INDEPENDENT STATE OF PAPUA NEW GUINEA

NATIONAL AGRICULTURE SECTOR PLAN 2024 - 2033



NASP
NATIONAL AGRICULTURE SECTOR PLAN
SUBSISTENCE TO COMMERCIAL ENTERPRISES

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Transforming the Agriculture Sector

Department of Agriculture and Livestock

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PAPUA NEW GUINEA

NATIONAL AGRICULTURE SECTOR PLAN 2024 - 2033

TRANSFORMING THE AGRICULTURE SECTOR

Subsistence to Commercial Enterprises

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FOREWORD BY THE PRIME MINISTER



I remind myself that all extractive industries (gold, copper, nickel, cobalt, oil, LNG, condensate) in PNG have their lifespan and they will be exhausted in the course of time but agriculture remains our backbone and the foundation of our economy into the future. I further remind myself that every Papua New Guinean has his or her roots and strength in agriculture whereby parents, grandparents and forefathers have been farmers and traders (barter system). Thus, I firmly believe the wealth and prosperity of PNG is in agriculture.

Retrospectively, I have recognized the economic, cultural, heritage, health and spiritual values and connection of the people to agriculture, and thereby boldly declared to the world that PNG will become the ***"Richest Christian Black Nation in the world"***. My government prioritized economic independence and would like to achieve a K200 billion economy by 2030. Agriculture sector is a sleeping economic giant and it has my Government's undivided support to unlock the real treasure of this country. Thus, I have tasked the sector to contribute K30 billion and contribute to the 1 million job creation target by 2030.

I have made some strategic decisions to give prominence to the agriculture sector by creating four ministries for the sector to develop all the agriculture commodities to their full potential. It took five years for the sector to conceptualize my government priorities in agriculture commercialization and downstream processing of value-adding products that will double and triple revenue and create more employment for our people, our graduates and our youths who are the productive labour force. I am pleased the sector has formulated the PNG National Agriculture Sector Plan (NASP) 2024-2033 for my government to endorse. The plan captures my Government's vision for an agriculture-based economy and aligned to the strategic goals of Vision 2050, PNG DSP 2010-2030 and Medium Term Development Plan (MTDP) IV 2023-2027.

I am delighted that 85% of the population will gain more benefits from NASP 2024-2033 investments. It has created a platform for the local, district, provincial and national governments, private investors and foreign direct investors to venture into strategic partnership with land owners and other stakeholders for development

"I have recognized the economic, cultural, heritage, health and spiritual values and connection of the people to agriculture, and thereby boldly declared to the world that PNG will become the "Richest Christian Black Nation in the world"

of large-scale commercial agriculture and downstream processing space. This ensures active participation in the economic development by all citizens where no one is left behind. Thus, my government will secure financial, nutritional and food security for PNG.

I would like to ensure the NASP 2024-2033 materializes through the Connect PNG program of the Government where rural PNG and agriculture production centres are connected by roads, ports, airports, energy and communication infrastructures. These deliberate intervention programs will stimulate economic growth and commercial centers in all rural PNG, improving connectivity, creating employment, increasing opportunities and improving livelihoods.

I am pleased to note that NASP 2024-2033 will be anchored by Agriculture Sector Policy and Legislative Framework to advance the commercial agriculture development for PNG. I commend the Ministers for Agriculture, Coffee, Oil Palm and Livestock, the Department of Agriculture and Livestock, Ministries of Coffee, Oil Palm, Livestock, Commodity Boards, Sector Agencies, National and Provincial Departments, Private Sector, Development Partners, NGOs, MSMEs, MSMIs and our hardworking farmers for collectively and carefully formulating this road-map. I am confident that the agriculture sector will achieve the K30 billion toward my government's commitment to have a K200 billion economy by 2030.

God will bless and guide us as we implement the NASP 2024-2033 for the people of Papua New Guinea.

HON. JAMES MARAPE, MP
Prime Minister of Papua New Guinea

MINISTER'S STATEMENT



PNG is an exporter of primary products of coffee (green bean), cocoa (cocoa bean), coconut (copra/copra oil), oil palm (crude oil), rubber (cup - lump) and vanilla (dry pods) and importer of finished products. The export value is below K6 billion per annum. I am of the view that each agriculture commodity in PNG can generate above K1.0 billion if we increase production and do downstream processing and value adding. I have always maintained that the agriculture sector is a sleeping economic giant and has a combined worth of K50-100 billion per annum if each commodity, whether be it crop or livestock is traded as finished products such as Chocolate, instant coffee, cosmetics, pharmaceuticals, oils and so on. Agriculture alone can support the government budget and sustain the economy.

I reiterate and reaffirm the Government's prioritization on agriculture commercialization, and downstream processing and value adding of agriculture products. I will work closely with my three colleague ministers; Minister for Coffee, Minister for Oil Palm, and Minister for Livestock, to ensure our sector achieves the goal of K30 billion of the K200 billion economy by 2030 target of the Government. While each Commodity Board has Key Result Areas and Key Performance Indicators to achieve, I expect all of us to cooperate with the Agriculture and Livestock Department and the NASP Management Secretariat that will manage and coordinate the implementation of NASP 2024 - 2033. Our combined efforts will create more employment and income opportunities for our people and deliver our share of revenue contribution to the economy. The NASP 2024 - 2033 provides us with the road map and direction to work together with our Provincial Governments, District Development Administrations, Local-Level Governments, development partners, private sector, investors and our farmers for the next 10 years, as a united body by sharing information, data, skills and land resources for the greater outcome for our people and our country.

Our major source of funding will come from the Government's MTDP IV 2023-2027. We have also negotiated for external funding through soft loans and direct foreign investments to co-fund the NASP 2024-2033 for agriculture commercial development and downstream processing to accommodate our private sector players in the agriculture sector. We have the undivided support of our Prime

"I have always maintained that the agriculture sector is a sleeping economic giant and has a combined worth of K50-100 billion per annum if each commodity, whether be it crop or livestock is traded as finished products such as Chocolate, instant coffee, cosmetics, pharmaceuticals, oils and so on"

Minister Hon. James Marape, MP and other colleague Ministers in other economic sector ministries; Treasury, Planning, Finance, Transport, Civil Aviation, Commerce and Industry, International Trade and Investment, Foreign Affairs, Labour and Industrial Relations, Climate Change Development Authority, NISIT, DPLGA, DoWH, DoCI, MITI, Energy Authority and Migration, who are ever ready to assist us deliver the NASP 2024-2033.

On this note, I express my sincere gratitude and appreciation to the Secretary of the Department, Dr Sergie Bang, former Acting Secretaries; Dr Nelson Simbiken and Mr Brown Konabe, National Agriculture Sector Plan Coordinator, Mr Mame Kasalau MBE, the consultants and the Secretariat team for delivering the NASP 2024-2033. I extend my gratitude to the Chairman and members of the Economic Sector Ministerial Committee for their invaluable guidance and undivided support; Members of the National Agriculture Council for their support and endorsement of the plan; Special appreciation to my predecessor Hon. Aiye Tambua, the former Minister for Agriculture, for your remarkable leadership and wisdom in initiating the development of this plan; Hon John Simon, the former minister for Agriculture, for your continued support to the sector. Special acknowledgement and appreciation to Commodity Boards, National Departments, Private Sector, Provincial Administrations, NGOs, National Institutions, Development Partners and our hardworking farmers for the contributions and support. I am looking forward to working with you all in the implementation stages of the plan. I encourage both public and private sector to partner with us and invest in the NASP.

May God bless this plan and bless us as we implement the NASP 2024-2033 to serve our people in Papua New Guinea.

OFFICE OF THE MINISTER
Papua New Guinea
Hon. John Boito, MP
DEPARTMENT OF AGRICULTURE AND LIVESTOCK

HON. JOHN BOITO, MP
Minister for Agriculture

PREFACE



The Prime Minister of Papua New Guinea, Hon. James Marape, in his inaugural address to the nation, declared that Agricultural Development is his Government's top priority after the significant progress achieved so far in the non-renewable mining and petroleum sectors. This plan (NASP 2024–2033) is aligned to the Government's MTDP IV 2023-2027, which prioritizes the Agriculture Sector.

Currently, food insecurity and poor nutrition is a growing concern in PNG. There is an inconsistent daily supply of food to households (PNG DHS, 2016 - 2018) and a high malnutrition rate. One child out of 13 children dies due to malnutrition before s/he reaches 5 years and a significant 40% - 50% of the remaining children are stunted or wasting (UNICEF, 2021). PNG has a high poverty rate of 40%, especially in rural areas (UNDP, 2014). Unemployment is high in the country, with a reported 240, 000 people who actively looked for work in 2020 (Trading Economics, 2020). There are declining yields of agricultural food gardens in densely populated areas across our country and these desperately need interventions to develop resilient agricultural production systems under our changing climate (Food Systems Profile - PNG, FAO, 2023).

Long-term sustained macroeconomic growth and development of the PNG economy heavily depends on Agriculture, which has the potential to create wealth, employment and trigger industrialisation and services leading to a significant increase in food security and poverty reduction amongst others. The sector's current share of GDP stands at around 30% and will continue to be the primary economic activity that provides livelihoods for over 80% of the rural population. Hence, its development has positive implications for the majority of the population and other sectors of the economy.

The development targets in the MTDP IV 2023-2027 and NASP 2024–2033 show us the contributions the Agriculture Sector must make to the nation in 2027 and beyond. These include; improved food supply to homes and reduced malnutrition and stunting in children. The Agriculture Sector is targeted to contribute K30 billion to the PNG Economy by 2033, thereby creating wealth for all Papua New Guineans. The production and export of Commodity Crops will have tripled or quadrupled,

while increased domestic Food crops grown and livestock raised will replace imports, derived from climate-smart resilient production systems. Through this, 500, 000 new jobs or more will be created and 50, 000 SMEs established for the Nation.

The sector is developing a new vision with efficient service delivery mechanisms: “Make agriculture the “engine for socio-economic growth and development through commercial agriculture”. To realize this vision, the NASP identified thirteen strategic Agriculture Priority Areas (APAs) to contribute towards achieving the following objectives:

1. Enhanced Productivity, Improved Production Efficiency and Market Competitiveness
2. Improved Infrastructure and Access to Markets
3. Increased Agriculture Commodity Investment and Exports
4. Sustainable Land Mobilisation, Use and Management
5. Enabling Policy and Legal Environment for Mobilising Private Sector Participation
6. Comprehensive Research and Development
7. Integrated Agriculture Education, Training and Extension Services
8. Effective Agricultural and Biosecurity Practices
9. Improved Food and Nutrition Security and Safety Standards
10. Climate-Smart Agriculture Practices
11. Effective Institutional Reforms and Sector Development
12. Improved Information Management and Use of ICT
13. Effective National Agriculture Sector Plan Management

The thirteen APAs are divided into five major investment programmes for effective implementation and achievement of results:

1. **Commodity Commercialization Programme** targets tree crops (oil palm, cocoa, coffee, coconut, rubber, tea), rice and grain, livestock, spices, and fresh produce, which will be implemented through commercial agriculture investments and entrepreneurship and market-driven agriculture production and downstream processing at smallholder, medium to large-scale.

2. **Agriculture Infrastructure Development Programme** focuses on rehabilitation of run-down plantations and all infrastructure required for agricultural development, such as feeder roads, jetties, wharves, irrigation, marketing, processing and storage facilities.

3. **Private Sector Participation Programme** looks at providing an enabling policy and legal environment for private sector to participate through investments, etc.

4. **Research and Development Programme** targets research agenda for technological upgrading, promoting innovation and commercialization, improving research capacity and upgrading research facilities and equipment.

5. **Sector Governance and Management Programme** focuses on institutional reform within the Department of Agriculture and Livestock to enable it to perform its role as the lead agency to ensure an effective and coordinated

implementation and management of the sector.

An overarching Legal Framework has been put in place to coordinate and govern the operations of PNG's agriculture sector through the National Agriculture Administration Act (NAAA) Bill and the Agriculture Investment Corporation (AIC) Bill.

Gender, youth, and farmer health care issues, including HIV/AIDS, will be mainstreamed across the 13 APAs. Green economy principles and climate-smart agriculture practices will be adopted as safeguards with medium-large-scale commercialization and mechanization of agriculture.

It is hoped that with the National Agriculture Policy, Strategies and Results Framework, Implementation Plan and the two legislations, the NASP will be successfully implemented to ensure the sector plays its role as the engine for socio-economic growth in PNG. I, therefore, entreat you all to embrace this plan and invest accordingly in the sector.

OFFICE OF THE SECRETARY
DR. SERGIE BANG
21 / 5 / 2024
DEPARTMENT OF AGRICULTURE & LIVESTOCK

Dr Sergie Bang
Secretary for Department of Agriculture and Livestock



Pic: Spice Products

EXECUTIVE SUMMARY

The vision for agriculture in the National Agriculture Sector Plan (NASP) 2024-2033 is a modernised, innovative, sustainable and commercially-oriented agriculture, culminating in a structurally transformed economy and evident in an empowered, healthy and prosperous agricultural communities in a food-secure Papua New Guinea (PNG).

The Mission of NASP is to facilitate the transformation of agriculture in PNG from subsistence production to viable commercial enterprises through productive partnerships, innovation and sustainable entrepreneurial farming systems.

The overall goal of NASP is to achieve K30 billion target by improving productivity and increasing production and volume of crops and livestock, growing the rural economy through agriculture by unlocking the potential of agriculture in rural areas and exploring commercial agriculture, opening up markets for agriculture products, and improving agriculture sector performance.

The NASP identifies nine guiding principles that will drive the future growth and transformation of the agriculture sector for the period 2024 to 2033 include:

1. To shift approach from commodity-focus to enterprise-focus for improved livelihoods and broad-based economic opportunities and prosperity.
2. To promote and encourage farmers to move from subsistence farming practices to commercial farming and invest their surplus earnings from agriculture on off-farm business enterprises with wealth creation as the aim.
3. To improve access to affordable farm financial products and comprehensive technical and trades services required on the upstream and downstream sides of 'growing' that need to be filled in to have an efficient and functional value chain for services for commercialization and sustainable growth. Appropriate funding modalities with relevant legislation and guidelines is needed to serve the bulk of the smallholder farming households, and MSMEs thus enabling them to grow and contribute to the overall growth of the agriculture sector and the economy
4. To unleash the untapped potential for increasing yields in export crops, food crops and livestock and minimizing post-harvest losses.
5. To expand planted areas in line with moderate to high suitability for crops contribute to increase scale of production for food and export commodities.
6. To improve accessibility to services and markets through commodity roads and transport infrastructure.
7. To organise and transform the sector to be prepared for addressing rapid population growth, which will accelerate the need for land mobilization for agriculture production for more domestic food consumption.
8. To integrate green economy principles and climate-smart agriculture (CSA) practices into the planning and development of sustainable agricultural systems to mitigate the impacts of climate change.
9. To recognise the potential of youth population and women's contribution to rural industries and increase opportunities for their participation at all levels.

The thirteen agriculture sector priority areas or Agriculture Priority Areas (APAs) for the NASP include:

1. Enhanced Productivity, Increased Scale of Production and Market Competitiveness

This APA focuses on increasing efficiency and scale of production, productivity, and improving agriculture sector's contribution to the national economy. The agriculture sector will achieve this aim by working with the agribusiness industries, including medium to large-scale agribusinesses, and smallholder farmers and agriculture micro, small to medium enterprises (agMSMEs). Two strategies will be adopted:

Strategy 1: Large-Scale Production through:

- Commercialisation of Agriculture
- Downstream Processing
- Value Adding and Establishment of Value Chains
- Rehabilitation and Revival of Large-Scale Run-Down Plantations
- Developing Special Economic Zones (SEZs) for Agriculture
- Developing Free Trade Zones (FTZs) for Agriculture

Strategy 2: Small-Scale/ Smallholder Production by:

- Mobilising small plots of land into production via cooperatives for specialised share of farming operations.
- Improving the Welfare of Farmers and Agribusiness Enterprises
- Supporting Smallholder Farmers and agribusiness enterprises through MSME Financing and access to financial capital
- Establishing Freight Subsidy Scheme for Farmers and agribusiness enterprises
- Establishing Price Stabilization Program for Farmers and agribusiness enterprises
- Providing extension services to farmers, Cooperative Societies, and agribusiness enterprises to maintain quality value and supply chains.
- Supporting farmers and agribusiness enterprises and identify viable domestic and international markets.

To comply with green economy principles, green sticker and eco-label practice standards will be applied, similar to sustainability standards. Green economy and Climate Smart Agriculture Practices will be included as safeguards when moving into mechanization of agriculture.

2. Infrastructure and Access to Markets

This APA focuses on: (i) improving infrastructure and transporting agricultural produce from farm to markets domestically and internationally; and (ii) improving barriers for accessing international markets and trade. It will capitalize on resources made available under Medium Term Development Plan (MTDP) IV for improving:

- Sea and water infrastructure and transport for coastal communities
- Rural airstrips for air-lifting from remote mountainous rural areas
- Quarantine for facilitating international trade through export and import risk analysis and quality assurance systems.

The agriculture department and sector agencies will work in collaboration and partnership with the public sector agencies for quarantining and facilitating international trade through export and import risk analysis and quality assurance systems. They will work with the private sector companies that are responsible for infrastructure, transport and marketing to address the issues, and.

3. Agriculture Commodity Investments and Exports

Marketing of agricultural produce also often attracts several forms of taxation including levies, Value Added Taxes, export tariffs and import duties. The imposition of levies across provinces at numerous produce inspection stations greatly hinders the movement of agricultural products to urban markets and reduces their competitiveness locally and internationally. Inconsistency in observing food safety standards coupled with trade barriers, including sanitary and phytosanitary requirements affect trade regionally and internationally. Notable food safety standards include the Global Good Agricultural Practices (GAPs) and Maximum Residue Limits (MRLs) imposed on horticultural produce. These standards have resulted in the interception of PNG's horticultural produce destined for the international markets.

This APA aims to address constraints faced by PNG exporters in exporting commodities. Access to markets is constrained by lack of market information, especially information on what the market demands in terms of commodities, volumes, quality and timeliness. Currently, there are several government organizations charged with collection and collation of agricultural information. However, coordination of these institutions is minimal leading to conflicting market signals. The purpose is to promote and facilitate agricultural trade and marketing of high-quality agricultural products in the domestic, regional and international markets at competitive prices. Government interventions for improving the impediments will take place at the national and provincial levels.

4. Land Mobilisation, Use and Management

This APA focuses on developing sustainable land resource plans for provinces and districts, enhance geographical presentation of land resources and maps, and improve land resource inventory and database management.

Support will be given to value chain business models, such as share-farming and land rental farming type concepts, which are much softer regarding practical land alienation from landowners, but face greater challenges regarding product theft, stability in commercial arrangements between landowners and contract farmers, etc. Therefore, these need to be supported by relatively enforceable regulatory arrangements.

5. Policy and Legal Environment for Enabling Strategic Private Sector

Participation and Investments

This APA recognizes the role that private sector will play in transforming PNG agriculture in migrating farming households from subsistence–based to competitive market-led farming, and focuses on creating a conducive environment for private sector participation and an investor-friendly climate for investments in agriculture.

The APA aims to:

- improve policies and regulatory processes that discourage private sector participation and investments;
- promote private sector investments and finance for agriculture.

DAL and sector agencies will address this by collaborating with public sector agencies that are responsible for registration of businesses; taxes, making laws, financial and banking institutions.

6. Comprehensive Agriculture Research and Development

This APA recognizes the important role of agricultural research and innovation, which underpins the nation's progress and resilience in keeping abreast of scientific advancements for a competitive and modernized agriculture sector. The APA aims to have a well-resourced and robust national agriculture research system that provides real-time local best-fit solutions addressing prevailing and emerging production constraints and opportunities. A responsive and dynamic national agriculture research system draws together public institutions and private agencies and agents within the agriculture innovation systems framework to form productive partnerships.

The APA focuses on:

- Primary academic research that will focus on institutional infrastructure, including highly specialized researchers.
- Applied research needs to practical production and broader multi-disciplinary researchers and research teams, and tends to operate on farms for technical aspects of research to flow respectively from this foundation.

7. Integrated Agriculture Education, Training and Extension Services

This APA aims to address the current deficiencies in human resources in the agriculture sector. Currently, the linkage between the agriculture education and training providers and DOA, sector and commodity agencies, and agribusiness industries at various levels is absent. Therefore graduating students from these institutions end up doing other jobs than agriculture professions they were trained. The APA focuses on improving the situation by linking the agriculture education and training providers and the DAL, sector and commodity agencies, agribusiness industries, enterprises with the graduates in agriculture for various specific needs of the sector.

To achieve this, the DAL, sector and commodity agencies will work in collaboration with agriculture education and training providers, agribusiness industries, enterprises, and farmers to develop relevant interventions for improving the human resource capacity of the sector. The APA will specifically target provision of extension services as this is one of the major problems in the sector. It will ensure that training delivered is demand-driven and meets the needs of the sector and the industries.

8. Biosecurity

This APA focuses on developing agriculture biosecurity and trade protocols to safeguard export and import of agricultural products into and out of PNG, including plant and animal biosecurity, quarantine and emergency response. The priority placed on agriculture makes the sector to be equipped and prepared to address the challenges of sustainability of our agriculture and resources, particularly with the emerging new threats of animal and plant pests and diseases.

Two priorities under this APA are: (i) Enact global trade-compatible and compliant biosecurity legislation; (ii) Vastly strengthen and improve data and information management, including utilizing readily available technologies and automation of services.

9. Food and Nutrition Security and Safety Standards

This APA recognizes that food safety is a cross-cutting function across health, agriculture, food security, trade and economics. The current system has been semi-dysfunctional. DAL is aware that there is currently a critical gap with the absence of national food safety policy and legislation. The regulatory arrangements are not generally WTO trade or CODEX compliant. The jurisdictional control of the regulatory domain is with the National Department of Health (NDOH), and not the DAL. DAL only hosts the CODEX secretariat. CODEX will promote against contaminated food and protect consumer's health, facilitate international trade by eliminating trade barriers and develop food standards and food policies in compliance with Codex requirements.

The APA aims to improve the fundamental food safety functional rationalization that is long overdue. DAL will work in partnership with NDOH to confirm the lead coordinating and delegating authority sitting over the regulatory agency and private sector industry stakeholders. Prime regulatory control will be from NDoH rather than agriculture.

10. Climate Change and Agriculture

Worldwide agriculture practices contribute 20-58 % of greenhouse gases (GHG) emissions toward global warming and climate change while impacts of climate change threaten agriculture productivity and food supply. Increased prevalence of extreme temperatures and increased unpredictability of weather patterns disrupt physiology and biological cycle of crops and livestock. Consequently, this may lead to reductions in production and lower incomes in vulnerable farming communities. Hence, agriculture practices that may increase GHG emissions need to be minimized and increase adaptation of agriculture practices that increases carbon sinks to maintain ecosystem balance. An unbalanced ecosystem is detrimental to the survival of living organisms.

Climate change may provide conducive environment for pests and diseases of crops and livestock to thrive. Invasive weed species may also threaten the crops and livestock production. Enhancing agriculture productivity while contributing to climate change mitigation and preserving the natural resource base and vital ecosystem services requires transition from conventional to climate smart agriculture. This implies that farming practices are more efficient with less emissions of GHG and improves stability in the production.

Making this shift requires policy changes, financial mechanisms, careful use of resources and talent capital pool to ensure climate smart agriculture is achievable and beneficial. The aim is to minimise the effects of climate change on the ecosystem and subsequently on agriculture production, climate-smart agricultural (CSA) practices, such as green and brown economy principles need to be promoted and adopted to increase carbon sinks, reduce GHG emissions and mitigate climate change.

11. Institutional Reform and Sector Development

Poor governance and weak leadership in the agriculture sector have been the concerns raised by various stakeholders in numerous forums for over a decade.

This APA will aim to contribute towards fundamental structural changes across the sector. The commodity boards should focus on sub-sector development, promotion, marketing, research coordination, broad technical standards, and managing the public sector contributions. Apart from participation in licensing and research implementation, the regulatory function should be excised from each commodity agency and centralized in a single sector regulatory-dedicated agency. This should establish a better regulatory governance, and simplify the focus of commodity agencies. It should also prevent commodity agencies from becoming and operating in isolation and detached from policy and objective integrity outcomes. Outcome is to improve: (i) governance and leadership; (ii) improve capacity of human resources across the agriculture sector; (iii) effective sector management and coordination; (iv) effective reporting and accountability mechanisms with monitoring and evaluation (M&E) systems.

12. Information Management and Use - Information Communication Technology

Having developed the NASP against the backdrop of lack of reliable and up-to-date information and data on the agriculture sector justifies the need for upgrading and strengthening of the agriculture information system. The DAL needs to address automated and semi-automated data capture, data assimilation and storage, data accessibility, data analysis, information synthesis and reporting. This should be standardized and at least semi-automated as much as possible. However, this is not simple because private sector must be very actively involved, which must give them ready data accessibility in ways that do not breach commercial confidentiality and data from enterprises must be very effectively quarantined from, for instance, Internal Revenue Commission (IRC), in ways that guarantee enterprise de-identification. Otherwise, private sector participation will be poor and data provided will be biased, distorted and misleading.

13. NASP Management and Implementation

This APA is concerned with the management of the implementation of the NASP. It provides the structure for the overall coordination and monitoring of the implementation of the NASP to ensure that the programs and projects are successfully implemented within the time frame and allocated resources/budgets. Indicators will include: well-coordinated planning, management and monitoring of the sector through NASP.

The successful implementation of this plan hinges on the commitment of all players and the resources allocated at all levels (national, provincial and district). The

targeted private sector investment programs are: large-scale commercialisation of rice, wheat, cattle, feed for domestic animal production, spices, and downstream processing, through the nucleus and out-grower production systems.

Most of this plan will be implemented in the districts and likely to be affected by factors that are external to the sector. Hence, NASP will form part of the MTDP IV 2023-2027, which provides the overall national strategic framework for economic and social development. The estimated total budget required for the implementation of Targeted Investment Programmes under MTDP IV and NASP for the period 2023 – 2027 is estimated to be over K4.0 billion. The breakup of projected revenue from key components for the period 2023 – 2027 is; tree crop sector K34.0 billion, food and horticulture crops through import substitution K31 million, rice and grains K364 million, and Livestock K1.34 billion. The investments in rice and grain is expected to contribute to a reduction in annual rice importation over the same period, from an average 400,000 metric tonnes, with the focus on large-scale commercial rice and grains farming, smallholder rice farming support, rice milling and downstream processing support programmes. The revenue to input (budget) is highly positive and needs to be supported.



Pic: Oil Palm Refinery, West New Britain

PART 1
NATIONAL AGRICULTURE POLICY

Where are we now?
Where do we want to be?

Government and Private Sector Businesses Development Partners

TRANSFORMING THE AGRICULTURE SECTOR
SUBSISTENCE TO COMMERCIAL ENTERPRISES


Department of
Agriculture and Livestock

1 CHAPTER 1. INTRODUCTION

The Department of Agriculture and Livestock (DAL) developed the National Agriculture Sector Plan (NASP) 2024-2033. The NASP is the first national plan for transforming the agriculture sector in Papua New Guinea (PNG) for the next 10 years. It is the result of the concerns and efforts of a wide range of stakeholders within and outside the agriculture sector through various forums dating back to 2009, with the Consultative Implementation Monitoring Council (CIMC) National Development Forums on Agriculture and Rural Development; 2017 Lamana Inaugural Agriculture Summit for private sector, including two regional stakeholder consultation workshops; one held in April-May 2019 by the Expert Working Group (EWG), and the other in August 2023 by the NASP Consultants. The NASP 2024-2033 was endorsed and sanctioned by the Government through National Executive Council Decision No : 48/2024.

1.1 Purpose and Role of the National Agriculture Sector Plan

The NASP is designed to transform PNG's agriculture sector and provide a competitive edge to compete with other major players in the commodity and agri-food industries at the international and regional levels.

The NASP provides direction for everyone with a stake in agriculture, within the public and private institutions, small to large-scale producers, formal and informal organisations participating in the sector to achieve common objectives.

The overall goal of the NASP 2024-2033 is to commercialise the agriculture sector and place agriculture as a strategic economic sector for national and inclusive rural economic growth. The purpose of the NASP is to define the policy directions and priority areas for investments in the agriculture sector. Unlocking the potential of agriculture to grow the economy requires commitment and the combination of efforts of all players in the public and private, formal and informal sectors to reverse the poor performance of the agriculture sector.

The NASP is a plan for all players in the agriculture sector. The development of this plan included consultations at various levels, from within the DAL, including its sector and commodity agencies, and outside with other public sector agencies, private sector bodies, industries, farmers, and civil society organisations at the national and provincial levels. Ownership of this NASP by all stakeholders is paramount for its successful implementation.

The Plan provides direction and guidance for:

Agriculture professionals, workers and officers working in the DAL, sector and commodity agencies at national, provincial and district levels. The NASP provides the direction needed in their work and determines the objectives, priorities and expected results in improving the performance of the sector. The values of the sector and priorities of the sector needs to be personalized by every worker through improved efficiency and effectiveness in the discharge of their duties, and make a difference.

Managers at all levels

The NASP is a guide for detailed planning, for decisions about the human aspects of agriculture, and for improving the sections and units of the sector and commodity agencies they are responsible for.

Decision Makers and Politicians

This NASP guides every decision that is made to mobilizing and allocating agriculture funds and resources at national, provincial and district levels. The commitment and support of politicians is important. Decision makers in the agriculture sector need to advocate the priorities of the NASP and hold accountable anyone who intends to deviate from the priorities of the NASP.

Agricultural Enterprises

This NASP shifts from commodity-focus to enterprise-focused agriculture, the NASP will provide new initiatives and programs for better support of agSMES and farmers. It will see improved collaboration between sector and commodity agencies operating at all levels between farmers and producers is needed.

All agencies need to work together with a focus on improving the economic potential of the agriculture sector to growing PNG's economy.

1.2 Information for the Reader

There are four parts to NASP 2024-2033, including the implementation plan for Agriculture Priority Area 1 in Part IV.

Part I **Policy objectives and directives** to overcome the challenges and constraints in the agriculture sector, based on the performance of the sector in PNG.

Part II **Strategies and Implementation Plan** for improving the performance and growth of the sector. This is informed by evidence discussed in Part I.

Part III **Institutional legislative framework** that is critical for institutional governance to protect the resources allocated for agriculture development and achieve the outcomes of the NASP. The proposed National Agriculture Administration Act 2023 and Agriculture Investment Corporation Act 2023 provide legal framework for critical policy objectives and strategies set out in Parts I and II.

Part IV **Implementation Plan for Agriculture Priority Area 1** – Enhanced Productivity, increased Scale of Productions, and Market Competitiveness.

The NASP consists of the national agriculture policy, the strategies and implementation arrangements, and the institutional legislative framework to facilitate the transformation of agriculture in Papua New Guinea (PNG).

The National Agriculture Policy (NAP) outlines the National Agriculture Policy Framework for PNG that aims to create an enabling policy environment for agriculture that informs the formulation of the NASP, including the Agriculture Strategy and Results Framework (ASRF), and an overarching Legal Framework

through the National Agriculture Administration (NAA) Bill and the Agriculture Investment Corporation (AIC) Bill to coordinate and govern the operations of the agriculture sector in PNG.

1.3 Rationale for the Development of the National Agriculture Policy

The National Agriculture Policy (NAP) outlines the PNG Government's policy priorities for the agriculture sector and replaces the White Paper on Agriculture, which lapsed in 2014.

The NAP is informed by the findings of the review of the National Agriculture Development Plan 2007-2016, including recommendations of various forums on agriculture held between 2009 and 2022. The NAP builds on the recommendations of the Functional & Expenditure Review (FER) of Commodity Boards and Agencies (2014), many of which are pending implementation; and responds to the evolving dynamics in the agricultural sector and the government's current policy focus and/or priorities. In addition, the NAP is informed by a theory of change that is people-focused in the development agenda, and takes into account the current context of agriculture in areas of technological advances, the increasing role of the private sector in agriculture, revival of agriculture research and development (R&D), and the threat of climate change and weather variability, upgrading and strengthening of an agriculture information management system; and related issues.

The drafting of the NAP is crucial and necessary to provide sufficient guidance for strategies and subsidiary policies of agriculture commodity boards and agencies which are necessary for agricultural sector transformation in view of the Government's priority recently formulated MTDP IV 2023–2027, and the aspirations of PNG Vision 2010 – 2050 (Vision 2050); and DSP 2010 – 2030 (DSP 2030).

1.4 National Agriculture Policy Formulation Process

The formulation of this National Agriculture Policy is based on an extensive stakeholder consultation process and numerous reviews conducted over a period of 15 years, and literature review. The Agriculture Innovation System (AIS) was applied for construction of the Theory of Change to determine the key strategic focus areas of the NAP and the NASP.

Several relevant sources were consulted, which included:

- Findings of the review of National Agriculture Development Plan (NADP) 2007 – 2016;
- The Final Report of the Functional Expenditure Review (FER) 2014;
- Summary of the recommendations of the Inaugural Agriculture Summit in 2017;
- The results of the Internal Consultative workshop between Department of Agriculture, agriculture commodity boards and technical agencies;
- Collective experiences of the consulting team and Department of Agriculture senior management.

Some of these outputs emanated from extensive stakeholder consultations that generated discussions on problems and opportunities that are pervasive in

the agriculture sector, many of which have not been respectively arrested and harnessed adequately over the past years. In addition, several regional stakeholder consultation workshops were conducted in the following locations:

- Kokopo for the New Guinea Islands region from 7 – 8th August 2023,
- Lae for the MOMASE region from 10 – 11th August 2023,
- Goroka for the Highlands region from 14 – 15th August 2023,
- Port Moresby for Southern region and Government Agencies on 17th August 2023,
- Port Moresby for Development Partners and Donors on 18th August 2023.

The sentiments expressed in these stakeholder consultations confirmed the perceptions noted earlier, that many of the problems and opportunities in agriculture remain. However, additional challenges have emerged in recent years that have added to the list of growing problems and challenges in the sector. A final validation workshop was held on 1st September 2023 in Port Moresby that allowed final feedback and endorsement of the NAP 2024-2033, NASP 2024-2033, and the legal framework.



2 CHAPTER 2. THE AGRICULTURE SECTOR

The agriculture sector in PNG is characterised by three main production systems comprising the subsistence, semi-subsistence and the plantation or estate systems. The majority of the population are engaged in subsistence production systems, while a proportionate number are involved in both subsistence and semi-subsistence production systems. The plantation production systems are usually foreign and or jointly-owned by national, provincial and local stakeholders whose interests are confined to the traditional tree crop sectors namely cocoa; coconut, rubber, palm oil, sugarcane, tea and coffee.

2.1 Role of Agriculture

Agriculture sector has an important role in the economy of PNG and has a direct and positive flow-on effect in other sectors. The growth of the agriculture sector stimulates higher rates of growth in the economy of the country through activities such as processing and transportation. The sector supplies all the food for subsistence and provides a base for income generation, employs over 25% of the total workforce in the formal sector, and currently contributes on average about 28.1% to the country's Gross Domestic Product (GDP). The specific contribution of agriculture to food security and nutrition through domestic cultivation for home consumption is estimated at K2.5 to K3 billion annually, and its contribution to export trade in the economy was estimated to be K4.1 billion in 2022 (Bank of PNG 2023).

Agriculture development was the precursor for industrial development in Western Europe, United States of America (USA), Japan, then followed by Taiwan, South Korea, China and India (World Bank 2008). Agriculture is central in PNG for creating growth, jobs, exports, and livelihoods required to transform the economy to a 'knowledge-based' middle income country as aspired in Vision 2050. It has a greater impact on poverty reduction than other sectors. Service delivery is made possible through the sector as a result of spending of incomes earned from all these productive activities. This in turn spurges further growth.

The sector provides employment for over 85% of the population as one of the most labour-intensive sector of the economy and a source of employment. The sector has a high labour-absorption capacity and will continue to be the main source of opportunity for creating employment and generation of income for most of PNG's population, particularly those living in rural areas.

These roles of agriculture in the national economy make agriculture policy an intricate part of the broader national policy. The effective implementation of this policy can lead to sustainable growth in incomes and poverty reduction.

2.2 Institutional and Management Set-Up of Agriculture Sector

The agriculture sector comprises the following ministries and agencies based on the roles and functions of respective legislation, gazettal and corporate plans:

2.2.1. Ministries in the Sector

In addition to the Ministry of Agriculture, the Government created three new ministries in the agriculture sector in 2022, including:

- Ministry of Oil Palm
- Ministry of Coffee
- Ministry of Livestock

The creation of these ministries demonstrates the Government's focus on the significance of agriculture as an important economic sector. The creation of the ministries also gives prominence to the three industries, which have the potential to bring money into the country, and have the greatest impact on the people and the economy.

Ministry of Agriculture (MOA)

The Minister for Agriculture is responsible for all the matters related to the function of Department of Agriculture; Special Agriculture and Business Development Project (SABDP); National Agriculture Quarantine and Inspection Authority (NAQIA); National Agriculture Research Institute; Cocoa Appeal Committee; Cocoa and Coconut Research Institute; and Kokonas Indastri Koporesen; PNG Cocoa Industry Board; and Rubber Industry Board, including their associated legislations.

Ministry of Oil Palm (MOOP)

The Minister for Oil Palm, is responsible for all the matters related to Oil Palm Industry Corporation (OPIC).

Ministry of Coffee (MOC)

The Minister for Coffee is responsible for all the matters related to the Coffee Industry Corporation and the Coffee Industry Corporation (Statutory Functions and Powers) Act.

Ministry of Livestock (MOL)

The Minister for Livestock is responsible for all the matters related to: (a) Livestock Development Corporation, and (b) Veterinary Surgeon Board, including legislations related to animals, animal disease and slaughtering.

2.2.2. Primary Government Agriculture Bodies (PGABs)

- **Department of Agriculture and Livestock (DAL)**

The DAL administers all legislation relating to agriculture, and is responsible for:

- broad oversight, coordination and liaison with respective commodity boards and sector statutory authorities, industry, farmer organizations and financial institutions, such as the National Development Bank (NDB) and the National Plantation Management Authority,
- research and development institutions on delivery of and accountability for

agriculture sector programs;

- collating and analyzing data for agriculture policy formulation and development of the sector, liaising and coordinating industry and farmer organizations and financial institutions, such as the NDB and the National Plantation Management Authority.
- leading international agricultural trade, liaison and investment matters.
- It also provides guidance and assistance to Provincial Governments and District Development Authorities to increase and address sub-national agricultural capacities.

- **Provincial Division of Primary Industry (PDPI)**

The PDPI is tasked with providing extension services, a 5-year Agriculture Development Plan of the province and the districts, provincial system of collecting, storing, and analysing social, economic and environmental data in relation to the agriculture sector.

- **National Agricultural Research Institute (NARI)**

NARI's function is to generate and promote appropriate and improved agricultural technologies; develop and promote ways of improving quality, post-harvest, processing and marketing; conserve and use genetic resources for agricultural development; update and maintain national inventory on soil resources, information, and outreach and liaison services. It controls national analytical laboratories and centres and provides technical, analytical advisory services for development of agriculture.

- **National Agricultural Quarantine and Inspection Authority (NAQIA)**

NAQIA maintains PNG's favourable bio-security and international quarantine risk status, and develops PNG's international status as a quality-assured certifier of agricultural, fisheries, and livestock commodities. It facilitates, supports and coordinates agricultural quarantine and inspection services, including surveys, surveillance, meat inspections, internal quarantine and eradication and control of pests and diseases. It operates nationwide with 20 seaports, 3 international airports and international post office, and provides veterinary services and conducts meat inspection at 5 abattoirs. It is a fully pledged statutory body organized to implement Sanitary and Phytosanitary (SPS) measures set by standard-setting organizations of the World Trade Organisation WTO (IPPC, OIE, and Codex) in order to facilitate trade without compromising the pest and disease risks to PNG.

- **Commodity Organizations (COs)**

COs are organizations which have been formed for management of commodities. These include: Cocoa Board of PNG, Cocoa Coconut Institute, Coffee Industry Corporation, Kokonas Indastri Koporesen, Fresh Produce Development Agency, Livestock Development Corporation, Oil Palm Industry Corporation, Rubber Industry Board, and Spice Industry Board.

The development, design, preparation and implementation of commodity investment programs are the responsibility of respective commodity boards and industry or farmer organizations. They are the specialized and technical agencies which are only subject to broad DAL oversight.

- **Cocoa Board of PNG**

The Cocoa Board was first established under the Cocoa Industry Act 1974 and then replaced by the Cocoa Act 1981 to regulate the cocoa industry in PNG. According to the Cocoa Act 1981, the Board functions and acts in the best interest of cocoa growers in the country, and in accordance with written directions given to it by the Minister to:

- control the growing, processing, marketing and export of cacao, cocoa beans and cocoa products;
- establish price stabilisation, price equalisation and stock-holdings arrangements within the cocoa industry;
- promote the consumption of PNG cocoa beans and cocoa products;
- promote research and development programmes for the benefit of the cocoa industry;
- act as agent for, and to carry out the obligation of the State under any international arrangements relating to cocoa including all financial obligations of the state or Board under any international agreement when required by the Minister; and

The Research and Development (R&D) and extension services of the cocoa industry are provided by the PNG Cocoa Coconut Institute Limited (CCI). The CCI was established in August 2003 following the merger of the Cocoa and Coconut Research Institute and the Cocoa and Coconut Extension Agency. The Cocoa Board and the Kokonas Indastri Koporesen (KIK) are the shareholding boards. Despite success in developing high yielding and cocoa pod borer (CPB) tolerant hybrid clones and a relatively functioning network of extension services, there are governance issues affecting its administration and management.

The Institute has its own board but it is also responsible to its shareholder boards which can significantly delay decisions on matters of policy or release of new technologies. The 2014 FER recommended for the Cocoa and KIK Boards to remain separate entities and their R&D and extension functions to be subsumed into the two boards, and CCI be abolished.

The Cocoa Board receives funding mostly from the National Government to sustain its field services and regulatory functions. These include annual grants for recurrent (salaries and wages) and development project expenses; variable management levies from exporters and external donors money for specific projects. Management levies are received through deductions from the prices paid to exporters at the point of export. The Cocoa Board is represented throughout the country through its seven regional offices located in Kokopo (covering East New Britain and West New Britain provinces), Buka (covering the Autonomous Region of Bougainville), Kavieng (also covers Manus province), Wewak (also covers West Sepik Province), Madang, Lae and Popondetta which also covers Milne Bay and Central provinces (Bito and Petit, 2016).

