrastructure works for which they will be the key resource person, including initial feasibility studies, preliminary and detailed designs, quantity surveying, contract documents, supervision and inspection of works, use of appropriate technology, conditions of employment of labour, OSH, gender, environment and other crosscutting issues related to the works.

Tasks and responsibilities

- Carry out field surveys to build an inventory of the existing transport infrastructure in the project area and assess current condition of infrastructure structures and components.
- Participate in the appraisal and planning of rehabilitation works on existing transport infrastructure as well as the establishment of effective maintenance schemes.
- Apply appropriate technical design standards, work methods and organisation, standard bill of quantities, work norms and appropriate unit rates for the planning and design of transport infrastructure works.
- Carry out quantity surveys, prepare designs and cost estimates of infrastructure works, prepare bidding documents and civil works contracts and review tenders.
- Plan and design structural works such as bridges, culverts, drifts, jetties and other structures based on hydrological assessments and other ground conditions.
- Instruct and provide guidance to counterpart agencies, contractors and local communities on local resource-based work approaches including the use of employment-intensive work methods in the rehabilitation and maintenance of transport infrastructure.
- Organise the testing of gravel, aggregate and other building materials. Review results of material testing and provide necessary design recommendations.
- Organise community consultations as part of securing adequate local involvement in the planning and implementation of works.
- Supervise infrastructure works including:
 - Review contractors' work programmes, methods statements, material sources, etc. and any proposed modifications or variations.
 - Approve work drawings and approve setting out works.
 - Recommend remedial action during events or circumstances that significantly impact works in terms of quality and time.
 - Carry out or instruct appropriate quality assurance measures to secure compliance with designs, work specifications and common workmanship standards.
 - Carry out regular inspection and measurement of works, foundations, quality of materials and as-built drawings.
 - Certify and approve payment of completed works.
 - Assess maintenance and repair work to be carried out during defects liability periods.
- Process payments of work, maintain expenditure plans and update works budgets.
- Inspect working conditions at construction sites, ensuring that occupational health and safety practices are in compliance with prevailing standards.
- Monitor and report progress of work, material tests, employment generation, OSH issues, challenges, and deviations from plans, designs and work plans, etc.
- Plan and manage sustainable maintenance and operation arrangements that secure all-weather access and protect past and current infrastructure investments.
- Carry out field inspections during extreme weather to secure that rehabilitated infrastructure shows the necessary climate resilience, assessing the performance of drainage and safe

discharge of water, clearance above potential flood levels, assess erosion protection measures, risk of washouts, landslides or other debris compromising the function or safe use of the infrastructure;

- Recommend remedial action when there is a risk that elements of inspected infrastructure may fail or cause damage to the public during extreme weather conditions.
- Participate as a resource person in technical training events and provide technical support to local contractors and communities involved in the infrastructure works.

Qualifications/Experience

- University degree in civil engineering and preferably 3 to 5 years of experience in managing transport infrastructure works.
- Ability to independently initiate and lead the preparation and management of project activities with a clear focus on reaching defined outputs in a timely manner as agreed in project documents and work plans;
- Proven interpersonal and organisation skills; ability to establish and maintain effective working relations with people in a multicultural, multi-ethnic environment with sensitivity and respect for diversity.
- Working knowledge (level C) of English; working knowledge of Pidgin English would be an advantage;

Duty station

Wewak, Papua New Guinea

Duration

53 months, initial one-year contract, subject to renewal based on performance

Financial Inclusion Specialist (UNCDF, 70%⁵⁰)

Location:	Port Moresby, PAPUA NEW GUINEA
Type of Contract:	FTA International
Post Level:	to be determined based on candidate
Languages Required:	English
Duration of Initial Contract:	One year (renewable), upto a maximum of fifty-five months.

Background

In accordance with UNCDF proposed support to the achievement of STREIT's objectives constituting a MOU with FAO, the Financial Inclusion Specialist (FIS) will assist UNCDF in achieving its outcomes through leading the ongoing work in financial inclusion in PNG. The FIS will also work closely with The Bank of PNG (BPNG) and partner organizations such as Centre for Excellence in Financial Inclusion (CEFI) to fulfil national financial inclusion plans and commitments, including the National Financial Inclusion and Financial Literacy Strategy, the 2020 Money Pacific Goals and PNG's Maya Declaration.

The FIS will be based in the UNCDF country office in Port Moresby, PNG and will have primary responsibility for managing and overseeing UNCDF's activities in PNG which at the core includes the EU-STREIT work. Overall, work will focus on management and supervision of the EU-STREIT and will include the other work of UNCDF projects. The person will play a significant role in engaging a wide range of stakeholders ranging from policy makers, financial service providers, associations, and donor

⁵⁰ 30% charged to the new phase of PFIP when it comes into existence after June 2020.



agencies. In particular, the person will be the key resource in the country leading UNCDFs work on the EU STREIT programme and responsible for effectively under the MoU with FAO.

The Financial Inclusion Specialist will leverage on the knowledge and sharing of experiences to promote the best practices in financial inclusion from the regional activities of UNCDF to add value to the work of EU STREIT. This includes bringing in best practices and expertise in agri VCs and MSME financing.

Summary of key functions:

- Coordination, partnership management support and events planning entailing regular contact with partners through electronic and personal contact and resulting in well executed work of UNCDF in the overall EU STREIT project.
- Participate in the identification, development and oversight of a diverse mix of strong projects in agricultural value chains as mandated by the EU STREIT that support UNCDF outcomes;
- Monitor progress of projects and initiatives – ensuring that projects are running on time and smoothly, problems are identified early, and remedial steps proposed;
- Lead the coordination and support with other components of the EU STREIT to draw meaningful linkages to leverage the work related to financial inclusion and access to finance
- Manage financial inclusion research to guide design and development of new products and services dedicated to select agri-value chains leveraging digital financial services.
- Facilitate the flow of information through effective and timely reporting and sharing knowledge between key stakeholders

With the PSC and EU STREIT Team, participate in the identifying, vetting, and assessing new projects/ a diverse mix of strong projects that support UNCDF's outcomes.

- Working with partners and stakeholders, develop a pipeline of potential projects that help EU-STREIT achieve its outcomes. Projects will be related to branchless banking, mobile phone banking, inclusive insurance, remittances and potentially other areas;
- With the UNCDF team, work with shortlisted partners to develop strong financial inclusion projects that reach low income and rural households, including a high percentage of women and youth;
- Prepare project appraisal documents for presentation to STREIT Investment Committee. These projects will involve private sector partners, such as banks, mobile network operators, insurance companies and non-bank financial institutions amongst others;
- Assist in preparing grant and performance-based agreement documentation for approved partners.