- **Coffee Industry Corporation**

The Coffee Industry Corporation (CIC) is mandated under the Coffee Industry Corporation Act (1991), to operate as a company to:

- conduct scientific research into production, processing and waste management,

and communicate coffee information through training and extension services to coffee farmers; and

- conduct industry regulation, licensing, inspections, export control, quality control, marketing and promotion, international relations, economics, finance and administration.

Prior to 1991, coffee growing and exporting was governed by the Coffee Industry Board based at Goroka. Research on coffee was conducted by the Coffee Research Institute, which was set up in 1986, at Aiyura. Extension services to growers was the responsibility of the Coffee Development Agency (CDA) that was created after coffee rust appeared in PNG in 1986. In August 1991, the three organisations merged into the largely self-financing Coffee Industry Corporation Ltd (CIC). The CIC has a broad range of powers, including buying and selling coffee, setting prices, registering and controlling exports, setting quality standards and controlling credit worthiness and capacity of market participants. CIC is unusual because it is established under the Companies Act. However, it has been granted specific regulatory functions and powers by parliament. In practice, the CIC only applies its regulatory functions to setting guidelines, implementing firm quality control, and approving export contracts (and contract prices). The marketing of coffee is left in the hands of private companies licensed by the corporation. CIC has two divisions: the Research & Grower Services Division (made up of the Coffee Research Institute and Extension Services Division) and the Industry Operations Division.

- **Coconut Industry: Kokonas Indastri Koporesen**

Kokonas Indastri Koporesen (KIK) was established by the Kokonas Indastri Koporesen Act of 2002. KIK was established to lead the coconut Industry activities having previously being driven as the Coconut Research and Development and Extension programs undertaken by CCI till 2015 after the Functional Expenditure Review (FER) with its functions subsumed into KIK (2016) upon the restructure of KIK. The coconut is K536.5 million industry activities are centered around nine (9) Provinces and is regulated through the Kokonas Indastri Koporesen (KIK) under the KIK Act 2002 (on review) that promotes an inclusive agenda.

The coconut sector involves over 464,328 households with an export earnings of K155.5 million. At the domestic front it has a turnover of K 381 million per annum and has a potential with focus on processed products such as the virgin coconut oil (K1.49 million) and coconut bar soap (K1.04m) and KIK seeks to strengthen the current four (4) programmes of Farm Productivity, Coconut downstream processing & value addition, Coconut farmer mobilization and Research & Development. At present, there is an increased demand for expansion but the supply of seedlings is insufficient but KIK is adamant to deliver on downstream processing having conducted 133 training with 1,509 participants trained in the target 9 provinces.

- **Fresh Produce Development Agency**

The Fresh Produce Development Agency (FPDA) is a semi-autonomous government agency established under the PNG Companies Act to be responsible for developing the horticulture and fresh produce industry from production to marketing. FPDA originated from the Marketing Fruit and Vegetable Project (MFVP), which was set up in 1986 to collate and disseminate market-related and technical information on fruit and vegetables.

The project evolved into the Fresh Produce Development Company Limited (FPDC),

which was registered under the Companies Act in 1988. The FPDC's mandate was to focus on information dissemination on fruit and vegetable production, identification of constraints to industry growth, to assist with technical information, to provide advice on improving the fruit and vegetable industry and help PNG achieve self-sufficiency in production and processing. Although FPDC changed its name to FPDA in 2005, it has retained its status as a public corporation.

- **Livestock Development Corporation**

Livestock Development Corporation (LDC) is a State-Owned Entity established in 1983 through an NEC Decision No. 75/82. LDC's primary objective is to generate revenue for the Government by commercialising beef and cattle production through its many ranches and abattoirs.

LDC was run-down over the years, and did not live up to its mandate. Under Medium Term Development Plan (MTDP) III, LDC was tasked to implement the Cattle Breeding Program to ensure PNG becomes self-sufficient in beef production by 2025 in line with the Government's Directive in 2019.

LDC aims to re-establish and expand the cattle and beef industry in a commercially viable manner. Its objective is to have a full LDC board of directors with approved management restructure in place and be able to undertake rehabilitation program to restock cattle on existing and run-down cattle ranches, construct major regional abattoirs and meat processing plants, support smallholder livestock farmers through Agriculture Intervention Support Program amongst others.

- **Oil Palm Industry Corporation**

The Oil Palm Industry Corporation (OPIC) was established in 1992, as part of a reform of the oil palm industry in response to grower frustration over low prices, unsatisfactory pricing formula and declining government services. Palm oil contributed approximately 60% of the total export earnings of the agricultural sector to PNG's economy during the MTDP III period. An estimated 19,877 households are directly involved in the palm oil industry.

OPIC is funded by a levy on sales of fruit, matched by the oil palm companies. International aid funding has also provided significant financial support to the corporation. OPIC's main role is to provide extension services to smallholders in order to increase productivity, promote improved management, and enhance the well-being of producers. OPIC also liaises with government, the oil palm companies and other organisations involved in the industry. OPIC has five local planning committees, comprising representatives of smallholders, companies and the government, in five project areas (Hoskins, Bialla, Alotau, Popondetta, Kavieng). They are governed by a board that includes the state, Palm Oil Producers Association, PNG Oil Palm Research Association (PNGOPRA) and Smallholder representatives (Bito and Petit, 2016).

- **PNG Palm Oil Council**

The PNG Palm Oil Council (PPOC) was established in 2011 by the private sector. According to the council, PPOC is the peak body for PNG's palm oil sector although this is contested by the government. PPOC's mission is to facilitate rural economic development in PNG in an ecologically, socially and financially sustainable manner in order to improve the income and livelihood of individuals, families and rural communities through the support of responsible palm oil businesses. The objectives

and purposes of the PPOC are to:

- facilitate, coordinate and strenuously promote sustainable palm oil production and development in PNG;
- be the principal contact and coordination point for the palm oil sector in PNG;
- be the principal link between palm oil producers and oil palm growers, Government,
- other public sector bodies and civil society in addressing policy, strategic and operational constraints to
- the sector's development;
- provide technical advice and other information to palm oil producers and oil palm growers, Government,
- development agencies, civil society and others; and
- address sustainability, public opinion and market issues at national and international levels

- **Rubber Industry Development Board**

The Rubber Industry Development Board (RIDB) was established by the Rubber Industry Development Act in 2022. RIDB's principal objective is to operate successfully and develop, improve, and promote the rubber industry to be:

- Profitable and efficient in its activities;
- The promoter of rubber industry development in PNG
- Employment avenue for technical and policy expertise in rubber industry
- Socially responsible by having regard to the interest of the community to which it operates or promotes smallholder estates.

Rubber is grown in 9 of the 23 provinces in PNG. Rubber sub-sector was successful in production during the pre-independence and post-independence era. However, it did not experience the type of growth and development that is characteristic of many other tree crops in the country. Despite these early problems, some schemes were developed and persisted until the early 1980s when redevelopment plans were approved and implemented. One of these schemes included the Cape Rodney Agriculture Development (CRAD) Project. CRAD was a 5-year Asian Development Bank-funded K25 million rubber development project, which was implemented in Abau District, Central Province in the 1980s. Much of the redevelopment was completed by the early 1990s, and plans were underway to establish rubber in a number of selected provinces. A substantial increase in rubber production occurred with the implementation of the plans. The industry, however, slumped in the 1990s due to lack of funding and support from the government.

- **Spice Industry Board**

The PNG Spice Industry Board (SIB) was established in 1991 by the Spice Industry Act of 1989. The SIB's role is to regulate, promote and develop the spice industry and the minor crops sub-sector in PNG. Spice development programs on extension services, research and training were funded and implemented by the DAL through Alternative Crop Extension and Development Program (ACEDP), a public investment program that was implemented until 1998. It was aimed at diversifying export crop

base. The program ceased in 1999 under the 127 decentralization reform, and the functions were transferred to provinces without funding. In 2003, some funding was made available to PNG SIB to implement its tasks.

The industry does not operate under properly established guidelines in relation to production, marketing and processing. SIB Corporate Plan for 2003-2007 identified production areas, but did not set quantifiable targets such as number of hectares. Low cost technology (sun/hot air driers) should have been introduced as part of production system. Downstream processing (extraction plant) for each region or major production areas for crops such as vanilla should be indicated.

There is a need to review and reform the functions of commodity boards. Most of them were created from single-desk commodity marketing boards. When the regulatory functions were added and mixed with the promotional, commodity production development, marketing, research, participation licensing functions, it created internal functional conflicts within their respective regulations and development. These have impact on the integrity of both functional aspects. It also centralized sufficient power to enable these boards to respectively operate as quasi-independent laws with conflicted foci separated from the overarching department and ministry. This, in turn, made them to be manipulated and misused for commodity sub-sector control, rather than promotion and development.

2.2.3. Other Ministries, Departments and Agencies (MDAs)

DAL will work in partnership with other ministries, departments and agencies (MDAs) in the implementation of the NASP. Details of these MDAs are in Section 6.3.2.



2.3 Situational Analysis of the Agriculture Sector

The overall performance of the agriculture sector has been mixed. The production performance of export commodities has been either stagnant, on the decline or both in the past decade.

The production of food crops has been below their potential. There is a lot more that needs to be done to elevate the possibilities that exist in the food crops sub-sector. The major challenges with the current fresh produce supply value chain system does not meet the standard market protocols, thus compromising food quality, safety and supply throughout the country. As a result, the country continues to import fresh fruits and vegetables from overseas despite having an organically abundant supply locally.

Rice and livestock or meat needs of the country are almost the same. The consumption of meat and rice have been growing steadily over the years, however large commercial farming of animals and rice has been non-existent despite the huge areas of suitable land for grazing cattle, and other meat and for growing rice.

The investments to fund deliberate interventions in the sub-sectors under MTDP IV will positively change the growth potential of these commodities as described in the following sections.

2.3.1 Performance of the Crops Sub-Sector

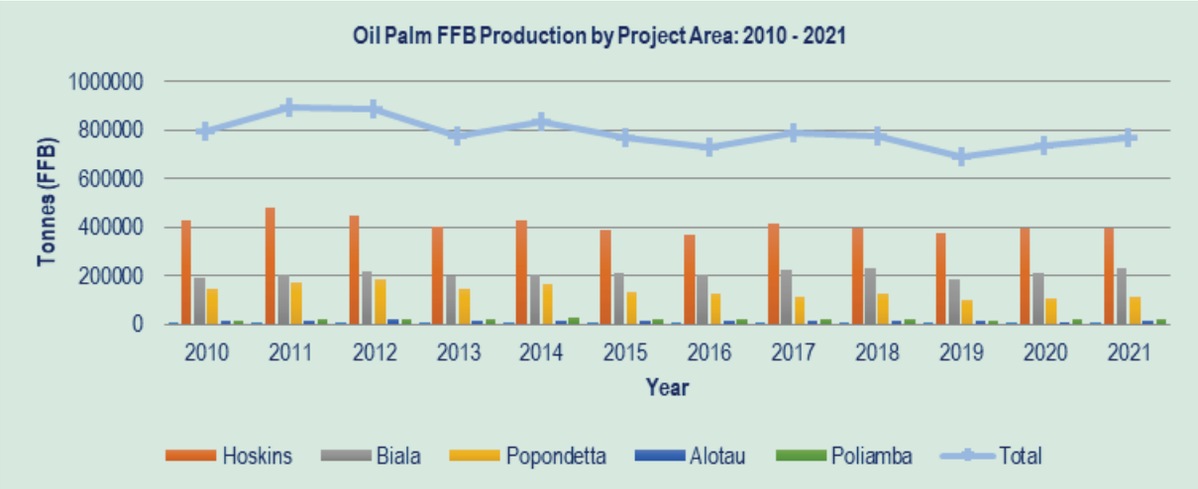
2.3.1.1 Palm Oil

The Palm Oil industry remains an important agriculture sub-sector to PNG's economy. The industry is a private-sector driven, with many villagers and smallholder oil palm block owners involved. Given the prominence of the industry, in 2022 the Government of PNG (GoPNG) created a separate and new Palm Oil Ministry to provide ministerial oversight in the country's palm oil industry. The GoPNG recognizes the need for the Palm Oil sub-sector to strengthen the regulation for proper coordination and effective administration of the booming palm oil sector in the country. The legislation reform will help attain an environmentally sustainable development outcome with the target of going beyond the agronomic production of oil palm plantations and into full downstream processing of crude palm oil (CPO) and palm kernel oil (PKO) to maximise economic gains for the country.

The palm industry is currently the leading industry in terms of the export revenue earned. The total production of fresh fruit bunch (FFB) by project areas had been on a downward trend from 2010 to 2019. However, production has increased towards the end of the decade from 2020 onward, reaching over 800,000 tonnes in 2022 as shown in Figure 1-1.



Figure 1-1. Oil Palm FFB Production by Project Area: 2010-2021



A lot of oil palm's durable success has been related to its access to land at scale and the nucleus estate model of production. The nucleus estate model works for oil palm almost solely because primary small-scale producers are completely reliant upon the nucleus estate processing mills to generate a marketable product. The model's past viability for other commodities, such as coffee, cocoa and coconuts has been largely lost as smaller-scale independent primary producers have developed their own alternative downstream processing capacities and they are no longer reliant upon the nucleus plantations to generate a marketable commodity.

Land at scale is also becoming a challenge for oil palm seeking to qualify and retain responsible, sustainable environmental accreditation and the market premiums associated therewith in some markets, especially in Europe. Securing large-scale land via deforestation of old growth forests is no longer viable, so oil palm is competing for arable, naturally cleared or long term previously deforested land. The comparative viability of oil palm provides a competitive advantage for oil palm relative to other potential land uses (e.g. improved pastures for livestock grazing and meat or dairy production, grain production, stock feed precursor production). Inter-cropping systems exist, but comparatively few are currently able to match the returns per hectare from palm oil from the compatible integrated inter-crop from a commercial land usage perspective.

Promotion of environmentally responsible palm oil production needs to be balanced with other national agricultural production and arable land usage needs and priorities. Under MTDP IV, the Government will invest in the following programs:

a. Oil Palm Development Program;
b. Palm Oil downstream processing and Industrial Hub Development;
c. Customary Land mobilised to develop additional large-scale Oil Palm Plantations;
d. Smallholder Oil Palm Commodity Access Roads upgrade and sealing; and
e. Oil Palm Research and Development Program.

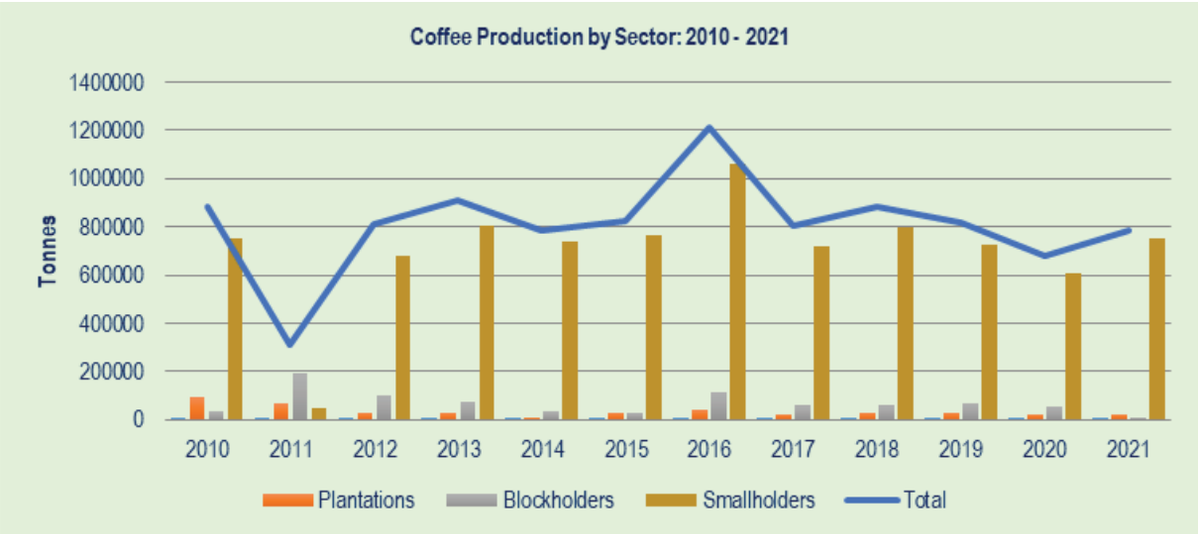
2.3.1.2 Coffee

The PNG coffee industry comprise of over 400,000 households, 250 block holdings[1], 65 plantations, 28 registered exporters, 14 registered manufacturers, 4 Freight Forwarders, 57 licensed dry factories, 33 wet factories, and an estimated 6,000 unregistered seasonal roadside buyers. Coffee is grown in 16 of the 22 provinces, but the key provinces are Eastern Highlands Province (41%), Western Highlands Province (21%), Jiwaka (18%), Morobe (12%), Simbu (6%) and Enga (1%), which account for 99 % of the national coffee crop. There is huge potential to develop coffee in other provinces such as Southern Highlands, East Sepik, Madang, Northern, Central, East New Britain, New Ireland Province, and Autonomous Region of Bougainville (ARoB).

In 2022, the Government created the new Coffee Ministry thus giving prominence to the industry. The government's focus over the medium term is to improve productivity and add value to the coffee industry through improving research and extension services, downstream processing, and improving market access, which will add greater value to current benefits derived from coffee, increase employment as well as inspire new coffee plantings and rehabilitating of existing coffee trees in both large plantations, block holdings, and smallholder coffee blocks.

The smallholder sector is the major producer, accounting for about 85% of annual coffee bean production, followed by block-holders (10%) and plantations (5%). The production of green bean coffee has been fluctuating between 2010 and 2022. Coffee production has been on a declining trend after reaching peak production in 2016. Production has been on the decline since 2019 as shown in Figure 1-2.

Figure 1-2. Coffee Production by Sector: 2010 - 2021



The PNG green bean coffee specifications standard has been revised to be on par with new developments and the industries renewed aspirations. The industry adopted the new grading standard for the first time in 2021. Some salient features include bean screen size and the intrinsic market-valued properties. The major outcome of the re-grading revision is that premium coffees is trans-sectoral. This means that it is beyond sector classification and is determined by market demand such that smallholding coffee quality is just as good as the quality of estate coffee.

The three major markets for PNG coffee continue to be Germany, USA, and Australia

[1]*The size of block holdings range from 5-30 hectares per farm.*

at 22%, 19% and 17%, respectively. In 2021 these three alone imported close to 60% of PNG's total coffee exports. Italy and Belgium are fourth and fifth largest importers of PNG coffee. The export under certification labels has been steadily increasing by an average annual growth rate of 16% in the past decade (2009-2020). These are contributing an average of 13% to the total annual coffee exports in the same period.

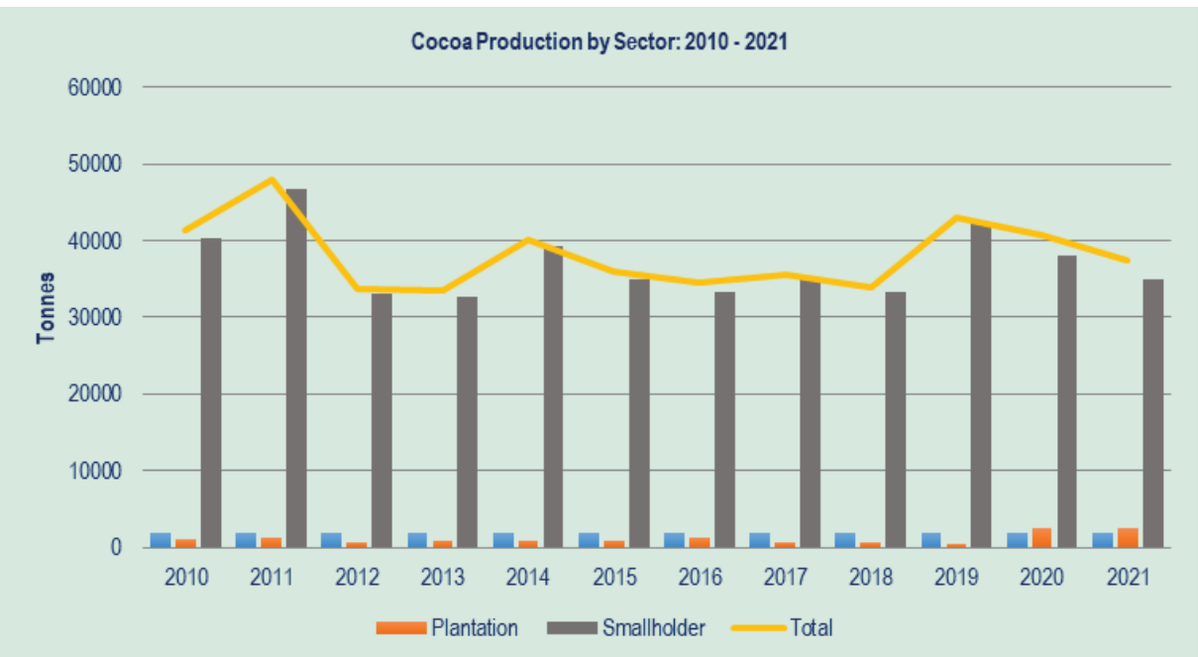
The coffee industry, however, is faced with a number of major threats and problems, including aging of coffee trees in the smallholder and plantation sectors, high level of indebtedness, breakdown in rural infrastructure, increase in lawlessness, the continual threat of quality problems, possible shortage of land and labour, threat of major pest diseases, and long-term downward trend in the coffee prices.

The future viability of coffee appears to be largely dependent on production scale, maintenance and retention of reputation for quality, continuing growth in the specialty certified premium-priced coffees and growth in total production output. The viability of coffee (and most other bulk export commodity crops) as a monoculture or near monoculture enterprise output from small land-holdings is very threatened. Small-scale enterprises are being forced to diversify away from coffee in areas where they have access to markets for other alternative cash crops. To re-balance supply sourcing and compensate for small-scale producer diversification away from coffee, the proportional contribution from larger scale, more efficient, more specialized plantation-based production enterprises need to be increased substantially.

2.3.1.3 Cocoa

The cocoa industry is dominated primarily by smallholder village growers, who produce 96% of the dry bean cocoa, while the balance of 4% is produced by the plantation sector (Cocoa Board, 2023). The plantation sector's production has been declining over the years due to land tenure issues and increasing costs of production amongst other factors. The average cocoa production per year in the past 12 years has been stagnant as shown in Figure 1-3.

Figure 1-3. Cocoa Production by Sector: 2010 - 2021



This trend has been due to several factors, such as cocoa pod borer (CPB), remoteness with difficulty of bringing cocoa produce to the markets, and impact of COVID-19 that affected farmers and buyers alike. PNG cocoa 'fine or flavour' producer status has recently been increased back to 90% this year from 70%. The major reason for this classification is due to smoke taint in cocoa beans.

PNG supplies less than 2% of the world cocoa market. Downstream processing of cocoa onshore is currently limited. Of the 37,367 tonnes of cocoa produced in the country in 2021, 36,600 tonnes was exported while an estimated 767 tonnes or 2% was processed domestically. With climate change, however, cocoa's suitable production geographic range is expanding and there may be potential to establish a niche premium market for altitude-based cocoa production (based on the active component profile associated with slower maturation at altitude). This could be quite beneficial to producers of all scales. Expansion of the production range provides diversification potential for primary producers (likely most beneficial to larger scale enterprises where soil fertility is favorable for cocoa).

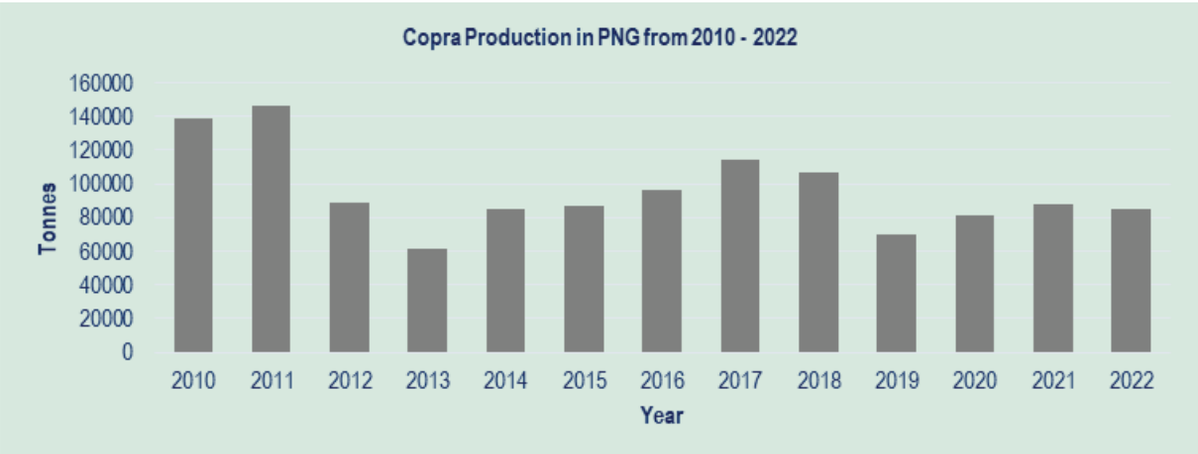
2.3.1.4 Coconut

An estimated 464,000 households are engaged in the coconut sub-sector (NSO, 2011). Out of this, 72% use coconuts for their own uses and 29% use coconuts for cash income generation.

The DSP 2010–2030 projected a production target of 440,000 tonnes of copra by 2030. This ambitious production target is achievable, subject to improving the productivity of the large smallholder sector, adoption and utilization of new high-yielding coconut varieties and management technologies, large-scale investment that can lead to expansion of new planted areas, and revival of rundown coconut plantations.

The coconut sub-sector has been shifting towards production of high-value coconut products (HVCP) such as virgin coconut oil (VCO) than copra. The potential for more returns from HVCP is yet untapped and deliberate intervention programs can boost this beyond the current K126.5 million export revenue per year industry. In the past decade, copra production reached a peak in 2011, but has been on the decline since and has remained between the 60,000 to 120,000 tonnes from 2013 to 2022 as depicted in Figure 1-4.

Figure 1-4. Copra Production in PNG from 2010 - 2022



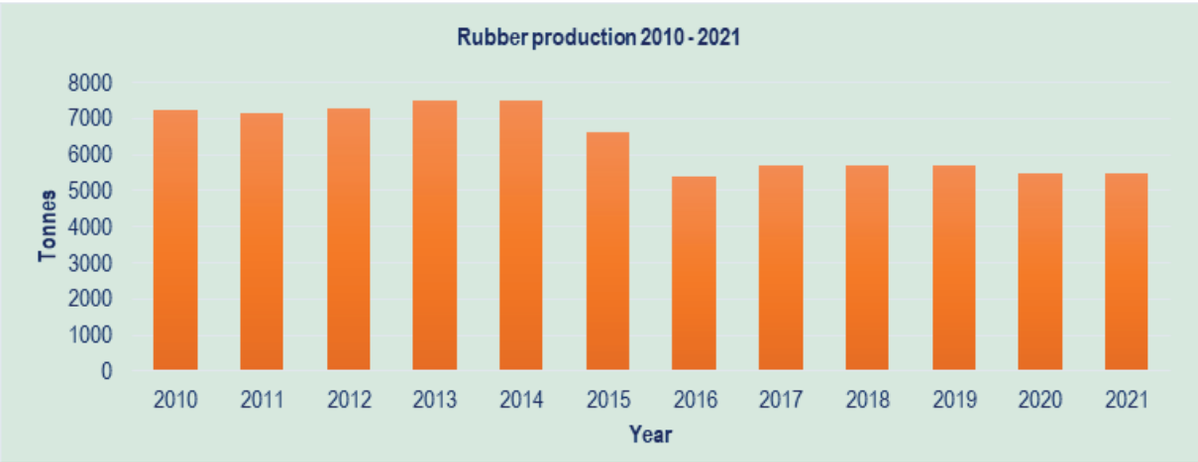
Under the MTDP IV investments, the coconut industry is poised to contribute towards the establishment of regional nurseries and seedling distribution centres, rehabilitation of rundown coconut plantations and replanting and expansion programs. It also aims to support the coconut access transport infrastructure, promote downstream processing including supporting Micro- Small-Medium Enterprises (MSMEs) that are involved in the cottage industries. In addition, the Government will also support research and development programs to improve productivity and post-harvest quality. Coconuts also have significant potential because they can be inter-cropped with other export cash crops, e.g. cocoa, vanilla, and kava. Integrated compatible production inter-cropping systems would be favored for small-scale producers and wherever soils favor respective compatible inter-crops.

2.3.1.5 Rubber

More than 30,000 households in nine coastal provinces of PNG engage in the rubber industry. The production of natural rubber in the country is estimated to be below 10,000 tonnes. From 2018 to 2022, total rubber exports was 16,800 tonnes, which is an average of 3,300 tonnes per year. Relatedly, the industry generated about K59 million in export revenue, compared to the period from 2014 and 2017 where it generated K43 million in export revenue. Export revenue had increased by 35.4%.

No reliable production is available; therefore export data was used to establish the production trends as shown in Figure 1-5.

Figure 1-5. Rubber Exports: 2013-2022



Production peaked in 2018, however has been on the decline since. Despite this declining trend, the potential of the natural rubber industry in PNG is relatively high. The plantation estates in Central Province and the cooperative societies in Western Province are proceeding with new planting, and is a sustainable commodity because its pest and disease-free with huge potential to be developed into downstream processing and value addition.

Rubber has potential if grown on a large enterprise scale for environmental stabilization of steeper slopes and riparian zones of degraded, deforested land. It has fewer compatible inter-cropping options to other long-lived tree crops, high labor requirements, and rates of return per land use hectare are comparatively low for a plantation crop. However, there is potential in rubber wood where it is commercially valuable in some markets. It is also a natural bi-product from senile trees in large-scale commercial production enterprises or nucleus production areas.

2.3.1.6 Tea

The tea industry in PNG thrived from the 1960s to the 1980s. However, depressed world market prices in the 1990s significantly impacted the industry. The Tea industry in the country has been on the decline since then. Many tea plantations have been abandoned due to land tenure issues, increase in overhead costs, the world market price fluctuations and other management issues. Despite the decline, the industry has consistently maintained production volume at 7,000 tonnes per year from 2000 and 2010. The entire industry in PNG is currently run by the private sector. The industry still has potential to contribute significantly to the PNG economy.

Under the MTDP IV, the National Government intends to partner with the private sector to revive some of the premium tea plantations in the country to improve production through an Equity Participation initiative. Potential programs proposed are the revitalisation of the rundown tea estates as a measure to mobilize youths in the production process and re-establish smallholder tea cultivation who are seen as the key drivers to grow a robust industry that will thrive and continue to contribute to the PNG economy.

Tea has a viable future with value-addition where tea is mixed with herbs and spices, and specialty teas grown at high altitudes where they grow at a slower rate. Small-scale producers adjacent to large-scale tea estates may be able to generate viable income streams from growing and supplying fresh herbs and spices to support tea value addition as part of an integrated, diversified small-scale production system.

2.3.2 Crop Productivity

Smallholder farmers play a dominant role in the production of the major industrial crops in the country as highlighted above. However, smallholder sector productivity or yield performance has been stagnant for many years, and way below the genetic potential as shown in Table 1-1.

Table 1-1. Smallholder Yield Performance

Crop	Estimated current yield (Kg/ha)	Genetic potential (Kg/ha)	Yield below genetic potential (%)	Type of material
Coffee[a]	600	2,000	70.0	Robusta variety
Cocoa[b]	366	2,500	85.4	18 CPB tolerant hybrid cocoa clones
Copra[c]	900	1,200	25.0	Local Talls & Hybrids
Oil palm[d]	11,720	23,000	49.0	Dami hybrids
Natural rubber	500	3,000	83.3	Hybrid clones

Notes: [a]Omuru and Anis (2011), [b]Curry et al (2007), [c]Omuru (2001), [d]OPIC (2021)

Except for copra and oil palm fresh fruit bunch (FFB); the other tree crops' productivity is more than 50% below the genetic potential of the respective planting materials currently available. The major causes of low productivity include: **(a)** low adoption and utilization of improved genetic planting materials, **(b)** pests and diseases, **(c)** aged trees or palms most of which are beyond their peak production phases, and **(d)** lack of application of good agricultural practices and management.

Production capacity and efficiency, yield relative to potential of cash crops, and land use efficiency through compatible inter-cropping are more critical for small-scale production enterprises than for large-scale, specialized production enterprises. There are major inefficiencies in need of major attention to address productive competitiveness.

- Enterprise management capacity-building is needed to address this and other inefficiency and non-competitiveness driver issues. The most immediate impact can be achieved by better locally adapted crop varieties;
- Better inputs and input regimes, especially fertilizers and pest control interventions, and the precision and application.
- Cultural husbandry practices, especially timing of practices and inputs relative to the crop production cycle. This is frequent amongst small-scale producers as they endeavour to over-crop or under-crop limited land under production and/or juggle labor and time allocation between diversified production and revenue streams.
- Technical extension is obviously an issue, however, it does not assure results if/when primary producers fail to adopt and apply improved techniques as they continue to apply what they are 'traditionally' comfortable with. Example applying subsistence practices to commercially oriented production systems) and/or diversification necessities result in practical inability of producers to apply husbandry techniques with necessary precision and timing.
- The extent of 'informal' activities, such as absence of contracted time and volume-based output supply obligations, very inefficient informal marketing system choices are significant contributing factors that are often overlooked or underappreciated. Formalizing commercially oriented systems should also be a related outcome objective.

2.4 Performance of Livestock Sub-Sector

PNG has a major mismatch in its domestic meat consumption and its livestock farming and meat productions. This perception is based on the fact that the country produces up to 16,000 tonnes of meat per year, all of which is consumed domestically. However, to meet the local demand, PNG imports approximately 67,307 tonnes of meat annually at a cost of K392 million. This is despite the country having a massive land mass, which has great potential to do large-scale cattle, poultry and other livestock farming. In addition, the support to the sector has been very minimal overtime. Beef cattle numbers have been static for the last 20 years and have gradually declined due to mismanagement of stock, lack of pasture and feeding arrangements, and lack of management and skills in all aspects of animal husbandry.

The estimates that meat consumption in the country has increased at a rate of 5 per cent annually to more than 20,000 tonnes. Under the new Ministry of Livestock, the government anticipates increasing investment into livestock development in the country which includes large-scale cattle breeding and farming, poultry and other livestock developments. The country is aiming at producing 60,000 tonnes of meat by the end of this MTDP period to meet the domestic demand including possible exports of live cattle and meat products.

The deliberate interventions for MTDP IV will be in the areas of large-scale livestock breeding and farming for cattle, poultry, piggery and other ruminants. The sector will also be supported in the establishment of commercial feed farms and slaughtering abattoirs and value chain facilities.

2.5 Performance of Food and Horticulture Sub-Sector

2.5.1 Fresh Produce, Fruits and Nuts

The fresh produce industry in PNG is estimated to be worth K2.5 billion at total market value. The sector sustains approximately 85 per cent of the population in the informal economy with the potential to develop into mechanizing and value-adding of organic food products for domestic consumption and exports.

The challenge that the country faces is with the current fresh produce supply value chain system that does not meet the standard market protocols, thus compromising food quality, safety and supply throughout the country. As a result, the country continues to import fresh fruits and vegetables from overseas despite having an organically abundant supply locally. Import replacement is needed where domestic production is competitive, and exports where opportunities, supply chain infrastructure and competitiveness permit. Competitiveness and supply scale and continuity will continue to be major issues impeding exports in the fresh space. Snap freezing and similar technologies that enable export supplies to be consolidated and shipped without deterioration should be pursued where production and pricing can be competitive.

Under the MTDP IV, the following deliberate intervention programs will be developed to grow the industry into full potential from farming to effective post-harvest management; and value chain development including establishing the cool storage and value-adding facilities.

2.5.2 Rice and Grains

Rice is now a staple food for the majority of Papua New Guineans. While PNG currently produces around 4,800 tonnes of rice in 2020, not much effort has been made to support rice farming on a commercial scale to meet the local demands and also for possible export. A DAL rice survey estimated per capita rice consumption at 36 kilograms per person, however during the regional stakeholder consultations, some industry experts were of the view that the figure could be more.

In 2022, around 12,900 households are involved in rice farming, with 3,663 hectares of land currently under the control of smallholder rice farmers across the country. The Government aims to promote commercial scale rice production including supporting the smallholder farmers into aggressive rice production under the MTDP IV. A number of strategic interventions will be employed with strong emphasis towards mobilisation of customary land, labour and capital to transform the rice and grains sector which has huge potential to bring greater value for the country.

Rice and grain production will not be viewed from a fixed monoculture perspective but be integrated with other compatible rotational crops and inter-crops crops, such as peanuts, including cereals, pulses and others (e.g. buckwheat) as they are being developed.

2.5.3 Spices

The production and commercialization of spice crops including vanilla, cardamom, ginger, turmeric, cinnamon, pepper, citronella, and nutmeg fall under the purview of the spice industry. Spices are more compatible with smaller-scale production than many other exportable commodities and also as compatible companion or inter-crops with bulk export commodities to enhance enterprise resilience from diversification, and to improve land use efficiency of small-scale production units.

Their main disadvantage is that they often require quite specialized attention, e.g. the timed labor required to hand pollinate and properly cure or post-harvest process vanilla, making extension and technical support services more essential. The spice industry needs prioritised attention. It has great potential to become one of the growing set of commodities that can be grown in large scale for export. However, there are challenges that need to be resolved, some of which include:

- Lack of institutional capacity and human resources
- Lack of quality control and monitoring system on spices produce and products
- Lack of better farmer training and extension services
- Low spice crops production volume, except for vanilla
- Lack of downstream processing facilities for spices, herbs and aromatic products in the country
- Lack of proper connection and access to spices marketing, export and trade;
- Lack of sub-sector regulations and policies for sub-sector management and development

Against the challenges, the investments appropriated under MTDP IV are intended for the Government will promote and develop the spice industry to meet the growing demand locally and globally for organic spice products. Amongst the spice crops, vanilla has a huge market and has been exported, however reliable data and information is fragmented. It has been noted that vanilla exports is captured in the "Others" category in the Bank of PNG (BPNG) Quarterly Economic Bulletin (QEB) of agriculture commodities thus increasing its share of export value. For example, in 2021 the export revenue share of "others" contributed 19% of the total export revenue from the total agriculture commodities exports. The data represented in Figure 1-6 and Figure 1-7 have been sourced from the Spice Industry Board, however, they should be interpreted with caution as to their reliability. The vanilla industry has been growing between 2014 and 2018, while the other spices have been fluctuating in the same period.

Figure 1-6. Vanilla Exports: 2014-2018

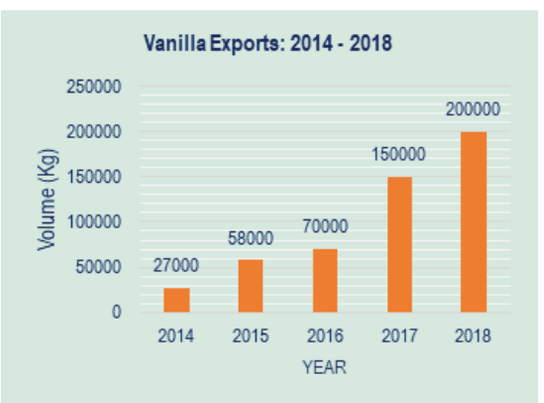
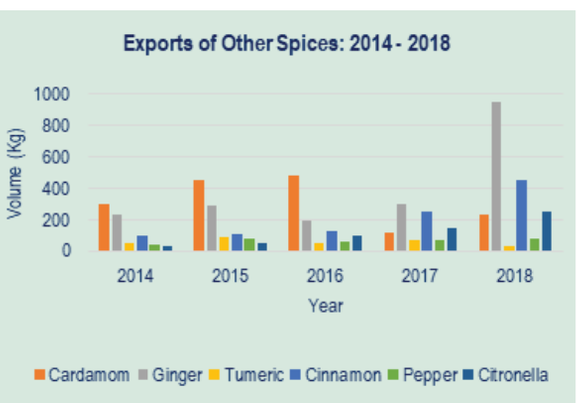


Figure 1-7. Exports of Other Spices: 2014-2018



2.6 Agriculture and Food Security Research and Development

Good nutrition is the cornerstone for survival, health and development. In 2020, the prevalence of stunting of children under 5 years of age stood at 37.0%, while the prevalence of wasting in children, at the same age, stood at 9.6%. These are concerning numbers for PNG and its future. Hence, the Government aims to reduce the percentage of stunting and wasting of children in this medium term.

The Government will utilise the National Nutrition Policy and the National Food Security Action Plan, to promote and increase production of staple foods, livestock breeding, roll-out of inland aquaculture and apiculture (honey bees) programs that have nutritional values.

The critical focus areas of Government for Food Security include:

- Food production and access to address adequate supply of food;
- Protection and preservation of our traditional food crops through research; and
- Research and development to discover climate-resilient food crops.

2.7 Biosecurity

Growing international trade, greater mobility and climate change make PNG's borders increasingly more vulnerable to new pests and diseases, many of which have the potential to seriously damage our natural resources, threaten our economy or undermine our way of life.

In recognition of the threats to the country's biosecurity, the government has committed resources to develop and increase the number of biosecurity containment centres and upgrade the biosecurity laboratory under MTDP IV. In addition, two urgent requirements to be considered include:

- Enacting global trade-compatible and compliant biosecurity legislation. The current legislation through various Acts enables biosecurity measures to be performed in accordance with the rule of law. However, it does not require measures to be internationally trade compliant and applied in critical areas. These issues leave PNG very vulnerable to breaches and trade-related exploitation.
- Strengthening and improving data and information management, including utilising readily available technologies and automation of services. Current data and information management relies on very few technical specialist individuals. There is no well-assimilated retained, readily accessible corporate information to support objective and adaptive risk assessments management, which are necessities for competitive international trade and safe domestic trade.

2.8 Agriculture's Contribution to GDP

The agriculture sector currently contributes 28.1% of the total GDP in PNG. However, it continues to be the primary economic activity for more than 85% of the rural population, who rely on subsistence farming for their basic needs. It is important to note that, although the share of GDP has declined, the decline has more to do with the increase in revenue from the mining and hydrocarbon sectors than a drastic decline in agriculture revenue (BPNG 2023).

2.9 Agriculture Exports

The value of all agricultural commodities has grown from K1.8 billion in 2013 to K4.1 billion in 2022. Relatively better market prices, and direct financial support from the Government's commodities price stabilization and industry intervention programs such as the freight subsidy rolled out in 2021 positively contributed to increased values of all commodities. On aggregate, the value of coffee, cocoa, coconut, and palm oil exports amounts to over K3 billion, which accounts for about 75% of the country's total agricultural exports.

In 2022, the revenue generated by major agricultural exports is summarized in Table 1-2. Oil palm is the leading export crop in terms of export revenue, generating K2.79 billion, followed by cocoa with K266.0 million, while coffee generated K231.1 million, copra and coconut oil generated a total of K129.4 million, rubber with K11.8 million and tea K0.7 million. The 'other' category comprises most of the spices, including vanilla. This category of agriculture exports generated a total of K680.1 million.

The total export revenue of all agricultural commodities grew less or negatively by -2.8 % per year from 2010 to 2022 (see Table 1-3). This was largely due to the majority of individual commodities; coffee, cocoa, tea and rubber having experienced negative growth between the years 2010 to 2022. Palm oil export revenue grew by 10.3%, and coconut grew marginally by 0.9%.

Table 1-2. Major Exports Tree Crops, Export Revenue

Commodity	2010 – 2014	2014 – 2018	2018 – 2022	Average
Cocoa	-6.0	0.3	1.6	-1.4
Coffee	-2.7	1.7	-10.5	-3.8
Coconut	-7.9	14.0	-3.5	0.9
Palm Oil	1.2	1.1	28.7	10.3
Rubber	-11.5	8.4	-8.0	-3.7
Tea	-10.9	-15.2	-13.0	-13.0
Others	6.2	13.7	4.0	8.2
Total	-31.6	24.0	-0.7	-2.8

Table 1-3. Major Tree Crops Export Share of Total Revenue Revenue Growth: 2010-2022

Major Export Tree Crops	Export Revenue in 2022 (K'mil)	% Share
Cocoa	266.0	6.50
Coffee	231.1	5.60
Coconut	129.4	3.10
Oil palm	2,790.7	67.90
Rubber	11.8	0.30
Tea	0.7	0.02
Others	680.1	16.50
Total	4,109.8	100.00

Source: Bank of PNG QEB (2023 various issues)

The motivation behind the PNG Vision 2050 is the challenge of how do we as a country leverage and manage revenues from mining, oil and gas to build world-class and vibrant agriculture, forestry, fisheries and tourism sectors. Until recently, the public budgetary support for major agriculture commodities, institutions, and agriculture in general is still relatively low at less than 2% of the National Budget Appropriations. The current Government has changed the fortunes of the agriculture sector in PNG in terms of funding support. For the first time, the agriculture sector has been given a total budget outlay of K3.408 billion for the next 5 years, which translates to K681 million per year.

2.10 Agriculture and Job Creation

A large portion of labour force in agriculture is comprised of smallholder farmers. Hired labour is minimal or seasonal when there are more crop and people are needed to harvest crops. However, there are innovative ways in which labour is being "hired" in the smallholder sector. The use of 'mobile card' to pay labour for harvesting oil palm fruit in palm oil industry is an example[2]. Any oil palm block holder that requires labour can enter into a 'labour contract' with a mobile card worker. By entering into the labour contract, the mobile card worker is paid an agreed proportion of the oil palm fruit he or she harvests, which is weighed on a separate docket.

Rehabilitation and revival of the plantation sector will contribute to additional jobs. The plantations will need new labour units to work the plantations thus creating employment.

Increasing the production of agricultural commodities and food crops will generate jobs along the commodities value chains and in the wider economy: increased agricultural production leads to more jobs in food processing, food trade, and food preparation. For example, with increased investments, there is likely to have productivity effects, where production of export crops and food crops are projected to increase, so export crop production will employ more workers, food crops may need more workers for harvesting, and livestock sector may need more workers, as well.

The flip-side may also be true: deceleration in jobs may happen in agriculture as part of the perceived structural transformation from subsistence-farming toward off-farm sectors if farmers invest their surplus incomes into off-farm enterprises. In addition, higher productivity in agriculture, may mean that relatively less labour will be required in agricultural production. Therefore, increased yields will have different effects on employment in various commodities. However, this can be viewed as part of the transformation process and such trade-offs need to be taken into consideration.

2.11 Impacts of Climate Variability and Climate Change

Climate Change impact has a bearing on agricultural performance, and has positive and negative impacts. Positive include the geographical range expansion of previously lowland suited crops into higher elevations adding to potential production diversity and resilience. The extremes of variability are the main negatives described below:

PNG has a hot, humid climate that is experienced throughout the year. The country experiences two distinctive seasons: the wet season that runs from December to March and dry season that goes from June to September. The average monthly rainfall ranges between 250 – 350mm and the average temperature is 26 – 28^{0}C. The El Nino - Southern Oscillation (ENSO) phenomenon has been observed to have an increasingly negative effect on PNG's climate, which triggers more intense drought and flood events.

Agriculture is dominated by smallholders, subsistence, rain-fed farming, relying on traditional technologies and practices. This renders the sector to be exposed to rainfall variability. Future climate change could exacerbate the impact of climate variability in PNG and lead to new risks (though also some potential benefits).
To counter these, investments in technologies that help counter variabilities will

[2]*Koczberski, G and Curry, G (2008) Smallholder Mobile Card Trial, Bialla Oil Palm Project, WNBP, PNG.*

be considered under this plan, such as irrigation. Irrigation dramatically improves viable crop diversity and seasonal production capabilities, which can be especially beneficial for small-scale enterprises. Large-scale irrigation will be a necessity for efficient large scale paddy rice and grain production, and small-scale technologies for small-scale production systems.

2.12 The Business Environment for Agriculture

PNG was ranked PNG 120/190 economies (1 being the top and 190 being the lowest) in the latest World Bank Ease of Doing Business Index. A lot needs to be done in this area to improve PNG's ranking at least beyond half way of the total.

2.13 Past and Current Approaches and Interventions for Sector Development

The agriculture sector in PNG operated without a comprehensive national sector plan for 32 years since Independence. Several adhoc policy interventions aimed at addressing this policy gaps provided some direction for the sector. However, these were short-lived and the policy objectives were not fully achieved. Some of these key policy interventions included:

- National Agriculture Development Strategy Horizon (NADSH) 2002-2012;
- Agriculture Investment Incentives and Subsidies (Green Revolution) Policy 2003; and
- Functional and Expenditure Review (FER) of the Agriculture Sector in 2005.

Two events, which also contributed to the agriculture sector policy interventions, were:

- National Agriculture Research Institute's (NARI) review of the agricultural sector in 2003,
- 2004 National Extension Summit, hosted by the PNG University of Technology (UNITECH) in Lae.

- **2007 National Agriculture Development Plan**

The NADP was the first national agriculture sector development plan. However, the plan was not implemented for a number of reasons. While DAL had an overarching oversight responsibility, the implementation should have been the work of sub-national sector and commodity agencies, and not DAL as the implementer. The flaws within the model of sector agency legislation, the commodity-oriented focus of the boards, rather than enterprise-oriented, and a range of other governance relationship and formal reporting arrangements that are not adequately supported by the legislation model contributed to poor NADP implementation.

Sector agencies were notionally expected to be largely self-funding and excluded from plan implementation and could not be committed to implementing anything substantial. Partly because their respective legislations enable them to operate with very limited ability for oversight agency to direct or to hold them accountable.

The lack of proper governance arrangements was the primary significant factor, which led to mismanagement and gross misapplication and abuse of funds appropriated for the implementation of NADP. The institutional capacity existing within the DAL structure was grossly inadequate to manage and coordinate the implementation of NADP. The loss of faith by government in DAL's incompetence was

further compounded by ill-informed government decisions leading to management changes that further undermined the NADP. The 2014 FER in reviewing the NADP's overall performance, concluded that *"... its implementation has been a debacle .... DAL had no plan to coordinate, monitor and evaluate NADP so it was left open to abuse and corruption"* (DAL, 2014: vii). There were other complementary initiatives that were undertaken during the term of the NADP and immediately after its lapse, with the aim of assisting the sector to improve its performance. Some of these are summarized on the next page:

- **2009 CIMC National Development Forums on Agriculture and Rural Development**

The theme for the 2009 Development Forums was "Opening up Opportunities for Agriculture and Rural Development". The forums concluded that the agriculture sector had performed poorly due to poor governance and leadership. Rural areas in PNG have been neglected over the past decades as shown by deteriorating infrastructure, including roads and ports, schools, and health facilities. Some of the key areas for improving included: transport and infrastructure; Institutional reforms; agricultural extension services; Public-Private Partnership (PPP) arrangements in agriculture; ensuring quality, production and marketing.

- **2010 DAL Alignment of NADP**

The aim of this exercise was to align NADP to the two new higher national development objectives in the two strategic plans: (i) Development Strategic Plan 2010 - 2030 (DSP 2030); and (ii) PNG Vision 2010 - 2050 (Vision 2050). There were recommendations for moving the sector forward through:

- Corporate/Strategic Plans;
- Restructure based on the aligned and updated corporate and strategic plans by the respective sector agencies, that necessitated the need to re-structure in order to implement and deliver the functional/thematic program areas that were developed; and
- Program/Project Development and Implementation to achieve the targets set by Vision 2050, DSP 2030, and MTDP 2015, and the NADP. Unfortunately, the output of the alignment exercise did not proceed beyond the development of an aligned document to actually operationalise the revised plan.

- **2011 DAL and CIMC Submission on National Agriculture Innovations Facility**

One of the recommendations from the Consultative Implementation Monitoring Council (CIMC) National Development Forum was for National Executive Council (NEC) to endorse the Submission on a National Agriculture Innovations Facility (NAIF) as a funding mechanism for assisting and completing other funding modalities to implement the NADP 2007-2016. Other key recommendations on the agenda included calls for sector recognition and support at the highest government level, including reviewing of existing delivery mechanisms for improvement in the way the sector was managed and operating; for review of the sector, including its delivery mechanisms for improving coordination, management, communication and other aspects to ensure sector policies and plans developed and implemented were responsive to the needs of farmers.

- **2014 Functional and Expenditure Review of Agriculture Commodity Boards**

The 2014 FER on commodity boards and agencies was commissioned to address

the most important issues that were still outstanding from the 2005 FER of DAL, provincial divisions of primary industry, including commodity boards and agencies. The Final Report of the FER, including the 33 recommendations for action was presented to NEC in May 2014. All the recommendations of the FER were approved by ***NEC Decision No. 124/2014,*** which also endorsed the establishment of a FER Implementation and Advisory Unit (FIAU) to spearhead the implementation of the recommendations. However, lack of continued funding support by the government led to incomplete implementation of the recommendations.

- **2017 Inaugural Agriculture Summit**

The Inaugural Agriculture Summit was organized around 18 thematic areas. The recommendations from this Summit represented the issues and constraints faced by stakeholders engaged in agriculture in the private sector. While some were common issues and experienced by all, others were specific and individually unique to a sub-sector. However, all spoke to the collective state of the agriculture sector and highlighted for government attention, response and action to them.

- **2019 Initiation of National Agriculture Sector Plan Consultations**

Following the lapse of the NADP 2007 – 2016, the former Minister for Agriculture and Livestock Hon. Benny Allen initiated the process of developing a National Agriculture Sector Plan (NASP) 2019 – 2028. An Expert Working Group (EWG), comprising five consultants were appointed to develop the NASP. From April-May 2019, regional consultation workshops were held in Madang (MOMASE), Mt. Hagen (Highlands), Kokopo (Islands), and 17-Mile, Sogeri, (Southern). The EWG planned to conduct institutional and donor consultations, and peer reviews, prior to finalization and submission of the plan to NEC for Government's approval. However, after about 4 months the EWG was disbanded and the assignment was subsequently abandoned in June 2019 by DAL management due to changes in the leadership of the department.

- **2019 Agriculture Medium Term Development Plan 2020-2022 (AMTDP)**

The AMTDP 2020 – 2022 aligned agriculture sector's development priorities for 3 years (2020-2022) to the MTDP III 2018-2022 agriculture sector goals and targets. The alignment was necessary for capital investment allocation of K2.3 billion towards agriculture sector for achieving Government's sector target of a 30% increase in production by 2022. AMTDP adopted NADP Policy Framework and was to set the foundation for future alignment and pave the way for the formulation of a long-term national agriculture policy and master plan after the review of NADP 2007-2016.

- **2022 DAL Organisational FER**

The Department of Personnel Management (DPM) arranged for a DAL Organisational FER, following Prime Minister James Marape's address to the Agency Heads, at the Public Sector Reforms and Cost Controls in October 2020. "The growth of the public service cannot outstrip the growth of the economy on a year-to-year basis" was the key point of his address. The FER concluded that:

- Governance is a major problem with agencies going direct to the Minister and leaving out the Secretary of the Department of Agriculture;
- Agencies were not being supervised and monitored;
- Boards of Commodity Boards were not performing;

- Extension Services were non-existent;
- Research Stations were run down with under-strength Scientific Officers;
- Development partners and donors were conducting parallel programs; and
- Lack of funding was a problem.

- **2023 NADP 2007-2016 Review**

Based on a resolution of the NADP/NASP Project Steering Committee on 24 January 2023, seven consultants were engaged by DAL to: (i) review the NADP 2007-2016; (ii) develop a new sector plan to be known as the National Agriculture Sector Plan (NASP) 2024-2033; (iii) develop a clarified strategic narrative and results framework for each thematic programs; and (iv) to review and revise the draft AAA and the draft AIC Bills.

The NADP review findings include:

- NADP was not implemented. It existed only on paper. One of the reasons was that DAL did not have the capacity to implement NADP as its structure was outdated. DAL's last restructure was done in 2000. As such, the department did not have the staff strength to implement the NADP 2007-2016.
- None of the governance and management structures contained in the NADP were established in DAL. Hence, no appropriate governance and institutional structures and arrangements for managing and using funds. This resulted in poor management and governance of NADP leading to abuse and misuse of funds earmarked for agriculture sector. Although DAL initially administered and managed the NADP through a Secretariat with plans for establishing a separate body to be headed by an Executive Director and staff Secretariat, the lack of leadership within DAL saw NADP funds kept at the Department of National Planning and Monitoring in 2009. In 2010 and 2011, the funds were allocated through the District Service Improvement Program (DSIP), with the allocation of K1 million for each district and was administered by the Department of Implementation and Rural Development (DIRD) (then Office of Rural Development (ORD). During the same period, K20 million was given to National Development Bank (NDB) each year. In 2012, NADP K100 million appropriations were given to NDB and funds were provided for activities and projects through a number of channels and different mechanisms utilised through various agencies, including DAL, DNPM, ORD for DSIP.
- NADP coordination mechanisms did not physically exist in DAL, including Governing Council, National Agriculture Council, Technical Program Planning and Review Board, and NADP Secretariat. These were only on paper hence did not provide oversight of implementation of NADP 2007-2016.
- No review or evaluation of the implementation of NADP was conducted, which would have informed the government on the status of NADP, and decision taken to discontinue the flow of funds without actual implementation;
- The structure and presentation of NADP was not user-friendly for implementation.

Against the above backdrop for the sector in policy initiatives and interventions, the NAP is the Government's commitment to integrate all these experiences and lessons in a comprehensive National Agriculture Sector Plan for PNG for the next 10 years.



Pic: Strawberry Farming

3 CHAPTER 3. SECTOR CHALLENGES AND NEW DIRECTION

Agriculture sector's performance is relatively poor in terms of its contribution to PNG's Gross Domestic Product (GDP). Its contribution has been declining since independence. From 35 percent in the 1980s, it dropped to less than 20 percent in early 2000. In 2018, the exports of non-renewable resource (extractive) sector was estimated to account for over 84 percent compared to the renewable sector's 14 percent of exports (World Bank 2019). The agriculture sector is the second largest and a significant contributor to the country's GDP. However, its declining contribution shows that the sector is facing serious issues that need to be addressed for it to realize its full potential.

The poor performance of the agriculture sector, including crops, food and horticulture, and livestock sub-sectors are affected by many constraints, which reduce their contribution to the economy and improvement of livelihood. These challenges can be grouped into three (3) categories: (❶) external environment; (❷) internal environment within the agriculture sector; (❸) production and farmers.

3.1 Sector Challenges

3.1.1 External Environment

Some of the causes of factors that challenge the sector are external. For instance, the lack of rural roads, transportation, markets, cooling and storage facilities, irrigation systems, sea and inland ports and jetties have undoubtedly inhibited agricultural growth and limits opportunities for value addition, marketing products and monetizing the rural economy. Poor access to roads places greater burden on women than on men, particularly in attempting to access basic services and rural markets. Indications from many studies show that women compose the majority of the sellers of produce and markets, and are also the major users of basic services, such as health care (Kulumbu 2019). Several external factors, which pose challenge to the agriculture sector include the following:

- **Fluctuating global market prices**

Over the last decade has seen a steady overall decline in agriculture export volumes, except for palm oil and copra. From 2009 to 2018, exports of coffee and cocoa fell. However, this picked up between 2019 and 2020 when there was an upswing in prices for coffee and cocoa. Exports of copra oil have continued an upward trend between 2017 and 2018, while exports of palm oil decreased over the same period (ANZ 2019).

- **Deteriorating Infrastructure and Lack of Local Market Infrastructure and Facilities**

PNG's rugged geographical conditions, low level of investments in agricultural infrastructure, and a lack of effective national infrastructure planning are significant barriers to providing economic and social infrastructure critical to future development of the county. Limited paved trunk roads restricts long distance transport. The entire system of secondary and feeder roads are all unpaved making it difficult for vehicles to move in the dry and rainy seasons. Transport costs and

services are high as consequence of poor roads. With about 60 percent of PNG's population living on 6500 kilometres of coastline and waterways, without access to roads, water transport remains the predominant mode. Coastal shipping services are, however, not available in most parts of PNG although they would be the most reliable mode of transport for providing access to rural communities. Overloaded small crafts are common with deaths of more than 100 people every year. PNG has 21 ports, with Lae port handling nearly half the country's maritime freight, Port Moresby and Kimbe being the next large ports. PNG does not have a railway system. Landing sites and harbours require extensive rehabilitation. Access to services and income earning opportunities increase when the rehabilitation of national roads is combined with the rehabilitation of adjacent feeder roads (ADB 2017).

- **Cross-Cutting Government Policies and Legislations affecting Agriculture Performance**

The Government has formulated and implemented a number of reforms and policies since independence in 1975. Some of these policies and legislations have directly and indirectly influenced the growth and performance of the agriculture sector in addition to other external and internal factors. The livelihood of the majority of the rural population who depend on agriculture are often affected by these policies. Some of these policies include:

(a) 1977 Organic Law on Establishment of Provincial Government

To meet the political aspirations of the different ethnic cultural groups in the country, the government established the Provincial Government system in 1977, with a mandate of agricultural extension function. The aim of the transfer was to provide an effective extension service and make other associated services more accessible to the farming community. In this context, the agricultural extension support facilities such as farmer training centres and agricultural resource farms were also transferred to the provincial government. However, over the years, for a variety of reasons, the provincial extension service did not meet the expectations and the facilities were not maintained well to serve the local farmers. The farmer training centres were progressively closed down, making access to training and other services more difficult for the farming community.

(b) 1980s - Establishment of Commodity Institutions

In the late 1980s, the Government became increasingly concerned about the declining productivity of the cash crops as this sub-sector was becoming dominated by smallholders, and the provincial extension system was unable to meet the needs of the smallholder farmers. The Government introduced the structural adjustment to revitalize the sector. As part of this program, commodity corporations were formed to take over the responsibility of extension services to smallholders, among others.

The Coffee Industry Corporation (CIC), the first of the corporations, was formed in 1991, paving the way for the amalgamation of the former Coffee Industry Board, Coffee Development Agency, and Coffee Research Institute into one entity. CIC was given the responsibility of all functions related to the coffee industry. This policy of corporatisation was extended to other sub-sectors and 14 new corporate bodies to manage major commodities, research and quarantine, governed by their own respective legislation, were created (JICA, 2001; National Economic and Fiscal Commission, 2005). These are the following:

- Coffee Industry Corporation Act for the regulation of the coffee industry; incorporated as a private company but is given statutory powers relating to the control and regulation of the production, processing, marketing and export of coffee.
- Cocoa Board Act (1984) for the regulation of the cocoa industry.
- Copra Marketing Board (1983) Act for the regulation of the coconut industry and management of copra marketing.
- Spice Industry Act (1989) for the regulation and promotion of the spice and essential oils industry.
- Rubber Industry Act (1954) for the regulation of the rubber industry
- Oil Palm Industry Act (1992) for the development of smallholder producers of oil palm and the industry.
- Cocoa and Coconut Research Institute (2003) (under Companies Act)
- Cocoa and Coconut Extension Agency (under Companies Act)
- Coffee Research Institute (under Companies Act)
- Oil Palm Research Association (under Companies Act)
- Livestock Development Corporation Pty. Ltd. (1982) for the regulation of the livestock industry through National Executive Council decision NG 75/82
- Fresh Produce Development Agency for the regulation of the fresh produce industry.
- National Agriculture Research Institute Act for the establishment of the National Agriculture Research Institute to conduct research program in food crops, livestock, and address the needs of the smallholder sector.
- National Agriculture Quarantine Inspection Authority Act (1997) for the establishment of the National Agriculture Quarantine Inspection Authority and define the functions of a national quarantine service for the sector, and regulation of agricultural imports and exports.

Commodity boards are responsible for policies affecting their respective sub-sectors. The corporatisation aimed to improve the effectiveness of service delivery in order to achieve overall efficiency in production and quality of commodity crops. However, the process has fragmented the agriculture sector and did not facilitate monitoring of policy compliance, and mobilize resource support. The large number of organizations has led to a proliferation of functions and activities, most of which are inadequately funded, resulting in poor services to the producers. It has not been adequately realized that commodity agencies/boards:

- Have been predominantly monoculture commodity-based, except for FPDA and Spices. As a result, they have been becoming less able to support small-scale producers who are commodity diversified in their production systems.
- Arose from single desk government marketing boards that, in turn, arose from private sector planter/grower/farmer organizations. This evolutionary process has progressively undermined the essential role of grower/farmer/industry organizations which must play in the sector and productive governance arrangements.

(c) 1995 Organic Law

In 1995, the Parliament approved the Organic Law on Provincial and Local Level Governments (OLP&LLG) that was subsequently amended by the new Organic Law (NOL). The primary objective of OLP&LLG is to improve the delivery of services for rural development by decentralizing power and responsibility to local level government institutions. National agencies are required to support delivery systems by facilitating planning and development processes. However, OLP&LLG has produced dysfunctional delivery systems in particular." (MTDS, pp. 9)

(d) 2014 District Development Authority Act

The introduction of the District Development Authority (DDA) Act 2014 is the third comprehensive reform on decentralisation and sub-national government in PNG. Unlike the previous reforms, the DDA arrangement is directly funding the districts, intending to bypass normal bureaucratic processes and bottlenecks. More than K2 billion is allocated under this Act to Members of Parliament annually since the coming into force of the DDA Act 2014. Some of the funds are meant to be applied by public servants at district level to support growth of the agriculture and agribusiness sector in their respective districts.

However, a study shows that the DDA Act has proved to be disruptive and devastating for the agriculture sector. This Act and other laws amended to support its operation have caused the dysfunction and collapse of the public service machinery in the province. It has contributed to the confused state of the management and reporting structure of public servants and distorts. Some sections of the community are worse off, with denial of essential basic services because of tangible political divisions between the Members of Parliament. For agriculture specifically, the ratio of extension officer to farmers is relatively low. The Agricultural program implementation, staff coordination, supervision and reporting is in disarray. Funding for field activities are thinly spread or non-existent. Resources are not given to field staff to do their work. Staff morale is at its lowest (Kanua 2019).

(e) Minimum Wage Policy

In 1975, the Minimum Wages Board raised the minimum wage rates for urban workers from K8.00 to K25.80. The regulated increases for hired labour in rural areas were kept in line with inflation. The increase encouraged rural-urban migration and created the law and order issues in urban centres. Although the migration reduced the supply of labour in rural areas, it is unlikely to affect the skilled labour supply for the agricultural export sector. Reasonable wages can be paid if there are sufficient returns from agricultural exports.

(f) Trade–Related Policies

- *International Trade Treaties*

PNG is signatory to several existing international trade and commercial agreements such as World Trade Organization (WTO), Asia-Pacific Economic Cooperation (APEC), Melanesian Spearhead Group (MSG) and South Pacific Regional Trade and Economic Cooperation Agreement (SPARTECA) as well as the proposed Pacific Island Countries Trade Agreement (PICTA) and Pacific Agreement on Closer Economic Relations (PACER) arrangements. The extent to which PNG makes effective utilization of these agreements is not known. All these agreements specify reciprocal protocols for import and export of products between member states. However, under WTO rules, reciprocity is based upon a principle of mutually accepted

'technical equivalence', i.e. no technical equivalence, reciprocity obligations do not apply).

The difference between the PNG Ministry of Trade and Industry and Fiji over export of PNG corned beef to Fiji is an indication of the potential use and application of the international trade agreements to settle international trade disputes and for use of the agreed protocols and processes to a country's advantage. PNG needs to study carefully the provisions of the various agreements in order to gain maximum advantage for its exports and protect its domestic industries. Some of these include WTO's principles of:

- Non-discrimination including "national treatment" (once granted market access, imported products must receive the same privileges and treatment as locally produced products),
- "most favored nation (MFN) status" (if a market access or an associated market access concession is granted by a member for market access of an imported product, the same concession must be granted under equivalent conditions for a 'like' or 'technically equivalent' product from any and/or all other WTO members – and
- "technical equivalence" (the same technical status can be achieved by way of different regimes of measures).

Comprehensive understanding and acceptance of these trade rule-related issues is essential before seeking to establish any 'free trade agreements' with any other country because formal acceptance of technical equivalence (with related MFN implications) and reciprocity inevitably feature prominently in free trade agreements and most such agreements are 'comprehensive' in nature covering broad classes of trade goods and services.

- *Tariff Policies*

Tariffs work as an indirect taxation of consumers by being factored into the price of imported goods in the domestic market. When applied to protect agricultural commodities, PNG consumers are being taxed to protect (less competitive or uncompetitive) PNG producers of like products.

As part of WTO accession in 1996, PNG was required to formally declare its tariff levels, to formally commit to not establishing new tariffs and new quotas on additional or new traded goods, and to formally commit to progressive binding rate reductions of pre-existing tariffs over time down to a declared minimum commitment rate. It initially failed to implement its binding commitments, then did across most of the commodities it had committed to do so. It reduced tariffs rates below its committed minimum rate in some cases, such as poultry products, but not others, such as sugar and formulated commercial stock feed. However, since 2014-2015, PNG has reduced some of its tariff reductions to its minimum committed rate under binding WTO accession commitments, such as poultry products. If, however, PNG fails to comply with its binding WTO tariff reduction commitments, it enables trading partner countries to apply higher tariffs and/or other trade measures, such as lower market access quotas, to imports of PNG goods (of a different type), so it can have detrimental impacts on PNG's export market access and cost-competitiveness of PNG exports in target markets.

(g) Macroeconomic Policies

A sound and stable macroeconomic management gives confidence to the private sector and facilitate sound business decision. PNG has gone through a cycle of hard currency and low inflation period of the mid-1970s to the mid-1980s to the period of devaluation, high inflation, high interest rate and unstable exchange rate of the early 2000. To its credit, the country has now stabilized its macro-economic position. The contribution of agriculture to the export revenue has declined from about 35% in the 1980s to about 20% in 2005 because of the increase in the export of petroleum and minerals.

(h) Exchange Rate Policy

PNG Kina (PGK) was hard-pegged to the USD from Independence to late 1994 when the devaluation was suddenly made. Then it was a 'managed float' where the Bank of PNG (BPNG) was controlling the currency value on the global market by using foreign exchange (FX) receipts to buy PGK on the market, thereby limiting its supply to the market and propping up its relative value on the market at significant foreign exchange cost to 'manage' the cost of imported goods and associated imported inflation that were important due to PNG's import dependencies.

In recent times, BPNG has relaxed its rate of investment of FX to buy and prop up the PGK comparative value in the global market, thus progressively allowing its value to depreciate towards competitive free-floated market value. Value depreciation against international trade currencies, such as USD and Euro increases the competitive advantage of PNG export commodities by making them relatively less expensive in offshore markets. It makes international sea freight charges, particularly in USD more expensive for PNG to pay and imported goods more expensive for PNG to buy. Investment in imported goods and equipment for production of PNG's export commodities has become more expensive by comparatively increasing their price on the domestic PNG market. The relative benefits or not of currency depreciation depend on the balance between increased costs of sea freight and imported inputs versus increased demand and competitiveness of PNG's comparatively lower-priced commodity exports on global markets.

(i) Fiscal Policy

Government expenditure impacts greatly on the macroeconomic management of the economy. The government's objective is to reduce public debt with priority on retiring of overseas public debt. However, Government debt has been increasing substantially since approx. 2012. Policy may be to increase rates of retirement of public debt, but debt service costs have been rising because of loans greatly increasing the debts to be retired. It will be some years before debt servicing costs begin to decline, provides additional debts are not entered into.

(j) Monetary Policy

The Bank of PNG uses the monetary policy to influence commercial bank interest rate. In the early 2000s heavy domestic borrowing by the government to finance the national budget forced interest rates into the high 20s and crowded out private sector investment. Many businesses including agricultural businesses folded up and very little new investment were made during the period. A stable interest rate strategy can encourage investment and provide employment and generate economic growth.

(k) Industry Assistance

- *Commodity Stabilization Funds*

Until the early 1990s commodity stabilization funds for coffee, cocoa, copra and oil palm were operated on behalf of producers by the respective commodity board. The main role of the commodity stabilization funds was to minimize the fluctuations in the incomes of producers. All producers paid a compulsory levy into the respective stabilization fund when producer prices were above a certain average threshold price and received a bounty when producer prices fell below an agreed threshold price. The stabilization funds were supposed to be self-financing, but consistent low world commodity prices during the late 1980s and early 1990s decimated the funds. The government, much to the chagrin of the IMF, World Bank and the ADB, was forced to finance the operations of the funds until prices recovered in the late 1990s.

Government policy leaves the commodity boards to decide on reviving the industry funds. In the oil palm industry, the smallholder producers are vehemently against the re-establishment of any stabilization fund for oil palm. The CIC established a positive fund balance of about K20 million in 2004. In contrast, the cocoa and the coconut industry funds still owe the government K30 million and K6 million respectively. The oil palm industry price support loan was written off by the government using the EU's Stabex facility.

(l) Tax Incentives under the 'Green Revolution Policy'

Based on the National Government Policy on Export Driven Economic Recovery Strategy, the government provides agricultural incentives through the Green Revolution policy, including the following:

- Double taxation (tax deduction) for agricultural research and extension expenses
- Increase tax credit rate for agricultural companies to allow maintenance for rural infrastructure
- Give new agricultural investment projects a 10% corporate tax for a minimum of 10-year period, increasing to 20% for the second 10 year period
- Allow duty free importation of all machinery and vehicles for agricultural companies
- Remove foreign tax controls that deter foreign investors
- Remove excise and duty rates on diesel fuel
- Remove all taxation assesses on dividend payments for shareholders in agricultural companies
- Freight subsidy for cocoa and coconut producers in outlying remote areas and isolated islands
- Freight surety scheme for coffee producers in isolated hinterlands of the Highland region and coastal
- areas
- Subsidized portable rice mills for rice farmers throughout PNG
- Subsidized small copra processing mills. The implementation of the government's Green Revolution

- started in 2004 and was to be reviewed in 2006.

However, such policies are only accessible to formalized operators who submit tax returns. Most small-scale producers are informal and do not submit annual audited tax returns, so such measures are not readily accessible to many and, for practical purposes, are token carrots. Formalization of enterprises will be a major priority to enable such measures to have impact.

Access to such measures are often engineered to be in the form of 'rebates'. IRC has very consistently been extraordinarily slow with assessments and payment of legitimately owed rebates, and has further been tying payment of rebates due to consumer producers, to the tax compliance status of the goods or service provided from whom the producers have acquired tax concession eligible goods and services. This has seriously undermined trust and continues to undermine any incentives for production enterprises to formalize.

(m) Transport Subsidies

The green revolution involves the use of PNG Defence Force aircraft for air freighting of agricultural produce. Millions of Kina are spent for the green revolution. The subsidy is not only short term and unsustainable but also could lead to further distortion in the provision of air transport to remote airfields by small private operators in the long term. Studies are needed to determine the advantages and disadvantages of the subsidy as well as alternative methods.

(n) Smallholder Credit

The DAL sponsored Smallholder Agriculture Credit Scheme launched in the mid-1990s involved the NDB, commodity boards, agriculture extension institutions such as CCEA, FPDA and OPIC. Much of the loans lent under the K10 million schemes, which remained outstanding were and may have been written off.

The failures in repayment of previous WB funded small-holder development credit schemes, government funded scheme and agricultural production projects funded by such schemes has established a bad lending risk profile for small to medium scale agriculture, hence the dearth of credit finance for sector development. It likely also contributed substantially to the mismanagement and misappropriation associated with the former NADP funds. Past scheme failures have also been driving the entity formalization and registration requirements for access to SME funding via established banks which many seeking assistance have been struggling to address and secure access.

- **Market Access Constraints to Domestic and International Markets and Trade**

Despite PNG's relative comparative advantage in the production of horticultural crops in the Asia-Pacific Region, PNG has lower competitiveness compared to Fiji and other neighbouring countries in the Asia-Pacific Region.

Several constraints limit PNG's market access include: lack of marketing skills, inadequate product development for effective utilisation of farm produce, and generally weak commodity value chains. Access to international markets go through stringent processes, which does not work well for local producers, such as those related to standards, quality control, and other factors related to international trade.

Although PNG has some of the finest agricultural products in the world and has the potential to increase production and diversify into other new and exotic products, the country must ensure that its products are on the par with and meet market standards. The relatively clean environment in PNG creates potential for environment friendly and residue-free products. The potential for organic labeling of PNG coffee, cocoa, etc. needs to be studied and emphasized in marketing programs to maximize the value of PNG products.

(a) Standards

Classification of product standards and enforcement of product standards are integral to modern production systems. This ensures ready identification of products, value maximization and waste minimization. Standards define quality and give assurance to needs and requirements of customers. Compliance with international standards provides competitive edge to business. PNG has established product standards for its main agricultural export commodities and applies quality control measures to protect these commodities.

The Coffee Industry Corporation (CIC) in conjunction with the National Institute for Standards & Industrial Technology (NISIT) developed new standards for coffee. Specified standards for copra, cocoa and spices may need to be revised in the light of new market requirements. The LDC-owned and operated abattoirs are of the1960s vintage and are outdated and in need of urgent replacement.

(b) Quality Control

The owner of the product is responsible for quality control. An effective government inspection system not only complements the private owner's efforts but more importantly, ensures that the country's international reputation is maintained when private quality assurance systems fail. In the absence of a government-approved inspection and control system, the private sector is responsible for vanilla grading and inspection system. PNG's reputation as an up-and-coming producer of fine vanilla suffered when farmers offered poor quality beans for export as prices exceeded K700 per kg from 2000 to 2003. International trading in commodities depends on trust and reliable reputation of its participants. Once a country's reputation is damaged, importers from other countries either stop all orders or switch to alternative sources or the market automatically applies severe discount penalties on products from such origin.

(c) Processing

On-shore processing is encouraged because of job creation, value-adding, and promotion of national identity and pride. The more important consideration is enhancing value to the product to benefit those involved in the value chain, including the grower. However, the critical ingredients for viability of factory-based downstream processing are a very predictable and reliable supply of acutely priced precursor product. It is not viable to operate factories and engage related labor when the factory is unable to produce at near capacity and continuously. Precursors cannot be viably priced the same as they are as fresh commodities on the domestic market, leaving no margin to spend money on adding value only to have a non-competitive final product. Matching the scale of downstream processing facilities to the timing and scale of production supply and the efficiency of precursor production and supply logistics are critical issues. PNG's small scale dominant production systems struggle to meet these fundamental needs.

Under MTDP IV, the government is supporting such investments with holistic appraisal considering incremental product value, employment potential, foreign exchange earnings and government revenue. Projects which merely redistribute benefits from one part of the value chain to another have low sustainability and may not necessarily provide overall long term benefits to the country.

(d) Regulations and Enforcement

Government regulations have two objectives: to define a standard, process or procedure and to ensure compliance with it. The desired outcomes resulting from the proper use of regulations are maintenance of high quality of products, minimized losses and wastage and harmonious trade relationships which lead to long term trust for stronger mutual cooperation and benefit with trading partners.

However, regulatory verification, certification, compliance monitoring and investigation, and enforcement are costly undertaking, so must be delivered efficiently and fund continuously and be 'independent' of partisan political or commercial capture and influences to be productive. Technical integrity is extremely important. Agencies with both regulatory and promotional functions and responsibilities are usually internally conflicted. This is a problematic governance issue for most commodity boards in the sector.

Proper product standards and the presence of regulations are only meaningful if these are rigorously applied and tested over time. Continuous inspection and application of standards and regulations ensure awareness of existing standards and regulations; compliance with standards and regulations; facilitation of review and adjustment or adaptation to changing operating environment and international practice

(e) Marketing and Promotion

Marketing and promotion of products can be done at both the domestic market and at the international markets. Production of consumer products for sale in the PNG market should be targeted at import replacement opportunities. International market for commodities may require rigorous marketing and promotion to initially penetrate the market and subsequently to enhance product reputation, preference and loyalty in the market. There is scope for strong partnerships between the Department of Trade and Industry, Commodity Organizations, the private sector and Provincial Governments in such marketing and promotion.

(f) Domestic Markets

PNG economy provides a ready market for many domestically produced agricultural products including rice, wheat, beef, pork, chicken and staple food crops. Due to existing protective tariffs, PNG is virtually self-sufficient in sugar, pork and chicken. PNG has been largely self-reliant for its traditional food crops such as sweet potato, yams and cassava. Sago is an abundant source of starch in many localities and provides an important alternative to imported rice and wheat products. PNG's domestic market for rice is some 400,000 tonnes per annum and for wheat some 70,000 tonnes per annum (NAQIA 2023). More than K600 million is spent on rice imports annually (AMTDP 2020). The estimate for meat consumption and production in PNG shows that PNG is a deficit producer of meat hence its import of some 67,307 tonnes of meat and meat products annually. In 2021, K392 million was spent on all meat imports for domestic consumption (PNG Customs 2023).

A targeted investment program should aim at self-sufficiency in production of rice, beef, and animal feed. At the same time, PNG needs to review its poultry and pork industries to ensure these can withstand international competition once tariffs are further reduced. Production of cheap domestically sourced animal feed is crucial for the livestock industry in PNG. The efficacy and viability of a variety of potential domestic commercial production of animal feed including cassava, sago, maize, sorghum and enhanced pasture using leucaena needs to be established quickly.

Projects aimed at import of live cattle for fattening and slaughter may have economic merit and warrant further in-depth feasibility study. Such projects require investment in modern abattoir facilities and can utilize cheap trainable domestic labor. Also the availability of domestic feed stock in PNG to provide a competitive advantage for production of prime beef for both the domestic and overseas markets and also canning meat for the domestic meat canneries warrants further investigation.

(g) Agricultural Exports

PNG's main agricultural exports constitute an insignificant contribution to world trade in coffee, oil palm, cocoa, copra and coconut oil, rubber, vanilla, etc. Invariably, PNG produces and exports less than two percent of the world export volumes of any of these crops. It can therefore increase its production for export without causing any significant impact on world prices of these commodities.

(h) International Markets

Access to international markets is regulated by specific product technical standards, importing country's official protocols, and international product standards and protocols. As a member of the various international trade agreements PNG's exports also fall under the standards established under those agreements. Currently PNG is a member of World Trade Organization (WTO), South Pacific Regional Trade and Economic Agreement (SPARTECA) and Melanesian Spearhead Group (MSG) trade agreements. It is still negotiating the terms of the Economic Partnership Agreement (EPA) with the EU and PICTA with other Pacific Island Countries (PICs).

PNG is also a member of the APEC commercial arrangement and together with the other PICs is still negotiating the PACER economic relationship with Australia and New Zealand. On bilateral level, PNG has a bilateral agreement with Australia under Australia-PNG Trade and Commerce Relations Agreement (PATCRA) that establishes a non-reciprocal free-trade area providing duty-free access for all exports to Australia. PNG/Fiji Trade Agreement allows certain goods to enter PNG's market at year 2000 rate with 10% VAT levy. Certain goods also enter at concessional rates, subject to quarantine approval on most eligible agricultural products.

Trade liberalization, hoped to be achieved through WTO Agreement on Agriculture is expected to lead to export promotion and import substitution for PNG agriculture and food sector in general. However, these opportunities cannot be exploited unless serious attention is paid to WTO agreements – Agreements on Sanitary and Phytosanitary Measures (SPS) and Agreement on Technical Barriers to Trade (TBT). Trading partners impose import restrictions based on food safety and quality concerns, and these concerns are legitimized by SPS and TBT agreements. To obtain maximum possible benefit from these agreements, PNG needs the following actions:

- improve its safety and quality norms to match the relevant standards

- strengthen export monitoring mechanisms so that domestic food and phytosanitary laws are effectively applied to agricultural and food items
- fair standards for strategically important food products.

The Agreement on Agriculture (AOA) is considered most effective in reforming food and agricultural sector. It aims for improved market access and export competition and reduction in domestic support, through tariffication of quantitative restrictions and time-bound reduction in existing tariffs, export subsidies and domestic support.

There is growing evidence that the world market expects ever improving quality and environmental standards in the production of its food. ISO 22000 series relates to food safety quality control systems. ISO 14001 sets standards for environmental management in the production. It will be critical of GoPNG, commodity organizations and growers to be able to demonstrate that their agricultural production is based on sound natural resources management practices.