Monitor progress of projects and initiatives / Projects are running on time and smoothly, problems are identified early, and remedial steps proposed.

- With the UNCDF Team, manage a reporting schedule for partners and monitor the receipt and quality of reports. Provide analysis and feedback to partners;
- Undertake regular contact with partners to monitor the implementation of projects supported by grants from PFIP. Assist partners in fulfilling reporting requirements, including to the Mix Market. Monitoring shall be made against quantifiable benchmarks and efficiency indicators agreed in the grant agreement – including the validation of grantees progress reports;



- Based on the findings of the monitoring visits, prepare regular progress reports for the purpose of reporting to the Investment Committee by project management.

Manage financial inclusion research. Knowledge generation and knowledge sharing. UNCDF and stakeholders are informed on current trends, market conditions, and special topics as needed.

- Carry out or oversee research and studies, independently or as a counterpart to consultant(s) hired by UNCDF, on various issues relating to financial inclusion in PNG. These may include financial services sector assessments, financial competency surveys, studies of branchless banking and mobile phone banking, agent networks, government to people payments, client preferences and uptake of financial services; micro-insurance supply and demand studies;
- Develop “information exchange events” for financial inclusion stakeholders;
- Contribute to UNCDF technical notes and other publications, highlighting challenges, opportunities and successes in country;
- Identify stakeholders from PNG to participate in knowledge sharing opportunities, assist in managing the logistics of their participation;
- Contribute, as appropriate, to global knowledge sharing to spread the information on PNG experience in financial inclusion.

Donor Coordination and Partnership management support

- Work closely with the FAO, partner agencies in the EU STREIT and UN RC for strengthening and integrating financial inclusion outcomes in programming;
- Maintain close partnership and relationship ties with the BPNG in order to support interest in the development and execution of the national financial inclusion strategy to expand financial inclusion in PNG;
- Develop and maintain partnerships with relevant regional and national stakeholders, for sharing of experience and to promote coordination of activities in the area of financial inclusion. Key stakeholders include Finance Ministries, Central Banks, telecommunication companies, microfinance service providers, FSPs, donors;
- Identify key knowledge constraints and organize learning, knowledge exchange, training, workshops, etc. to build the capacity and interest in relevant themes. (i.e. consumer rights and protection; financial inclusion policy, best practices, monitoring and evaluation, etc.);
- Manage learning, advocacy events and publications on financial inclusion issues;

UNCDF corporate support. Provide support to PFIP management on corporate initiatives and activities.

- With the concurrence of UNCDF and the UN Resident Coordinator, to represent UNCDF on the UN Country Team in the promotion of a One UN agenda;
- Generate and manage donor reporting on PFIP programme activities in PNG;
- Build an effective partnership with the UN Country Office in PNG;

Competencies

Functional Competencies:

Advocacy/Advancing A Policy-Oriented Agenda

Analysis and creation of messages and strategies

- Creates effective advocacy strategies;
- Performs analysis of political situations and scenarios and contributes to the formulation of institutional responses.



Results-Based Programme Development and Management

Contributing to results through provision of information

- Provides information for linkages across programme activities to help identify critical points of integration;
- Provides information and documentation on specific stages of projects/programme implementation;
- Provides background information to identify opportunities for project development and helps drafting proposals.

Building Strategic Partnerships

Identifying and building partnerships

- Effectively networks with partners seizing opportunities to build strategic alliances relevant to UNCDF's mandate and strategic agenda;
- Identifies needs and interventions for capacity building of counterparts, clients and potential partners;
- Promotes UNCDF's agenda in inter-agency meetings.

Innovation and Marketing New Approaches - Developing new approaches

- Seeks a broad range of perspectives in developing project proposals;
- Identifies new approaches and promotes their use in other situations;
- Creates an environment that fosters innovation and innovative thinking;
- Makes the case for innovative ideas from the team with own supervisor.

Promoting Organizational Learning and Knowledge Sharing

Developing tools and mechanisms

- Makes the case for innovative ideas documenting successes and building them into the design of new approaches;
- Identifies new approaches and strategies that promote the use of tools and mechanisms.

Job Knowledge/Technical Expertise

In-depth knowledge of the subject-matter

- Understands more advanced aspects of primary area of specialization as well as the fundamental concepts of related disciplines;
- Keeps abreast of new developments in area of professional discipline and job knowledge and seeks to develop him/herself professionally;
- Demonstrates comprehensive knowledge of information technology and applies it in work assignments;
- Demonstrates comprehensive understanding and knowledge of the current guidelines and project management tools and utilizes these regularly in work assignments.

Global Leadership and Advocacy for UNCDF Goals

Analysis and creation of messages and strategies

- Performed analysis of political situations and scenarios, and contributes to the formulation of institutional responses;
- Uses the opportunity to bring forward and disseminate materials for global advocacy work and adapts it for use at country level.



Client Orientation

Contributing to positive outcomes for the client

- Anticipates client needs;
- Works towards creating an enabling environment for a smooth relationship between the clients and service provider;
- Demonstrates understanding of client's perspective;
- Solicits feedback on service provision and quality.

Technical Competencies:

- Ability to develop project documents, corresponding budgets, and monitoring and evaluation plans;
- Working knowledge of current developments in inclusive finance, including one or more of the following: branchless banking, micro-insurance, social performance, financial literacy;
- Working knowledge of international donor organizations and development partners and preferably experience in preparing proposals for funding.
- Demonstrated broad knowledge of development issues, especially in the areas of poverty alleviation and local development;
- Excellent analytical skills with proven ability to manage projects;
- Comprehensive understanding of the project management cycle and managing for results.

Corporate Competencies:

- Demonstrates integrity and fairness by modelling UN values and ethical standards;
- Displays cultural and gender sensitivity and adaptability;
- Treats all persons fairly without favoritism;
- Shows strong corporate commitment; and
- Promotes the vision, mission and strategic goals of UNCDF and UNDP.
- Ability to address gender equality and empowerment of women considerations in strategic and operational activities of UNCDF.

Required Skills and Experience

Education:

- A Master's degree in economics, public/business administration, social sciences, or related discipline.

Experience:

- A minimum of seven (7) years' experience in progressively more responsible positions in the banking, finance or development field, including in financial inclusion;
- Experience working in or with microfinance institutions, or financial inclusion support projects;
- Ability to develop project documents, corresponding budgets, and monitoring-evaluation plans;
- Working knowledge of current developments in inclusive finance, including one or more of the following: branchless banking, micro-insurance, social performance, financial literacy;
- Working experience and knowledge of socio-economic issues, which results in the exclusion of various groups, women, from the financial sector and ability to generate strategies to address those issues; and
- Working knowledge of international donor organizations and development partners and preferably experience in preparing proposals for funding;
- Demonstrated broad knowledge of development issues, especially in the areas of poverty



- alleviation and local development;
- Excellent analytical skills with proven ability to manage projects;
- Strong IT skills, including ability to work regularly with MS Word, Excel, Outlook and PowerPoint;
- Experience in the Pacific would be an advantage.