Close geographical proximity to Australia is of no particular advantage to PNG agriculture. Having a sub-tropical climate for much of its northern region, the Australian Government naturally protects the interests of its farmers who grow a lot of tropical crops which PNG also produces such as papaya, mangoes, avocado, taro, cassava, betel nut, betel pepper, sugar cane, bananas, rice, etc. with a very stringent quarantine policy, which is rigorously and effectively policed. It is therefore doubtful in the foreseeable future if Australia can permit imports of PNG products such as fruits, vegetables, sugar, rice, beef, pork, poultry, etc, even if PNG can demonstrate a comparative advantage for producing these products.

The development assistance provided by the Government of Australian to PNG over the past years appears chiefly to be focused on agriculture research and quarantine. To develop the vast potential of the agriculture sector in PNG, the Government of PNG needs to undertake investigations for potential markets in Asia and elsewhere for crops and livestock it may have comparative advantage in.

- **Unused Customary Land**

Land for agricultural purposes has been a major challenge in PNG because 97 percent of the land is under customary ownership in which there are no legal titles. Land boundaries are unclear, and communal ownership invests rights in all but gives responsibility for management to none. Only 3 percent land is under leasehold or freehold title. Customary ownership of land bestows ownership of land on the clan and legislation prevents sale of customary land unless it has been converted first to leasehold land. Since most lands are not registered, it is difficult to get agricultural loans from banks which require collateral. Insecurity of land rights has limited investments in growing and expanding the agriculture sector. The Government's long term vision to make agriculture a long-term strategy to develop a world class agriculture sector in PNG depends on increasing agriculture production that is dependent on the increase in the use of land and improving agricultural productivity.

- **Food Safety and Poor Nutrition**

The increasing levels and multiplicity of standards (food safety and biosecurity) in international trade presents a growing challenge to market access, especially of high value agricultural export commodities. The high cost of capital, poor skills of producers in meeting external quality standards, a general lack of market orientation

among producers and processors, poor logistics management; and insufficient research capacity for horticultural sub-sector.

Poor nutrition is considered one of the major causes of poor health outcomes in PNG, and one of the underlying factors for the high rates of infant and maternal morbidity and mortality and low life expectancy in PNG (PNG National Nutrition Strategy 2005; HIES 2009-2010). The PNG Paediatrics Hospital Reporting System 2011 in 10 hospitals reported that 1,406 children were admitted with severe malnutrition. Severe malnutrition was associated with 265 deaths. According to PNG's National Nutrition Policy, stunting rate is as high as 43 percent, while underweight and wasting are 24 and 14 percent respectively for children under five years of age. Stunting rate is the fourth highest in the world, which is more than double the global average (Hurney, 2017). The high rate is due mainly to the quality of diet with poor absorption of nutrients, protein and energy, rather than the quantity of food.

- **Business Environment for Agriculture**

PNG ranked PNG 120/190 economies in the latest World Bank Ease of Doing Business Index (1 being the top and 190 being the lowest). A lot needs to be done in this area to improve PNG's ranking at least beyond half way of the total.

- **Focus on Oil and Gas Industries in Recent Years**

The political and social discourse articulating development concepts, theories and practices for economic and societal change (e.g. policy development) has not changed much since pre-independence and early 1980s. The discourse on development in recent years have been to avoid what is termed as 'resource curse'. Sustainability of revenue is a key factor to mitigate against economic downturns and avoiding the 'resource curse'. PNG has experienced (and continues to experience) its share fair of this 'curse' where the country has experienced short-term gains and is now facing the enormity of long-term fiscal distress. A classic example is that of the proceeds associated with the boom om Liquefied Natural Gas (LNG) projects whose revenues and benefits are still being legally queried.

The challenge though will be for government to demonstrate how effectively the revenues from the extractive industries are distributed equally amongst the various sectors. The example stated here should be lessons the government should take note of and direct resources to the agriculture sector. In so far as 'revenue sustainability' is concerned; the agriculture sector logically will be the key economic sector that will ensure sustainable revenue generation for the long-term is guaranteed, if it is supported by other supporting sectors (e.g.Transport Sector).

It has to be understood here, that revenues generated from the non-renewable extractive industries (including oil and gas) will substantially flow out of PNG to service debt, reward the stakeholders of the foreign-owned companies. The only benefits (revenue) that PNG retains to fund public goods and service the population is through remittance of Taxes (Baker, P 2011).

Policy impact studies by Osborne et.al (2016) indicate that investing in agriculture and manufacturing without addressing supply side constraints such as poor road infrastructure would fail to maximise the desired impacts. Furthermore, the result of the study also show that by shifting the emphasis from production of primary commodities for export to value adding or secondary production activities, resource-dependent developing countries like PNG could enhance growth and employment
.

The NASP is therefore embarking on this through advocating 'downstream processing and value-adding of PNG traditional commodities and other potential niche market crops (demand-driven). These are opportunities the government, private sector actors and others along the value chain ignore if there is to be change.

- **Global supply chain disruptions on agribusinesses**

PNG is part of the global community through its membership with international and regional financial institutions, such as the World Bank, International Monetary Fund, Asian Development Bank, and multilateral and bilateral development organisations, including the United Nations and the European Union.

The impacts of the COVID-19 pandemic triggered a wave of social and economic perturbations globally. In 2022 Russia's invasion of Ukraine compounded the global economy resulting in high inflation, supply chain disruptions, market constrictions, economic slowdown, and increases in debt entangled the world and slowed global growth burden (World Bank. 2023). The global economic uncertainty continues to pose multiple challenges for the private sector in developing countries, including PNG. These major global disruptions had impact on PNG agriculture in the areas of agribusiness industries and food security. PNG can draw some lessons for policy considerations:

- Government interventions to support and sustain agribusiness industries in PNG during crises
- Food Security – the agriculture sector policies to promoting large-scale domestic production of rice and food that are grown here but imported.
- Downstream processing and research into what PNG can grow best to be able to sustain itself and compete in global markets.

3.1.2 Internal - Sectoral Issues

- **Poor governance and weak leadership**

Governance and institutional arrangements are important for economic growth in PNG. They determine the way Government obtains adequate share of the benefits from the resource sector and how investments and wealth are equitably distributed nationally through service delivery (World Bank 2019:14).

Poor governance and weak leadership in the agriculture sector have been the concerns raised by various stakeholders in numerous forums for over a decade. These have resulted in the lack of effective oversight in management and coordination of sector, resources, agencies, systems and processes. The performance of sub-sector agencies and commodity boards is not closely monitored, including staff, equipment, programs, resources and performance. Most agriculture sub-sector agencies face many difficulties related to similar issues in governance and leadership, and perform well below expectations in delivery of services and growth of their respective industries. There are no proper accountability mechanisms to hold to account those who are mandated the responsibility for service delivery in their respective sub-sectors and reporting back to the lead agency.

The NASP recognizes that the issues faced in the agriculture sector are, however, much more than poor governance and weak leadership. The institutional reforms under this plan will review the governance structures and governance-related

reporting and decision-making arrangements, amongst a plethora of sector statutory agencies' issues. The aim is to address and remedy the core structural and relationship-related causation issues existing within respective sector and commodity agencies, including issues that enable vast amounts of functional, technical and political accountability evasion and cross-referrals within the sector. The reforms will attempt to clarify accountabilities by reviewing the existing layers in command and control through standardized omnibus amendments to respective sector agency legislation combined with restructured sector statutory agency functions and delegations (perhaps even including 'chunking' of some of the statutory agencies, subject to re-establishment of the position, function and roles of peak private sector industry and farmer/grower organizations with the overall governance and service delivery framework).

- **Weak Human Resource Capacity and Staff Strength**

Currently DAL lacks adequate specialist technical resources to perform its policy development, leadership, direction, sector oversight and coordination functions. With an outdated structure, the DAL as the lead agency in the sector, does not have the institutional strength and capacity to discharge its mandated functions. The quality and standard of services is compromised with limited competent and qualified agriculture workforce. In the medium to long term under this plan, DAL will re-evaluate its role and functions and align its resources for the NASP than an implementing agency. The aim is to address the technical and skills capacities of its human resources.

- **Fragmented planning and lack of coordination**

As mentioned earlier, some of the Government policies and legislations for institutional and structural reforms have had direct impact on DAL's capacity and ability to manage and coordinate the sector. The legislative arrangements establishing the commodity and sector agencies divided the agencies to work as separate units from DAL, resulting in a sector that is not cohesive and unified. The fragmentation results in perennial misallocation of limited resources to priority areas in agriculture. DAL has limited or no control over factors causing constraints that are outside its domain. However, it requires strong advocacy and partnerships, linkages and networks with various stakeholders, including government agencies, private sector, civil society organisations (CSOs) to be able to address the challenges.

- **Limited Agriculture Research and Development**

Research is an important component of agricultural management and development. Currently, research in crops, livestock and fisheries does not necessarily address the concerns of the relevant stakeholders. There is weak research extension linkage which affects dissemination of research findings to end users. Effective research extension linkages would address sociocultural factors, costs, accessibility and suitability of new technologies that determine the rate of adoption of research findings. Research institutions have inadequate capacity in terms of personnel, funding and equipment to undertake crop, food and livestock research.

There has also been a tendency to confuse academic research' and 'applied research' in PNG. The focus of research under this NASP is to institutionalize applied research activities. In order to determine priorities for resource allocation, a very clear distinction is made between the two types of research:

- Primary academic research will focus on institutional infrastructure, including

highly specialized researchers.

- Applied research needs access to practical production and broader multi-disciplinary researchers and research teams, but tends to operate best on farms. The technical aspects of research should flow respectively from this type of foundation.

- **Limited private sector participation in agriculture**

Agricultural production is entirely private sector-based and delivered thus private sector having huge potential for working in partnership with the Government. However, these opportunities are not harnessed well. One of the issues is that the private sector has been excluded from sector governance and development and related decision-making activities and processes. The indispensable function of peak private sector industry and farmer-grower organizations has been undermined by and abrogated by the commodity statutory organizations who cannot effectively manage those functions and responsibilities. The agriculture sector needs to review the existing partnerships and arrangements, and create the right environment and investment climate to enable participation by other actors, such as the private sector to get involved in various supply and value chains in the sector.

3.1.3 Farmers and Production

- **Run-down large-scale plantations in PNG resulting in low scale of production**

Large-scale plantations have run down due to landownership/tenure, law and order and poor enterprise management. The land tenure and law and order issues require credible application and implementation of the rule of existing laws. Guard-rails legislation or regulations may be required to adequately address the poor enterprise management issues, such as setting minimum, enforceable standards for enterprise management company Constitutions and reporting. Competent enterprise management, realistic business redevelopment planning and capital are the immediate requirements. The real capital costs from government and private sector are grossly under-appreciated and under-estimated because they have not been estimated without bias.

Production scale and more production efficiency and competitiveness are some of the issues. Larger scale of less efficient or just plain inefficient production is a recipe for very large-scale counterproductive wastage of capital. Plantation redevelopments need to focus on re-establishment of genuinely efficient production to be worthy of the capital investments that will be required.

- **Lack of Access to Financial Services**

This is one of the key constraints in agricultural production. The internal factors limiting credit access are lack of collateral due to lack of or poor quality of farm assets, lack of ownership of assets for women farmers, poor financial management, and risky nature of farming and inability of clients to prepare viable project proposals. External factors are high interest rates; high cost of service delivery to the sector, and perception of financial services providers about farming as being high risk.

- **Lack of Value Chains and Storage Facilities**

Value chain constraints extend beyond adequately equipped storage and trade or market consolidation facilities. Value chains have been seriously hollowed out over time.

There are major gaps and weaknesses in goods and services and applied research provision to support efficient production from both small-scale and large scale enterprises. They are more supply-side constraints than demand side. Others include coordination of productive participation by the many actors along the value chains. The deficits have greatest limiting and negative impacts on the dominant small-scale production sub-sector. However, they are nonetheless also significant for the large scale sub-sector and serve as major impediments to investment and capitalization from external sources, which indicates that there are easier and more productive things to invest capital in.

- **Lack of Support to Production Enterprises and Farmers**

With the diverting of focus from commodity to people for interventions in agriculture development, this policy and the plan will focus on supporting value chain production enterprises, and farmers at the farm level. However, in order to assist these group of people where support provided is targeted, it is crucial to understand the dynamics of farmers.

In coffee, cocoa, and oil palm productions, farmers operate at four levels as shown in the Coffee Farmer Pyramid in Annex 1, which shows that farmers are not a homogeneous group. They differ in organisation, financial status, and services available to them. A very small number of medium to large companies occupy the top of the pyramid, while the largest number of disconnected smallholder farmers (SHFs) remain at the bottom of the pyramid. In order for PNG to achieve its target, production has to be increased.

The Government's SME K200 million can reach farmers if farmers are identified by segmenting to assess needs and design appropriate funding Concessional Agriculture Grant or Loan as shown in Figure 1-8: market, credit, and inputs.

Figure 1-8. Market, Credit and Inputs



In order to increase production, all the three components must be provided to the farmers to ensure the production triangle is closed. The first to be provided to the farmers is the market, then the credit to help the farmer purchase and obtain inputs. Productivity cannot occur when one component is missing as is the case in PNG.

The farmers will also naturally benefit if the supports are directed at enterprises. Enterprise type and associated economics will be very different between small-scale commodity diversified and large scale comparatively commodity-specialized enterprises. Greater productivity can be generated along value chains through enterprise-based actor collaboration and interactions than by personal people interactions.

3.1.4 Cross-Cutting Social Issues

- **Youth**

Youth participation in agriculture has been minimal due to the lack of opportunities that attract them to embrace agriculture as a livelihood. Children are not introduced to agriculture at an early age because agriculture is not a compulsory subject for students at primary and secondary school levels. This contributes to youth not becoming interested in agriculture.

Youth need to access specialized training and assistance to address issues such as meeting local and international food safety standards and developing appropriate, low-cost packaging and labeling. Private sector engagement in this area will be increased to ensure training meets skill requirements. Therefore, skills development in agribusiness development will focus on business skills and market orientation. Entrepreneurs in MSMEs and clusters of agri-food system businesses require assistance to analyse market potential for their products and services and to comply with regulatory requirements. Training will be delivered through traditional TVETs as well as by E-learning.

The Policy Strategies to allow active youth participation in the agriculture sector would be to;

- Trial a new approach where private sector professionals will teach content to out of school youth, through multi-media programs; and
- Ensure that learning curricula is also accessible and relevant to young people with minimal formal education.

- **Women**

The role of women in agriculture, in particular, is one of the important but a neglected policy area. Women's role in agriculture has been ignored by farmer bodies and the government institutions in the agriculture sector. These institutions interact predominantly with men. At the operational level, decisions about cash-cropping and the sale of products are dominated by men (McKillop et. al. 2009).

Women in Agriculture Development Unit (WIADU) was established within DAL and given the task of coordinating women and youth activities in sub-sector agencies at provincial and district levels. Women-in-Agriculture Development Programs were also established in 2001. However, the lack of resources, including capacity issues and ineffective strategies have hindered WIADU from expanding and carrying out its functions (McKillop et.al 2009; PNG DAL 2022).

Gender in agriculture in PNG generally tends to focus on women in the informal sector. Not much attention is given to gender in the agriculture workforce in the formal public sector within the DOA, including sector and commodity agencies. The majority of women occupy administrative and supportive positions. Example: Cocoa Board has a total of 220 staff. 165 are males and 55 are females. 2 females occupy management positions, 15 in technical positions, 35 in administrative and support roles, while 3 are unskilled. This is a similar trend across the agencies. The number of women officers occupying management positions in DOA, and the sector/commodity agencies is below 3.

Women in Agriculture (WIA) advocates women activities in agriculture, and facilitates policy dialogue with development partners within and outside the country to garner support and collaboration to enhance the participation of women in in the country and the region. The existence of WIA, including its contribution to agriculture sector in PNG has, however, been in the informal space.

The disadvantaged position of women is identified as a key constraint on the further development of the agricultural sector in PNG. To ensure gender equity and gender equality in agriculture sector, the following policy strategies need to be considered:

- Integrate women, girls and youth, extension and capacity building activities to be enterprise-oriented and delivered to enterprise 'households' rather than only to an enterprise 'representative' in order to better capture gender equality. Enterprise function and success require knowledge and skills redundancies and 'collective corporate' knowledge, especially where labour resources need to be multi-tasked across multiple revenue streams in diversified small-scale enterprises.
- A quota system be adopted to have equal number of males and females in management positions in the Department and agencies.
- A quota system be adopted to have equal number of males and females participate in Human Resources selection committees for recruitment of staff in the Department and agencies.
- Agriculture Training institutions, including universities need to select equal number of male and female students for each programme, and agriculture sector need to aim to be recognised as an equal opportunity employer.

- **HIV/AIDS and Agriculture**

HIV/AIDS has negative impacts on household and community food security because of loss of labour, and creation of high dependency on care givers. Nutritional care and support are important for both the infected and the affected.

3.2 Strengths and Opportunities of the Sector

Despite the challenges discussed above, PNG's agriculture sector has strengths and opportunities, which have been taken into consideration in adopting strategies for improving the sector.

3.2.1 Strengths

Some of the strengths include:

PNG's geographical location in the Asia-Pacific region.	It has relative proximity to Asia as an export destination compared to competitors in the Pacific Region. PNG is well placed for market access to neighbouring countries in the region.
PNG's 9 million plus population	PNG's population of over 9 million in the Pacific compared to other Pacific Island Countries (PICs), places it on a relatively higher level to perform economically well. PNG has a large pool of human resources to engage in agriculture.
Abundantly endowed with geographic and natural resources	PNG is richly endowed with abundant geographic and natural resources. This is supported by a huge arable land mass with its large subsistence farming population of over 80% who live in rural areas. Its well-endowed network of natural water bodies can be tapped for irrigation.
Favourable environment for agricultural production	PNG has favourable environment for agricultural production. The agro-climatic conditions allows for a huge variety of agriculture crops to be grown, which allows for easy diversification of farm production systems. A variety of crops and livestock grow well in PNG. From lowland to highland, crops grow according to their agro-ecological adaptation. DAL has land and crop suitability maps based on aerial photographs and extensive surveys of CSIRO. The maps show where development is suitable. Climate is well studied to provide regional climatic classification.
Immense untapped flora and fauna resources	The flora and fauna resources are immense, renewable, and largely untapped and have potential for honey production. PNG has a flourishing horticultural and floricultural sub-sectors.
Significant global producer of gold, liquefied natural gas (LNG), minerals, and agricultural products,	PNG is a significant global producer of gold, liquefied natural gas (LNG), minerals, and agricultural products, such as coffee, cocoa, coconut (copra), and palm oil.

3.2.2 Opportunities

- **Focus of the current Government in commercializing agriculture**

More than K4, 162 billion has been allocated by the Government for a five-year period to be consistent with its focus. This will expand PNG's international trade in high value horticulture commodities, in which the country has comparative advantage.

- **PNG's strategic location in the Asia-Pacific Region**

PNG's close proximity to major international markets and existing huge domestic and global demand for food, especially a niche market for organic products that suits PNG close proximity to major international markets. The Asia Pacific market is increasing investments by multinational food companies. The close proximity to potential markets is often in practice also proximity to potentially competing commodity exports from that market. Competitiveness of production and supply of export commodities is at least as important as proximity to markets. These local or domestic markets for food can utilise also the increasing number of graduates from several agriculture training institutions, including universities, and young talent willing to contribute in building a productive and progressive agriculture sector.

There are very viable options to high labour inputs in agriculture, such as mechanization and rapidly emerging robotics technologies. PNG's large population relative to PICs means it has comparatively more scope for domestic market growth, but that is also likely to make it a bigger target for export of competitive agricultural products from nearby origins.

- **E-agriculture Strategy and Digitalization**

The ICT potential, including E-agriculture strategy and opportunities provided by the introduction of mobile phones and various platforms and applications have not been really harnessed in the agriculture sector. Strengthening the role of ICT and making use of the opportunities provided urgently need to be implemented and or adopted by value chains to automate data capture and reporting and sharing.

Mobile technologies are still quite narrow in bandwidth, however application of near earth orbit satellite systems that have comparatively very large data transmission bandwidth combined with hyper-spectral camera systems can provide high resolution crop and land use monitoring to enable decisions to be made about crop planting and harvest and pest and disease management, and soil water control interventions. Crop yield expectations and timings enable greater predictability and precision in value chain function. Commercial enterprise de-identified data capture, recording and reporting can also be automated to address major current gaps and deficits in data for planning and investment decision-making. Automation of essential data capture and consolidation should be a particularly high priority deliverable to accelerate the growth of the agriculture sector in a sustainable manner.

- **Unused lands**

Many customary lands are left underutilized under long fallow period, and turn into grasslands. For example, Northern Province has the largest areas of unused grasslands in PNG. Morobe has 409,780 ha of grassland (Bilong and Galgal, 2006, unpublished cattle development proposal). These large tracks of land could be harnessed for agricultural production. However, expansive areas of unforested and or deforested lowlands are the subject of intensifying land use competition between responsible sustainable accredited palm oil, grains, stock feed precursors and grazing livestock development.

Capitalizing development of most of these areas for efficient, competitive larger scale production is a major challenge and impediment. There is also substantial landowner resistance to any forms of development that may involve longer term alienation of customary land assets, such as long development cycle, relatively high capital development intensity production systems.

- **Entrepreneurial attitude**

The entrepreneurial attitude shown by a growing micro-small medium enterprises (MSMEs). Other indicators of the entrepreneurial attitude of the rural farmers include the expansion in production of fresh vegetables and sweet potatoes, the vanilla boom in response to high prices, development of betel nut and betel pepper markets, and the high proportion of rural households engaged in commercial activities. The majority of the rural populations depend on smallholder production system. Their livelihood and nutrition are hinged on agriculture.

- **Organic Production**

Most crops grown in PNG use only the rich fertile soil without any fertilizer. No insecticide sprays are used; hence there are no serious problems of pesticide residues. PNG can capitalize on the world demand for organic products. This requires formal certification assurances for ready and sustainable access to many export markets. Certification assurances are relatively costly to secure and maintain

to standards. Many developed countries look upon non-certified claims of "organic" to be a form of consumer fraud against which they apply reasonably significant deterrent penalties.

- **Nucleus Enterprises Model**

There are two inherently different types of nucleus enterprise model. One type is where the large central nucleus enterprise contracts producers to supply to utilize its infrastructure, and the other where the specialist farming enterprise contracts usage of landowner resources to produce products for supply to markets on either a private treaty share-farming or land agistment or rental basis. However, these are coming under increasing pressure in most commodities except oil palm, where production is dependent on the nucleus estate mill as more commodity marketing options are emerging to compete with them.

The latter type of nucleus enterprise system is untested in PNG, but is likely to face issues associated with law and order (product theft and production crop damages) and relationship trust issues, such as landowners locking out specialized farmers and claiming crops that have been grown by the specialist farmer and/or landowners demanding payments external and additional to agreed private treaty terms as and after crops have been grown. Enforceable guard-rails type legislation may be required to protect both the landowners and the specialist nucleus enterprise farmers to establish and grow such private treaty-based arrangements. For short production cycle crops, there are advantages in that land is not alienated and locked up for long duration from landowner usage.

Contract growing between the management of the nucleus farm and out-growers could address farm management, input supply, and marketing. PNG could benefit from studying successful farms such as Ramu Sugar cattle and Niugini Table Birds poultry products which showed that private companies can provide extension, training and markets to smallholders under out-grower arrangements for sugar, cattle and poultry industries. Church groups, such as the Seventh Day Adventist and Lutheran Church-owned Waso Ltd in Enga in the 1970's developed and operated innovative participatory methods for working with people in rural and remote areas. Their efforts could be duplicated to increase productivity.

- **High Rainfall and Surplus Water**

Irrigation permits higher value-added crop production, particularly during long dry seasons, reducing vulnerability to drought and climate change, and generally increasing productivity. However, the use of technologies for water conservation or drainage is low. The potential for irrigation thus remains largely unexploited in PNG.

- **Carbon Trading**

There are prospects for carbon trading from coffee, cocoa and vanilla, and investments in certified and specialty coffee, cocoa and vanilla trade. Gains have already been made for PNG by the agribusiness sector with coffee in Eastern Highlands Province by Niugini Highlands Coffee (NHCEL), PNG Coffee Exports (PNGCE), Monpi Kofi, Sucafina, Outspan,and AgMark/NCTS. Cocoa carbon trading in East New Britain Province is carried out by Sustineo.

3.3 The New Direction

The Government of PNG's vision and focus as captured in the Prime Minister's Inaugural Speech to the 11th Parliament[5] provides an excellent opportunity not to be missed by the agriculture sector and its key stakeholders. The Prime Minister specifically pointed out the following:

❶ Growing the rural economy through agriculture.
❷ Invest in commercial agriculture.
❸ Open up markets for agriculture products.
❹ Sustain the commodity price support, and freight subsidy programs both of which have had enormous impact on growth of the agriculture sector.
❺ Build economic infrastructure to unlock the agriculture potential in rural areas.
❻ Build market systems through digital platforms.

The government's target for PNG's GDP is to be K200 billion by 2030. Agriculture sector's target is K30 billion by 2030. One of the key strategies for reaching the K30 billion target is to increase agricultural production.

3.3.1 National Agriculture Sector Plan

The National Agriculture Sector Plan (NASP) is the vehicle through which the agriculture sector will move forward. An enormous economic potential of the agriculture sector will be realized through proper management and implementation of the NASP. The way forward for the economy to grow is to develop strategic partnerships and form alliances through private and public sector arrangements. The Government introduced a number of 'Green Revolution' incentives in 2005 to attract investment in the agriculture sector. Both public and private sector should take advantage of these and invest in the NASP.

The Government is now focusing its efforts on greater effectiveness, sustainability and equity in impacts. A few commodities will be targeted for support. A value chain approach to agricultural development will be adopted with value addition and market access given more attention. Efforts will be intensified to build capacity towards meeting challenges of quality standards in the international market, with focus on increasing productivity along the value chain. While imports will not be controlled by quotas and tariffs, the use of standards to control imports of poor quality produce will be pursued. Attention will be given to improving standards in local markets and for food safety.

In the short term to medium term, selected commodities will be targeted for food security and for income diversification, based on comparative and competitive advantage, and sustainable land management and environmental practices. A major research effort will be pursued to promote the commercialisation and linkage to industry of selected indigenous agricultural commodities as a strategy to create employment in rural areas and address high youth unemployment.

A stronger partnership between all MDAs and the private sector for improved response to the sector policies will be pursued. For this reason, coordination role of DOA as the lead agency for the development of the sector will be central in the implementation of policies. Greater devolution of responsibilities to the regional, provincial and district levels will also be pursued.

In recognition of the need for harmonisation of interventions to improve

coordination among donor funded projects, and consistency of the projects within the sector, the Government will work closely with Development Partners to a new partnership framework as embodied in PNG's Development Cooperation Policy and treaties. Some Development Partners have moved far in adopting instruments such as technical assistance, loans and grants for providing assistance to the sector. It is imperative that all donor support to the sector is fully consistent with the Government's development framework, if the efforts for harmonisation of sector activities are to succeed.

3.3.2 Large-Scale Commercialisation of Agriculture

Agriculture in PNG is characterised by a large smallholder sector, and a very small large commercial sector. The farmers are divided into four segments as described and shown in Annex 1 (the Coffee Farmer Pyramid).

❶ Medium-Large Scale Commercial (LSC);
❷ Small Commercial Smallholder Farmers in tight value chains;
❸ Commercial Smallholder Farmers in lose value chains;
❹ Disconnected Smallholder Farmers - poor complex diverse risk prone farmers.

The weakness of past interventions was the failure to recognise the segmentation of farmers. In the pursuit of a modernised agriculture, NASP will target different categories of farmers according to their needs. Thus, risk-prone, largely subsistence farmers, will be targeted with interventions to reduce their vulnerability and help them improve productivity. Smallholder commercial and semi-commercial farmers will also be supported to improve productivity and to integrate them into markets competitively.

Ongoing efforts to develop FOBs as part of the strategy for improved access of smallholders to services will continue. The aim is to encourage the evolution of FOBs at the grass roots, and networking them through a hierarchy of local, district and regional groupings to a national apex. It is expected that this will give the FOBs power to bargain.

The needs of the existing commercial farmers (both large and small) will also be addressed by the policy. Support to the commercial sector is particularly relevant because the strategy is to forge links between commercial and smallholder sector for their mutual benefit. The modernisation efforts will target all categories of farmers according to their needs.



4 CHAPTER 4. WAY FORWARD: AGRICULTURE SECTOR POLICY FRAMEWORK

The agriculture sector is challenged to transform and work in partnership with all its agencies and stakeholders to ensure all Papua New Guineans have a high quality of life, and move towards becoming *"a prosperous middle-income country by 2030"*, and achieving the government's Vision 2050 for PNG to be *"... a Smart, Wise, Fair, Healthy and Happy Society by 2050"*.

4.1 Agriculture Sector Vision, Mission, Goal, Objectives

This Plan commits the Agriculture Sector to the Vision, Mission, and the Goal outlined in Figure 1-9 on the next page.

4.2 Goals

The goals of this Policy are to:

- Transform crop, livestock, food and horticulture, rice, grain, and spice production sub-sectors into commercially oriented enterprises that ensure sustainable food and nutrition security.
- Provide a framework for effective coordination and consultation between the National and sub-national governments, and among other stakeholders for increased crops, livestock and food production and improved agriculture sector performance.



Figure 1-9. The Agriculture Sector Vision, Mission and Goal



4.3 Policy Objectives

The overall Government policy objectives relate to the importance of agriculture in the economy and the potential it offers to create a sustainable income and employment opportunities for the majority of the people living in rural areas. The Government's goal for the agriculture sector is to increase agricultural export values by 58% and volumes by 56%. It will increase the sector's GDP contribution to 31.7% by 2027.

The MTDP IV places higher priority on the sector national plan and an overarching legislation to ensure strong governance, administration and coordination of the sector; rehabilitation of run-down plantations; encouraging agro-processing industries; facilitating transportation of produce to markets; and improve bio-security safeguards. The MTDP IV also promotes development of systems to generate, manage and analyse industry data. In addition, it promotes research and development, which aims at improving productivity, addressing food security issues and improving the quality and yield of food crops.

In line with the MTDP IV, the NAP identifies eight guiding principles or policy

directives that will drive the future growth and transformation of the agriculture sector for the period 2024 to 2033 and beyond:

❶ To shift approach from commodity-focus to people-focus for improved livelihoods and broad-based economic opportunities and prosperity.

❷ To unleash the untapped potential for increasing yields in export crops, food crops and livestock, and minimizing post-harvest losses.

❸ To expand planted areas in line with moderate to high suitability for crops contribute to increase scale of production for food and export commodities.

❹ To promote and encourage farmers to move from a subsistence farming practices to commercial farming and invest their surplus earnings from agriculture on off-farm business enterprises with wealth creation as the aim.

❺ To improve accessibility to services and markets through commodity roads and transport infrastructure. Poor feeder roads, costly transport and shipping services, and lack of competitive markets continue to limit access to markets by farmers and other participants in the various value chains of agriculture crops and/or commodities.

❻ To improve access to affordable farm financial products and services for commercialization for sustainable growth. Funding for agriculture has been relatively low and inadequate, inconsistent, and problematic, and the NADP funding debacle held the sector captive for the past 17 years. Appropriate funding modalities with relevant legislation and guidelines is needed to serve the bulk of the smallholder farming households, and MSMEs thus enabling them to grow and contribute to overall growth of the agriculture sector and the economy

❼ To organise and transform the sector to be prepared for addressing rapid population growth, which will accelerate the need for land mobilization for agriculture production for more domestic food consumption.

❽ To integrate climate smart agriculture (CSA) practices change into the planning and development of sustainable agricultural systems to mitigate the impacts of climate change.

4.4 Agriculture Priority Areas (APAs)

The Agriculture Priority Areas (APAs) of this Policy include the following:

- APA 1 Enhanced Productivity, Increased Scale of Production and Market Competitiveness
- APA 2 Infrastructure and Access to Markets
- APA 3 Agriculture Commodity Investment and Exports
- APA 4 Land Mobilisation, Use and Management
- APA 5 Policy and Legal Environment for Enabling Strategic Private Sector Participation and Investments
- APA 6 Comprehensive Research and Development
- APA 7 Agriculture Education, Training and Extension Services

- APA 8 Biosecurity
- APA 9 Food and Nutrition Security and Safety Standards
- APA 10 Climate-Smart Agriculture
- APA 11 Institutional Reform and Sector Development
- APA 12 Information Management and Use - Information Communication Technology
- APA 13 National Agriculture Sector Plan Management

4.5 Links to Global and National Development Programmes

The vision for agriculture sector is linked to the national vision (Vision 2050), the goal of PNG Development Strategic Plan 2010-2030, and the Medium Term Development Plan IV 2023-2027.

4.5.1 Sustainable Development Goals

The NAP describes the targets to achieve the Sustainable Development Goals (SDGs) related to agriculture in PNG. The agriculture sector will contribute to the achievement of the following SDGs:

- SDG 1 (end extreme poverty),
- SDG 2 (zero hunger, improved nutrition, and sustainable agriculture),
- SDG 8 (decent work and economic growth)
- SDG 13 (climate action)
- SDG 15 (terrestrial ecosystems, forests, and land).

Most of these are relevant to agriculture, and efforts will be made in the NASP to contribute to addressing the issues as described under each relevant SDG.

4.5.2 Vision 2050 - Vision for Agriculture Sector

The Vision 2050's vision for agriculture is for:

"Papua New Guinea will develop and grow the manufacturing services, agriculture, forestry, fisheries and eco-tourism sectors from 2010 to 2050" (GoPNG, 2009: p. 3).

The agriculture sector will make significant contributions to Government's aspirations of making PNG attain middle-income country status by 2050, through the provision of high quality livelihoods and living standards to its citizens. The NAP and NASP will contribute directly to four (4) of the seven (7) Pillars of Vision 2050 outlined on the next age:

- Human Capital Development
- Wealth Creation
- Institutional Development and Service Delivery;
- Environmental Sustainability and Climate Change

The Vision 2050 envisions that by the Year 2050, the agriculture sector would have:

- Established two major economic projects in all 89 districts;
- Expanded production volume of all major cash crops to enable downstream

processing;
- Provided two agriculture extension officers per district
- Improved the terms and conditions of employment of agricultural officers; and
- Established a unified agriculture plan by 2015.

4.5.3 Development Strategic Plan 2030 – Goal for Agriculture Sector

The PNG Development Strategic Plan 2010 – 2030 (DSP 2030) sets out the broad framework, targets, and strategies to achieve the aspirations of the PNG Vision 2050. The goal of this 20 – year plan is:

"The DSP 2030 envisioned that: "PNG will be a prosperous middle-income country by 2030."

"A high quality of life for all Papua New Guineans."

The goal for agriculture sector in the Development Strategic Plan (DSP) 2030 is:
"A world class agricultural sector that is responsive to international and domestic markets for a diverse range of products and provides the best available income and job opportunities".

The Government expects the agriculture sector to: increase agricultural cash crop and livestock production to 40% from current baseline. This will contribute to creating an additional 267,400 jobs and K7.2 billion in national income as well as increasing downstream processing to 40% by 2030.

4.5.4 Medium Term Development Plan IV 2023-2028

This Policy is aligned to MTDP IV 2023 – 2027 Strategic Priority Area (SPA) 1 and Deliberate Interventions Programs (DIPs) and 10 sub-DIPs. The implementation of the MTDP IV, particularly in the agriculture sector are derived in the context of the Strategy and Results Framework as described in the NASP 2024–2033, which presents the agriculture sector's priorities, objectives, and strategies.

The agriculture sector is featured in Strategic Priority Area (SPA) 1 under the heading Strategic Economic Investments Program.

Deliberate Investment Program (DIP) DIP 1.1 of SPA 1 is Commercial Agriculture & Livestock Development. There are 10 sub-sector industries or sub DIPs:

- 1.1.1 Palm Oil
- 1.1.2 Coffee
- 1.1.3 Cocoa
- 1.1.4 Coconut
- 1.1.5 Rubber
- 1.1.6 Tea
- 1.1.7 Rice
- 1.1.8 Livestock
- 1.1.9 Spices
- 1.1.10 Fresh produce

The other technical functions are captured in other SPAs. For example: biosecurity (NAQIA) is under SPA 6 National Security and Agriculture and Food Security Research (NARI) is captured under SPA 9 Research, Science and Technology.

4.6 Our Values

The National Agriculture Sector Plan is guided by six core values of Integrity; Accountability and Transparency; Inclusivity; Innovation; Team Work and Excellence.

- **Integrity:** Our core value of integrity is rooted in our culture of hard work and honesty in harvesting what you sow. What we eat and earn is due to our own sweat, toil and sacrifices as an individual, a family, a village community, institution and the sector. We uphold integrity in the promises we make with our producers, communities, businesses and partners, on the use of our collective resources, including financial, human talent, material and capital, prudentially to achieve the desired results for growth of the sector and national prosperity.

- **Accountability and Transparency:** The sector and all its agencies, institutions, staff and stakeholders will be accountable to the government and people of PNG for the trust and confidence in the use of public resources and will ensure utmost transparency and accountability in the delivery of goods and services for the benefit of the people and communities in the sector to achieve the national development goals.

- **Inclusiveness:** The agriculture sector is where the majority of Papua New Guineans live, largely rural, remote and impoverished. Therefore, our investments and interventions in agriculture development and businesses will ensure that no one is left behind due to their current economic or social status, as well as gender, ethnicity, faith and religious beliefs, and the stigma of any disease or pandemic. The sector is people-centred, based on global humanitarian principles and conduct, consistent with our Melanesian culture and customs, our Christian faith and our Constitutional directives to foster equality, stewardship and sustainable practices for the benefit of future generations as well.

- **Innovation:** Innovations are applications of any interventions, introduced or local, that are necessary at the time to improve the prevailing condition and state of well-being and security of people, a community, sector and the nation. The agriculture innovation system will be the core of the sector in responding to address the aspirations of the agriculture producers, communities, stakeholders and partners.

- **Team Work:** Working together as a team, working our bountiful land in unity with one purpose due to our shared circumstances and aspirations, is central to the way of life for farming and agriculture, whether it be within the family unit, village community, or across agencies and development partners within the sector. We recognize and value productive partnerships across different stakeholder communities, multi-sectoral organisations and interdisciplinary teams to achieve and contribute results and outcomes that are essential and beneficial for all involved.

- **Excellence:** We in the sector commit to excellence in quality and reliability in the goods and services, processes and products, and the management of programs and delivery of results and outcomes. Excellence in in our services and results fosters trust and confidence in the sector and a reputation that can attract greater investments to the sector. Excellence as a core value will be institutionalized in our culture of learning and continuous improvements.

4.7 Priorities for the First Five Years

This Plan has been developed in consultation with relevant stakeholders across the four regions of PNG, and aims to be realistic, affordable, practical and user-friendly.

The Policy directions for the first five years from 2024 to 2028 will focus on scoping and assessing the existing systems and establishments, then commence the reforming and rehabilitation exercise to the required state of operations. This will require a five-phased approach:

Phase 1	Establishing an interim group to facilitate leadership, governance and management and reporting arrangements; procurement and financial management processes and systems for full implementation of the Plan;
Phase 2	Establishing governance structures and arrangements, such as National Agriculture Council - Governing Council (similar to Inter-Agency Project Steering Committees);
Phase 3	Institutional Strengthening of Department of Agriculture, including sector and commodity agencies;
Phase 4	Targeted investments, including infrastructure and market facilities in rural areas where people have been neglected and marginalized/disadvantaged (based on principle of Inclusion);
Phase 5	Roll out of the NASP 2024-2033 to farmer groups and stakeholders in Provinces and Districts to socialise and operationalise the plan for alignment to provincial, district and LLG plans.

The DAL and relevant stakeholders collectively agree on the priority actions that will set the foundation for the effective implementation of the NASP.





Pic: Cocoa Nursery

5 CHAPTER 5. POLICY STATEMENTS

This chapter states the policy strategies that will be adopted to achieve the 14 policy objectives. These objectives and strategies are complementary and reinforce each other. In addition, the existing service delivery policy strategies of sector and commodity agencies also reinforce those specified here for achieving the objectives of NAP.

5.1. Enhanced Productivity, Increased Scale of Production and Market Competitiveness

The government recognizes the role that private sector plays in transforming PNG agriculture in migrating farm households from subsistence-based to competitive and market-led farming. The change will be driven by investments of private actors ranging from smallholder farmers/ cooperatives to larger investors. Investment from smallholder farmers is primarily limited by access to finance, whereas attracting larger investors requires promotion, partnerships, and incentives. In order for PNG to achieve its target in the medium term, production has to be increased by making available three important facilities of production to farmers, agribusiness enterprises, markets, credit, and inputs. Production will be at two levels: Large-scale and small-scale.

Large-scale production will be achieved through:

- Commercial agriculture
- Downstream processing
- Value adding and establishment of value chains
- Rehabilitation and revival of large-scale run-down plantations
- Developing of Special Economic Zones (SEZs) for agriculture

Developing of Free Trade Zones (FTZs) for Agriculture Commercial farming and downstream processing program will depend on consistent and adequate supply of the farm inputs, processing machinery, tools, equipment and technology. PNG is an import dependent country for more than 90% of the farm inputs and ingredients for food and stock feed production. The accessibility and affordability of agricultural input supplies for large scale commercial farming and downstream processing will require consistent supply of agriculture inputs. The input supplies need to be accessible and affordable for farmers, MSMEs and MSMIs.

The DAL will coordinate:

- partnership between relevant commodity and sector agencies with the industries to do cost estimates for the following fundamental capital investments needs:

    - Equipment capitalization for farming machinery and equipment, transport equipment, processing equipment, etc. and acquisition of breeding and/or resupply livestock

- the production scale, including associated land mobilization;
- land and infrastructure development for feed production and grazing if livestock development;
- land mobilization requirement for feed production, stock feed precursor production, any grazing, any intensive housing for pigs poultry, feed-lotting of ruminants, etc.
- infrastructure for water, fencing, housing, processing, transport accessibility, etc.