Language Requirements:

- Working knowledge (level C) of English; working knowledge of Pidgin English would be an advantage.

Project Manager, Technical Specialist – (UNDP)

Background:

The Project will be delivered under the EU STREIT Programme. STREIT’s overall objective is to increase sustainable and inclusive economic development of rural areas. The Project will support investments in climate resilience and improved value chains by facilitating access to renewable energy technologies. It will deliver a range of activities under output 2.3 – Increased production of and access to, renewable energy systems. It will do this by delivering activities that:

- Support national policy and regulatory reform which will among things, promote the inclusion of renewable energy in of food and agriculture development.
- Determine the feasibility of investment options for renewable energy generation systems.
- Establish renewable energy generation systems in Project areas and advocate for their up-take.
- Support the generation of electricity generated from renewable sources installed.

UNDP will deliver the Project in agreement with an MOU with FAO aiming at achieving the objectives of the STREIT Financing Agreement. It will integrate it into its current portfolio of environment, energy and climate change projects. It will leverage off existing renewable sector activities and existing partnerships with key relevant players including the East Sepik Provincial Administration, PNG Power Limited, other UN agencies including the FAO, the Department of Petroleum and Energy, the Climate Change and Development Authority, the Independent Consumer and Competition Commission and other development partners. The Project will run for five years.

Management and Operational Support Arrangements – Project Management Unit (PMU)

The management of the Project will be supported from within UNDP’s country office to PNG. A small dedicated PMU will provide day-to-day oversight of the Project, working closely with the Project Co-ordinator and team of FAO. While UNDP will take a direct role in the implementation of the Project, it will be done so within the broader arrangements agreed between the European Union and the Government of PNG acting through the NAO. Where additional capacity is required, it will be drawn through supporting technical arrangements through UNDP’s regional technical hub in Bangkok.

The PMU will provide regular reporting to the STREIT Governance mechanism once established. This will be done through UNDP’s Country Office. These reports will as a minimum detail: progress; risks; issues; challenges and opportunities for the Project and STREIT more broadly.

The PMU will be composed of a Technical Specialist and a Project Associate. The Technical Specialist will be responsible for the day-to-day oversight of the project. They will be supported by a Project Associate who will support financial and administrative management. Both will be nationally recruited.



The PMU will have full access to UNDP's Environment, Energy and Climate portfolio resources. This includes a range of procurement, technical and operational support provided by both national and international experts. This will ensure greater value for money and represents a significant investment on the part of the UNDP.

Reporting:

The PMU will report to the head of UNDP's Environment, Energy and Climate Change portfolio on a day to day basis under the overall guidance of the UNDP's Deputy Resident Representative to Papua New Guinea. The PMU will be integrated into this portfolio allowing it to leverage experience, expertise and administrative and operational support, e.g. an ability to draw on the County Office's centralised procurement unit. This will increase the speed at which activities can be delivered.

The incumbent will work closely with a range of stakeholders that include FAO as the lead Agency for EU STREIT and will specifically work in close collaboration with the FAO Programme Coordinator, including other UN agencies, national and sub-national levels of Government, civil society and project beneficiaries.

Role and responsibilities:

The Technical Specialist will be required to:

- Act as a focal point for matters related to daily operations of the project.
- Plan and prepare project task force consultations on behalf of the PC and UNDP Budget Holder and ensures proper operational support for such meetings.
- Ensure timely management of personnel and the provision of inputs for such personnel, technical support services, sub-contracts, training, equipment/supplies and other needs related to the project's operations in line with the project's work plan and procurement plans.
- Contributes to the preparation of joint EU STREIT programme work plans, monitors progress and where necessary, identify corrective measures to overcome operational constraints.
- Coordinate the timely preparation and submission of project progress and other relevant reports.
- Support the management of the project budget and prepare revisions as required and upon annual receipt of funding allocations from the EU.
- Liaise as necessary with UN partners on the progress of each Agency's implementation of activities and delivery rates as per the approved workplan.
- Liaise with UN partners to ensure timely reporting to the EU.
- Identify any problems facing the project and draw these to the attention of the Project Committee, responsible officers/units concerned.
- Provide guidance and advice to the PC on procedural issues relating to project operations.
- Review the project accounts and ensure there are proper payment authorizations including the preparation of appropriate expenditure documents.
- Manage the project's financial records and advise on the financial status of the project.
- Ensure the maintenance of up-to-date financial records, including the preparation of bank and other reconciliation statements.
- Control and manage the disbursement of funds within the approved budgetary allocation in accordance with established rules and regulations and within the delegated authority.
- Monitor the progress of the project and follow up to ensure the timely submission of the Terminal Report and operational and financial closure of the project.

Qualifications/Experience:



- Advanced degree in public or business administration, finance, accounting, economics, engineering, social sciences or other related fields.
- Experience in delivering projects and initiatives in the energy sector.
- Five years of relevant experience in project management/operations and programme support.
- Good inter-personal skills and demonstrated experience working in a cross-cultural environment.
- Working knowledge (Level C) of English. A working knowledge of Tok Pisin would be an advantage.
- Demonstrated sound judgment and an ability to manage a broad range of relationships well.

Duty Station:

Wewak – East Sepik; with frequent travel Port Moresby to support national level activities, e.g. regulatory reform etc.

Duration: One year with the possibility of contract extension based on performance.

International Project Officer (ITU)

Background, reporting lines:

The Telecommunication Development Bureau (BDT) is responsible for the organization and coordination of the work of the Telecommunication Development Sector of the Union (the Union has three functional sectors: Standardization, Radiocommunication and Development) which deals mainly with development policies, strategies, programming, as well as technical cooperation activities (expert missions, training programmes, field projects, seminars, etc.).

Within the Telecommunication Development Bureau (BDT) of ITU, in close collaboration with the Deputy to the Director, and with Departments within the BDT, the Regional and Area Offices are responsible for proposing the operational policy and strategy of telecommunication development activities in their respective regions, coordinating with countries of the region to prioritize requirements, proposing inputs for the preparation of the operational plan based on these prioritized regional requirements, as well as coordinating and implementing technical cooperation activities in their respective regions, be they in the framework of projects, regional initiatives, or follow-up of World Telecommunication Development Conferences.