❖ dialogue between relevant commodity and sector agencies, industries, importers, shippers, freighters, customs, IRC and other partners to ensure agriculture commercialization and downstream processing aspirations of the Government in MTDP IV and NASP for the Agriculture Sector to contribute K30 billion towards the K200 billion economy target by 2030 are achieved;

Small-scale and smallholder productions will contribute to increasing production by the following:

Mobilising small plots of land into production via cooperatives for specialised share of farming operations. Example: Rice production will require more lands to be mobilised to meet the demand;
Improving Welfare of Farmers and Agribusiness Enterprises;
Supporting Smallholder Farmers and agribusiness enterprises through MSME Financing and access to financial capital;
Establishing Freight Subsidy Scheme for Farmers and agribusiness enterprises;
Establishing Price Stabilization Program for Farmers and agribusiness enterprises;
Providing extension services to farmers, Cooperative Societies, and agribusiness enterprises to maintain quality value and supply chains; and
Supporting farmers and agribusiness enterprises to identify viable domestic and international markets.

- **Policy Implications**

Several policies that are required to achieve the results under this APA are: National Seed Security and Commercial Seed Development Policy; Laboratory Seed and Planting Material Preservation and Capital Investments and Partnerships with Agribusiness Industries.

5.2 Improved infrastructure and access for Markets

Infrastructure is an important element in agricultural production and boosts national development and economic growth. Availability of infrastructure lowers costs of inputs, expand markets and facilitate trade. It also raises the productivity of factors of production resulting in increased agricultural production and productivity. Infrastructure development supports agricultural growth upon which much poverty reduction efforts depend.

The lack of adequate infrastructure, particularly rural commodity roads is a major constraint that many farmers in PNG face in becoming more productive and profitable. The country has low levels of infrastructure expenditure. PNG's physical stock of infrastructure assets is insufficient to drive economic growth and improve human development indicators (Lawrence 2016). This lack of infrastructure limits the access of people to basic agricultural inputs, transport and storage facilities and

results in difficulties to access markets. Getting the goods to the market is a key to rural development.

The main objective is to ensure that access to markets is improved, and agriculture production is not affected by poor roads and transport infrastructure, nor by absence of feeder roads, poor irrigation, communication, storage, or energy infrastructures and market facilities.

Under MTDP IV, the Government has provided funding for the following strategies:

- Palm Oil: Rehabilitation of Smallholder Oil Palm Block Holders roads infrastructure
- Coffee: Rehabilitate and improve commodity roads and transport access
- Cocoa: Facilitate, identify and advise on priority areas for market access infrastructure
- Coconut: Build and upgrade access roads for transporting coconut
- Coconut: Build Jetties for transporting coconuts to markets
- Coconut: Arrange with boat and ship owners for vessels to transport coconut.
- Fresh Produce: Build cooling facilities in strategic locations to aggregate fresh produce for the market.

5.3 Agriculture Commodity Investments and Exports

Increasing agriculture production without understanding the international market conditions and operations is critical. PNG is competing with many other countries to sell similar products. In order to maintain its existing customers and attracting new ones will require establishing strong partnerships and trust between the countries buying and selling the products. Having regional trade offices will play a critical role in facilitating this aspect of trade for PNG to gain more from its exports.

Market access is key to trade and bringing commercial value to all that is produced in PNG. In addition to transporting of the products, other interventions need to be considered. The Government needs to have interventions for each industry to facilitate the entry of their products to enter new or existing markets, overcoming trade barriers, increasing competitiveness, and creating opportunities for the exporters.

5.4. Sustainable Land Mobilisation, Use and Management

Though much progress has been made in land reforms led by National Research Institute (NRI) and the government in PNG, land availability and its uses remain contentious and a constraint on agricultural expansion and performance. Land use planning and improved land administration, including land consolidation, are critical factors to ensure land remains productive and that policies are inclusive. Formal land market transactions and land leasing are effective tools for voluntary land-consolidation. Such transactions can be promoted through strengthened legal frameworks that secures the productivity gains of land consolidation. Land registration through Integrated Land Groups (ILG) for development purposes still has its challenges. More needs to be done in mobilizing land in order to attract private investment in agriculture.

The MTDP IV projects the rate of population growth at 4.8% per year. This means

that there will be rapid population growth that will put pressure on land resources for food production. Agricultural production must increase in order to meet socio-economic and food security needs of the growing population. Relatedly, the adverse effects of climate change and urbanization, are likely to undermine the quantity and quality of agricultural land resources.

The objective is to ensure efforts are made towards addressing the above likely scenarios. Several dedicated national marketing agencies for PNG's exports be established in selected countries as part of government intervention strategy to ensure the agricultural products gain access to external markets. The establishment of entities, like the National Agriculture Marketing Corporation (NAMCo), which is currently advocated for by the Public-Private Partnership Center will help in creating ease of access to markets and addressing the risks associated with international trade.

5.5. Policy and Legal Environment for Enabling Strategic Private Sector Participation and Investments

The private sector is the vehicle for requisite investments to transform agriculture towards increased productivity, agribusiness and development of support or infrastructure. The private sector will continue working closely with the National and Provincial governments to deliver services to producers and other players in the sector. However, the growth of private sector in PNG, and engagements in public sector are influenced by several factors.

Public Private Partnerships is limited in primary production, processing, marketing, insurance and financing in the agriculture sector. The objective is to promote private sector participation in the management and development of crops, livestock and rice and grains sub sectors.

5.6. Comprehensive Research and Development

Research is an important component of agricultural management and development. Currently, research in crops, livestock and fisheries does not necessarily address the concerns of the relevant stakeholders. Research extension linkage which affects dissemination of research findings to end users has not been in existence for some decades. Effective research extension linkages would address sociocultural factors, costs, accessibility and suitability of new technologies that determine the rate of adoption of research findings. Research institutions have inadequate capacity in terms of personnel, funding and equipment to undertake crop, food, grains and livestock research. The objective is to promote demand driven and adaptive research for crop, livestock, grains and food management and development.

MTDP IV Strategy 6 – Support learning, research and development in innovations and technology to cater for industry needs

The overall purpose of research is to bring research outputs to life by incentivizing research institutions and the private sector to test new technologies and business models for commercial application. Given the challenges to mobilize land for agriculture development, priority will be given to research into land saving production technologies and business models that increase quantity and quality of produce and animal resources on a per hectare basis. Mechanization and technology are crucial for increasing for labour and land productivity. Both are context-specific and must respond to the specific needs in PNG. To enhance its impact, attention will be given to the Strategy 6.

5.7. Integrated Agriculture Education, Training and Extension Services

Currently, there are deficiencies in human resources development in agriculture Sector. There is no agency with overall responsibility for succession and human resource planning for the agriculture sector workforce. The sector lacks information on the different categories of workers, and the number of workers for each category to meet the different needs of the sector. The linkage between the agriculture education and training providers and DAL, sector and commodity agencies, industry and farmers is weak. Therefore graduating students from these institutions end up doing other jobs than agriculture professions they were trained for. If there were linkages existing between the agriculture education and training providers and the DAL, sector and commodity agencies, industry and farmers, graduates will be easily absorbed into the agriculture labour force. Currently, DAL's human resource capacity is below the required strength to be able to discharge its mandated responsibilities.

5.7.1 Agriculture Education

Three universities offer degrees in agricultural science and related disciplines: PNG University of Technology (UNITECH) in Lae, University of Natural Resources and Environment (UNRE) formerly the University of Vudal, and the University of Goroka (UOG). All three universities have undergraduate subjects in extension. UNITECH offers postgraduate training in extension. UNRE and UOG offer course on extension. UoG offers degree in Agriculture (Education) which focuses on the training of teachers to teach agriculture, and Agriculture (Extension) to broaden its education-extension focus. The Divine Word University introduced courses on approaches to extension and community development in its teacher-training program. UNRE traditionally concentrated on farm management and agribusiness curriculum. However, it revised its program to include offerings in the natural resource management and environmental sciences.

Vocational and technical education in agriculture is provided by only two public agricultural colleges, and those operated by the churches. The program at St. Benedict's Agriculture and Technical School at Danip, provides a local model of the type of required training. In developing strategies for integrated development in remote communities, the early pre- and post- independence experience with the integration of agricultural subjects into the school curriculum need to be revisited. This approach is currently practiced in Making a Living (MAL) programs in schools. Sonoma Adventist College offers a three-year Diploma in Tropical Agriculture program with emphasis on agricultural practices and issues relevant to PNG, and other Pacific Island Countries. These include crop production, animal science, natural resources and conservation, soil science, rural extension, agricultural economics, livestock management, agricultural machinery maintenance, marketing and rural sociology.

5.7.2 Training

Several institutions have provided training in the sector. The Integrated Agriculture Training Program (IATP) (Phase 1; 2002-2005), based in the UNRE adopted an integrated, holistic approach to training through modular programs.

ACIAR's Science Communication (SciCom) Project assisted researchers with their scientific writing, publication and communication skills. Based at UNITECH, SciCom has designed and delivered a set of 7 modular courses that cover the principles of human learning and communication, and has trained staff at three universities in

course delivery and management.

The Farmer Field Schools (FFS) approach was developed to help farmers learn and apply the principles of integrated pest management (IPM). FFS are based on site-specific techniques, field work and hands-on experiential learning, and require a technically competent facilitator. FFS have proved highly effective in extending the messages of IPM and other complex subjects. FFS are highly resource intensive and require well-trained facilitators, but by their nature have restricted coverage and relatively high costs.

Some options for developing human resource capacity within DAL and the sector agencies include:

- **Cadetship Programme**

DAL will develop a Cadetship or a Graduate Programme in consultation with the universities and tertiary institutions in PNG providing training programmes in agriculture, the sector and commodity agencies, as well as industries. Graduates will be recruited by DAL and sector agencies for a year after their graduation. After successful completion of the programme, the cadets will be given the opportunity to remain as employees and develop their professional career as employee.

- **Graduate Farmer Development Programme**

Many agriculture graduates do not get employed in the agriculture after receiving training in agriculture and graduating due to lack of vacant positions in DAL and sector agencies.

- **Succession Plan and Human Resource Development in the Sector**

DAL and sector agencies need to collaborate and develop a succession plan in consultation with DPM and Department of Treasury on exit strategy plan for employees reaching mandatory retirement age, and recruitment of young graduates to fill the vacant positions. This will ensure funding is available to retire employees who have reached mandatory age of separation (MAS). There should also be a program with an incentive package for early retirement, flexi/phased retirement, staff retained beyond the mandatory age of separation, and staff rehired for employees to choose from.

5.7.3 Extension Services

Agricultural extension service is an avenue for sharing knowledge, technologies, agricultural information and links the farmer to other actors in the economy. The extension service is one of the critical change processes required in the transformation of subsistence farming to modern and commercial agriculture. There is an increasing demand for public sector extension services due to a rapidly growing youthful population that has limited knowledge for investment in agricultural activities. Emerging opportunities for transformative agriculture that can generate increased income for rural and urban households necessitate the provision of extension services. The regulation of public and private sector extension services has been mostly ineffective.

The main objective is to promote appropriate, cost effective and accessible extension services for different ecological zones.

MTDP IV Strategy 4 – Support extension services to farmers and Cooperative Societies to maintain quality value and supply

5.8. Biosecurity

Priority developments under biosecurity include:

- Enact global trade-compatible and compliant biosecurity legislation. The current legislation (via various Acts) enables biosecurity measures to be performed in accordance with the rule of law. However, it does not require measures to be internationally trade compliant and be applied in critical areas, such as persistent chemical residues, antimicrobial residues, antimicrobial resistant organisms, and does not provide for offences and penalties for non-compliance and breaches to be adequately defined or practically enforceable with any effect. These issues leave PNG very vulnerable to breaches and trade-related exploitation.
- Strengthen and improve data and information management, including utilizing readily available technologies and automation of services. Current data and information management relies on very few technical specialist individuals. Technical linkages with other agencies and internationally are very constrained and do not have ability to actively link hard-copy paper systems with the automated global Customs border control and international electronic trade certification and verification systems. Lack of automation and integrated linkages, including between major ports domestically, creates major vulnerabilities for effective border control, perpetuates inconsistencies between respective ports and confounds effective responses to major irregularities.

5.9. Food and Nutrition Security and Safety Standards

The vision is for a modernised food and agriculture capacity. DAL will be needing greater involvement of the private sector, particularly the agribusiness industries and other players to invest in the sector. Currently there is very limited public-private engagement in the sector. In addition, the framework for collaboration within DAL and across MDAs does not function.

As a result, several donor-funded projects in the sector are not well coordinated for capacity building and skills transfer, data sharing, and workable exit strategies. DAL and DPs do not have well-defined exit strategies for donor-funded projects to ensure sustainability of their investments in the sector. This will require DAL to have appropriate level of capacity and resources to be effective in which productivity and production improvements are based on science and technology.

5.10. Agriculture in a Changing Climate

Climate change gives rise to unpredictable weather patterns characterized by erratic rainfall, frequent and intense droughts, floods, frequent storms, rising water levels, bleaching of corals, change in physical and chemical parameters of water and unfavourable temperature and seasonal variations. These events often lead to emergence and re-emergence of animal and plant diseases and pests, crop failure, reduced animal production.

Poor agricultural practices such as cultivation on slopes and river banks, improper land preparation, overgrazing, burning of crop residues, and use of illegal and destructive gear leads to environmental degradation that aggravates climate effects.

The key objective is to uphold good agricultural practices and enhance resilience to adverse climate change impacts. The Government's intervention policies will promote public awareness and information sharing of good environmental and climate-smart agricultural practices for crops and livestock; and prioritize implementation of policies and plans on climate change.

5.11. Institutional Reform and Sector Development

Institutional reforms, including strong leadership and governance are recommended for developing the sector and improving performance amongst other issues. The mismanagement, gross misapplication and abuse of funds appropriated for the failed implementation of NADP 2007-2016 do not need to be repeated.

The Government's vision for agriculture that is reflected in the NASP requires expansion of the sector and its transformation to be able to deliver more than its current coordination and management of the sector as a whole. The capacity of DAL as the lead agency for agriculture sector needs to be strengthened to successful management, implementation, and coordination of NASP 2024-2033.

The DAL should be structurally and functionally re-organised and legally empowered to set policy, and coordinate sectoral work programmes, including advocating scientific research and innovation for development. Its role should extend to engaging more with the private sector as well as to provide support for delivery of public goods including research, extension, information and training. Higher educational training should be supported by DAL to supply the agricultural workforce needed by the industry under a new-look DAL.

5.12. Information Management and Use - Information Communication Technology

The Agricultural Sector's potential for reducing poverty and contributing to economic growth has remained largely untapped due to lack of accurate data necessary for planning, financing and implementing programmes. The contribution of the sector to national wealth remains underestimated leading to inadequate financing. Research and development in the sector requires retrievable up to date data.

During crises, transparency and quality of communication and information are issues of district, provincial, National, sub-regional, regional and global strategic significance. Rapid response can be delayed or curtailed by lack of information or inappropriate communication. Effective national and provincial agricultural services require communication strategies with a focus on stakeholders and the public. The objective is to empower agricultural value chain actors through effective communication, storage and sharing of information.

The Central Data Hub (CDH) and Agriculture Library and Information Centre will be established within DAL for collection, storage and use of sector data. The National Agriculture Administration (NAA) and Agriculture Investment Corporation (AIC) AIC will ensure all data related to the sector are centralized at DAL in collaboration with the NASP Secretariat and be made available to all partners and stakeholders. The CDH will be responsible for data generation, production, processing and dissemination of data and information in various forms (digital, print, audio, and audio-visual). It will also provide information on the sector, including reports on the performance of the Department of Agriculture, commodity agencies, NASP, agro-industries, and import-export of commodities.

5.13. National Agriculture Sector Plan Management and Implementation

A small unit or Secretariat will be set up within DAL to manage and coordinate the implementation of the National Agriculture Sector Plan 2024-2033. The Secretariat will be fully resourced and authorized to undertake several start-up activities in preparation for the roll-out of the NASP. Some of the activities the NASP Secretariat will facilitate include:

- Governance Structure and Coordination Mechanism
- Financial Management and Procurement Manuals and Guidelines.
- Capacity Audit/Assessment of Department of Agriculture
- Budget
- Baseline Studies for M&E



6 CHAPTER 6. IMPLEMENTATION ARRANGEMENTS

The Policy will be implemented through a legal framework, institutional arrangement yet to be restructured, and strategies in the NASP to address specific sub-sector requirements for better implementation of this Policy.

6.1 Pre- NASP implementation

The Department of Agriculture of Livestock will mobilise a team that will set up the NASP Management Secretariat that will be responsible for setting up the governance arrangements, and developing key documents:

❶ Financial Management Manual,
❷ Procurement Guidelines, and
❸ Operations Manual.

The NASP Unit will also be specifically tasked with organising three (3) start up activities:

❶ Budget and preparatory activities
❷ Capacity Audit/Capacity Assessment of DAL
❸ Baseline Studies

6.2 Legal Framework

Laws and regulations are integral to effective policy implementation and operationalisation. The legal framework for crops, livestock, support implementation of this policy. The National, provincial support the implementation of this Policy to address the sector needs.

The DAL, like any other Department constitute State Services of Papua New Guinea established under Public Services (Management) Act 1995. It is responsible for agriculture sector's national policy oversight. DAL will be the lead sector agency to deliver the agriculture strategic priority areas outlined in Part II of this NASP.
To effectively deliver the NAP Policy Statements in NASP at program level, DAL will collaborate with agriculture commodity boards and sector agencies but maintain a policy oversight on the implementation, monitoring and control of the NASP.

At the program and project implementation level including regulatory functions of specific commodities, DAL collaborates with commodity boards and sector agencies, predominantly established under their enabling legislations with specific functions and powers to implement industry programs. This institutional framework is well established and will be the vehicle to deliver NAP and Strategies in NASP with minor adjustments where necessary for effectiveness and efficiency of NASP Objectives and Strategies implementation.

In Provinces and Districts, agriculture functions delegated from the National Function is specified in, The Determination Assigning Service Delivery Functions and Responsibilities to Provincial and Local-Level Governments of 2010, made under Intergovernmental Relations (Functions and Funding) Act 2009. Amongst others

the Determination primarily was to guide provincial and local level governments plan their agriculture functional programs for national budget consideration. Each province was to have a Provincial Agriculture Committee supported by a Secretariat in the provincial administration. The Provincial Agriculture Committee was responsible to develop and implement provincial agriculture policies, plans and programs. This institutional framework is to be utilized in the delivery of NAP and Strategies in NASP and for monitoring and evaluation.

Where such framework is not established in a province, an Act of Parliament in addition to the existing legal framework, will be necessary to enable DAL to collaborate with Provincial Government and Local Level Governments to establish Provincial Agriculture Committee and align its functions to that of the DAL, the peak body having oversight over agriculture national functions.

Issues of misalignment of national agriculture policy and discontinuity of national programs have been associated with the existing national, provincial and districts institutional framework. Hence in addition to the policy oversight of the DAL under the Public Services (Management) Act, legal framework on the delivery of NASP that extends to include certain minimum regulatory functions on major agriculture investment by private sector and financial modality to meet the short fall or gaps in resource envelop of the national government to fully implement NASP is to be developed and align with the existing institutional framework of the commodity boards, sector agencies, Provincial Governments and Local-Level Governments (LLGs).

The sector currently has three additional ministries:

- Ministry of Palm Oil,
- Ministry of Coffee, and
- Ministry of Livestock.

In addition, there will be overlapping of responsibilities into other sectors where the expertise to carry out the designated policy interventions are beyond the remit of DAL. These include:

- Department of Health, where issues of food safety and nutrition;
- Department of Education and Department of High Education, Research, Science and Technology (DHERST), for development of agriculture curricula, and education amongst other; CCDA and CEPA for climate change and environmental protection issues;
- Universities and Tertiary Institutions delivering agriculture training

DOA will engage with all stakeholders of the sector for the implementation of this NASP.

6.3 Institutional and Management Arrangements

The details on institutional and management set-up of the agriculture sector are outlined in Section 2.2 of this Policy.

6.3.1. Key Partners in Implementation of NASP

The implementation of NASP is not the sole responsibility of DAL and the agriculture sector agencies. While the DAL as the lead agency will have the responsibility for oversight of the management and implementation of the NASP, it will work closely with the Ministry of Oil Palm, Ministry of Coffee, Ministry of Livestock, sector and commodity agencies. They will work in partnership with:

- Other Ministries, Departments and Agencies (MDAs) in the public sector
- Provincial Governments
- District Administrations
- Major industries in the private sector
- Development Partners
- Investors, SMEs and MSMEs
- Non-State Actors, including Non-Government Organisations (NGOs), civil society organisations (CSOs), Faith-Based Organisations, (FBOs), and community-based organisations (CBOs)
- Farmers, Producers
- Service providers and operators along the Agribusiness and agri-food value chains and supply chains.

6.3.2. Other Ministries, Departments and Agencies (MDAs) at national level

- **Department of National Planning and Monitoring (DNPM)**

DNPM advises the Government on matters relating to strategic development policy, development planning and programming, aid coordination and management, and monitoring and evaluation of national development. DNPM manages the development budget and Public Investment Programme. It is the key central agency responsible for developing the medium term development plan (MTDP) IV and allocation of funds for implementation of programmes in the agriculture sector. DNPM is also the lead agency for addressing malnutrition in PNG, which features as one of the priority areas in the agriculture sector policy and plan. As nutrition is a multi-sectoral issue requiring multi-sectoral solution, GoPNG's multi-sectoral agencies, including DAL, National Department of Health (NDOH), Department of Education (DoE), and Department for Community Development and Religion (DfCDR), and development partners' work together to implement the Nutrition Strategic Action Plan (NSAP).

- **Department of Treasury**

The role of Department of Treasury is to develop economic policy framework within which the Government's planning and budgeting strategies are implemented. It establishes and maintains appropriate systems to ensure proper financial management and accountability of public resources. Treasury Department also provides advice to Government on financial issues that arise from the National Budget; prepares and monitors the National Budget; provides policy advice to the Government on the finance and resource management of National Government Departments, Provincial and Local Level Government and state owned enterprises.

- **Department of Finance**

The Department of Finance is a key government central agency responsible for providing direction and support in financial policy, systems, information

processing, procedures, monitoring and reporting requirements for the whole of Government. It also administers performance and execution of government development plans and annual budgets. It is the custodian of Public Finance Management Act, and provides direction to proper adherence to best practices in matters of public finance

- **Department of Personnel Management (DPM)**

DPM is a central government agency responsible for regulation of all forms of employment in the State Services, including staffing, terms and conditions in the Public Sector, management and work performance, industrial relations in the Public Sector, payment mechanisms, training and staff development in PNG Public Service. Partnership and dialogue with DPM is useful for improving staff ceiling, restructure, recruitment of cadets, retrenchment and retirement options for DAL staff.

- **Department of Implementation and Rural Development (DIRD)**

DIRD is responsible for the oversight, administration and coordination of the Service Improvement Program (SIP) Funds: Provincial Services Improvement Programs (PSIP), District Services Improvement Programs (DSIP) and Local Level Government Service Improvement Programs (LLGSIP) at the provincial, district and local level government levels.

DIRD coordinates government initiatives for improving service delivery to rural populations, by working closely with provincial administrations, stakeholders and communities in the planning and implementation of rural development programs. Every project acquitted in the SIP report should represent actual development on the ground.

The PSIP, DSIP and LLGSIP Administrative Guidelines document clearly outlines the roles and responsibilities of each stakeholder group in this development process and the punitive measures for non-compliance. DIRD's role is to review the SIP, monitor and report on acquittals, and undertake project inspections and verifications.

- **Department of Provincial and Local Government Affairs (DPLGA)**

DPLGA is the key link between the national and provincial/local government levels. It is the channel through which the national government primarily communicates to sub-national governments, and the mechanism by which these lower level governments express their needs and requests at the national level. DPLGA's primary mandate is to support provincial and local level governments in their policy and legislative responsibilities, monitor and coordinate their overall governance performance. It empowers and builds the capacity of provincial and local level governments through explanatory handbooks and operating manuals on performance management, legal and policy issues, training and best practice and information sharing. It houses the office of the Provincial and Local Level Service Monitoring Authority (PLLSMA), the former National Monitoring Authority (NMA). It coordinates the Provincial Performance Improvement Initiative in 3 pilot provinces.

- **Department of Commerce and Industry (DCI)**

DCI is responsible for developing policies to create conducive environment for investments in PNG, manufacturing and industrial development in the country, and facilitate domestic and international trade. The Department facilitates trade negotiations and securing market outlets for potential agricultural exports. It

provides small business development services for commercial operations and cooperative societies.

- **Department of International Trade and Investment (DITI)**

DITI is a 'one-stop-shop' ministry and agency to facilitate all large-scale foreign investments in PNG. It is responsible for all the matters related to Port Moresby Stock Exchange, Security Commissions, Special Economic Zone Authority, Pacific Marine Industrial Zone (PMIZ), Konebada Petroleum Park, and National Trade Office.

- **Department of Health (National DOH)**

The NDOH's role is to provide health sector leadership in development of plans, setting of quality health standards, legislations and effective coordination of service delivery agencies through robust development of workforce and partnerships. It is part of the multi-sector agencies working together with DAL and others to address malnutrition in PNG.

Collaboration with the Department responsible for health is important in guaranteeing food safety. Health is a key pre-requisite to a productive workforce. Unhealthy workers perform sub-optimally particularly in the agricultural sector where manual labour is required. Periods spent away from work imply that certain activities are not carried out on time. Thus, activities like planting, weeding, feeding animals or laying nets to catch fish may be delayed leading to economic losses.

- **Department of Works and Implementation (DOWI)**

DOW is the GoPNG's implementing agency for infrastructure in the country. It is responsible for ensuring implementation. However, while the majority of actual design and construction is undertaken by the private sector, DOWI focuses on providing supervision and quality control.

- **Department of Transport**

Department of Transport's core functions is to develop transport policy, strategy and planning advice across all three modes of transport (land, air, maritime); coordinate and monitor implementation of Government policies, strategies and plans for the three modes; administer relevant legislation for the three modes; and monitor.

- **Department of Lands and Physical Planning (DLPP)**

The Department promotes the best use of land in PNG by ensuring an orderly process to make lands available for sustainable economic and social development and that land rights are guaranteed.

- **Department of Higher Education, Research, Science and Technology (DHERST)**

DHERST is the government agency responsible for coordinating higher and technical education and research, science and technology in PNG. It works with a range of government agencies and other partners to provide the advanced skills, knowledge and innovation required for PNG's sustainable social, economic and environmental development. DHERST provides services to post-secondary students, from tertiary level to university level, and the facilitation of all post-secondary higher education institutions. The objectives are to assist all higher education institutions in enhancing quality learning and teaching, and to develop mechanisms that will support, develop and improve the overall quality of education.

- **Department for Community Development and Religion (DfCDR)**

The DfCDR is a member of the multi-sector committee set up to address malnutrition in PNG using multi-sectoral approach. Led by the DNPM, membership of this Committee comprises the National Department of Health (NDOH), Department of Education (DoE), and Department for Community Development and Religion (DfCDR), including development partners.

DfCDR's mandate extends to NGOs, CSOs, and FBOs including national and international volunteers. The Government recognizes the role of NGOs, CSOs, FBOs and volunteers are recognised in service delivery. Their support and assistance complement government efforts to provide services to remote rural communities and are an important network of Government. Volunteers are active partners that complement skills gaps required in specialised fields in remote rural areas of PNG. The Government's National Volunteers Policy and DAL's partnership with DfCDR will assist in engaging volunteers to assist in agriculture at district and local levels.

- **Department of Education (DOE)**

The PNG DOE oversees the education system in PNG and is responsible for developing and implementing policies, standards, curricula, and programs for all levels of education, from early childhood to higher education. The department also provides support and guidance to schools, teachers, students, parents, and other stakeholders in the education sector. One of the major roles of DOE is to develop and review national curricula and assess standards. DOE also coordinates and collaborates with other government agencies, development partners, civil society organizations, and private sector entities involved in education.

- **Conservation and Environment Protection Authority (CEPA)**

CEPA has a key role in providing natural resource management and biodiversity information and advice. Its mandate is to ensure natural and physical resources are managed to sustain environmental quality and human well-being. CEPA is responsible for environment protection and conservation; pollution control; nature conservation and wildlife protection; and water resources management.

- **National Institute of Standards and Industrial Technology (NISIT)**

The Institute is part of the Department of Commerce and Industry as the National Standards body in PNG. It facilitates standards development and adoption in PNG for commercial and trade purposes.

- **Investment Promotion Authority (IPA)**

The IPA's role is to inform the business community about investment opportunities in PNG, and the export markets available overseas for PNG exports. It has information about the rules and regulation of conducting business in the country, the best persons to contact about investment interests, and any other assistance that is required.

IPA also facilitates business introductions through its growing database of domestic and overseas investors. It is responsible for the Companies Act, Business Names Act, Business Groups Incorporation Act, and Associations Incorporation Act, Trade Marks Act, the Copyright and Neighbouring Rights Act (2000) and the Patents and Industrial Design Act (2000). The Securities Commission regulates the

establishment of stock markets and practices in the country relating to the offering of shares to the public.

- **National Development Bank (NDB)**

The Rural Development Bank has been set up primarily to manage rural finance and as a mechanism through which credit could be made available to support development initiatives in the rural sector.

- **Rural Industries Council (RIC)**

The RIC represents the interests of the larger organizations and companies representing in the rural industry in the PNG. It comprises 27 members representing agencies and companies.

- **Consultative Implementation Monitoring Council (CIMC)**

CIMC is an independent body that brings together civil society, the private sector and government partners to directly influence policy and monitor government decision making for the long-term development of PNG. CIMC ensures that dialogue is sustained between government, private sector and the community at large through the ongoing consultation processes, and the recommendations made to government through this process are implemented.

Agriculture Sectoral Committee is one of 10 Committees of the CIMC. The Committee is set up to maintain a membership of sectoral stakeholders to network and promote a sustained, consultative process of providing input to the formulation of agriculture policies for collective implementation.

- **PNG University of Technology (UNITECH)**

UNITECH's department of agriculture offers a science-based agriculture curriculum for undergraduate and postgraduate degree programs besides conducting basic and applied agriculture research and disseminating relevant information to the community. The department of agriculture is guided by its mission as a premier agricultural school providing high class agricultural education.

- **University of Natural Resources and Environment (UNRE)**

The UNRE's Department of Agriculture offers a four-year degree program on sustainable tropical agriculture. Student who score less than 70% in the second year graduate with a Diploma after their third year of study as an exit plan.

- **Tertiary Institutions providing Agriculture Training**

There are several tertiary institutions in PNG that offer diploma program on agriculture, such as Sonoma Adventist College and Highlands Agricultural College, Livestock In-Service Training Centre in Lae. Highlands Agricultural College, and Livestock In-Service Training Centre are the only remaining institutions that are solely managed and administered by DAL to cater for training of its sector.

6.3.3. Provincial and District Administrations

The main task of the Provincial and District Administrations is to plan, coordinate and manage agricultural extension and support programs. Extension and information services at the local government levels are funded through annual provincial budgets, and the joint programs with DAL or commodity agencies and delivered

through Provincial Divisions of Primary Industry.

The Provincial Divisions of Primary Industry will work on developing the crops that the province has a comparative advantage of under the NASP. Annex 3 in Part II provides a list of crops that grow well in a province, including the map in Annex 4 that identifies the types of crops that are suitable for each province or region.

6.3.4 Private Sector and Agribusiness Industries

The private sector continues to play an important role in infrastructure development and service delivery through Corporate Social Responsibilities (CSR). In the medium-term, the Government envisages a more extensive role through innovative financing and delivery modalities.

Unlike past initiatives undertaken in the agriculture sector, the private sector will be one of the major partners in the implementation of the NASP. The need for the Government to work together with agribusiness industries is given prominence due to commercialising of agriculture and downstream processing.

The Private Sector includes enterprises, companies, businesses, or individuals regardless of size, ownership and structure. It covers all sectors of the food, including, crops, rice and grains, and livestock from production to consumption, including associated services: financing, investment, insurance, marketing and trade. The private sector encompasses a broad array of entities that range from producers, producer organizations, cooperatives, financial institutions, industry and trade associations, and Micro, Small and Medium Enterprises (MSMEs) to the largest international corporations.

The private sector is the vehicle through which investments can transform agriculture towards increased productivity, agribusiness and development of support or infrastructure. The private sector will continue working closely with the National, Provincial and District governments and administrations to ensure service delivery to producers and other players in the sector. Inadequate Public-Private Partnerships and engagements affect primary production, processing, marketing, insurance and financing in the sector.

Some of the agribusiness industries in PNG, include:

- **Trukai Industries**

Trukai is currently the dominant player in PNG's rice market with a 75 percent market share. It operates rice farms in West New Britain, Central, Morobe and Northern provinces, and has a rice-processing mill in Lae. The company is continuing to expand its operations. It supplies domestic customers and exports rice to the Solomon Islands and Australia.

- **Mainland Holdings**

A Lae based company, Mainland is one of PNG's largest agriculture companies, with products including poultry, eggs and flour. The company is looking to grow its own feed crops in PNG because of difficulties in getting foreign exchange.

- **New Britain Palm Oil (NBPOL)**

NBPOL is the largest employer in the country (after the government), with almost 25,500 permanent employees on the payroll. The company supports 17,500

smallholder farms, many of which have co-resident families with an estimated total population of about 150,000. Smallholders represent about a third of the company's crop production. Ninety five per cent of the company's crude palm oil is exported, mostly to Europe.

- **Carpenter Estates**

Carpenters Estate is a major tea and coffee exporter, which grows and manufactures the two crops in the fertile Waghi Valley of the Western Highlands and Jiwaka provinces. The coffee and tea are grown at 5000 feet and there is no use of pesticides or fungicides.

- **NGIP Agmark**

Agmark is a PNGX-listed diversified agribusiness, operating plantations, coastal shipping, hardware, machinery, trucking, logistics, and stevedoring. Based in Kokopo, it is PNG's largest grower and exporter of cocoa, and also markets and trades in other agricultural commodities.

- **Innovative Agro Industry (IAI)**

IAI is an Israeli-backed agribusiness launched in 2014. IAI specializes in the production of fresh fruit and vegetables using modern, direct irrigation techniques. The company launched its first dairy farm and the 9 Mile Highlands Produce Depot in 2018 and has four major expansion projects underway since 2019. A second dairy farm, a frozen potato fries processing plant, large-scale coffee, cocoa, grain, stock feed processing and poultry production projects.

The commodity agencies who provide regulatory functions for the specific commodities will engage with the agribusiness industries in their sub-sectors, including implementers of their plans and programmes. The DAL will provide the oversight and coordination of the sector, drawing from provincial divisions of Primary Industry and district officers. This would be one of the ways of working with the agribusiness industries among others.

The key objective is to promote private sector participation in the management and development of crops, livestock, rice and grains sub sectors.

The National and Provincial Governments will:

- Create a conducive environment for the private sector to profitably invest in the Agricultural Sector.
- Promote and establish a forum for consultation and collaboration with the private sector at all levels in the agricultural commodity value chain.
- Promote Public Private Partnerships (PPPs) in the management and development of the crops and livestock sub sectors.

6.3.5 Other Partners and Service Providers in Supply Chain Aviation Industry

Air Niugini is the national airline of PNG. It operates a domestic network from Port Moresby to 12 major airports while Link PNG, its subsidiary company operates to minor airports. Under MTDP IV (Implementation Strategy 9), Government will be subsidizing Air Niugini to do international flights to deliver foods, vegetables and supplies directly to international niche markets.

6.3.6 Development Partners

PNG has diplomatic relations and strategic development cooperation arrangements with bilateral and multilateral partners. The specific arrangements with the bilateral partners are defined in the Government's Development Cooperation Policy.

Bilateral Partners include Australia, Japan, New Zealand, the People's Republic of China, and United States of America.

The Government also engages with major multilateral partners, including the Asian Development Bank (ADB), World Bank Group (WBG), European Investment Bank (EIB), European Union (EU), United Nations (UN) and the EXIM Banks. These partners continue to support high impact development programs and projects in PNG.

6.4 The Coordination Function of Department of Agriculture and Livestock

The DAL will require favourable response from all MDAs, as well as stakeholders in civil society, in the implementation of NAP. It will engage with partners through a platform on which all parties specify:

- Shared objectives,
- Common prioritisation of objectives and, where necessary, joint planning,
- Roles to leverage skills and build on synergies of parties. (Agreed roles and responsibilities will determine funding responsibilities of respective partners),
- Mechanisms to assess success and make adjustments. This platform will be applied at the national level for inter-ministerial coordination, through to the regional and district levels where agriculture directorates will partner with the private sector and civil society organisations to address various issues. At the national level, the DNPM will play an oversight role, with DAL playing a strong advocacy and monitoring role,

The Regional Coordinating Councils and DAL directorates in the regions and districts will play similar roles at the regional and district levels. The opportunity for this framework to work lies in the fact that all related MDAs recognise the need for collaboration and have included this as a strategy for implementing their sector policies. Yet none of the policy documents has a proposal on how the engagement will be operationalised.

6.4.1 Implementation of National Agriculture Policy at Provincial and District Level

Provincial and District agriculture sector plans will be guided by the objectives of the policy (NAP) and the plan (NASP). The implementation will be achieved as follows:

❶ NAP and NASP objectives will be adopted by provinces and districts but prioritised according to the needs and capacity of the province and district.

❷ Each province and district will select 2 crops or livestock annually to focus on for effective use of resources but not neglecting other crops or livestock from their normal provincial and district development programs.

❸ Plans at the provincial and district level will be developed in consultation with the private sector, FBOs and NGOs operating in the province and district.

❹ The final provincial or district plan should show partnership and contribution in

implementation between private sector and other stakeholders.

❺ Activities under each objective and expected output should be grouped to indicate whether they are investments or recurrent services.

❻ Districts will use the DAL matrix of indicators to measure achievements and progress under each objective of the provincial and district plans.

❼ Districts may also develop additional indicators to measure achievements which are not covered by DAL indicators.

As DAL retains the responsibility for the design of national development policies and plans for the sector, staff at the regional and headquarters level will backstop the provinces and districts in performing their technical functions. The provincial and district planning is the framework for coordination of activities of MDAs in the provinces and districts.

The major limitation to the effectiveness of the framework is the lack of composite budgeting. In addition, consultations with stakeholders in the regions reveal that officers prefer to 'work individually'. Financial devolution and further sensitisation of staff in the regions and districts are required to enhance implementation of policies at the district level. Joint planning at the provincial and district levels also imply composite budgeting, which DAL will advocate.

6.5 Monitoring and Evaluation of the NASP

For successful implementation of the National Agriculture Policy and the National Agriculture Sector Plan, a monitoring, evaluation and learning (MEL) framework will be included for regular monitoring and review. The MEL framework will be consistent with the MTDP IV Key Result Areas, Strategies and Indicators. The MEL framework will also include reflection and learning aspects to generate discussions with stakeholders and recipient of funds for their experiences and inform decision-making, plans and strategies hence monitoring, evaluation, reflection and learning (MERL).

The policy and the plan will be monitored every six months in a year to address the sector challenges and emerging issues.

An Annual Review on implementation of the policy and the plan will be conducted in October every year during the implementation period of the policy and plan. A Sixth-Monthly report and an Annual Report will be presented to the National Agriculture Council and the 4 ministers by the DAL Secretary and disseminated to the relevant stakeholders.

MEL will be conducted by independent external parties with clear terms of reference for data collection and reporting. Data collected will include sub-sector performance monitoring and monitoring of outcome and impact indicators. The NASP Unit will be responsible for developing the terms of reference for MEL.

In the medium term, monitoring, evaluation and learning will be institutionalised, using a harmonised reporting format and indicators. In the long-term, DAL will work towards establishing a Policy Planning Monitoring and Evaluation Unit (PPMEU) and Statistics Research and Information Unit (SRIU) within DAL. These two units will be responsible for collaborating and coordinating data collection and analysis aimed at policy review in a decentralised environment.

The DAL will develop an M&E framework within six months of the Policy implementation in collaboration with the provincial and district administrations, key stakeholders and partners, including MDAs where necessary.

Strategies

DAL will:

- Conduct an annual performance review of the sector including NAP and NASP in consultation with private sector and civil society organisations;
- Publish and disseminate an annual report on the performance of the sector; and
- Conduct an implementation review of NAP and NASP every two years, then during mid-term in 2028, and in 2032 before the lapsing of the plan in 2033.