Tasks and responsibilities:

Under the technical supervision of the ITU Regional Director for Asia-Pacific region and in close consultation with the STREIT Project Coordinator and team, the incumbent will perform the following duties:

- Is responsible for implementation of project on ICTs in agriculture (ITU component of EU Digital Solutions to Support Rural Entrepreneurship, Investment and Trade in Papua New Guinea (STREIT PNG)).
- Act as focal point in preparing a realistic overall implementation plan, including staffing for each phase of the project, project sustainability arrangements and promotion strategies.
- Draft terms of reference for experts and support coordination of activities relating to this EU funded STREIT project in Papua New Guinea.
- Liaise with those involved in project implementation as well as the professionals in the Region and HQs.
- Ensure participation of all potential players in the project region, monitors adequate participation of stakeholders and coordinate the mobilization of the required regional resources.

- Ensure timely provision of inputs for personnel, technical support services, sub-contracts, training, equipment/supplies and other needs related to the project's operations in line with the project's work plan and procurement plans.
- Contribute to the preparation of joint project work plans, monitors progress and, where necessary, identifies corrective measures to overcome operational constraints; coordinates the timely preparation and submission of project progress reports.
- Participate actively in the review of the modules and the guidelines that would be sent to regional workshops for consideration and organizing these workshops.
- Support with the management of the project budget and prepare revisions as required and upon annual receipt of funding allocations for the project
- Provide expert advice on telecommunication/ICT network plans, enterprise architecture, IT systems relevant to the project.
- Develop Request for Proposals (RFPs) for information systems and application, supports its procurement and deployment in a timely manner.
- Provide advice and encourage digital services deployment and uptake in agriculture.
- Build partnerships with public and private sector to enhance the uptake and delivery of ICT services.
- Prepare progress reports and any other reports as required regarding the Project's activities.
- Draft a report on the assessment of the results of the project activities and evaluation of their impact at the regional level.
- Perform any other related duties that could be assigned to him/her by the Regional Director.

Qualifications/Experience:

Education:

Advanced university degree in business administration, international development, engineering, programme/project management, or any relevant area of study to support knowledge in programme/project management or a related field OR education in a reputed college of advanced education with a diploma of equivalent standard to that of an advanced university degree in one of the fields above. For internal candidates, a first university degree in one of the fields above in combination with seven years of qualifying experience may be accepted in lieu of an advanced university degree for promotion or rotation purposes.

Experience:

At least five years of progressively responsible experience in managing projects/programmes in the context of international development, including at least two at the international level. A Doctorate in a related field can be considered as a substitute for two years of working experience

Languages:

For the position advertised, fluency in English (Level C) is required. A working knowledge of Tok Pisin would be an advantage.

Duty Station:

Wewak, Papua New Guinea.

Duration: 48 months. Initial one year contract, renewable subject to performance.

National experts and support staff (FAO)⁵¹

Cocoa Production Specialist: Under the direct supervision of the international cocoa expert, ensure technical soundness and timeliness of activities in his/her field of competencies in the design,

⁵¹ All positions are full-time .Detailed TORs to be developed by the PIMU/UN Agencies at startup.



planning, supervision of the implementation and monitoring cocoa related activities and effective outreach to local agripreneurs.

Vanilla Production Specialist: Under the direct supervision of the international vanilla expert, ensure technical soundness and timeliness of activities in his/her field of competencies in the design, planning, supervision of the implementation and monitoring vanilla related activities and effective outreach to local agripreneurs and private sector.

Fisheries Value Chain Specialist: Under the direct supervision of the international fisheries expert, ensure technical soundness and timeliness of activities in his field of competencies in the design, planning, supervision of the implementation and monitoring fisheries (aquaculture, riverine and in-reef) related activities.

Renewable Energy/Solar Specialist: Under the direct supervision of the international expert, ensure technical soundness and timeliness of activities in his field of competencies in the design, planning, supervision of the implementation and monitoring of renewable energy related activities including energy efficient stoves.

IT Specialist: Under the direct supervision of the project coordinator, ensure technical soundness and timeliness of activities in his field of competencies in the design, planning, supervision of the implementation and monitoring of IT and ICT related activities in support of the project team and its outreach to communities.

VC/SME Development Officer: Under the direct supervision of the international expert, ensure technical soundness and timeliness of activities in his/her field of competencies in the design, planning, supervision of the implementation and monitoring of value chains and enterprise related activities in support of the project team and its outreach to communities.

Reporting & Communication Officer: Contribute to compile, write, edit and review progress, interim and final reports using relevant background information from the field, liaising with project staff as appropriate, ensuring quality and consistency of the products. Develop and produce communication products to showcase EU support and including but not limited to key messages, briefs, brochures, talking points, success stories and presentations; also by travelling to affected areas, as necessary, to ensure collection/production of stories, interviews, photos and videos as per the Programme Visibility and Communications Plan.

Security Officer: Support the principle of 'No programme without security'. Support the monitoring of the security environment and provide timely and accurate security information/advice and recommendations to ensure continuing compliance with the United Nations security policies, practices and procedures and ensures their implementation. Coordinates all security related issues at FAO/UNDSS office with the aim to protect personnel, premises, assets and operations.

Office Assistants for all the above officers (3): to provide assistance in the efficient support with secretarial and organizations support for programme operations.

National Operations Officers (2) Under administrative supervision of the FAO Programme Officer in Papua New Guinea and under the direct supervision of the International Operations Officer, the National Operations Officer will be in charge of the coordination and operational assistance based on the knowledge of the local conditions, culture, language and institutions in PNG. The incumbent will ensure the smooth functioning of projects operations, consistent service delivery, and continuous evaluation and readjustment /improvement of the operational environment.



M&E expert: monitor progress/status of planned Programme activities against work plans and the results framework (logframe) and identify activities/areas requiring follow-up and timely alert the management in case of significant deviation from the expected outputs and outcomes.

Administrative Assistant: Maintain detailed records of budget estimates, obligations and available balances; record receipts and disbursements (ledgers, cash books, vouchers, etc.); supports HR process and maintain a filing system of administrative and financial documents documentation for technical and operational clearances;

Women Trainers (4): Under the direct supervision of the project coordinator, ensure technical soundness and timeliness of activities in her/his field of competencies in the design, planning, supervision of the implementation and monitoring of activities in support of the project team and its outreach to women and youth in particular and more broadly to communities to ensure their active participation and benefit from the programme.

Logistics Officer: supports the planning, management and monitoring of the in-country logistics operations of the FAO country office related to the acquisition and management of distribution of agricultural inputs : planning and follow up of the supply chain, preparatory activities at warehouses; the shipping arrangements, custom clearance; delivery to warehouses; reception and pre-positioning of supplies; storage and distributions to beneficiaries.

Drivers (4): Assigned for the daily work of driving a range of project vehicles.