6.6 Targeted Priority Investments

The funding for the agriculture sector under MTDP IV 2023-2027 through the targeted priority investments is tabulated in Table 1-4 as follows:

Table 1-4. Targeted Priority Investments

No.	DIP Link	Investment	Total Est. Cost (K'millions')	Funding Source
DAL				
1	DIP 1.1	National Agriculture Development Program	80	GoPNG
2	DIP 1.1	Spice Development Program	14	GoPNG
3	DIP 1.1	National Freight Subsidy Program	165	GoPNG
4	DIP 1.1	Commodity Price Support Program	150	GoPNG
5	DIP 1.9	Industrial hub and market access Support Program	50	GoPNG/PPP
			459 million	
Palm Oil				
6	DIP 1.1	Oil Palm Development Program	150	GoPNG
7	DIP 1.11	Palm Oil downstream processing and Industrial Hub Development;	120	GoPNG/PPP
8	DIP 1.9	Customary Land mobilised to develop additional large-scale Oil Palm Plantations;	40	GoPNG/PPP
9	DIP 2.1	Smallholder Oil Palm Commodity Access Roads upgrade and sealing	50	GoPNG/DP
10	DIP 9.3	Oil Palm Research and Development Program	24	GoPNG
			384 million	
Coffee				
11	DIP 1.1	Large Plantations Rehabilitation Program;	100	GoPNG/PPP
12	DIP 1.1	Price Stabilisation Program	40	GoPNG
13	DIP 1.1	National Coffee Development Program;	150	GoPNG/DP
14	DIP 1.1	Coffee Freight Subsidy;	25	GoPNG
15	DIP 1.11	Downstream Processing and Exports Support Program;	160	GoPNG/PPP
16	DIP 1.8	Development of Coffee Export Office	10	GoPNG
17	DIP 2.1	Coffee Commodity Roads	48	GoPNG

18	DIP 9.3	Coffee Research and Development.	15	GoPNG
			548 million	
Cocoa				
19	1.1	National Cocoa Development Program	62	GoPNG/PPP
20	1.1	Cocoa Freight Subsidy	25	GoPNG
21	1.1	Regional, Provincial and District Nurseries Program	85	GoPNG
22	1.11	Cocoa Downstream Processing and Value Adding Initiatives	120	GoPNG/PPP
23	2.1	Cocoa Access Roads Upgrading and Sealing	25	GoPNG
24	9.3	Research and Development	12	GoPNG
			329 million	
Coconut				
25	DIP 1.1	Coconut Plantation Seed Distribution Program	85	GoPNG/PPP
26	DIP 1.8	Coconut Freight Subsidy	20	GoPNG
27	DIP 1.11	Coconut Downstream Processing and value adding initiatives	40	GoPNG/PPP
28	DIP 1.1	Market Development and Trade Program	135	GoPNG/PPP
29	DIP 2.1	Coconut Access Roads upgrading	20	GoPNG
30	DIP 9.3	Coconut Research and Development Program	16	GoPNG/PPP
			316 million	
Rubber				
31	DIP 1.1	Rubber Plantation Rehabilitation and Nursery Program	82	GoPNG/PPP
32	DIP 1.11	Rubber Downstream Processing.	75	GoPNG/PPP
			157 million	
Tea				
33	DIP 1.1	Tea plantation rehabilitation program	20	GoPNG/PPP
34	DIP 1.10	Additional customary land mobilised for establishment of new tea plantations	20	GoPNG/PPP
35	DIP 1.11	Downstream processing of tea	20	GoPNG/PPP
			60 million	
Rice				
36	DIP 1.1	Large scale Commercial Rice and Grains Farming Program	200	GoPNG/PPP
37	DIP 1.1	Smallholder Rice Farming Support Program	40	GoPNG/PPP
38	DIP 1.11	Rice Milling and Downstream Processing Support Program	120	GoPNG/PPP
			360 million	
Livestock				
39	DIP 1.1	National Livestock Development Program	230	GoPNG/PPP
40	DIP 1.9	Rehabilitating and building new Abattoirs	60	GoPNG/PPP
41	DIP 1.1	Establishment of Commercial Animal Feed Farm	50	GoPNG/PPP
			340 million	
Spice				
42	DIP 1.1	National Spice Development Program	87	GoPNG/PPP
			87 million	

Fresh Produce				
43	DIP 1.1	Fresh Produce Development Program	80	GoPNG/PPP
44	DIP 1.1	Market for Village Farmers Program (capacity building, market access, extension services, partnerships)	83	GoPNG/DP
45	DIP 1.1	Value chain development (storage and cool room facilities, post-harvest, packaging and handling)	115	GoPNG/PPP
			278 million	
Infrastructure				
46	DIP 2.1	District Commodity Roads	500	GoPNG/DP
			500 million	
Education				
47	DIP 4.3	Elevation of Highlands Agricultural Training Institute to university	150	GoPNG/PSIP/DSIP
			150 million	
Biosecurity				
48	DIP 6.4	Agriculture & Livestock Bio Security	20	
49	DIP 6.4	Biosecurity – NAQIA Lab and Office Infrastructure	90	
50	DIP 6.5	Imported Product Certification	14	
51	DIP 6.5	Imported Substitution of Primary Products	7.5	
			131.5 million	
Agriculture Research				
52	DIP 9.3 DIP 9.6	Agriculture and Food Security Research Support Program	23	GOPNG/DPs
53	DIP 9.6	Food Security and Nutrition Program	40	GOPNG/DPs
			63 million	
		Total:	**K4,162.5 billion**	
Source: MTDP IV 2023-2027				

6.7 Sources of Funding: Fund Management and Accountability Mechanisms

Funding sources will include GoPNG, contributions of Development Partners (DPs), Private Sector and Civil Society. Specific mechanisms will include:

❶ Budget support from DPs.
❷ Technical Assistance from DPs
❸ Co-financing with the private sector.
❹ Beneficiary contribution.
❺ Internally Generated Funds/non-tax revenue.
❻ Loans and grants received from international financial institutions.
❼ Bilateral agreements.

The challenges of managing funds from these different sources, particularly in meeting specific conditions of the funding sources, are acknowledged. To overcome these challenges and improve the effective coordination and use of resources, appropriate measures and approaches will be adopted in the implementation of NAP.

Some of the key elements of the approach include:

❶ Providing overall leadership and direction in the food and agriculture sector.

❷ Establishing an institutional set-up that will enable DAL to provide its services efficiently.

❸ Developing coherent sector plans through joint planning, programming, reviews and information sharing with stakeholders. The Government and DPs will work together according to Paris Declaration on Aid Effectiveness principles.

❹ DAL's plans and budgets will be prepared in line with the planning procedures of the Medium Term Expenditure Framework which include:

❺ Preparation of 3-year strategic plan;

❻ Annual review of strategic plan;

❼ Annual reviews of the policy and expenditure priorities based on monitoring and evaluation results;

❽ Participation in cross-sectoral meetings and policy hearings; and

❾ Yearly review and updates of budgets. DAL will promote planning and budgeting in the agricultural sector that is informed by expenditure review as well as monitoring and evaluation that informs future policy strategies, targets and allocation of resources.

6.8 Conclusion

With the shift in focus on the commercialization of agriculture, it is profitable to invest the K4, 162.5 billion to implement NASP over the next 5 years, as the returns far outweigh the cost.

Annual export revenue from the tree crop sector is projected to increase gradually from K4, 843 million in 2023 to K30, 010 million in 2027. There will be a reduction in the import of rice from K324 million in 2023 to K156 million in 2027. There will also be reductions with import of meat, from K330 million in 2023 to K200 million in 2027.

In addition, the investments in biosecurity and quarantine processes will safeguard the country from internal and exotic economic pests. Quarantine and codex will contribute to trade facilitation by promoting, safeguarding quality of imports and exports.

Investments in research, extension, information and training are the catalysts to agriculture development that will provide improved technology packages, and contribute to increased capacity building and skills development in the industry.

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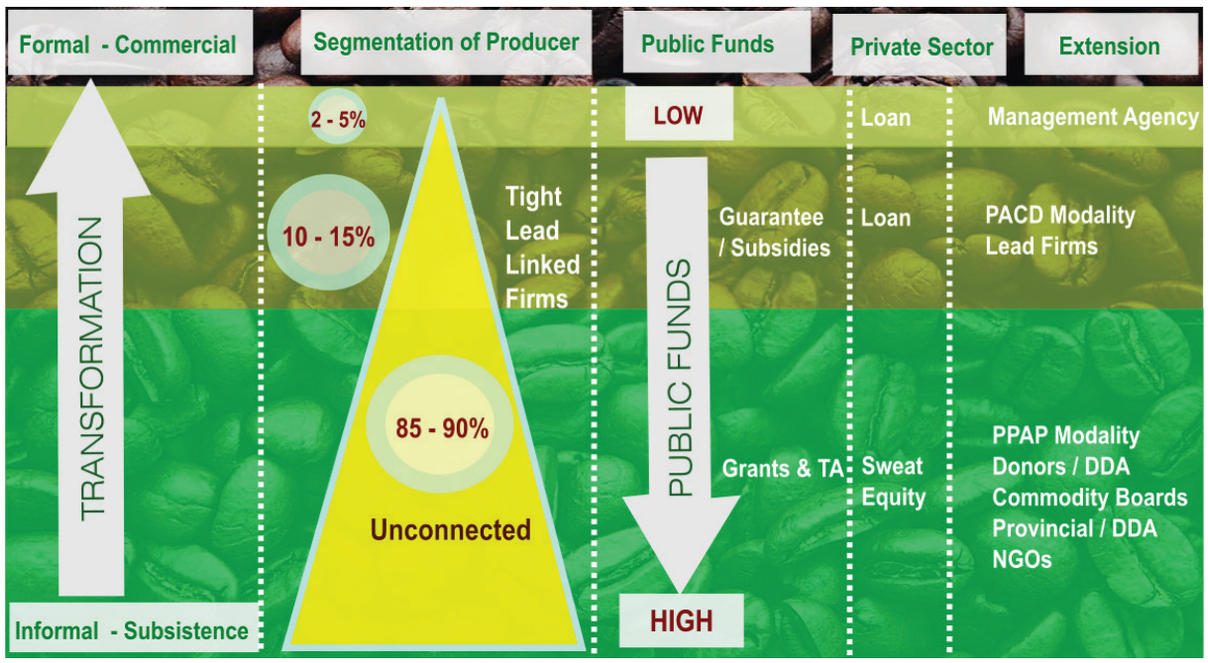
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ANNEXURES

Annex 1: Coffee Farmer Pyramid and Coffee Calendar

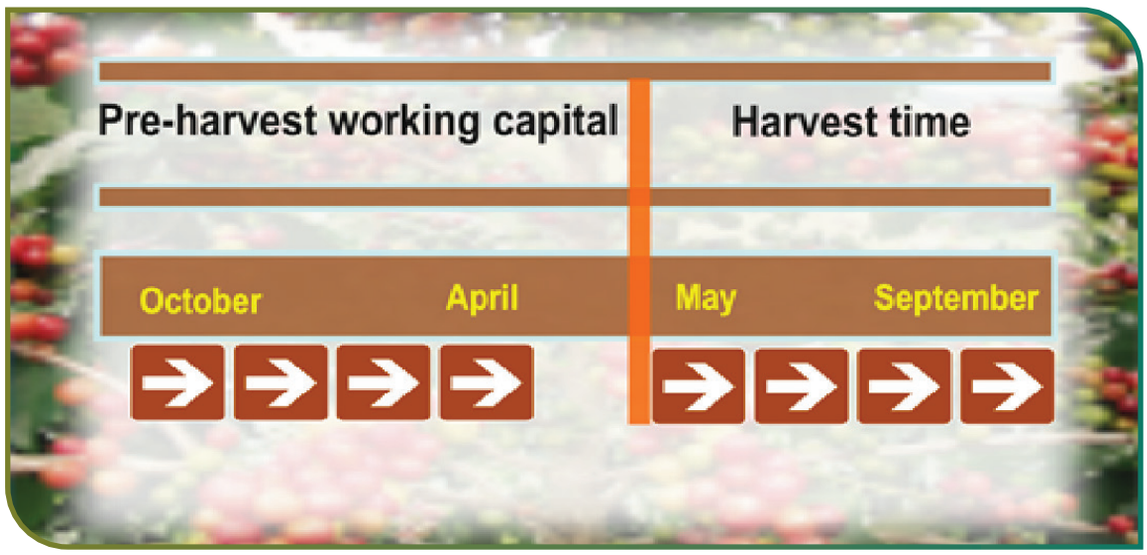
In coffee, cocoa, and oil palm productions, farmers operate at four levels as shown in the Coffee Farmer Pyramid in *Figure 1-10.*

Figure 1-10. Coffee Farmer Pyramid



Coffee Calendar

Figure 1-11. Coffee Calendar



In the coffee value chain rehabilitation scheme, grant funding is needed to take the farmers from A-B, and Savings/Credit to take farmers from B to C. It is also crucial for Coffee Calendar in Figure 11 to guide the support and financing given to farmers.

LIST OF ACRONYMS

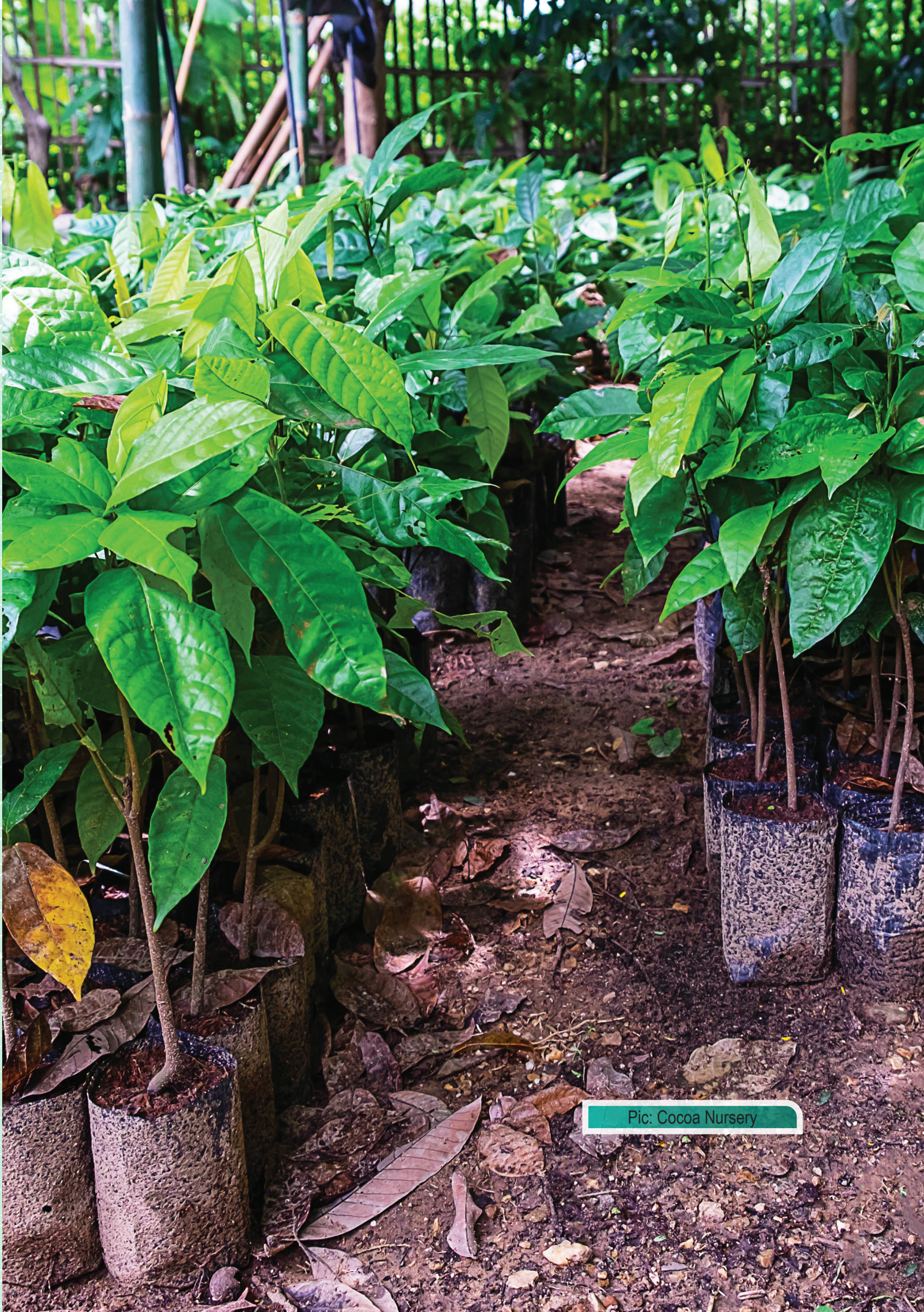
AAA	Agriculture Administration Adjustment
ACIAR	Australian Centre for International Agriculture Research
AIC	Agriculture Investment Corporation
AIDS	Acquired Immunodeficiency Syndrome
AIS	Agriculture Innovation System
AMTDP	Agriculture Medium Term Development Plan
ANZ	Australia New Zealand
APO	Agriculture Priority Area
AROB	Autonomous Region of Bougainville
ASRF	Agriculture Strategy and Results Framework
BPNG	Bank of Papua New Guinea
CB	Cocoa Board
CCDA	Climate Change Development Authority
CCI	Cocoa Coconut Institute
CEPA	Conservation and Environment Protection Authority
CIC	Coffee Industry Corporation
CIMC	Consultative Implementation Monitoring Council
CO	Commodity Organizations
CODEX	Codex Alimentarius is Latin for Food Code
COVID-19	Coronavirus Disease 2019
CPB	Cocoa Pod Borer
CPO	Crude Palm Oil
CSA	Climate Smart Agriculture
CSIRO	Commonwealth Scientific and Industrial Research Organisation
CSO	Civil Society Organisation
DA	District Authority
DAL	Department of Agriculture and Livestock
DfCDR	Department for Community Development and Religion
DCI	Department of Commerce and Industry
DHERST	Department of Higher Education, Research, Science and Technology
DIRD	Department of Implementation and Rural Development
DITI	Department of International Trade and Investment
DLPP	Department of Lands and Physical Planning
DNPM	Department of National Planning and Monitoring
DOA	Department of Agriculture
DOE	Department of Education
DOWI	Department of Works and Implementation
DPLGA	Department of Provincial and Local Government Affairs
DPM	Department of Personal Management
DSIP	District Service Improvement Program
DSP	Development Strategic Plan
ENSO	El Nino – Southern Oscillation
EWG	Expert Working Group
FAO	Food and Agriculture Organisation
FBO	Farmer-Based Organization
FER	Functional Expenditure Review

FFB	Fresh Fruit Bunch
FFS	Farmer Field School
FIAU	FER Implementation and Advisory Unit
FPDA	Fresh Produce Development Agency
GDP	Gross Domestic Product
GoPNG	Government of PNG
HIES	Household Income and Expenditure Surveys
HIV	Human Immunodeficiency Virus
HVCP	High Value Coconut Products
IAI	Innovative Agro Industry
IATP	Integrated Agriculture Training Program
ICT	Information Communication Technology
ILG	Integrated Land Groups
IPA	Investment Promotion Authority
IPCC	Intergovernmental Panel on Climate Change
IPM	Integrated Pest Management
KIK	Kokonas Indastri Koporesen
KRA	Key Result Area
LDC	Livestock Development Corporation
LLG	Local Level Government
LLGSIP	Local Level Government Service Improvement Program
LNG	Liquefied Natural Gas
LSC	Large Scale Commercial
M&E	Monitoring and Evaluation
MAL	Making a Living
MDA	Ministries Departments and Agencies
MERL	Monitoring, Evaluation, Reflection and Learning
MOA	Ministry of Agriculture
MOC	Ministry of Coffee
MOL	Ministry of Livestock
MOMASE	Morobe Madang Sepiks
MOOP	Ministry of Oil Palm
MSME	Micro, Small and Medium Enterprise
MTDP	Medium Term Development Plan
MTR	Mid-term Review
NADP	National Agriculture Development Plan
NADSH	National Agriculture Development Strategy Horizon
NAIF	National Agriculture Innovations Facility
NAMP	National Agriculture Master Plan
NAP	National Agriculture Policy
NAQIA	National Agriculture Quarantine Inspection Authority
NARI	National Agriculture Research Institute
NBPOL	New Britain Palm Oil Limited
NDB	National Development Bank
NDOH	National Department of Health
NEC	National Executive Council
NGIP	New Guinea Islands Produce
NGO	Non-Government Organisation

NISIT	National Institute of Standards and Industrial Technology
NMA	National Monitoring Authority
NNS	National Nutrition Strategy
NSAP	Nutrition Strategic Action Plan
NSO	National Statistics Office
OIE	World Organisation for Animal Health
OLPLLG	Organic Law on Provincial and Local Level Government
OPIC	Oil Palm Industry Corporation
ORD	Office of Rural Development
PDPI	Provincial Division of Primary Industry
PFM	Public Financial Management
PGAB	Primary Government Agriculture Bodies
PIC	Pacific Island Countries
PKO	Palm Kernel Oil
PLLSMA	Provincial and Local Level Service Monitoring Authority
PMIZ	Pacific Marine Industrial Zone
PNG	Papua New Guinea
PPMEU	Policy Planning Monitoring and Evaluation Unit
PSIP	Provincial Service Improvement Program
QEB	Quarterly Economic Bulletin
R&D	Research and Development
RIC	Rural Industry Council
RIDB	Rubber Industry Development Board
SciCom	Science Communication
SDGs	Sustainable Development Goals
SHF	Smallholder Farmer
SHF	Small Holder Farmers
SIB	Spice Industry Board
SIP	Service Improvement Program
SPS	Sanitary and Phytosanitary
SRIU	Statistics Research and Information Unit
TA	Technical Assistance
TVET	Technical and Vocational Education and Training
UNITECH	University of Technology
UNRE	University of Natural Resource and Environment
UOG	University of Goroka
USA	United States of America
VCO	Virgin Coconut Oil
WIA	Women in Agriculture
WIADU	Women in Agriculture Development Unit
WTO	World Trade Organization

GLOSSARY

Word or Phrase	Definitions
Agriculture	In this document, agriculture refers to crop, livestock, food and horticulture, fresh produce, fruits and nuts, rice and grains, and spices.
Agricultural Sector	The crop, livestock, food and horticulture, fresh produce, fruits and nuts, rice and grains, and spices sub-sectors. The agriculture sector is functionally related to the land, water, environment, forestry and cooperative sectors.
Agricultural value chain	Refers to the whole range of goods and services required to produce an agricultural product or produce, and access the market and the final consumer with appropriate waste management.
Commercial agriculture	Agricultural production that provides more than 50% marketable surplus. Producers mainly target markets and aim to meet different needs of customers. The overall goal of commercial agriculture is profit maximization.
Climate Smart Agriculture	An approach to developing technical, policy and investment conditions towards achievement of sustainable agricultural development for food security under climate change.
Downstream Processing in manufacturing	The bio-processes involving a series of steps focused on the conversion of biomass to bio-based products.
Entrepreneurship	The capacity and willingness to develop organise and manage a business taking into account possible risks in order to make a profit. An entrepreneur has the ability to translate ideas, challenges, innovations or technologies into commercially viable opportunities.
Farmer	A person, who grows crops, or rears livestock.
Food	Any substance, whether processed, semi-processed or raw, which is intended for human consumption.
Genetic material	Any material of plant, animal, microbial or other origin containing functional units of heredity
Genetic resources	Genetic material of actual or potential value in crops, livestock and or fisheries
Livestock	Refers to domesticated animals reared in an agricultural setting to support livelihoods and generate income.
Produce	Farm products in their original state.
Subsistence agriculture	Agricultural production intended to provide enough food for the farmer and his or her household, with less than 25% marketable surplus.



Pic: Cocoa Nursery

PART 2
STRATEGIES AND IMPLEMENTATION PLAN

How do we get there?

Government and Private Sector Businesses Development Partners


Department of
Agriculture and Livestock

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Pic: Raw Arabica Coffee Bean Bags

1 CHAPTER 1. AGRICULTURE PRIORITY AREAS AND STRATEGIES

To achieve the vision, mission, and goal of the National Agriculture Sector Plan 2024-2033, the sector will focus on achieving the following Key Result Areas (KRAs):

KRA 1: Enhanced Productivity, Increased Scale of Production and Market Competitiveness

The transformation of PNG agriculture through strategic investments in commercial and large-scale industrial agriculture production for local demand and international trade and markets is a national development agenda of the PNG Development Strategic Plan 2010 – 2030 (PNGDSP 2030). Considerable emphasis is placed on supporting farms and agribusiness enterprises, including functional value chains from upstream input providers, production technology providers and developers, downstream producers, support services and their providers along the chain.

KRA 2: Improved Infrastructure and Access to Markets

PNG's physical stock of infrastructure assets is insufficient to deliver the economic and social services needed to drive faster economic growth and improve human development (ADB 2017).

KRA 3: Increased Agriculture Commodity Investments and Exports

PNG currently lacks a National food Safety Policy, WTO/Trade compliant Food Safety legislations and Regulations and a properly functional food system. As a result, downstream processed value-added goods and fresh produce will face issues with market access for exports.

KRA 4: Effective Land Mobilisation, Use and Management

Agriculture depends on productive soils and land use with adequate water as well and in a sustainable and productive agro-ecosystem and the natural environment. Sustainable land use and natural resources management are essential to maintain and sustain productive agro-ecosystems. Land degradation and loss of biodiversity and destruction to the environment through uncontrolled deforestation and poor cropping practices risk depletion of soil nutrients, excessive waste problems and risks to contamination of water sources. The use of agriculture lands will no doubt increase substantially as PNG agriculture moves from subsistence agriculture to more commercial and market drive agriculture production systems at scale. Innovative approaches for productive agricultural land use and eco-systems.

KRA 5: Enabling Policy and Legal Environment for Strategic Private Sector Participation and Investor-Friendly Climate

Agricultural production is entirely private sector based and delivered. The government's role is to provide a conducive environment through policies,

legislations and regulations for the private sector to participate and contribute to the economy of the country.

KRA 6: Comprehensive Research and Development

Agricultural research and innovation underpin the nation's progress and resilience in keeping abreast of scientific advancements for a competitive and modernized agriculture sector. A well-resourced and robust national agriculture research system provides real-time local best-fit solutions addressing prevailing and emerging production constraints and opportunities. A responsive and dynamic national agriculture research system draws together public institutions and private agencies and agents within the agriculture innovation systems framework to form productive partnerships.

KRA 7: Integrated Agriculture Education, Training and Extension Services

An effective healthy agriculture education, training, extension and entrepreneurship development depend on a dedicated and deliberate agriculture education system to provide the required human resources to drive and sustain PNG agriculture for the long term. The idea of agriculture and farming as a career choice needs to be instilled at an early age and fostered throughout the education system and in continuing adult learning.

KRA 8: Biosecurity

Establishing biosecurity systems and bio-safety measures at borders for import and export clearance and control, and internal pest and disease emergency incursion response and control are critical in protecting agriculture industries, farms, agribusiness enterprises and the economy from the threat of invasive pests and diseases.

The need for effective biosecurity measures and systems have become critical with the focus on improving access to international markets and trade for agriculture. Increasing the local livestock production requires animal biosecurity and quarantine requirements and protocols to be followed, animal health and welfare systems to be improved and administered, modernized abattoirs certified and operationalised, post entry quarantine established and operationalised.

KRA 9: Food and Nutrition Security and Safety Standards

Food safety focuses on taking steps to ensure that food produced, distributed or marketed in the country meets the highest standards of food safety and hygiene available. Each of the agencies enforcing food safety regulations operate independently to fulfill the function for which it was established. Food safety challenges facing the country could be attributed to the management systems inability to detect potential risks and gaps, share information, collectively plan and identify appropriate strategies for collaborative management of food safety in the supply chain and protect the consumer.

The challenges include poor communication among food supply chain stake-holders, threats for non-compliance with food safety requirements for local and export markets, ensuring confidence and consumer trust, getting processors

to understand the need to comply with food safety requirements, improving capacity for food assessments and harmonizing implementation of standards and regulations.

The element of food safety will be a concern in PNG's pursuit of food security and the focus on downstream processing, food manufacturing process, and livestock production. Producers and suppliers of food products are required to produce and supply food safe for human consumption. The development and implementation of food safety and health standards, including monitoring and enforcement of health and hygiene practices are essential.

KRA 10: Climate-Smart Agriculture

Food security in rural households in PNG is a concern due to impacts of climate change on weather conditions, land use patterns, crop systems, productivity and outputs in the agriculture sector in PNG. Despite the recognition of the impacts of climate change among smallholder farmers in PNG's rural communities, adaptation strategies to address it is lacking. Therefore, agriculture practices in PNG has to be modified to adapt to climate changes. There is need to adopt climate-smart agricultural (CSA) practices to promote food security in PNG. The objective is to attain household and national food and nutrition security through innovative and sustainable interventions linked to the country's long-term development targets.

KRA 11: Institutional Reform and Sector Development

It is impossible to meet the targets of NASP 2024-2033 without sufficient investment in reforming the key institutions that are responsible for implementation of the NASP. Poor governance and weak leadership in the Department of Agriculture and the sector have been widely recognised to have contributed to poor performance of the agriculture sector in the last 15 years. In order to achieve the mission and objectives for agriculture sector through the NASP, institutional reforms are crucial. DOA's organisational structure and administrative arrangements need to be reformed to align to shift in focus of the agriculture sector from commodity-focused to people-centred agriculture; and from subsistence agriculture to commercial agriculture.

KRA 12: Information Management and Use - Information Communication Technology

Having a functioning information system for production, analysis, dissemination and use of reliable and timely information is an indicator of a well-functioning sector. Most organisations in PNG public sector have issues with information systems, and lack relevant data. The lack of statistical and information systems make it difficult to measure critical development indicators and track performances in sectors. Although some organisations have information systems, they lack analytical capacity to utilise data for various purposes and do robust statistical calculations. There are numerous challenges in providing accurate and reliable information. Statistical analysis of data and use of data are not yet fully developed, and resources are directed towards data input rather than information output. In addition, information and communication technology (ICT) is underdeveloped although there are some sectors with functioning information systems for their sector.

PNG's consistent poor ranking on the UNDP's Human Development Index (HDI) over the last two decades calls for all government institutions and sector agencies,

including agriculture, to be serious about improving the country's position and be in charge of managing and coordinating data from all partners within the sector, protecting the use of data by other eternal bodies for development purposes.

KRA 13: National Agriculture Sector Plan Management

The implementation of NASP will be managed by DAL as the lead agency in the agriculture sector. The NASP Secretariat will be established within DAL to be dedicated to implementing the NASP. The Secretariat will be responsible and accountable for coordination and implementation of the NASP. It will collaborate and work in consultation with sector and commodity agencies at the national and provincial levels. The aim is to work within the existing structure, then integrate and contribute to developing the capacity of the lead agency in key functions, such as policy and planning, sector coordination, governance and leadership, including monitoring and evaluation. Administrative and operational coordination will be enhanced through this opportunity, with additional staff in the lead agency. It will provide greater opportunity for learning and building capacity of human resources within DAL and the sector, and contribute to overall institutional development. Such arrangements more likely to be sustainable.

The KRAs are outlined with the accompanying Agriculture Priority Areas (APAs) and strategies in the following pages.

The APAs reflect the constraints and issues facing the agriculture sector at different levels, from within the sector and commodity agencies, including farmers, producers and producer organisations involved in agriculture.

These APAs are informed by the following:

- Findings of the NADP 2007-2016 Review
- Recommendations of numerous reviews and forums conducted over a decade, such as the 2009 Consultative Implementation Monitoring Council (CIMC) National Development Forum on Agriculture and Rural Development
- 2014 Functional Expenditure Review of the Agriculture Commodity Boards and Agencies,
- 2017 Lamana Inaugural Agriculture Summit
- 2019 Expert Working Group Regional Consultations on National Agriculture Sector Plan
- 2022 Department of Agriculture and Livestock Functional and Expenditure Review and
- 2023 NASP Stakeholder Regional Consultation Workshops amongst others.



The APAs are aligned to Medium Term Development Plan (MTDP) IV 2023-2027 through the following linkages as shown in Table 2-1.

Table 2-1. Alignment of Agriculture Priority Areas to MTDP IV

MTDP IV Strategic Priority Area (SPA)	MTDP IV Deliberate Intervention Programmes (DIP)
SPA 1 - Strategic Economic Investment	DIP 1.1 - Commercial Agriculture and Livestock Development DIP 1.6 - Micro, Small Medium Enterprises DIP 1.9 - Manufacturing - Industrial Hub and Market Access Support Programme DIP 1.10 - Land Development DIP 1.11 - Downstream Processing
SPA 2 - Connect PNG Infrastructure	DIP 2.1 - Connect PNG Road Transport / District Commodity Roads DIP 2.2 - Connect PNG Water/Sea Transport DIP 2.3 - Connect PNG Air Transport DIP 2.4 - Connect PNG Telecommunication and ICT Connectivity DIP 2.5 - Connect PNG Electricity Roll Out
SPA 4 - Quality Education and Skilled Human Capital	DIP 4.3 (v) - Elevation of Highlands Agriculture Training Institute (HATI) to university.
SPA 6 - National Security	DIP 6.4 - Biosecurity - National Agriculture Quarantine and Inspection Authority (NAQIA) DIP 6.5 - Import Product Certification
SPA 8 - Digital Government, National Statistics, Public Service Governance	DIP 8.1- Integrated Digital Government System DIP 8.2 - National Statistical System DIP 8.6 - Public Service Administration DIP 8.7 - Public Service Governance
SPA 9 - Research, Science and Technology	DIP 9.3 - Agriculture Research DIP 9.6 - Food Security
SPA 10 - Climate Change and Natural Environment Protection	DIP 10.1 - Climate Change Mitigation and Adaptation DIP 10.2 - National Disaster Management
SPA 1 - Population, Youth and Women Empowerment	DIP 11.2 - Youth Development and Labour Mobility Youth MSMEs DIP 11.4 - Women Empowerment
SPA 12 - Strategic Partnerships	DIP 12.2 - Development and Economic Cooperation DIP 12.3 - Private Sector

1.1. Key Result Areas, Agriculture Priority Areas, Objectives and Strategies

KRA 1: Enhanced Productivity, Increased Scale of Production and Market Competitiveness



Objective 1.1 : Commodity Commercialisation

The aim is to increase efficiency, scale of production, productivity, and improve agriculture sector's contribution to the national economy.

MTDP IV Deliberate Intervention Program 1.1 - Commercial Agriculture and Livestock Development

The Government prioritizes large-scale commercialisation of agriculture crops and livestock. This is to ensure consistent supply of large volumes of supply for downstream processing as well as meeting domestic needs and export market quota.

A: Large-Scale Commercial Production and Development

The commodities that have commercial significance and have shown competitive advantage are given priority for commercialisation in NASP 2024-2033 include:

- Oil Palm
- Coconut
- Coffee
- Cocoa
- Rubber

MTDP IV Strategy 8.1.4 - Promote PPP arrangements in Commercial Rice Production in PNG.

- Spices
- Sweet Potato (Kaukau)
- Potato
- Round Onion
- Root Staples and Vegetables
- Grains and Legumes
- Fruits and Nuts

MTDP IV Strategy 9.1.4 - Commercialize Livestock Industry

- Beef Cattle
- Dairy Cattle
- Poultry
- Piggery
- Apiculture

Objective 1.2: Downstream Processing of Selected Crops and Livestock

MTDP IV Strategies Other Crops, Rice and Grain; Livestock

- 4.1.3 Promote and support Downstream Processing Initiatives or Projects
- 4.1.14 Promote and facilitate investments by FDIs and PPPs for downstream processing
- 5.1.5 Promote and facilitate investments in downstream processing
- 6.1.7 Promote Downstream Processing for value adding in terms of Rubber by products
- 7.1.3 Re-negotiate with Private Sector who owns the estate of other tea plantation in the highlands flora revitalisation
- 7.1.4 Develop PPP arrangement with private sector for tea production and processing in the country
- 9.1.1 Establish breeding and distribution centres
- 9.1.8 Promote downstream processing
- 9.1.9 Promote the development of ruminants

Sector Strategy: Mobilize agribusiness industries and private sector partners to establish downstream processing industries and agricultural hubs

Objective 1.3: Create enabling legislations and policies for downstream processing

MTDP IV Strategies:

- 6.1.1 Review and amend the Rubber Act to govern the new National Rubber Authority to regulate the Rubber Industry in PNG, and strengthen the Rubber Board.
- 7.1.2 Development of relevant policies
- 8.1.7 Formulate a Rice Policy to support both Smallholder Rice Farming and Commercial Rice Productions
- 10.1.1 Review and Amend the Spice Act (1998)

Objective 1.4: Value Adding and Establishment of Value Chains

MTDP IV Strategies:

- 3.1.6 Coffee - Promote value adding products, access to coffee market and domestic consumption of coffee.
- 5.1.6 Improve Product Diversification (improve exportable products for DSP/ Exports)

Objective 1.5: Rehabilitation and Revival of Large-Scale Run-Down Plantations

MTDP IV Strategies

- **Oil Palm**

  2.2.2 Redevelop Oil Palm – Run-down plantations
  2.2.3 Develop large-scale commercial oil palm plantation
  2.2.4 Deliver extension services to replanted Smallholder oil palm plantations
  2.2.5 Replant Smallholder oil palm plantations

- **Coffee**

  3.1.1 Revive and rehabilitate large scale coffee blocks and plantations
  3.1.11 Distribution of coffee seedlings to existing farmers & new growers

- **Livestock**

  9.1.3 Rehabilitation and build regional abattoirs

- **Coconut**

  5.1.2 Establish regional coconut nursery and seedlings distribution centres
  5.1.3 Support replanting and expansion of coconut areas

- **Rubber**

  6.1.3 Rehabilitate and replace matured trees through seedling distribution and replanting programs
  6.1.9 Develop rubber nurseries and distribute seedlings to rubber farmers

- **Tea**

  7.1.1 Rehabilitate Garaina Tea Plantation
  7.1.6 Rehabilitate other tea plantations in the country through partnership and/or by equity participation.

Objective 1.6: Developing Special Economic Zones for Agriculture

Actively assess and promote SEZs for large-scale agro-industrial investments with thorough understanding of trade-offs in benefits against costs and risks that could provide little net gain for PNG in employment and business opportunities and the public accounts.

Objective 1.7: Developing Free Trade Zones for Agriculture

Sector Strategies:

- Establish dialogue with Department of Commerce and Industry for agriculture commercialization.
- Secure suitable land and services for large-scale agro-industrial investments and development complexes, and support of statutory services and bureaucracy for efficient processing and safe entry and stay of investors
- Dialogue and establish partnership with the Lands department for social mapping and land tenure issues to secure land and site for large scale agro-industrial development and service centres.
- Commission and build enabling infrastructure to provide reliable and affordable transport and logistics, energy and electricity, communications and financial services
- Develop and ensure all enabling policies, legislative, regulations, customs and tax incentives, procedures, protocols and the necessary services and information are well documented and made available in partnership with the IPA to assure and facilitate interests of FDIs, local investors and Development Partners.
- Work in partnership with the law and justice sector to establish measures for improving law and order situation for safe trading and commerce by communities in and around large-scale agro-industrial investment complexes.

MTDP IV Strategies

4.1.11 Promote Cocoa MSMEs and group-based production and marketing systems.
6.1.6 Increase number of MSMEs in the PNG rubber industry

Objective 1.8: Development of Special Economic Zones for agriculture

Sector Strategies:

- Actively assess and promote Special Economic Zones for large scale agro-industrial investments with thorough understanding of trade-offs in benefits against costs and risks that could provide little net gain for PNG in employment and business opportunities and the public accounts.
- Establish management capacity to take lead in advocating and facilitation of PPPs, Agriculture SEZs and FDIs for attracting agro-industrial investments and international market opportunities.
- Sponsor and actively participate in agribusiness investment roadshows in targeted international trade and investment exhibition events to attract investors
- Negotiate for favourable Customs and Tax Incentives for investors and access to affordable financing for local participation and equity options in the large-scale agro-industrial Investments projects.
- Establish management capacity to take lead in advocating and facilitation of

PPPs, Agriculture SEZs and FDIs for attracting agro-industrial investments and international market opportunities.

- Sponsor and actively participate in agribusiness investment roadshows in targeted international trade and investment exhibition events to attract investors
- Facilitate and negotiate with existing state-owned enterprises and create special purpose vehicles to carry the state's equity participation and landowner obligations that is acceptable to all interested parties.
- In partnership with the law and justice sector, put measures in place to improve the law and order situation for safe trading and commerce for communities in and around the large-scale agro-industrial investment complexes.

B: Small-Scale and Smallholder Production

- Mobilising small plots of land into production via cooperatives for specialised share of farming operations.
- Improved Welfare of Farmers and Agribusiness Enterprises
- Supporting Smallholder Farmers and agribusiness enterprises through MSME Financing and access to financial capital
- Establishing Freight Subsidy Scheme for Farmers and agribusiness enterprises
- Establishing Price Stabilization Program for Farmers and agribusiness enterprises
- Providing extension services to farmers, Cooperative Societies, and agribusiness enterprises to maintain quality value and supply chains.
- Supporting farmers and agribusiness enterprises identify viable domestic and international markets.

Small-Scale Strategy (i)

- Position local agriculture-based SMEs (agSMEs) to be linked to large-scale Agro-industrial investments and markets.
- Target and facilitate primary productions and downstream processing, services and value-added markets, to accelerate wider Investments in the transformation from subsistence agriculture to commercial SMEs and industrial scale agriculture enterprises.
- Mobilize people and land in an informed, inclusive and participatory market driven large-scale commercial and industrial agriculture developments to maximize participation by the majority of our rural population.
- Provide incentives in training and capacity building to start-up financial assistance in transport subsidies and price support for local SMEs to participate effectively in business opportunities through on-farm production and processing agribusinesses and off-farm enterprises across the agriculture value chains and services
- Adopt green economy principles to ensure minimum environmental impacts and resilient business ventures, adaptable and able to contribute to mitigating adverse impacts of global climate change on weather patterns.

Small-Scale Strategy (ii)

- Maximize opportunities for national scale mobilisation of youth employment in large-scale agro-industrial investments projects.
- Mobilize women and youth employment through targeted skills training,

apprenticeships, scholarships, cadetships, and secure jobs placement in large scale agro-industrial complexes, agSMEs, private service providers, and associated government public service jobs.

- Liaise with sector and commodity agencies to identify and account for their industry contribution to the 2,000,000 new jobs target and a K200 billion economy by 2030.
- Ensure all large-scale commercial agriculture investments include provision for training and up-skilling of the local youth labour force for employment and retention in skilled technical and administrative jobs.

Objective 1.9: Support Extension Services to farmers and agribusiness enterprises

MTDP IV Strategies

3.1.2 Provide extension and training Business support services to cooperative society and smallholder farmers (MSMEs, youth & women).
4.1.2 Support cocoa extension programs for smallholder growers
4.1.5 Promote Cocoa Cooperative Societies
5.1.4 Develop and promote coconut MSMEs, agribusiness and marketing.
8.1.6 Promote smallholder and cooperative societies in rice farming
10.1.7 Farmers and staff training and extension services enhance
11.1.3 Enable farmers to have access to financial services

Objective 1.10: Establish Freight Subsidy Scheme for Farmers

MTDP IV Activities

6.1.8 Improve partnership to subsidize costs
11.1.8 Develop freight subsidy program to assist farmers to bring their produce on time to the market.

Key Strategies of Goal 2 and Objective 2 of the Freight and Price Support Policy

- Downstream manufacturers in rural settings are qualified for price support and freight
- subsidy funds (Targeting rural manufacturers).
- Forge Partnerships with downstream manufacturers and airline and shipping operators.
- Infrastructure (warehouse and cool rooms) for post-harvest management
- Upgrade Transport Infrastructure (airstrips and jetties) in rural areas

Objective 1.11: Establish Price Stabilization Program for Farmers

Key Strategies of Goal 3 and Objective 3 of the Freight and Price Support Policy

- Promote middleman to participate in downstream manufacturing
- No funds released to middleman and or individuals
- Advocate individual farmers or family units to form farmer cooperatives
- Improve marketing infrastructure
- Introduce e-agricultural services

Ninety percent (90%) of the total funding will be used by the Commodity Boards, provincial governments and DDAs with assistance from Development Partners to empower growers into value-adding processes.

Objective 1.12: Support farmers and MSMEs - Access to Markets

MTDP IV Strategies:

3.1.9 Support Market access infrastructure and promote e-marketing.
5.1.4 Develop and promote coconut MSMEs, agribusiness and marketing.
6.1.10 Improve Accessibility to markets.
8.1.4 Promote PPP arrangements in Commercial Rice Production in PNG.
9.1.5 Encourage smallholder commercial piggery and poultry production.
11.1.3 Enable farmers to have access to financial services.

Objective 1.13: Support Smallholder Farmers and (MSME) - Access to Financing

Strategies: MTDP IV

4.1.11 Promote Cocoa MSMEs and group-based production and marketing systems
5.1.4 Develop and promote coconut MSMEs, agribusiness and marketing.
11.1.3 Enable farmers to have access to financial services

KRA 2: Improved Infrastructure and Access to Markets



Objective 2.1: Improve infrastructure and transport for access to domestic markets

MTDP IV Strategies

3.1.3 Rehabilitate and improve commodity roads and transport access.

Objective 2.2: Improve access to international markets and trade

MTDP IV Strategy 9 - Government subsidizes Air Niugini to do international flights to deliver foods, vegetables and supplies directly to international niche markets

Objective 2.3 Establish Provincial and District Infrastructure and Market Facilities

MTDP IV Strategies:

3.1.9 Support Market access infrastructure and promote e-marketing
11.1.4 Establish market access and improve marketing opportunities of fruits and vegetable farmers.
11.1.5 Build cooling facilities in strategic locations to aggregate fresh produce for the market.
11.1.6 Identify and establish partnerships to promote the fresh produce value chain development.
11.2.3 Build cold chain storage facilities in the country.

KRA 3: Increased Agriculture Commodity Investments and Exports

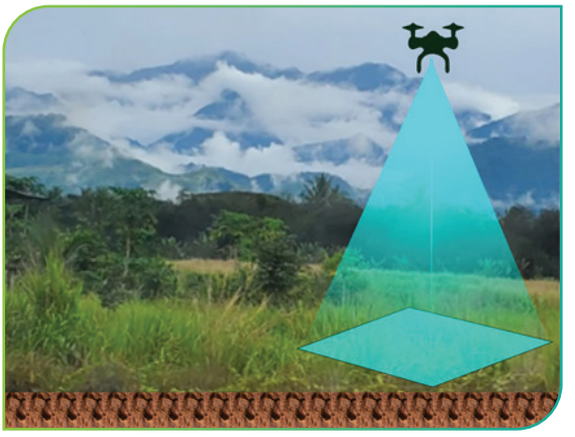


Sector Strategy 3.1: Economic Corridors for Investments in Agro-Industrial Developments at Scale for domestic and international markets, and trade.

- Build management capacity to take lead in advocating and facilitation of private public partnerships (PPPs), Agriculture Special Economic Zone (SEZs) and Foreign Direct Investments (FDIs) for attracting agro-industrial investments and international market opportunities.
- Sponsor and actively participate in agribusiness investment roadshows in targeted international trade and investment exhibition events to attract investors

Negotiate for favourable Customs and Tax Incentives for investors as well as access to affordable financing for local participation and equity options in the large-scale agro-industrial Investments project.

KRA 4: Effective Land Mobilisation, Use and Management



Objective 4.1: Secure and Develop Land for agricultural hubs

MTDP IV Strategies:

8.1.2 Acquire land for large scale rice development, invest in appropriate and adequate research and development for quality improvement, and provide extension and training in rice development.

8.1.5 Mobilization of additional customary land for commercial rice productions

9.1.7 Acquisition of Land/Sustainable Land Development

KRA 5: Enabling Policy and Legal Environment for Strategic Private Sector Participation and Investor-Friendly Climate



Objective 5.1: Improve policy and legal impediments to participation of private sector

MTDP IV Strategies:

2.1.2 Rehabilitate block-holders roads infrastructure
2.2.6 Rehabilitate Roads Smallholder Oil Palm
3.2.2 Constructed and upgrade Coffee Commodity roads (km)
4.1.12 Facilitate, identify and advise on priority areas for market access infrastructure
4.2.10 Cocoa access roads upgraded and sealed (km)
5.2.5 Upgrade and build access roads for coconut transportation (km)
5.2.6 Build jetties to transport coconuts to markets
5.2.7 Arrange vessels for transporting coconuts

KRA 6: Comprehensive Research and Development



Objective 6.1: Support learning, research and development in innovations

MTDP IV Strategies:

2.1.5 Oil Palm Research and Development (R&D) and Extension Services
3.1.5 Promote productive PPP for extension, research and industry operations
4.1.13 Support and fund Cocoa R&D programs
5.1.8 Promote coconut industry R&D, and support extension services
5.1.9 Support development of coconut gene bank and its scientific R&D efforts
9.1.2 Support research development and training programs
11.1.7 Improve R&D in the sector

Objective 6.2: Review biosecurity strategy for research programme on invasive pests

MTDP IV Strategies:

2.2.8 Establish commercial nurseries with climate and insect –resilient varieties
3.1.7 Support Integrated-farming, food security and sustainable livelihood
5.1.10 Pest and disease control (Bogia Coconut Syndrome)
9.1.10 Support research and development for animal pest and disease control (Biosecurity).

Objective 6.3: Crops Research

Sector Strategies

- Undertake a review of agriculture research in PNG and determine the current state of research programs and projects, and assess the physical state of research facilities in the country.
- Promote research to develop high yielding crop varieties resistant to biotic and abiotic stresses (e.g. disease, drought, and pests).
- Invest in domestic production and multiplication of quality/certified planting materials by enhancing research efforts to develop improved seed and plant varieties and improve their availability.
- Promote research on nutrient-rich crops through bio-fortification, to position PNG as a trusted source of bio-fortified foods.
- Support research in Agriculture Biotechnology.
- Conduct research on post-harvest management technologies, quality preservation and value addition.

Objective 6.4: Livestock Research

Sector Strategies:

- Establish breeding and distribution centres;
- Support R&D programs for animal diseases, and pest's control;
- Conduct research on increasing nutritious value of fodder;
- Promote research on diversified animal products;
- In partnership with private sector, conduct research on animal feed formulation;

Objective 6.5: Market Research

Strategies:

- Identify products and varieties preferred by consumers depending on targeted markets (rural/urban, and international)
- Focus on domestic market research on identifying dietary gaps, mapping consumption patterns and the links with production, trade analysis, and impact of regulations
- Support research in identification of niche products and finding cost effective and sustainable solutions to logistical challenges.

Objective 6.6: Increasing Research Capacity

Strategies:

- Upgrade research equipment and online repository;

- Rehabilitate and upgrade public research infrastructures, which include: new laboratories, research stations, greenhouses, post-harvest research facilities, and gene banks.
- Increase human resources for conducting research in key areas and for retaining highly qualified scientific staff.

Objective 6.7: Fostering Collaborative Networks

Strategies:

- Create and nurture collaborative networks to leapfrog technologies in a fast and cost-effective way and tap into resources and capabilities possessed by domestic and international research institutions;
- Encourage PNG scientists and researchers to access national and international research facilities and undertake exchange visits to develop regional and international research networks.
- Allocate funds to acquire patents and licenses through research networks.

KRA 7: Integrated Agriculture Education, Training and Extension Services



Objective 7.1: Agriculture Education, Training Strategies:

- Use existing institutional structures [commodity boards, technical and educational institutions] to ensure coordination and market-responsiveness in curricula development and teaching; food industries and provision of services to farmers in TVET, including skills, such as management, marketing, product packaging and labeling.
- DAL to build its policy capacity to influence the Department of Education to support education and training in agriculture and natural resource management.
- HR to develop Succession Plan for the DAL, including Exit Plan and options for utilizing senior staff in capacity building programme. Cadetship Programme to be developed in collaboration with universities and agriculture training colleges.

Objective 7.2: Promote effective agriculture extension delivery systems in provinces

Sector Strategies:

- Centralise and adopt effective approaches for delivery of agriculture extension services.
- Improve capacity, skills and knowledge of provincial extension officers.

- Improve communication and collaboration linkages with corporate agencies and other relevant stakeholders.
- In collaboration with other MDAs, agribusiness enterprises and industries, establish provincial and district resource centres.
- Improve management and coordination of agriculture support services.

KRA 8: Biosecurity

Objective 8.1: Develop innovative research programmes to address invasive pests and insects



MTDP IV Strategies:

2.2.8 Establish commercial nurseries with climate and insect–resilient varieties
3.1.7 Support integrated farming, food security and sustainable livelihood
5.1.10 Pest and disease control (Bogia Coconut Syndrome)
9.1.10 Support research and development for animal pest and disease control (Biosecurity)

KRA 9: Food and Nutrition Security and Safety Standards



Objective 9.1: Focus at the national and agro-ecological levels on the development of key staple crops.

Strategies:

- Promote processing, preservation and utilisation of crops, livestock and fish products
- Promote access to nutritious food, as well as nutrition and health information. Coordinate food security programming to address malnutrition issues with key agencies.
- Reduce variability in food prices through buffer and strategic stocks.
- Area, yield and production measurement for staple crops – taro, yam, cassava, banana, kaukau and others.
- Develop effective post-harvest management strategies, particularly storage facilities at individual and community levels.

- Emergency preparedness and disaster management.

Objective 9.2: Strengthen the national Codex management and coordination system.

Strategies:

- Institutional Strengthening and Infrastructure Support
- Strengthen partnership and collaboration with regional and international organizations.
- Strengthen partnership with International Organisations

Objective 9.3: Enhance Codex and food safety activities.

Strategies:

- Conduct extension and awareness programs in the provinces.
- Conduct strategic research and assessments.
- Provide a coordinated mechanism to address food safety issues anchored in legislations.
- Support development of standards on food safety.

Objective 9.4: Ensure fair practice is maintained by food manufacturers and importers.

Strategies:

- Review food standards and regulations
- Develop food standards for locally produced food.
- Test and monitor product inspection and feedback mechanism
- Facilitate continuous research and monitoring of food safety risks across the various food value chain.
- Ensure capacity building of actors in the food value chain on existing and emerging food safety risks.
- Develop food standards and food policies in compliance with Codex requirements.
- Conduct awareness seminars on Codex requirements for the stakeholders.

KRA 10: Climate-Smart Agriculture



Strategies:

- Provide early warning, response and ensure preparedness for adverse climate change effects in collaboration with other agencies.

- Develop capacity of agricultural value chain players to respond to unfavourable climate change effects.
- Promote climate change resilience fisheries, livestock and crop enterprises.
- Promote green growths strategies (green economy) in crops, livestock and food.
- Promote climate financing and broaden mechanisms to attract investments in climate smart agricultural practices along the commodity product value chains.
- Develop programs to rehabilitate degraded eco-systems including soils, wetlands, and forests
- Develop programs for capacity building in soil and ecosystem conservation and restoration.

KRA 11: Institutional Reform and Sector Development



Objective 11.1: Improved leadership, governance, and management

Strategies:

- Strengthen management capabilities at national, provincial, and district levels.
- Review management decision making process for aligning planning, budgeting, expenditure, and management decisions to data from MEL and agriculture priority areas.
- Review compliance and reporting arrangements within the sector for adherence to reporting obligations of all partners and stakeholders in line with the NASP.
- Review accountability mechanisms at national and provincial levels for delivery of services by management and staff to the Secretary of Agriculture in accordance with the relevant legislations.
- Review and strengthen existing governance, management and accountability mechanisms within the sector for use of funds.

Objective 11.2: Improved Financial Management within agriculture sector

Strategies:

- Incremental increase of the overall percentage of Gross Domestic Product (GDP) contribution of agriculture sector to PNG's GDP over ten years.
- Improve efficient and effective use of existing financial resources.
- Facilitate an improved flow of funds to where it is needed at the sub-national levels.

- Develop and implement a single Agriculture Sector Funding Plan and Strategy.

Objective 11.3: Qualified and Skilled Workforce capable of meeting sector needs

Strategies:

- Improve Public Service Recruitment Processes
- Develop National Human Resource policy and plan for the agriculture sector.
- Build the capacity of training institutions to reduce attrition rates and provide appropriate categories of workers needed for the sector at all levels in the future.
- Increase the annual output of qualified and trained agriculture graduates to meet the needs of the sector through Cadetship Program.
- Develop and implement a sector-wide human resource information system (HRIS) by 2027.
- Develop and implement affordable agriculture sector workforce recruitment, retention, exit strategies and succession plans.

Objective 11.4: Establish Strong Governance and Administration System to drive the Sector.

Sector Strategies:

- Review and examine all laws established in the agriculture sector with the view to recalling national functions if commodity and sector agencies fail to deliver on its mandate.
- Develop clear policy guidelines and governance mechanisms to move the sector forward.
- Identify strategic options for Government to recall regulatory powers and functions vested with commodity boards that are not performing to expectations.

MTDP IV Strategies:

2.1.1 Restructure OPIC as the new National Oil Palm Oil Authority

4.1.6 Institutionalize capacity building of human resource and facilities

6.1.2 Improve institutional capacity by recruit appropriately qualified technical personnel to run the new entity

10 Review and Develop Policies and Plans - Corporate Plans, Retrenchment Policy and others.

10.1.6 Spice Board institutionalized and capacitated

Objective 11.5: Effective Sector Management and Coordination

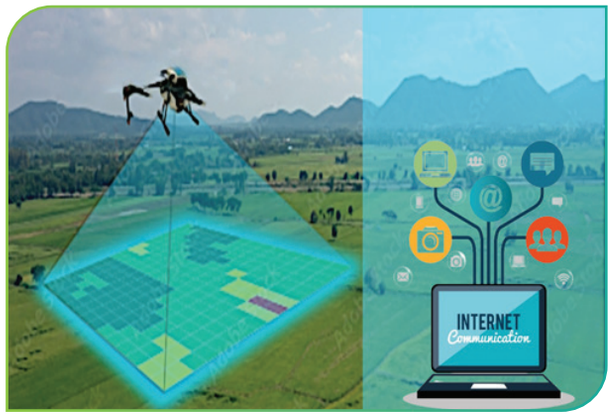
Sector Strategies:

- Establish a Governance Structure and Coordination Mechanism within DAL
- Establish a Financial Management and Procurement Manuals and Guidelines.
- Capacity Audit/Assessment of Department of Agriculture and Recruit Highly Qualified Personnel
- Establish a Budget and Financial System that is conversant with the IFMS

Objective 11.6: Establishing a functional Monitoring Evaluation and Learning System
Sector Strategies:

- Consultations with key divisions of the DAL, including sector and commodity agencies, key partners and stakeholders, at national and provincial level for setting up a MEL system;
- Define purpose and scope of the MEL system (results monitoring, fund monitoring, evaluation, dissemination and learning
- Agreement on outcomes and objectives, including indicators, data collection and analysis methods
- Identify staff of DAL who will be involved in monitoring and evaluation.
- Training of staff on MEL processes and setting up the MEL system within NASP Secretariat.

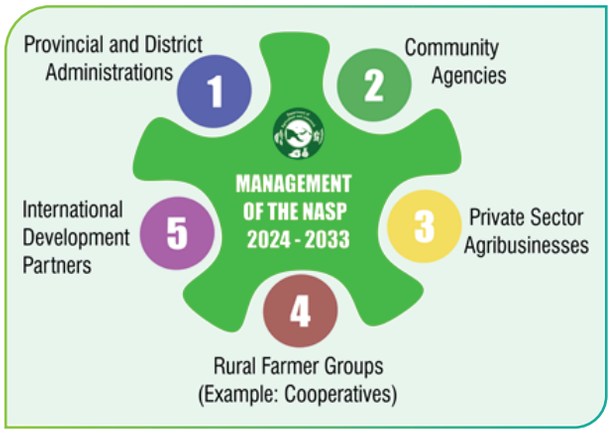
KRA 12: Information Management and Use - Information Communication Technology



Sector Strategies:

- Establish a central data hub (CDH) for collecting, production, processing, management, and dissemination of accurate and reliable information for use by agriculture sector and industries.
- Re-establish library and information centre for collecting, storing and making available information in various forms, and be custodian of all agriculture sector knowledge and information.
- Re-establish Agriculture Library and information Centre for collecting, storing and making available information in various forms.
- Capacity building on data collection methods, analysis and use of statistics
- Adopt E-agriculture for strengthening the role of ICTs in accelerating the growth of the agriculture sector in a sustainable manner.

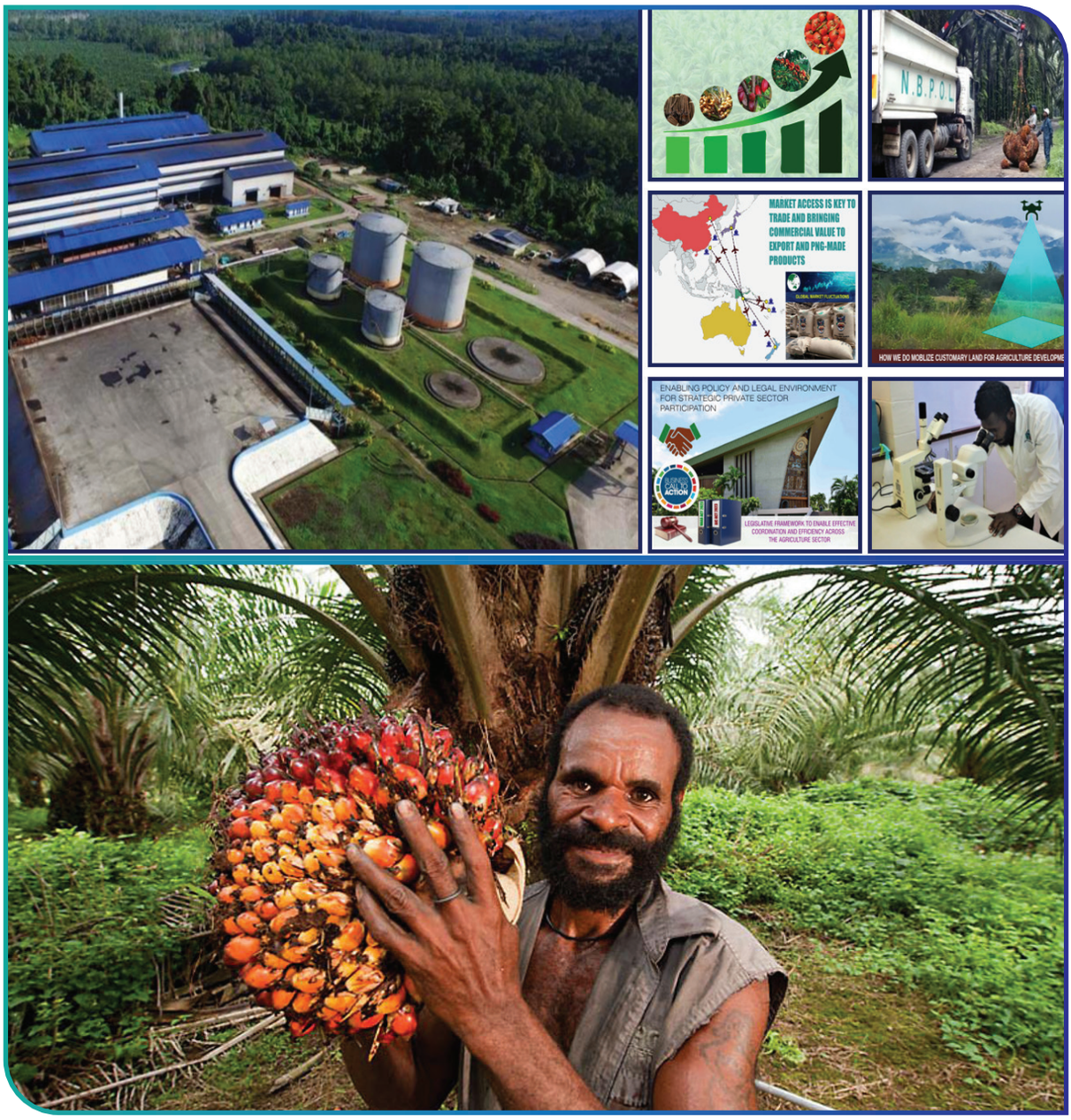
KRA 13: National Agriculture Sector Plan Management



Objective 13.1: Establish a Secretariat responsible for effective management of NASP implementation

Strategies:

- Effective implementation of start-up activities:
- Budget and Procurement Plan
- Baseline Studies
- Conduct Capacity Audit/Assessment
- Establish governance arrangements
- Establish effective financial management mechanisms
- Establish Communication and Reporting Arrangements for NASP Funds.
- Implementation Plan for NASP 2024-2033



2 CHAPTER 2. IMPLEMENTATION ARRANGEMENTS

Implementation is the action that follows the planning process. It involves turning a plan or policy into reality in order to accomplish objectives and goals. A plan is good only when it gets implemented.

A number of policies and plans have been developed in PNG. However, the implementation and success rates of these plans have been poor due to a number of factors. The agriculture sector is complex and the chance of the NASP not being implemented and achieving its expected outcomes is high, if there are no implementation arrangements and strategies.

Drawing on lessons from the challenges in implementing the past NADP 2007-2016, the next sections outline the issues that need to be considered for successful implementation of the NASP.

2.1 Implementation Arrangements

The challenges in the sector are clearly interdependent and require a concerted action. In order to successfully implement the strategic directions identified in Part 1 (Policy) and Part 2 (Strategies and Implementation Arrangements), and for better coordination, the NAMP will adopt a programme approach.

2.1.1 Programme Approach

Under the programme approach, there will be five major inter-related programmes based on the Agriculture Priority Areas (APAs) of the Policy and the NASP. The proposed programmes will focus on the key result areas, combining policy, institutional, infrastructure and technology related measures to address the multiple constraints that hinder the growth potential of PNG's agriculture. The overall objectives of the programmes are to: (i) achieve the K30 billion target set for the sector, and (ii) create 1 million jobs by 2030, consequently increasing agriculture sector's contribution to the GDP and overall national economy. The programmes will be closely monitored and upon mid-term review after 5 years, changes can be made to programmes based on needs of the sector.

The five programmes include:

- Programme 1: Commodity Commercialization
- Programme 2: Enabling Policy and Legal Environment for Investments and Private Sector Partnerships and Participation
- Programme 3: Agriculture Infrastructure Development
- Programme 4: Research and Development
- Programme 5: Sector Management and Coordination

Specific issues, such as green economy, climate-smart agriculture, women and youth will be mainstreamed across the five programmes.

The APAs will be grouped under the five programmes as follows:

Programme 1: Commodity Commercialization

Programme 1 focuses on NASP APA/KRA 1 - **Increased Scale of Production and Productivity** through 6 strategic interventions listed below:

Objective 1.1 Commodity Commercialisation at two levels:

Medium and Large-Scale Agriculture Commercialization, Investments and Entrepreneurship Small-Scale Commercialization involving smallholder farmers and agSMEs.

Objective 1.2 Downstream Processing of Selected Crops and Livestock
Objective 1.3 Rehabilitation and Revival of Large-Scale Run Down Plantations
Objective 1.4 Value Adding and Establishment of Value Chains
Objective 1.5 Development of Special Zones for Agriculture
Objective 1.6 Development of Free Trade Zones

To comply with green economy principles, green sticker and Eco-label practice standards will be applied, similar to sustainability standards. Green economy and Climate Smart Agriculture Practices will be included as safeguards when moving into mechanization of agriculture under Component 1 Commodity Commercialization.

Programme 2: Agriculture Infrastructure Development

This programme is concerned with NASP APA/KRA 2 **- Improved Infrastructure and Access to Domestic and International Markets and Trade.** It consist of 4 components:

i. Support to the Rehabilitation and Revival of Run-Down Plantations
ii. Support to the Rehabilitation and Upgrading of Feeder and Commodity Roads
iii. Rehabilitation and Modernization of existing storage and processing facilities and equipment
iv. Rehabilitation and construction e.g. Research Centres, Irrigation, etc.

Programme 3: Strategic Public-Private Partnerships and Participation in Agriculture

This programme focuses on NASP APA/KRA 5 – Enabling Policy and Legal Environment for creating investor-friendly climate for Private Sector Partnerships and Participation, Investments, etc.

Programme 4: Research and Development

This programme focuses on NASP APA/KRA 6 - **Comprehensive Research and Development**

Programme 5: Sector Management and Coordination

This programme is internally-focused and covers 8 NASP APAs/KRAs, which are mainly handled by DOA:

APA/KRA 4: Land Mobilisation, Use and Management
APA/KRA 7: Integrated Agriculture Education, Training and Extension Services
APA/KRA 8: Biosecurity
APA/KRA 9: Food and Nutrition Security and Safety Standards
APA/KRA 10: Climate-Smart Agriculture
APA/KRA 11: Institutional Reform and Sector Development
APA/KRA 12: Knowledge Management and Use - Information Communication Technology
APA/KRA 13: National Agriculture Sector Plan Management

2.1.2 Program Outcome Leaders

DAL will identify and appoint Program Outcome Leaders (POLs) to serve as the technical advisor of the Governing Council. The POLs should be representatives of the agriculture priority objectives of the NASP and be appointed based on their technical capabilities and experiences. Suggested qualifications are agriculture background, high educational attainment (preferably at Masters and PhD level), and extensive work experiences.

The POLs will be responsible for determining the technical soundness of programs and projects to be included in the plan and review the progress of the programs. They will operationalise the results framework at different levels, building synergy among priority areas, support output implementation by the various actors, streamline synergies between commodity implementation by the various actors, streamline synergies between commodity boards and technical agencies, and DAL. This will be done through increased functional guidance, and annual planning that will be informed by thorough feedback through the MEL system.

2.2 Roles of Key Stakeholders

2.2.1 Roles of Ministries of Agriculture Sector

❖ **Roles of Ministry of Agriculture (MOA)**

The Minister for Agriculture is responsible for all matters related to the functions and legislations of:

- Department of Agriculture and
- Special Agriculture and Business Development Project (SABDP)
- National Agriculture Quarantine and Inspection Authority (NAQIA)
- National Agriculture Research Institute (NARI)
- Cocoa Appeal Committee
- Cocoa and Coconut Research Institute
- Kokonas Indastri Koporesen
- Papua New Guinea Cocoa Industry Board
- Papua New Guinea Spice Industry Board
- Papua New Guinea Rubber Board

❖ **Roles of Ministry of Oil Palm (MOOP)**

The Minister for Oil Palm is responsible for all the matters related to Oil Palm Industry Corporation, including Oil Palm Industry Corporation Act 1992, Palm Oil Industry (Bialla Project Re-organisation Act (Chapter 364) (all provisions except Subsections. 20, 22, 24 and 27(i)

❖ **Roles of Ministry of Coffee (MOC)**

The Minister for Coffee is responsible for all matters related to Coffee Industry Corporation, including Coffee Industry Corporation (Statutory Functions and Powers) Act 1991.

❖ Roles of Ministry of Livestock (MOL)

The Minister for Livestock is responsible for all matters related to:

a. Livestock Development Corporation; and
b. Veterinary Surgeon Board

The following legislations related to livestock also come under the Minister:

- Animals Act (Chapter 329 except Part V.3)
- Animal Disease and Control Act (Chapter 203 (other than powers relating to international trade)
- Slaughtering Act (Chapter 238).

2.2.2 Roles of Department of Agriculture and Livestock (DAL)

NASP is a Government of PNG policy and all Government agencies have important roles to play in its implementation to ensure its success. However, DAL has the lead responsibility within the context of a coordinated Government Programme.

The mission of the DAL is to promote sustainable agriculture and thriving agribusiness through research and technology development, effective extension and other support services to farmers, processors and traders for improved livelihood. In line with this mission and as the lead ministry, the roles of DAL are:

- Policy analysis and formulation.
- Monitoring and evaluation of policy implementation.
- Advising Cabinet on laws required to regulate agricultural activities in order to protect all stakeholders and the environment.
- Coordination and harmonisation of policies and sector activities with other MDAs.
- Facilitation of public-private dialogue and partnerships.
- Advocacy of sector interests locally and in international agreements.
- Facilitation of capacity building of the sector's human resources.
- Facilitation of research and technology development.
- Facilitation of the linkage between agriculture and industry.
- Facilitation of the integration of cross-cutting issues such as gender equality, youth employment, HIV/AIDS and other social issues into the work of the Department.
- Facilitation of international trade and domestic marketing of agricultural commodities.

- Provision and facilitation of agricultural service delivery.
- Coordination of enforcement of regulations.
- Coordination of Development Partners' development policies and activities with the sector policies and activities.

2.2.3 Expected Roles of Private Sector and Civil Society Organisation

- Participate in policy dialogue to ensure that their interests are reflected.
- Invest in productive activities in the sector.
- Ensure that commercialisation is balanced with social responsibility and environmental sustainability.
- Support training and skills improvement of the sector's human resources.
- Participate in research and utilise results.
- Disseminate good agricultural practices.
- Comply with laws and regulations.
- Partner the government in sector development.

2.2.4 Role of Development Partners

- Contribute financial and technical resources to support the achievement of sector objectives within the parameters of the prevailing policy framework.
- Continue to seek new opportunities to harmonise and align their assistance according to the Government's Harmonisation Action Plan.
- Engage constructively in on-going policy dialogue on all policies relevant to agriculture and related sectors.
- Facilitate government management of financial and technical assistance.
- Participate in and support sector monitoring and evaluation efforts.

2.2.5 Role of other MDAs

MDAs are expected to ensure that their policies and programmes are consistent with NASP. MDAs will partner with DAL in sector development through:

- Participation in sector policy development, planning and review.
- Research.
- Human resource development.
- Implementation of cross-sectoral activities.
- Monitoring and evaluating relevant development indicators and providing information to DAL.

2.3 Partnerships and Collaboration

Various stakeholders and institutions from the public sector, private sector, NGOs, civil society and communities at the national and provincial levels were involved in the consultation process for the NASP. The participation by these individuals and organisations to provide their inputs to the sector indicated their vision and commitment to see the successful implementation of the NASP. It also raised their expectation for the NASP to contribute towards changes required to improve the agriculture sector.

These partnerships and collaboration should be fostered and continued during the implementation of the NASP. They should form the basis for joint reviews and

performance monitoring of the sector to ensure that resources are allocated and used for appropriate purposes. Improving the performance of the sector will be made easier through strengthened partnerships within and outside the agriculture sector.

Improved partnerships with central agencies, such as the departments of National Planning and Monitoring, Finance, Treasury, Personnel Management is crucial for securing support for resource allocation and advocate at the highest political level. The Provincial and Local Level Services Monitoring Authority (PLLSMA) and Provincial Coordination and Monitoring Committees (PCMCs) provide ready-built interactions for agriculture stakeholders to align their activities with other service delivery agencies.

2.4 Linking to Provincial, District and LLG Levels

NASP will be linked to the provinces and districts in two ways:

i. Sector and commodity Key Result Areas and Strategies
ii. Province Comparative Advantage for Economic Growth and Development

2.4.1 Sector and Commodity Key Result Areas and Strategies

Sector and commodity agencies will be responsible for working with provinces and districts to implement the NASP. Provinces and districts will develop work plans and align them to respective KRAs and strategies identified in the MTDP IV under each commodity and agency.

Provincial programs will be aligned with NASP priorities, screened carefully, and supported by the Province and the districts in the project sites. All coordinators will ensure conformity with NASP priorities through a monitoring system.

2.4.2 Province Comparative Advantage for Economic Growth and Development

Sector and commodity agencies will work with provinces on the commodities identified in the MTDP IV Province Comparative Advantage for Economic Growth and Development. They will invite the districts to be part of the process.

To ensure a systematic coordination, regional, provincial and district coordinators or committees are needed to oversee the implementation of NASP at the sub-national level. The regional coordinators are responsible for the provinces. The provincial coordinators are responsible for the districts.

2.5 Planning Hierarchy within the Agriculture Sector

Implementation of this Plan will be in line with the recognised different levels of responsibility:

i. National - policy, standard setting, technical advice and monitoring
ii. Provincial: overseeing implementation
iii. District: Implementation

2.5.1 National Level

Chapter 2 of this Plan outlines the overarching direction from Government's key long-term vision and goals. This section of the Chapter explains in detail how specific agriculture sector planning and strategies cascade from the NASP.

Medium Term Development Plan IV: The DAL will work with the DNPM to align MTDP IV Key Result Areas, Strategies and Indicators to NASP APAs and Strategies. The MTDP prioritises and sequences the implementation on policies and activities of sectors and links resources to outputs.

NASP links to the MTDP IV and collates information from the Provincial and District Plans. They will also include information that identifies strategic capital projects. Annual Activity Plans are done for each year at the national level by and for the Department of Agriculture branches and agencies. These plans are informed by the NASP and the plans mentioned above. The national government is also responsible for developing different policy instruments to enhance the implementation of the NASP. These might include changes in and introduction of new legislations and regulations and contracting.

2.5.2 Provincial Level

Provincial Development Plan: Provincial administrations develop five-year development plans to guide sectors. Provincial Departments of Primary Industry (DPI) officers will align this plan to the MTDP and NASP priorities. According to their mandates, provinces must develop plans that are in line with the NASP and its priority strategies, as well as the specific APAs in Part II.

Provincial Five-year Agriculture Sector Implementation Plan: Agriculture service delivery in each province will be guided by the five-year agriculture sector implementation plan, which directs all agriculture sector service providers. These medium-term plans will take their direction from the NASP as well as the overall Provincial Development Plan. According to their mandates, provinces must develop plans that are in line with the NASP and its priority strategies, as well as the specific objectives and strategies.

The **Provincial Annual Activity Plan** is a yearly consolidated action plan and should be developed jointly with all service providers, public and private. The District Annual Activity Plans, again developed by all the service providers in the district, form the core of the Provincial Annual Activity Plan. Over the period of this NASP, concerted efforts will be made to encourage and improve sub-national level planning.

2.5.3 Ongoing Integration of Agriculture Sector Planning with Whole of Government Priorities

The challenge for any implementation process is to ensure that national priorities and strategies are adequately described and translated and incorporated into the annual operational plans of national and provincial administrations. The role of the District Development Administration (DDA) at the district is vital in promoting bottom-up planning.

Each local level government plan is expected to reflect the needs and priorities of communities, while each provincial plan is expected to relate to local realities and national priorities. The key to ensuring synergy between agriculture sector and whole-of-government plans at each level of administration lies with the PLLSMA at the national level, and with the PCMCs at the provincial level. These coordinating mechanisms play a critical role in facilitating dialogue and advocacy across sectors, and will be increasingly used as part of the implementation structures for the new NASP.

2.6. Accountability: Governance and Oversight of NASP Implementation

The DAL is the lead department in the agriculture sector in PNG. It will play the leading role in the implementation and coordination of all sector agencies and partners in the implementation of the NASP. DAL will work in partnership with sector and commodity agencies, central and line agencies, provinces, districts, farmers and farmer groups, private sector and development partners.

Performance of the agriculture sector depends on other Ministries, Departments and Agencies (MDAs) outside of DAL. A concerted action and performance of the food and agriculture sector is required for successful implementation of NASP.

The current administrative set-up of the agriculture sector includes several sector and commodity agencies working in isolation by virtue of the legislations governing their operations. The experiences over the past decades have shown that this is one of the contributing factors to lack of services delivered to farmers and poor performance of the sector.

For successful implementation of the NASP and improvement to the sector, a well-coordinated and concerted effort of all sector and commodity agencies is needed. It is imperative that a coordination mechanism be established for the NASP.

2.6.1 Coordination Mechanism

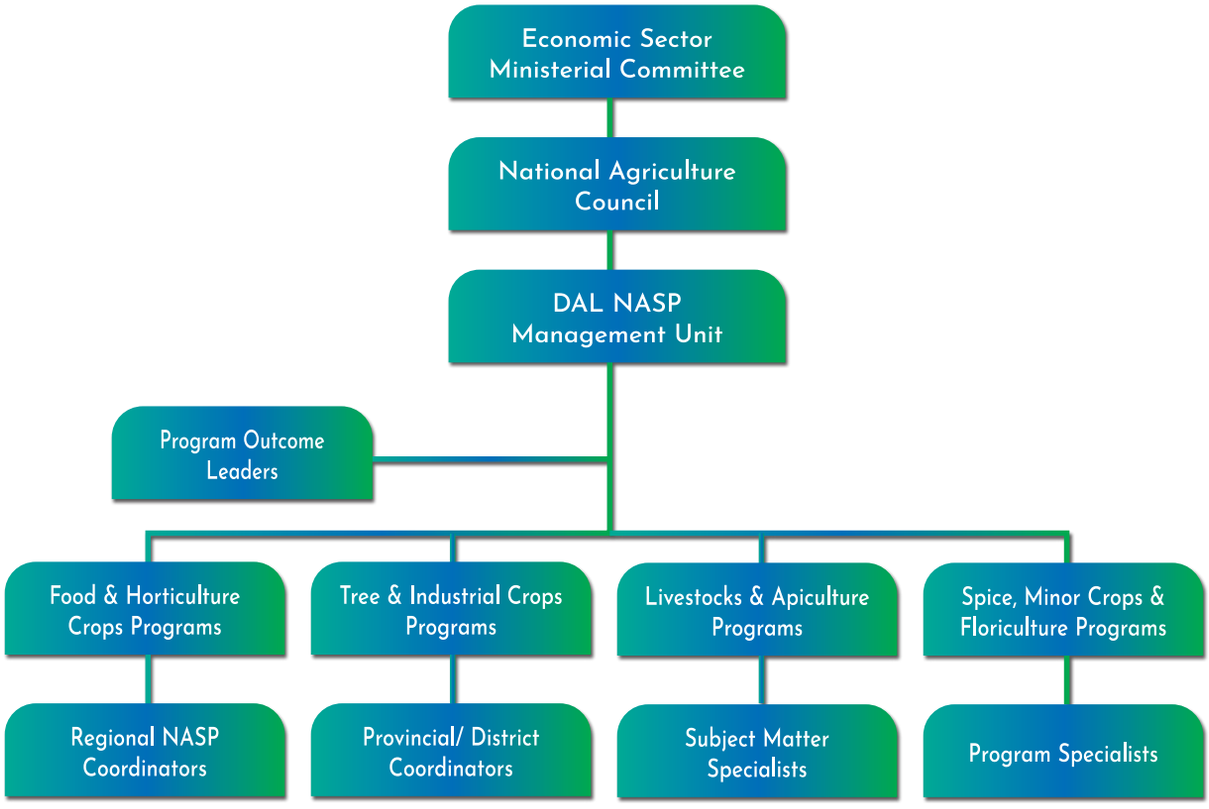
Coordinating agricultural development will involve existing institutions with their functions retained but some changes may be needed to coordinate activities. It is imperative that the organisational changes are legally mandated and guidelines clearly stated to empower coordinators for smooth operation of the implementation process. Three (3) levels of bodies proposed for governance, management and coordination of NASP are:

i. Governing Council - the National Agriculture Council
ii. Program Outcome Leaders - Technical Advisors
iii. NASP Management Secretariat within Department of Agriculture

The coordinating mechanism entails an organisational structure involving several agencies and a NASP Management Secretariat as shown in Figure 2-1.



Figure 2-1. Proposed NASP Coordination Organisational Structure



2.6.2 Governing Council

The membership of the Governing Council will be limited to eminent people to represent the cross section of the sector. Heads of national agencies, which have a stake in agriculture, commodity boards, private sector, particularly industries, Non-Government Organisation, and regional agriculture councils or committee representatives.

The Governing Council will be responsible for overseeing the national policies and providing direction for NASP, to ensure that only one body is responsible for policies, monitoring and evaluation, and allocation of resources. It assures the sustained relevance and responsiveness of programs to address critical issues in agriculture. It brings into focus plans, programs and policy initiatives, and development strategies and guidelines for a more efficient and effective management of agriculture sector, guided by priorities in the NASP. [Detailed Terms of Reference of the Governing Council to be developed by DAL NASP Management Office].

2.6.3 NASP Management Secretariat

A sectoral body needs to coordinate the programs of the agriculture institutions to avoid conflict and duplication of roles, and ensure maximum cooperation between institutions. The Unit needs access to critical information for planning and evaluation of the effectiveness of all agriculture related programs. To enable evaluation of proposals for funding and monitoring and conduct of impact assessments of implemented programs and projects, the Unit must have access to budgetary information, and the ability to conduct independent and acceptable standards of policy research and analysis.

DAL will set up a secretariat within the Department to manage the NASP. The Secretariat will function as a program management unit (PMU) and play the role of a Secretariat to execute the overall directions of the Governing Council.

The Secretariat will consist of technical and administrative personnel. Technical personnel are Subject Matter Specialists (SMS) and Program Specialists (PS). The SMS are mainly responsible for monitoring the trends of the sub-sectors and packaging of information for dissemination. The PS are responsible for programming and monitoring.

The Secretariat analyses the programs; formulates plans, strategies, policies and programs for sustainable agricultural development, cross sectoral linkages, and public/private partnership; allocates funds from government or external sources; monitors and evaluates programs. It prepares the documents for planning, monitoring, evaluation, and reporting of various agricultural development initiatives. It has a calendar of activities, from the districts to the national level, and organizes events such as meetings, reviews, and consultations. It is also the initial point of contact to source or channel donor assistance.

2.7 Financial Management and Disbursement Arrangements

The NASP Management Secretariat (NASP Secretariat) will be responsible for financial management and disbursements for the NASP. It will develop guidelines for financial management and disbursements in line with the Government's Public Financial Management Act. The Unit will work in consultation with DAL, POLs, and the Governing Council.

While the current DAL Finance and Accounting staff are experienced and maintain accurate records, it is difficult to verify the accuracy of records or the robustness of internal control systems within DAL. The NASP Secretariat may need to recruit qualified accountant and accounting staff for the implementation of NASP. The staff will be responsible for preparation of payments, preparation and maintenance of documentation, Secretariat cash management and monthly bank reconciliations, preparation of financial reports for the NASP Secretariat, Governing Council and DAL, including Quarterly Interim Financial Reports (IFRs), and preparation of end of year financial accounts and liaising with the external auditor.

NASP Financial Management Team and Procurement Team will be guided by three Investment Guiding Principles under Resourcing Arrangements in Chapter 6.