Appendix VI: Main socio-economic indicators

	2014 ^a	2015 ^a	2016 ^a	2017 ^a	2018 ^a	2019 ^a	2020 ^a
GDP							
Nominal GDP (US\$ m)	18,069	19,172	18,023	19,706	19,645	19,871	20,406
Nominal GDP (Kina m)	44,476	53,077	56,466	62,837	64,418	67,208	71,035
Real GDP growth (%)	7.6	6.8	2.5	2.8	0.3	3.4	3.2
Expenditure on GDP (% real change)							
Private consumption	-5.0	-3.5	1.5	4.0	1.2	2.5	3.0
Government consumption	7.0	1.8	-3.0	3.0	3.5	2.5	2.0
Gross fixed investment	-25.0	-14.0	-7.0	2.0	2.8	4.2	8.0
Exports of goods & services	31.0	20.0	4.5	2.5	-1.5	3.8	3.5
Imports of goods & services	-10.0	-6.0	-2.5	3.8	1.8	2.5	4.2
Origin of GDP (% real change)							
Agriculture	3.0	6.5	-2.5	6.0	2.0	3.5	3.3
Industry	10.5	11.4	1.7	3.3	1.3	3.7	4.8
Services	7.8	8.5	3.7	2.0	-0.3	3.2	2.6
Population and income							
Population (m)	7.8	7.9	8.1	8.3	8.4	8.6	8.8
GDP per head (US\$ at PPP)	3,062	3,784	3,888	4,029	4,037	4,161	4,299
Fiscal indicators (% of GDP)							
Central government budget revenue	25.9	20.7	18.6	18.3	18.6	18.4	18.9
Central government budget expenditure	32.6	25.4	24.0	21.2	22.3	22.1	22.5
Central government budget balance	-6.7	-4.8	-5.5	-2.9	-3.6	-3.7	-3.7
Public debt	33.0	33.9	38.9	37.5	38.6	39.3	39.6
Prices and financial indicators							
Exchange rate Kina:US\$ (end-period)	2.59	3.01	3.17	3.23	3.37	3.39	3.56
Exchange rate ¥:Kina (end-period)	46.20	39.99	36.79	34.88	32.58	32.40	30.21

Consumer prices (end-period; %)	6.7	6.3	6.6	4.7	4.7	4.3	4.1
Stock of money M1 (end period; % change)	11.6	10.5	8.0	9.0 ^a	7.5	7.5	8.0
Stock of money M2 (end-period; % change)	3.4	8.0	10.9	-0.9	9.0	9.0	10.0
Lending interest rate (av; %)	9.4	8.7	8.4	8.4	8.7	8.8	8.8
Current account (US\$ m)							
Trade balance	4,750	6,004	6,125	6,980	5,743	5,535	5,548
Goods: exports fob	8,758	8,424	8,202	9,956	8,621	8,746	8,935
Goods: imports fob	-4,008	-2,420	-2,077	-2,977	-2,878	-3,211	-3,387
Services balance	-2,077	-1,187	-948	-1,232	-1,230	-1,020	-1,057
Primary income balance	-402	-389	-230	-443	-457	-465	-474
Secondary income balance	-340	-257	-87	-178	-86	-108	-133
Current-account balance	1,932	4,171	4,860	5,127	3,970	3,942	3,884
External debt (US\$ m)							
Debt stock	20,429	20,494	19,173	17,367	17,448	17,723	17,911
Debt service paid	1,169	1,099	3,320	2,787	2,979	2,687	2,505
Principal repayments	822	519	2,662	2,111	2,358	2,236	2,153
Interest	347	581	658	676	621	451	352
International reserves (US\$ m)							
Total international reserves (end-period)	2,305	1,738	1,656	1,735	2,215	1,860	1,711

^a Actual. ^b Economist Intelligence Unit estimates. ^c Economist Intelligence Unit forecasts.

Source: IMF, International Financial Statistics.



Appendix VII – Methodology for sustainable value chain development and inclusive business models

The SFVC framework integrates two concepts that have become popular in development thinking and practice over the last decade: sustainability and value chains (VCs). This section briefly summarizes the main elements of the framework. More details can be found in FAO (2014) publication "[Developing sustainable food value chains: Guiding Principles](http://www.fao.org/3/a-i3953e.pdf)"⁵²

Defining the sustainable food value chain (SFVC) concept

A *food value chain* consists of all the stakeholders that participate in the coordinated production and value adding activities that are needed to make food products.

A *sustainable food value chain*, then, is a food value chain that: (i) is profitable throughout (economic sustainability); (ii) has broad-based benefits for society (social sustainability) and (iii) shows a positive or neutral impact on the natural environment (environmental sustainability).

The Concept of Value-Added

In the SFVC framework value-added refers to the difference between the non-labor cost of producing food and the consumer's willingness to pay for it, adjusted for externalities. This means that value-added is best understood by looking at the way it is captured by various stakeholders, profits, wages, taxes, consumer surpluses and externalities. Externalities can be positive or negative. For example, a food processor may pollute a river that affects the income of fisher-folk, or built a road to its plant that benefits the rural communities living alongside of it.

The Concept of Sustainability

In SFVC development, a holistic triple bottom line approach is followed, in which there are three main dimensions to sustainability: economic, social, and environmental. For the economic dimension, a VC is considered sustainable if the activities required to be conducted by each VC stakeholder are commercially viable or fiscally viable (for public services). For the social dimension, sustainability refers to socially and culturally acceptable outcomes in terms of the distribution of the benefits and costs associated with the increased value creation. For the environmental dimension, sustainability is determined by the ability of VC actors to show a neutral or positive impact on the natural environment from their activities.

The Sustainable Food Value Chain Development (SFVCD) Framework

The SFVC development framework considers the VC as the core of a system consisting of complex economic, social and natural environments which determine the behaviour and performance of farms and other agri-food enterprises.

Essentially, the SFVC framework upholds market-based solutions that start from market opportunities: value (including any associated externalities) is determined by the consumers' choice of which food items to purchase on national or international markets. Furthermore, it emphasizes a multi-layer, multi-stakeholder approach to problem solving. Instead of direct project delivery, SFVC development practitioners assume a facilitating role and support local stakeholder linkages.

SFVC development requires systemic analyses at three inter-connected levels: the core value chain (composed of VC actors who produce or procure products from the upstream level, add value to the product and then sell it on to the next level), the extended value chain (providers of inputs, finances,

⁵² <http://www.fao.org/3/a-i3953e.pdf>



and other services that support the activities of VC core actors; these support providers do not take ownership of the product, but play an essential role in facilitating the value-creation process), and the broader enabling environment (societal elements such as policies and regulations, socio-cultural norms, infrastructures, and organizations, natural elements such as soil, water, biodiversity, climate and so on).

VC actors are linked to each other and to their wider environment through a governance structure. There are horizontal linkages between actors at particular stages in the chain, for example farmers organizing themselves into groups or cooperatives; and vertical linkages within the overall chains, for example farmers providing their produce to food companies through contracts.

By analysing the linkages between actors across five stages of the core value chain (production, aggregation, processing, distribution and consumption), their business development service providers, and how their capacities and incentives altogether are influenced by the enabling environment, the SFVC framework aims to uncover the root causes of value chain underperformance. These analyses also identify the areas of greatest potential for improving value chain performance (upgrading) and the most effective solution, which may be located at some distance from the observed problem. Likewise, it calls for integrated interventions along the three aforementioned levels, rather than at each level separately. Hence the project will build upon the past work and existing VC4D studies implemented by the EU in Cocoa and Vanilla in PNG.

Purely supply driven development approaches have shown little success. A combined production-marketing system, based on private sector based buyers of small farmer produce and agro-processors, could address most of these constraints and improve international competitiveness. Promising models are based on aggregation by private sector actors, who purchase from small-scale producers and give them a market for their produce.

Apart from aggregating, storing, and marketing produce, these buyers can add value to certain products through basic activities such as improved curing, drying, smoking, fermentation and packaging and can potentially offer support and services for producers (improved planting material, , technical advice). Some producer organizations in Papua New Guinea could possibly act as buyers and should be supported to do so, but they cannot succeed alone. Improving the quality and certification of the higher value products such as Vanilla will also be essential to ensure not only market access but also increased returns and long term market position.

Entrepreneurs—traders, wholesalers, or even larger farmers—need to step in and assume the required organizational and aggregation roles. Agro-processors can adopt the same model, in which smallholder farmers produce in accordance with a plan agreed with the processor and embodied in a written contract. This becomes even more complex when the final market is outside Papua New Guinea. The final aggregation and exporting of produce and also processed foods is likely more efficient when handled by professional private sector companies.



Part II The FAO Inclusive Business Model approach

IBM focusses on the “driver” of the business model. This could be private sector aggregator, a farmer group or a support service provider (or intermediary). It has been widely applied in earlier trust fund funded projects in Africa and the Caribbean, including projects funded by the EU.

Inclusive Business models (IBM) for small farmers and processors: One of the more innovative features of the project is the support that will be provided for developing business models that are inclusive of small farmers and processors. Through developing of “inclusive business models” and complementary farmer and processor capacity building, the project will ensure that the support provided for food systems development leads to benefits for smaller scale farmers and processors, rather than leads to their marginalization. Because the actions to support development of inclusive business models are similar to but not the same as value chains development.

Rationale: Small farmers and processors are tied to markets and agro-industries through business linkages. There are many models of business linkages, some driven by producers, some by buyers and some supported by intermediaries including NGOs. The nature of the business model critically impacts on how value is created, captured or shared by farmers, SMEs and other chain actors. It is therefore important to establish inclusive, equitable and sustainable business models for farmers and SMEs. Moreover, a strong farmer-buyer relationship is the foundation on which commercially viable business models can be developed to supply food products that meet customers’ requirements in terms of quantity, quality and price.

Overview of the Approach: The output of inclusive business models will focus on facilitating improvements in the business and operational processes between the farmer and their agribusiness buyers in order to improve the efficiency of their joint business model and responsiveness to their downstream customers. These business models and actions needed to improve or upgrade performance of the models are therefore context, business and farmer group specific.

The development of inclusive business models starts with informal consultations, undertaken to identify entrepreneurs (firms or commercially oriented cooperatives) that have a good sense of their markets and are convinced that they could tap excess demand if they can develop supply channels with smaller scale suppliers. The consultations also serve to identify circumstances in which the suppliers might be assisted in value addition innovation and/or enterprise diversification so that their intensified involvement in a specific food chain is unlikely to undermine their livelihoods security.

When promising circumstances are identified, the next step is to provide a small contract for the partner (the firm or cooperative), or a facilitating business service organization, working in partnership with the representatives of the suppliers to undertake set of diagnostic and planning exercises. This will lead to clear identification of the business model and a “business proposition” to improve the supplier-buyer relationship in such a way that the profitability and sustainability of the joint business models is enhanced.

As to the types of activities that might be supported in one or two follow up “mini” contracts, the principle to be followed is that the project might provide support for business software (planning, consultation, training, facilitation, negotiation, exchange visits, advocacy, conflict resolution) but – in most cases – for not hardware (inputs, equipment, money). Since the dividing line is not always so clear in practice, an illustrative checklist of potential areas of support that might or might not be acceptable for eventual support will be provided to the project team and potential partners to provide guidance and help ensure that there are not unrealistic expectations about unsustainable project financial support.

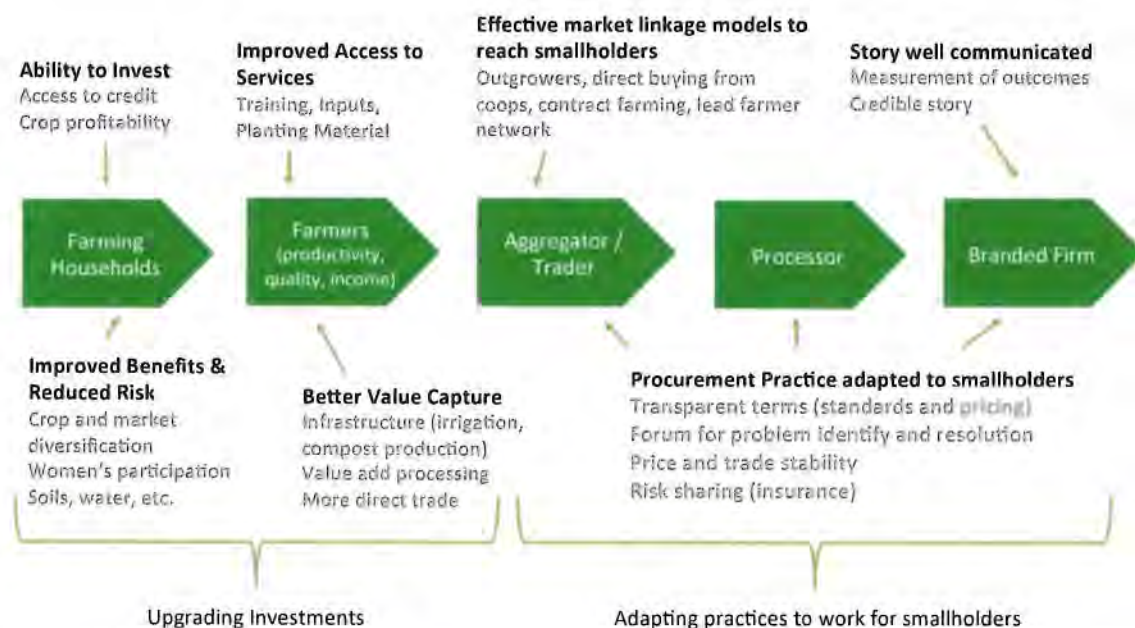
Motivations for Business Models Development: Business models cannot be developed for all producers and buyers in all parts of the country. There are nevertheless three main reasons for provision of support for inclusive business models development in the context of a broader food systems development project. These include the following:

- desire and need to demonstrate benefits for specific populations in specific locations;
- finding from many case studies that building sound and reliable supplier-buyer relationships is critical to inclusive food chains and food systems development;
- belief that building back from business is in many cases a more sound strategy than building supply and then looking for business outlets.

Development of inclusive business models is an important, focused activity that contributes to food chains development, but it is distinct in approach and in purpose. Food chains development appraises and addresses inter-organizational links and relationships along entire chains that are necessary to deliver a product to the consumer. In most applications, food or value chains work in developing countries has been undertaken to provide public and private planners and decision makers with information on the critical points that are instrumental in creating value along a food chain and guidance on public-private collaborative efforts that can help improve competitiveness in the chain. Governments and donors also use value chains analysis to examine constraints in the enabling environment.

While food chains development takes a macro perspective of a single entire chain, the inclusive business models approach focuses on addressing the specific constraints that affect producer-buyer relations, constraints that often lead business partners away from working with small farmers and processors. The inclusive business models approach has promise as an area of public sector services provision because transaction and implementation costs are lower compared with full value chains analysis and development, and scarce resources can be focused on circumstances where there are high likelihoods of quick gains for farmers and their buyers (so called, “low lying fruit”).

Figure: Typical Inclusive Business Model Investment Areas:



Source: FAO, 2014

Appendix VIII – Economic and Financial Analysis

Project rationale, costs and benefits

The Government of PNG has identified a number of strategic sectors for investment and promotion including Cocoa (Cocoa Strategy, 2017), Vanilla (East Sepik Provincial Integrated Development Plan, 2018-2028) and Fisheries. This project was prepared in response to the Government strategies as well as the Agriculture Sector Development Plan. It was further enriched by a variety of Value Chain studies prepared by the EU under the Value Chains for Development Project, implemented by a consortium engaged by the EU and organized under the EU Delegation in Port Moresby. These included a Cocoa Value Chain and draft Vanilla study which were finalized and shared by the EU in March 2019.

Based on these reports, the project preparation team has undertaken three missions to the project area in the Sepiks in May 2018, February 2019 and April 2019 to develop and review specific enterprise-focused investments and models to analyse the viability of investments in these respective value chains. This included in-depth consultations with a number of enterprises, traders and MSME's as well as individual farmers and farmer groups. A more detailed study by the VC4D facility of Fisheries may be carried out in 2019/20.

Farmers in the Sepiks grow a wide range of vegetables, tubers and cash crops which are consumed fresh or are processed into diverse industrial inputs and products. Cocoa and Vanilla are key export crops with well-established capacity in production and linkages with multinational companies for marketing in local market towns such as Maprik, also known as the "Vanilla capital" in the province.

The expected flow of benefits from selected investment sub-projects (individual, group and integrated investment plans) results from: (i) increased production and productivity through improved knowledge and technologies (e.g. higher volumes, improved quality, reduced losses, improvements in efficiency of input use); and (ii) better knowledge of markets and product quality at producer and MSME level to access and negotiate markets and reduce price risks, based on the possibility to invest in improved production inputs, post-harvest, processing and possibly packaging facilities. All of these likely benefits would contribute to a sustainable increase in net family incomes for all the farmers involved in EU STREIT investment sub-projects.

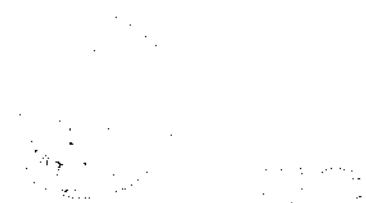
The expected flow of costs are: (i) initial investment costs in small and large sub-projects investments (including grants, contributions and possible development/commercial bank loans; costs directly linked to the operation of investment sub-projects; and (ii) other related costs from Component 1 and Component 2 that would provide enabling conditions for sustainable value chain development, market access and food safety).

Illustrative Models

Based on the Detailed Design Missions carried out by FAO in collaboration with DAL in 2017, 2018 and 2019, a set of illustrative models was agreed and jointly developed to provide indicative economic and financial returns from investments in the Value Chains supported by the project. This includes both individual and group investments as presented in Tables A and B.

Table A. Description of financial models – Cocoa and Vanilla

Category and model	Type of investment	Sub-project rationale
Cocoa Production	Individual level investment	<p>Situation without project: CPD, low yields, poor quality and variable prices.</p> <p>Situation with the project: Budwood garden and nursery seedling production - increased production, productivity and prices (quality) with good Cocoa block management practices.</p> <p>Main investments: Provision of improved Cocoa seedlings, improved management (capacity development), improved drying facilities and technologies.</p>
Cocoa Fermentary	Enterprise level investment, including individual level investments.	<p>Situation without project: Wood based drying of Cocoa, smoke taint resulting in lower prices per unit for producers.</p> <p>Situation with the project: Agro-processor, in alliance with a group of producers, consolidates production and adds value to the product through drying and packing for domestic and international markets.</p> <p>Main investments: Equipment and improved and more energy efficient renewable technology and facilities to control the proper drying of Cocoa.</p>
Vanilla Production	Individual level investment.	<p>Situation without project: Low yields, poor varieties and low quality vine management.</p> <p>Situation with the Project: Increased production, productivity and bean quality.</p> <p>Main investments: Provision of improved varieties, improved pollination practise and techniques, improved vine management.</p>
Vanilla Processing	Enterprise/Individual level investment.	<p>Situation without project: Variable quality, limited market access and limited market information.</p> <p>Situation with the project: Controlled curing/drying, increased quality, improved market access and market information.</p> <p>Main investments: Provision of improved varieties, capacity development in improved production and curing techniques, improved Market information systems.</p>



1. Description of staff cost accounting at FAO, prepared in accordance with EC guidance on simplified cost options for such expenditure under Contribution Agreements

Background

FAO applies the UN Common System of entitlements i.e. salaries, allowance and benefits, for all staff, irrespective of funding source. It should be noted that the effect of this is that, since rates of pay and of allowance and benefits are set centrally for the entire UN, they are not under the control of the Organization. It should also be noted that their accountable cost in USD is also largely outside the Organization's control e.g. the US Dollar cost of project staff salaries will vary in some degree, often in large degree, with the movement of the exchange rate of country of the duty station against the US Dollar. Unit staff costs charged are thus likely to change, sometimes very considerably, over the course of a project.

Staff costs – recurrent and non-recurrent elements

Staff costs may broadly be classified as arising in one of two ways:

- From so-called 'recurrent' pay elements, processed through the monthly payroll: salary, mobility and hardship allowance, rental subsidy etc., as detailed on the monthly pay status and payable to the staff member; and medical insurance and pension fund contributions made by FAO
- From 'non-recurrent' pay elements, processed either as other staff entitlements are paid, usually outside the monthly payroll, or as such entitlements are earned through qualifying service. Installation allowance on re-location and education grant payments for eligible children are examples of the former; charges to fund the eventual payment of repatriation grants to separating staff on their return to their home country or to fund FAO's obligation to contribute to the eventual after-service medical costs of qualifying retired staff, are examples of the latter.

Note: a 'non-recurrent' pay element might in fact be paid through the monthly payroll, e.g. children allowances, but this does not change the accounting treatment described above.

FAO accounts for staff costs chargeable to projects in two ways, both to be considered simplified cost options under Contribution Agreements, as follows.

- As standard unit staff costs, applicable for staff employed under its core budget or **Regular Programme (RP)**, funded from assessed contributions of its members;
- As modified standard unit staff costs, applicable for staff on projects funded by voluntary funds from donors - so-called **Extra-Budgetary Funds (EB)**, comprising Trust Funds and UNDP funds.

Regular Programme (RP) – Standard Cost Accounting

Staff employed under the Regular Programme (RP) may also do work for EU (or other EB) projects, whether through a period of assignment or for provision of technical support service (TSS - chargeable at daily rates) based on the RP standard staff costs. Accordingly, this method of staff cost accounting is also being presented for EC certification – see note on this below. These standard staff costs are derived as follows.

The budget for Regular Programme staff costs and related charges are based on average total staff costs by grade and major location for the biennium concerned. Accordingly, all costs and charges arising for RP staff, whether from the monthly payroll recurrent pay elements or non-recurrent pay elements, are charged to the designated 'Staff Cost Variance (SCV) Account' for the grade and location. With each month's payroll, the standard unit staff costs (as set during budget preparation



for the biennium in course) are **charged** to the budgets of RP units and **credited** to the appropriate SCV account. Differences on SCV accounts at period end between total costs and credits, are distributed in proportion to total payroll charges made throughout the period.

Extra-Budgetary Funds (EB) – Modified Standard Cost Accounting

Staff cost budgets and related charges for projects funded from extra-budgetary (also called donor funds or voluntary contributions), are based on:

- Actual recurrent' payroll costs, as reflected in monthly salary payments and FAO monthly contributions towards social security schemes viz. Pension Fund and medical insurance scheme
- A percentage 'uplift' calculated on the basis of the amount needed to cover the balance of costs outstanding on the Cost Collection/ Staff Cost Variance (SCV) Account, to which the cost of all 'non-recurrent' staff entitlements is charged. The percentage so calculated is applied each month to each 'recurrent' element of monthly payroll processing. (As mentioned above, some 'non-recurrent' pay elements e.g. child allowances, are paid through the monthly payroll but their cost is included in the 'uplift' calculation).

Just as for the RP, differences at year-end between total costs so charged and recoveries from the standard unit staff costs charged through the monthly payroll and credited to the SCV, are distributed in proportion to total charges made throughout the year.

Preparation of staff costs estimates for inclusion in project budget

Amounts budgeted for project staff inevitably reflect experience of average staff costs: details of prospective actual costs could be known only after staff recruitment or assignment, not at the time of project and budget formulation. Estimating and charging staff costs on the simplified bases used by FAO provide greater certainty and lead to lower levels of budget variance than would the charging of all costs at actual.

Certification of FAO's simplified staff cost accounting methods

Comprehensive documentation of FAO's methods of simplified staff cost accounting was prepared for purposes of review and certification under the provisions of the Contribution Agreement and Commission Decision C (2016) 3631 dated 16.6.2016. In this regard it should be noted that DEVCO have signalled acceptance of FAO's use of simplified staff costing practices under pre-PAGODA agreements, subject to their consistent and equitable application (Note from Mr Sarazin, R.3 dated 21/11/2016). It is accordingly to be expected that certification of the same methods, to be applied for projects under Contribution agreements, will be duly forthcoming later this year.

It should be noted that if there were eventually to be modifications to FAO's simplified staff cost accounting in connection with the certification process, these would be duly taken into account for projects affected. In this regard, FAO recognizes that reimbursement of such costs (as distinct from their pre-financing), would be based on simplified staff cost accounting as eventually certified.

2. Simplified cost options for FAO office costs: description prepared in accordance with EC guidance for use in preparing estimates and charging such costs under Contribution Agreements

Accounting for FAO office costs, usually applicable to projects in the field, will typically reflect a mix of actual charges for costs wholly incurred for the project concerned and charges on account of shared office costs. Under the provisions of the Contribution Agreement and related guidance, in particular Commission Decision C (2016) 3634 dated 16.6.2016, allocations of shared or common office costs is acceptable under stated conditions, essentially designed to ensure that such allocations are equitable and applied in a consistent manner.



The degree in which office costs may be directly or wholly incurred for a project or subject to allocation, will vary largely according to local arrangements, though there are certain standard elements. One such is the so-called Improved Cost Recovery Uplift (ICRU), applicable to projects since 2014.

Under ICRU, percentage rates are applied to the cost of project staff and consultants, to cover the cost of Information Technology Services provided and of the cost of Headquarters-administered Security Services applicable to field offices. These percentage charges are calculated to recover all the related costs actually incurred to provide the services in question, with Regional variation in the case of Security Service costs. The costs incurred and credits arising from the percentage charges made each month are recorded in separate accounts. Those accounts are subject to periodic review and re-assessment of the level of the percentage charges needed to cover the underlying costs incurred.

It should be noted that, while ICRU costs are calculated on the basis of the related staff and consultant costs, they are in nature general operating expenses (GOE) and should be budgeted accordingly.

In the present case, the estimated cost of office consumables has been based on the proportion of office staff months estimated to be attributable to the project. Changes in attributable staff numbers during the life of the project, might alter the actual costs allocated, though that would depend on actual unit consumption of the consumables concerned. In this regard it is to be borne in mind that the purpose of simplified cost options is to reduce transaction costs. For expenditure of relatively modest amount allocated on a basis that is considered reasonable, it would be counter-productive to seek a high level of precision.