2.8 NASP Procurement Arrangements

The NASP Secretariat will be responsible for developing guidelines for procurement of goods and services for implementation of the NASP. It will work in consultation with the DAL, POLs, and the Governing Council. The Secretariat will prepare a Procurement Plan, which will provide the basis for procurement methods for works, goods and services under the NASP. This plan will be appraised and agreed between DAL and POLs and the NASP Secretariat.

The procurement for NASP will be carried out in accordance with the Government's Public Financial Management Act and the National Procurement Commission (NPC) guidelines depending on the level of financial ceiling or threshold. The Procurement Plan will be updated at least annually or as required to reflect the actual NASP implementation needs.

2.9 Accountability and Performance of Different NASP Implementors

To improve implementation of the NASP, information on performance is crucial. A Results Framework in Annex 5 has been developed to provide the different levels of government with a tool to measure performance, and to hold the lower tiers accountable for the use of resources.

The NASP Secretariat within DAL will work with the regional, provincial and district DPI officers to monitor the progress of capital investment priorities as part of its responsibility to monitor the overall implementation of the NASP.











3 CHAPTER 3. FINANCING ARRANGEMENTS

Implementing of the NASP and transforming agriculture sector in PNG for economic growth, creating employment, and improving food safety and nutrition security requires a significant financial commitment from the public sector. The NASP requires strategic and adequate investments in production, commodity value chains, and supporting economic infrastructure. It recognizes that far greater attention must be paid to ensuring that more effective usage and allocation of the existing financial resources. This is especially required with the overall government-funded recurrent service expenditure increasing substantially over the years.

Yet while these increases could have resulted in improvements, the additional funding is not being adequately translated into tangible development outcomes. One of the key lessons to be learnt of the past decades is that money by itself does not lead to improvements in service delivery. This chapter focuses on resource mobilisation, allocation, and usage from lessons learnt.

3.1 Resource Mobilisation

Expenditure on agriculture in PNG is mainly publicly-funded, and is likely to remain so. The increase in population expected over the life of this Plan will demand a significant increase in resources. The agriculture sector must continually make the case through advocacy, and via tangible results, that investment in agriculture by the Government of PNG is a worthwhile and fruitful investment. A healthy and wealthy populace is a prerequisite to achieving the aspirations contained within Vision 2050.

The agriculture sector will improve its relationship with development partners, private-sector partners, ad investors, particularly with the resource and agribusiness companies that are providing basic services to their employees and their families. Partnerships such as these will be leveraged to take the pressure of public expenditure on health and education, and to foster innovative service delivery models.

The sector will also consider investing in public–private partnerships to deliver large-scale infrastructure programs, in line with Government of PNG's Public--Private Partnership Policy. At the same time, development of public–private alliances will be pursued, particularly with those who are currently delivering services in areas where Government presence is absent.

Opportunities for mobilizing resources for agriculture from existing sources will also be pursued. More efforts will be made to ensure that funds allocated for agriculture from the three Service Improvement Programs (SIPs), including Provincial Service Improvement Program (PSIP), District Service Improvement Program DSIP), and Local Level Service Improvement Program (LLSIP) are allocated and spent on agriculture at various levels.

3.2 Resource Allocation

The increased allocation of financial resources to the agriculture sector in the

next five years requires the DAL to ensure that these are equitably allocated and distributed across the sector efficiently and in the manner that will generate the best possible outcomes.

A whole of government sector-wide perspective is essential to improve equitable resource allocation across the agencies, regions, provinces and districts with the improvement of the Medium Term Expenditure Framework. The development of a single Agriculture Sector Funding Plan and Strategy will assist in improving sector-wide finance decision-making.

Decision-making for allocation of resources need to be inclusive to prevent decisions made in isolation from the different agencies in the sector. The collective efforts of all sector players are needed to ensure financial resources are allocated where they are needed most. The use of MTEF will help as it shows the total pool of funds available to the sector, and the estimated requirements. The use of the MTEF will help in decision making for allocation of financial resources. In addition, evidence and information will help make better decisions about opportunity costs of different financial allocation on choices. The resources required to obtain one outcome can be compared with those required to achieve another.

3.3 Resource Usage

The increase funding of the resource envelope for the agriculture sector should not overshadow the clear opportunities available for agriculture sector to improve within the existing financial situation.

The experiences of farmers, including those delivering service at the sub-national levels, should not contradict the actions of the government and the resources it has allocated. The use of funds and services delivered at the various levels should be consistent with funds allocated. Many funds do not reach their intended destination and funds are not effectively used for the purpose they were allocated. There are indications that provinces do not spend the increased amounts of funds (NEFC 2010).

Resource management and governance is needed in the agriculture sector to ensure that funds mobilized and budgeted actually match the intended purpose by its usage.







4 CHAPTER 4. COST OF THE NATIONAL AGRICULTURE SECTOR PLAN

The cost estimates are of the public sector expenditure to be incurred above existing commitments to recurrent costs and investment for ongoing programs. They do not include operational costs, such as personal emoluments and administration of the implementing agencies. The cost of private sector response to the investment opportunities created by Government initiatives is excluded. The NASP, however, does provide an indication of the extent of collaboration and expected responsiveness of the private sector and can be used as a basis for estimating private sector responsive costs. It also provides the direction of proactive responsibility expected from all sector and commodity agencies in the agriculture sector, including departments and agencies outside of the sector who have a stake towards the improvement of agriculture in PNG.

This chapter presents estimates of the cost of implementing the programs set out for NASP.

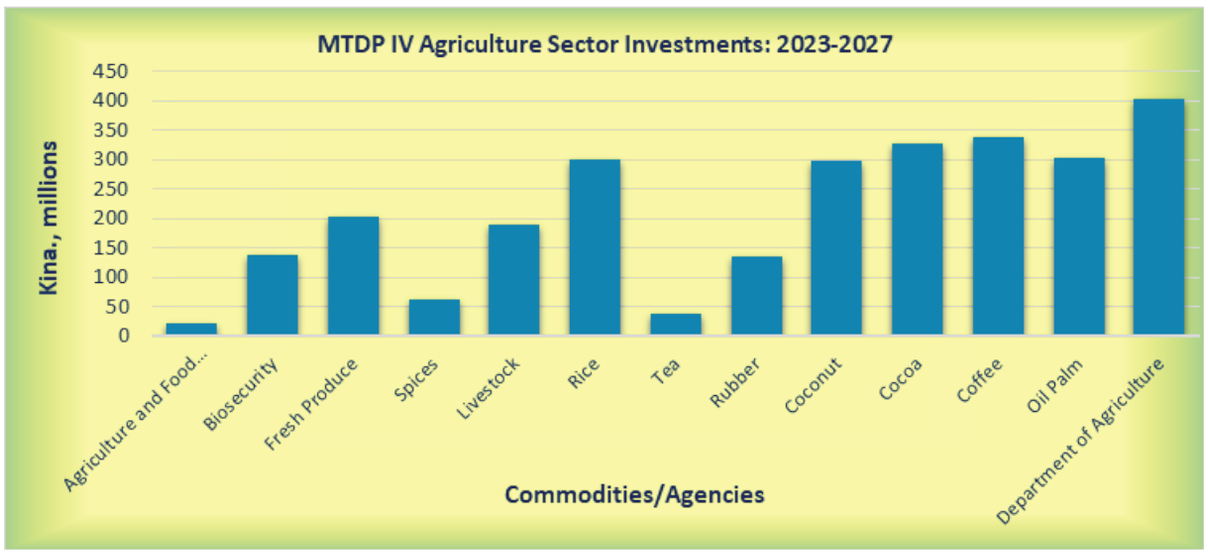
4.1 Medium Term Development Plan IV Investments

The financing requirements for the NASP will be initially drawn from the investments for each sector or commodity agency as provided for in the MTDP IV 2023-2027.

The total investment budget for the agriculture sector is K3, 497 billion for the five years. This is about 31 percent of Strategic Priority Area (SPA) 1, and about K681.6 million per year. In the past years, agriculture sector had been receiving less than K200 million annually.

The breakup of this total sum for the sector is shown in Figure 2-2.

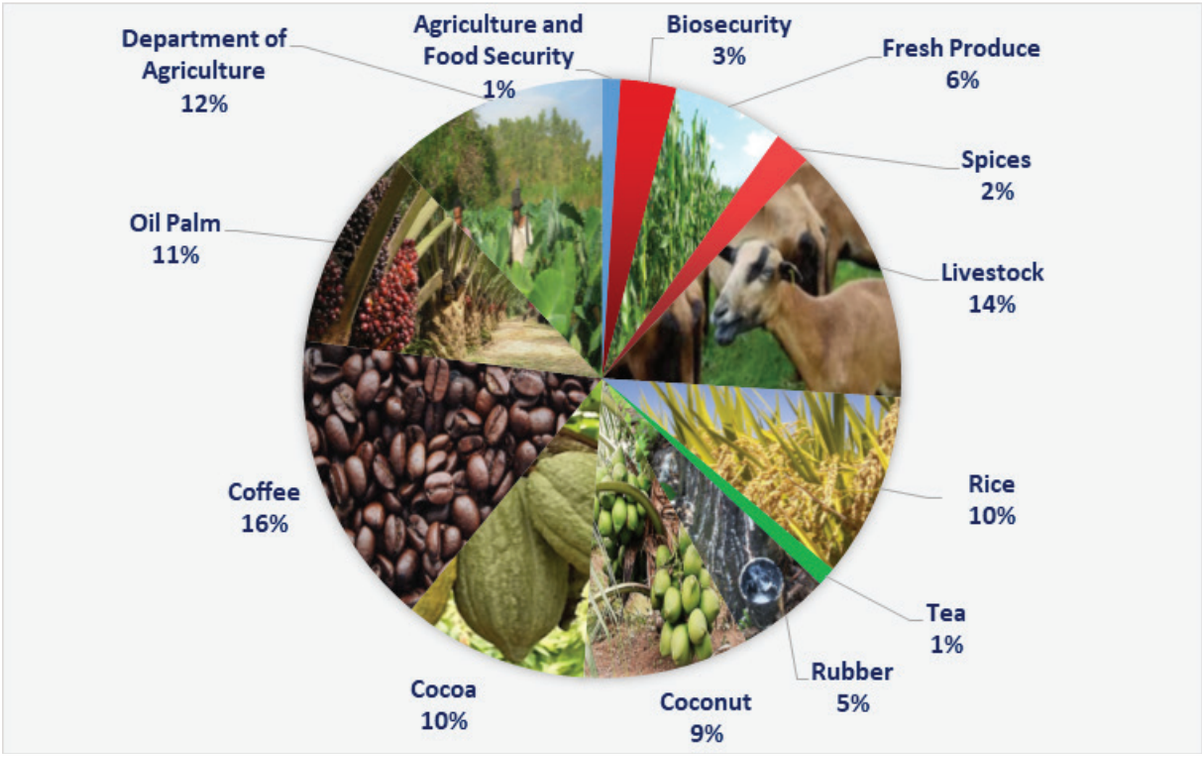
Figure 2-2. MTDP IV Agriculture Sector Investments: 2023-2027



Source: MTDP IV

The proportion of funding by sector and commodity agencies is shown in Figure 2-2.

Figure 2-3. MTDP IV Agriculture Sector Investments: 2023-2027: Proportion of Funding by Sector and Commodity Agency



Source: Constructed from MTDP IV data

4.2 Investments and Projected Returns

The annual target for all export commodities is to generate K8.586 billion, which is an increase of 127 percent from the 2020 baseline figure of K3.783 billion. The total agriculture export volumes are projected to increase by 87 percent from the current baseline to over 2 million tonnes.

4.3 Major Investment Categories

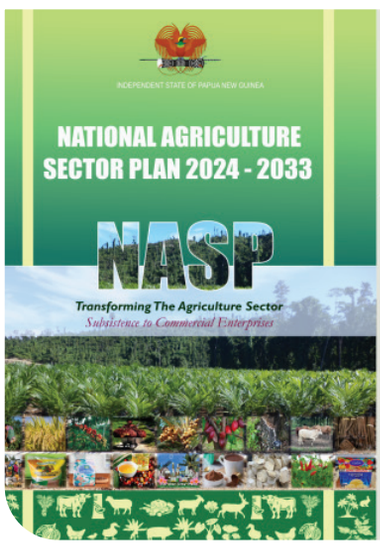
Investments under NASP will be made under the following major categories:

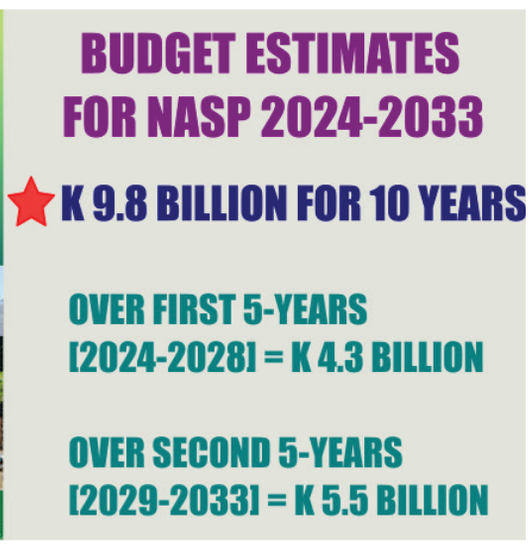
Table 2-2. Major Investment Categories

No.	Category
1	Commodity Price Stabilization or Support
2	Freight Subsidies
3	Specific Industry Development Program, such as Plantation Rehabilitation
4	Downstream Processing and Value Addition
5	Industrial Hubs and Market Access Support
6	Research and Development (R&D)
7	Commodity Roads Upgrade – Infrastructure
8	Customary Land Mobilization

4.4 Budget Estimates for NASP

APA #	Summary of Baseline (2007-2026) Costs (K'000) by Agriculture Priority Areas (APAs)	2007-2016 Baseline	2007-2016 Average	Phase 1: 2024-2028 2024	2025	2026
APA 1	Enhanced Productivity, Increased Scale of Production and Market Competitiveness (Investment Costs)	5,044,247	504,425	698,164	733,072	769,726
APA 2	Infrastructure and Access to Markets (Investment Costs)	110,400	11,040	15,280	16,044	16,846
APA 3	Agriculture Commodity Investment and Exports (Investment Costs)	10,000	1,000	1,384	1,453	1,526
APA 4	Land Mobilisation, Use and Management (Investment Costs)	7,480	748	1,035	1,087	1,141
APA 5	Policy and Legal Environment for Enabling Investor-Friendly Climate and Private Sector Participation	10,378	1,038	1,436	1,508	1,584
APA 6	Comprehensive Agriculture Research and Development (Investment Costs)	149,750	14,975	20,727	21,763	22,851
APA 7	Agriculture Education, Training and Extension Services (Investment Costs)	90,435	9,044	12,517	13,143	13,800
APA 7	Biosecurity (Investment Costs)	77,722	7,772	10,757	11,295	11,860
APA 8	Food and Nutrition Security and Safety Standards (Investment Costs)	6,500	650	900	945	992
APA 9	Climate-Smart Agriculture	36,000	3,600	4,983	5,232	5,493
APA 10	Institutional Reform and Sector Development (Investment Costs)	94,500	9,450	13,080	13,734	14,420
APA 11	Information Management and Use - Information Communication Technology (Investment Costs)	30,400	3,040	4,208	4,418	4,639
APA 12	National Agriculture Sector Plan Management (Investment Costs)	7,000	700	969	1,017	1,068
	NASP TOTAL	**5,674,812**	**567,481**	**785,439**	**824,711**	**865,946**







		Total	Phase 2: 2028-2033					Total	Grand Total
2027	2028		2029	2030	2031	2032	2033		
808,212	848,622	3,857,795	891,054	935,606	982,386	1,031,506	1,083,081	4,923,633	**8,781,428**
17,689	18,573	84,433	19,502	20,477	21,501	22,576	23,705	107,760	**192,193**
1,602	1,682	7,648	1,766	1,855	1,948	2,045	2,147	9,761	**17,409**
1,198	1,258	5,721	1,321	1,387	1,457	1,530	1,606	7,301	**13,022**
1,663	1,746	7,937	1,833	1,925	2,021	2,122	2,228	10,130	**18,067**
23,994	25,193	114,527	26,453	27,776	29,164	30,623	32,154	146,169	**260,697**
14,490	15,214	69,164	15,975	16,774	17,613	18,493	19,418	88,273	**157,436**
12,453	13,076	59,441	13,729	14,416	15,137	15,893	16,688	75,864	**135,305**
1,041	1,094	4,971	1,148	1,206	1,266	1,329	1,396	6,345	**11,316**
5,768	6,056	27,532	6,359	6,677	7,011	7,362	7,730	35,139	**62,672**
15,141	15,898	72,273	16,693	17,528	18,404	19,324	20,291	92,240	**164,513**
4,871	5,114	23,250	5,370	5,639	5,921	6,217	6,527	29,673	**52,923**
1,122	1,178	5,354	1,237	1,298	1,363	1,431	1,503	6,833	**12,186**
909,244	**954,706**	**4,340,046**	**1,002,441**	**1,052,563**	**1,105,191**	**1,160,451**	**1,218,474**	**5,539,121**	**9,879,166**





4.5 Funding Sources and Fund Management Mechanisms

The funding requirements for NASP is estimated at K4.34 billion over five years. The Government intends meeting the costs through domestic sources but is open for potential international partnerships and sources.

NASP proposes spending very significant amounts on public-private partnerships to reduce the cost of capital and stimulate market-oriented investments. Government investments would be recovered, at least in part, from the private sector partnerships, including Farmer-Based Organisations (FBOs), enterprises and agribusiness industries. The volume of outlays will be determined as agreements are reached with private sector partners. The investments concerned would include development of facilities for agribusiness in storage and processing and equipment for mechanisation services to be operated by entrepreneur and FBOs. Assuming that there will be some cost recovery runs in the first two years, the Government would recover some millions from its partners during the life of NASP.

Funding sources will be from the Government of PNG, contributions of development partners through Technical Assistance and financing, and the Private Sector. Specific domestic sources include:

- Government of PNG - Increased budget allocation
- Recovery of costs for parts of the NASP through Public-Private Partnerships
- Co-financing with the Private Sector
- Other Internally Generated Funds/non-tax revenue
- Development Partners - Budget support
- Loans and Grants from international financial institutions
- Grants from Bilateral Agreements

All Public Investment Programme (PIP) funds from the Government and other funds earmarked for agriculture will go in to Agriculture Investment Corporation (AIC) for accountable disbursement. There are challenges in managing funds from diverse sources, particularly in meeting specific conditions of the funding sources.

4.6 Targeted Priority Investments

A set of targeted priority investments for the NASP is outlined in Part I (Policy). The process for use of funds is provided in the proposed Agriculture Investment Corporation Act.

Priority is given to actions, which directly impact farm production to achieve the objectives of Programs and outcomes of each component. The listing is to show priority thematic areas and objectives for consideration by DPs, private sector and the Government.

4.7 Investment Principles

Guiding Principles for public investment in the agriculture sector is required as the NASP aims to:

1. Increase the level and consistency of public investments
2. Leverage and/or attract private sector investments, Development Partner and Donor support.

The three Guiding Principles include:

4.7.1 Public Sector Support

Public Sector support is required to enable the market to operate efficiently in order to attract private sector investment and participation in agriculture. This means the public sector will focus on:

❶ Ensuring the provision of targeted, quality public goods and services, which benefit society but is currently under-supplied by the private sector. Example: infrastructure; research; education; law and order, etc.

❷ Ensuring a conducive enabling environment, through predictable and stable agricultural policies and regulatory and legislative frameworks with rules-based market interventions; and

❸ Addressing market failures through appropriate instruments and incentives, improved coordination, and information management, and through capacity building.

4.7.2 Private sector-driven Investments

New investments must be private sector-driven: The Government must recognize the central role private investments can play in transforming PNG agriculture from subsistence-based and semi-commercial to a competitive and market-led agriculture sector. The change will be driven by investments of private actors ranging from smallholder farmers and cooperatives to commercial farms in primary production, input and support service providers, traders/exporters, and agro-processors or processing industries.

4.7.3 Coordination by Department of Agriculture

Funding and technical support provided by DPs and donors will be coordinated by DAL. DAL as the lead agency of the agriculture sector in PNG, will be the focal point and play a lead role in facilitating and coordinating DPs and donor-funded programs and projects in agriculture.



5 CHAPTER 5. RISK TO SUCCESSFUL IMPLEMENTATION OF THE NASP

The summary risk analysis is based on the assessment of key management arrangements proposed for the NASP. Table 2-4 identifies the key risks related to DAL's leadership and management capacity and suggests how these risks may be mitigated. Some of the risks to the successful implementation of this Policy and the NASP occur at global, national, and institutional levels as outlined below:

Table 2-4. Risk Assessment

Risk	Risk Rating (H, S, M, L)	Risk Mitigation Measures
1. National Level		
1.1 Public Financial Management (PFM) Systems PNG has struggled over the years to improve its PFM despite the existence of the Public Financial Management (PFM) Act and various Government efforts to improve accountability. While the legal basis of PFM is sound and includes a Fiscal Responsibility Act, there is a general failure to observe rules and a general lack of integrity in the budget process. Failure to adequately address corruption at the political level is perceived as a significant issue. However, there is increasing demand for good governance promoted by the civil society, press, social media and others.	High	The Integrated Financial Management System (IFMS) contains a revised chart of accounts, aligning classification with international standards. If implemented as it is designed to do, it will address some of the major weaknesses by providing reliable information for monitoring budget execution by the Department of Finance and line agencies, through reducing data entry inaccuracies and speeding up data reconciliation.
2. Institutional/Entity Level		
2.1 Financial Management Capacity of DAL Past experience has shown that DAL had very little control over the flow of NADP funds between the Departments of Treasury, Finance, National Planning and Monitoring, and recipients of those funds. Additional support is needed in DAL for NASP funding with the massive allocation of over K4 billion for NASP implementation for the next 5 years.	High	The mitigating measures include the following: (i) Frequent FM supervision be carried out during the implementation of the NASP (ii) Inter-Agency Steering Committee will be set up for oversight of the NASP. DAL Accounting staff will provide regular financial reports and updates to the governing body.
3. NASP Operational Level		
3.1 Institutional and Structural The current organisational structure of DAL, sector agencies and commodity boars do not match the Government's vision for agriculture sector.	High	Capacity Audit and Scoping Study of DAL, sector agencies and commodity boards to be conducted prior to implementation of the NASP.
3.2 Human Resources DAL lacks the capacity in terms of qualified and competent staff to implement and manage NASP	High	Capacity Audit and Scoping Study of DAL, sector agencies and commodity boards will be conducted prior to implementation of the NASP to determine capacity of institutions.

3.3 Legislations of sector agencies and commodity boards The legislations establishing sector agencies and commodity boards allows them to operate independently and not report to DAL. This impacts leadership, governance, management and accountability for implementation of NASP.	Substantial	(i) Review of legislations governing the sector agencies and commodity Boards to be concurrently done during work on NAAA Bill and AIC Bill
3.4 Financial Management Unanticipated expenses or budget overruns	Substantial	The assessed financial management risk before the mitigating measures is considered substantial but could be reduced to moderate after the proposed and existing mitigating measures described in No. 2 are implemented.
4. External Level		
4.1 Political Risks Changes at political level influence Government policies, and shifting focus and priorities	High	The legislation for NASP will protect it from any undue political influence during its implementation.
4.2 Infrastructure and Technical Risks Problems with market access due to poor and infrastructure, technology, communication infrastructure	Substantial	The mitigating measures include: (i) Inter-agency communication and dialogue (ii) Regular monitoring and reporting to governing body will help in early response to address risks
4.3 Delayed Implementation Schedule Delays or missed deadlines during implementation period	Medium	Regular monitoring and reporting to governing body will help in early response to address risks.
4.4 Environmental Risks Natural disasters impact cash crop production	Medium	Regular monitoring and reporting to governing body will help in early response to address risks.
4.5 Inadequate response of producers (farmers, processors, traders) to policy initiatives.		
4.6 Poor rainfall patterns and outbreak of pests and diseases.		
5. Global Factors		
5.1 Economic Volatility - Impact on market prices for exports 5.2 Adverse dynamics in international trade regimes for agricultural commodities. 5.3 Down-turns in world prices of key agricultural export commodities. 5.4 Low commodity prices on domestic market.	Substantial	Government support through price and freight subsidies.



5.1 Effective risk management approaches

Managing risks is crucial for successful implementation of any plan. It will be the responsibility of all involved in the implementation of this plan at the national, provincial and district levels to regularly monitor these risks and be aware of some of the known risks identified in the Chapter, reflect their impact in annual reporting, and identify mitigating approaches should unfortunate circumstances occur.



6 CHAPTER 6. MONITORING, EVALUATION AND LEARNING FRAMEWORK

The Monitoring, Evaluation and Learning Framework (MELF) for the NASP 2024-2033 provides guidance for measuring progress towards the agreed targets. It sets out what will be measured, how and when it will be measured.

The MELF consists of 3 functions: monitoring, evaluation and learning. Monitoring refers to the routine monitoring of a programme, including the resources, interventions, results, and analysis of the information to guide project implementation. Monitoring continues through the duration of the plan. Evaluation refers to the periodic assessment and analysis of an on-going or completed program or intervention to assess the performance of the programme or intervention. Evaluation is conducted during mid-term and at the end of the programme. Learning involves a process through which information generated from M&E data analysis, and reflections of implementors and key partners involved in the implementation is used to continuously improve the situation or ability of the department, sector and agency to achieve results.

6.1 Accountability: Monitoring Implementation and Performance of NASP

All stakeholders in the agriculture sector, including those in the public, private, and civil society sectors want to see changes in performance and achievements of the goal and objectives of the Plan.

Monitoring assists in showing whether the program or plan is on track to achieve its stated goals and objectives. Monitoring contributes to improving the performance of the agriculture sector and determines if it is successful.

6.1.1 Reporting Obligations

With the focus of the Government on the agriculture sector and agriculture ministries, departments and agencies, reporting on the performance of the programmes funded by the Government through MTDP IV and various sources is a requirement. Recipients and users of public funds need to account for what they are given. This will require the DAL to be developing effective reporting mechanisms within the sector. It will also require effective knowledge and information management networks and systems to feed off each other for reporting purposes.

6.1.2 Annual Reporting to Parliament

All agriculture sector and commodity agencies are required to provide an annual report of their activities to their respective Ministers in the first quarter of each years:

- Minister for Agriculture
- Minister for Oil Palm
- Minister for Coffee
- Minister for Livestock

The National Agriculture Council approves the Sector Performance Annual Review, which includes reporting against key targets and indicators identified in the

Performance Assessment Framework that is based on the NASP and MTDP IV KPIs and indicators. The 4 Ministers use these reports to deliver an annual statement to parliament.

6.1.3 Central Agency Reporting

Central agencies require the agriculture sector to provide progress report and commitment towards implementing globally agreed SDGs, the PNG Development Strategic Plan 2010-2030. Section 199 reporting further requires all sector and commodity agencies to report to the Department of Provincial and Local Level Government annually.

6.1.4 Agriculture Sector Annual Performance Reporting

Quarterly or 6th monthly sector assessment meetings will have to be organised through existing reporting mechanisms. These will have to be done at each Ministerial level and a combined one annually.

6.2 Why Monitor and Measure Agriculture Sector Performance?

The purpose of monitoring, evaluation and learning (MEL) is to apply knowledge gained from analysis and evidence for improved outcome and ensure accountability for all the resources used to achieve them. Learning involves a process through which information generated from monitoring and evaluation is analysed and used to continuously improve the situation or ability to achieve results.

M&E as a management tool, focuses on the results of an investment. There are several other reasons why measuring the agriculture sector's performance through this plan is important:

- Better transparency and accountability through reports and information from M&E.
- It will help the Ministries, DAL, sector agencies and commodity entities to identify problems early and resolve them. M&E plans help define the plan's scope and interventions so when things go wrong, it is easier to address problems.
- Help ensure resources are used efficiently.
- Help the Ministries, DAL, sector agencies and commodity entities learn from their mistakes through reflection and learning.
- Improve and inform decision-making, plans and strategies.
- Help the Ministries, DAL, sector agencies and commodity entities stay organised
- Help the sector to replicate best interventions from lessons learned.
- Encourage innovation where M&E encourages innovative thinking and methods for data collection and measuring success.

6.3 What to Monitor

The Results Framework defines a set of indicators across each Key Result Area. The indicators listed are supported by detailed description of measurements, data sources and responsibility. A full list of indicators is found in Annex 1. These will be redefined and accepted prior to reporting period, then be incorporated in the Performance Monitoring Plan for NASP 2024-2033.

6.4 How the Sector will be monitored: Operation of the MEL and Results Framework

Each Key Result Area has objectives, in addition to the high level national targets for improving the performance of the agriculture sector in PNG, and achieving the overall Government's mission and goals.

Indicators have been selected that provides reviewers the benchmark to measure progress against during regular reviews, monitoring and evaluation whether the KRAs of agriculture priority areas are likely to be achieved.

These indicators are put together into a Results Framework, which will inform the periodic reviews of the performance of the NASP. The Results Framework provides the guide to measuring progress towards the agreed targets, including what will be measured and when it will be measured. Each programme from the APA, including the related interventions will have specific indicators at the programme level to assess implementation at the sub-national levels.

Provincial level indicators will be developed in line with national targets. These will be considered for incorporation into provincial Section 119 reporting.

6.4.1 Tools for Monitoring and Evaluation of the NASP

The monitoring of the NASP will focus on efficiency and effectiveness of resource use while the evaluation will focus on results, outcomes and impact of the programme on the GDP and equitable distribution of growth. The following M&E tools will be used to conduct M&E:

- Annual Indicator Matrix
- Impact studies
- Food security surveys
- National Accounts and District level data collection will be the key tools used for monitoring.

The Division responsible for Planning, Evaluation, Monitoring and Statistics (PEMS) of the Department of Agriculture & Livestock, in the new DAL structure, will work in collaboration with all partners for the coordination of the monitoring and evaluation of the NASP. This includes all sector and commodity agencies. The other key institutions at the provincial and district levels will also be responsible regular monitoring and tracking of progress and reporting to management.

6.5 When to Conduct Monitoring and Evaluation, and Learning Process

Regular monitoring of various activities of the NASP will be done by NASP Management Secretariat, sector and commodity agencies, and implementers at national, provincial and district levels. The evaluation of the NASP will be undertaken during times considered to be suitable for all and in response to the reporting periods and requirements:

- **Monthly Reports:** This will be primarily based on regular monitoring by NASP Management Secretariat, sector and commodity agencies, and implementers at all levels.
- **Quarterly Reports**
- **Sixth-monthly sector assessment meetings** will be organised through existing reporting mechanisms. These will be done at Ministerial level and a combined meeting to be held annually.

- Joint Agriculture Sector Reviews: Joint Agriculture Sector Reviews will be held every six months in a year. These events should be included in the annual work plan and budgeted.
- **Agriculture Sector Annual Performance Reporting**
- **Mid-Term Review:** will be done during the 5th year of implementation.
- **End of Plan (EOP) Review:** A final performance review of the NASP will be conducted a year before the plan ends in 2033. The purpose is to measure the overall progress of the implementation of the NASP, and evaluate achievements against the goals and targets. The findings of EOP this review will inform the development of the next agriculture sector plan.

Table 2-5. M&E Review and Reporting Schedule

Type	Frequency
Monthly Report	Every month
Quarterly Report	Every 3 months
Sixth-Monthly Report	Every six months
First 18 months of implementation of NASP	June 2025
Joint Agriculture Sector Reviews	Annual
Mid-Term Review – 5 years	2028
End of Plan Review	2032
Formulation of Next 10-Year Agriculture Plan	2032

Monthly, quarterly, sixth-monthly and annual reports will be required at programme and sub-programme levels at district, provincial and national levels.

6.6 Linkage to Acquittals and Funding

Each intervention funded under the NASP is required to complete an acquittal report. The acquittal report is due six months after the funding of the project or activity. Subsequent funding of the intervention will be released upon submission of acquittal reports, endorsed by NASP Secretariat for approved by DAL Secretary Head of the Lead Agency. Details of the funding and acquittal process will be in the NASP Financial Management Manual that will be prepared with the set-up of the NASP Secretariat.

6.7 Linkage to Agriculture Information Management System

Any data collected through M&E of the NASP 2024-2033 will be linked to the proposed Department of Agriculture Information Management System.

Information on the progress of the Plan will be gained through NASP reporting periods featured in Table 9. Joint periodic reviews, involving sector and commodity agencies, and other key stakeholders will be conducted to assess the progress of implementation of interventions, and whether these are on track to achieve the expected outcomes. The reviews also provide opportunity to probe deeper into the achievements and issues faced by farmers, implementers, and key partners at sub-national levels.

6.8 Learning from Monitoring and Evaluation

Learning and adaptation are the ultimate goals of monitoring and evaluation of plans and programs, and lessons learned. The purpose of monitoring, evaluation and learning is to apply knowledge gained from analysis and evidence for improved outcomes and ensure accountability for all the resources used to achieve them.

The M&E of NASP 2024-2033 includes a learning aspect to allow for results and feedback of M&E exercises to feed into the sector's information system and inform decision-making, future strategies, policies and planning.

6.9 Monitoring, Evaluation and Learning Plan

The MEL Plan will include details and planned actions for learning from monitoring and evaluation findings to feed into policy and decision-making in DOA, sector and commodity agencies. Several steps will be taken:

Table 2-6. MEL Steps and Actions

Steps	Actions
1	Do a review of the Results Framework, involving an assessment of the ten agriculture priority areas of the NASP, including their expected outcomes.
2	Identify the NASP's Goals, Objectives and End of Plan Outcomes (EPOs). This process will involve aligning the Plan's goals to the goal of PNG Government's MTDP IV 2023-2027, Vision 2050, and Development Strategic Plan 2010-2030.
3	Identify and define Indicators for the agriculture sector from MDP IV for the APAs and their objectives. Clear indicators help to show how close a program is to its desired goal or outcome. Quantitative indicators will be adopted to express results in numeric values and qualitative indicators to convey information in textual or descriptive form, to include narratives and statements of fact and opinion.
4	Define Data Collection Methods with estimated timelines on when data would be collected.
5	Define MEL Roles and Responsibilities - identify who will be responsible for what aspects of MEL.
6	Create an Analysis Plan and Reporting Templates
7	Plan for Dissemination and Reporting



ANNEXURES

Annex 1. Lead and Collaborating Implementation Agencies

Agriculture Priority Area / Key Result Area	Programme	Lead Agencies
KRA 1: Enhanced Productivity, Increased Scale of Production and Market Competitiveness	**Programme 1: Commodity Commercialization** A. Large-Scale Commercialisation of Agriculture; Downstream Processing; Value Adding and Value Chains; Rehabilitation/ Revival of Large-Scale Run-Down Plantations; Developing Special Economic Zones for Agriculture; Developing Free Trade Zones for Agriculture.	OPIC; CIC; LDC; CB, KIK, SIB, RB, FPDA, Agribusiness Industries: NBPOL; Hargy Oil Palm,; Ramu Industries; Coffee Exporters; Coffee agMSMEs; Trukai;
	▪ Select and Promote Strategic Economic Corridors for Investments in Agro-Industrial Developments at Scale, primary productions and downstream processing, services and value-added markets, to accelerate wider Investments in the transformation from Subsistence Agriculture to Commercial and Industrial Agriculture.	DAL, LDC, OPIC, CIC, All Commodity Boards
	B. Smallholder/Small-Scale Production ▪ Mobilising small plots of land into production via cooperatives for specialised share of farming operations. ▪ Improved Welfare of Farmers and Agribusiness Enterprises; MSME access to Financing and financial capital; Support with Freight Subsidy Scheme; Price Stabilization Program; Extension services; access to viable domestic and international markets.	agMSMEs Farmers and Agribusiness Enterprises
	▪ Productive Youth Mobilisation through targeted skills training, apprenticeships, cadetships, and secured employment in large scale agro-industrial investments, SMEs and private and public services	DAL All sector and commodity agencies

Collaborating Agencies	Roles and Responsibilities
DAL, DCI, DITI, NDB, DLPP, DOT. DOWHs, Provinces & Districts Banks and Financial Services	▪ Commodity Agencies to collaborate with the agribusiness industries to introduce and socialise the NASP for implementation. ▪ Commodity Boards to collaborate with the agribusiness industries to discuss cost estimates for capital investments in large-scale commercialisation and downstream processing ▪ Commodity Boards, NARI and DCI collaborate with key industries on improved technologies and incentives for commercial scale for efficiency. ▪ Commodity Boards and their respective farmer Coops and SMEs to seek assistance and collaboration with NDB, DCI, Commercial Banks and Financial Services.
PPP Centre – Dept of Finance, DCI, MITI, DFA Provinces, Districts and Sector agencies. DPs and Trading Partners Private sector partners and Investors.	▪ DAL and Commodity Boards facilitate dialogue between all parties and create forum for discussion and explore large-scale investments in Agro-Industrial developments. ▪ Create dialogue with strategically placed SEZ's for investments in agro-industrial developments at scale. ▪ Explore, select and promote PPPs across public institutions and provinces, with Investors and Private Sector Partners. ▪ DAL and PPP Centre to collaborate with Development Partners as well as Bilateral and Multilateral Partners to attract and scope interest of Foreign Investors.
DAL, NARI, FPDA and Commodity Boards DCI, SME Corporation, IPA, DNPM/MTDP4, Provinces, Districts and LLGs, Farmers and SMEs NDB, Commercial Banks, Micro-Banks.	▪ DAL facilitate dialogue with sector agencies and develop a plan of action and engagement with SME Corp. to assist agSMEs start-up and grow. ▪ DAL and Commodity Boards to engage with Provincial Governments and Districts to create awareness and assist agSMEs ▪ DAL and sector agencies to ensure farmers and agSMEs have access to financial services and improved technologies. ▪ DAL and Sector Agencies to collaborate with DPs and Financial Service Providers to assist in capacity building of agSMEs in business and financial management. ▪ DAL and DNPM collaborate with DoT, DoWHs, SOEs-PPL to address high costs of transport and freight charges, and cost fuel and electricity for processing and manufacturing. ▪ Develop local Agriculture SMEs (agSMEs) Policy and Processes to promote agSME participation in on-farm primary production and off-farm agribusiness enterprises across the agriculture value chain linked to large- scale agro-industrial developments.
NDoE-TVET/STEM, DHERST-Universities and Colleges, Dept of Labour & Employment, Dept for Community Development & Religion - NVS KCHL and KPHL Training Academies Provinces and Districts Church Partnerships and Training Institutions NGOs and DPs, WB	▪ DAL and all sector agencies collaborate with other MDAs in education, higher education, labour and employment, Kumul Companies Training Academies, and the National Volunteer Services for nation-wide mobilisation of youth into productive training and engagement in large-scale agro-industrial developments and service industries. ▪ DAL and sector agencies to collaborate with Provinces and Districts, and Churches to mobilise and train youth into productive engagements and employment. ▪ DAL and sector agencies to collaborate with NGOs and DPs to explore youth training and work experience abroad ▪ DAL to collaborate with Dept of Labour and Employment on apprenticeships, graduate development programs, trade apprenticeships and placement and employment large-scale agro-industrial development projects and companies.

	▪ Develop local Agriculture SMEs (agSMEs) Policy and Processes to promote agSME participation in on-farm primary production and off-farm agribusiness enterprises across the agriculture value chain linked to large- scale agro-industrial developments.	
	▪ Establish Directorate to Facilitate PPPs, Agriculture SEZs, Tax Incentives for new Agro-Industrial Investments and recapitalization in Agriculture Businesses, Provide competitive financing incentives for FDIs and on-shore institutional investors	DAL- NASP Secretariat, APA 1 Lead, Commodity and Sector agencies
KRA 2: Infrastructure and Access to Markets	**Programme 2: Agriculture Infrastructure Development** ▪ Provide enabling infrastructure for reliable and affordable transport and logistics, energy and electricity, communications and financial services, and improve the law and order situation for safe trading and commerce	DAL/NASP Secretariat, CIC, Oil Palm, LDC, All commodity agencies
KRA 3: Agriculture Commodity Investments and Exports	▪ Establish and Formalize Economic Corridors for Investments in Agro-Industrial Developments at Scale for Domestic and International Markets and Trade.	DAL/NASP Secretariat to facilitate establishment & formalization.
KRA 4: Land Mobilisation, Use and Management	▪ Establish and update Agriculture Land Use and Natural Resources Management (NRM) Database, Policies and Protocols for the Sector,	DAL -Land use Division, NARI and Sector Commodity Boards and Agencies

	Dept of Finance and Planning/PPP Centre, MTDP4 Secretariat, Dept of Foreign Affairs, MITI/DITI, DCI, SEZ Corporation Customs and IRC KCHL, KPHL, KMHL and SOEs Commercial Banks, Investment Banks, Bilateral and Multilateral Financing Agencies.	▪ DAL ASSRF Directorate SPA 5 Office to liaise and collaborate with PPP Centre, ▪ Customs and IRC to secure assistance and incentives for Investments in selected agro-industrial developments. ▪ DAL ASSRF Directorate to collaborate with MITI and SEZ Corporation, KCHL, KPHL and KMHL to explore partnerships in the SEZ space and Extractive Resources Sector for agro-industrial investments and enterprises. ▪ DAL ASRF Directorate and PPP Centre ▪ collaborate with Commercial Finance and Investment Service Providers to access affordable and customized financing for agro-industrial developments and trade facilitation. ▪ DAL ASSRF Directorate to liaise with MITI/DITI and Dept of Foreign Affairs to secure investors, finance, preferential trade and international markets for manufactured goods from agro-industrial developments.
	DNPM/MTDP4, Dept of Transport, DoWHs, DICT, NEA, Police, DJAG, DITI. SOEs: KCHL, PPL, PNG Ports, Post PNG, Air Niugini, NAC.	▪ DAL and Central Government Agencies to consult and collaborate with Depts of Transport, Works and Highways, ICT and NEA to develop transport, communications, electricity and other service infrastructure for large-scale agro-industrial developments. ▪ DAL and Central Government Agencies to consult and collaborate with State-owned Enterprises (SOEs) to invest and participate in provision of infrastructure and utility services for large-scale agro-industrial developments ▪ DAL and Commodity Boards to collaborate with Department of Police to secure Law and justice in areas for large-scale agro-industrial developments. ▪ DAL and sector agencies collaborate with DoWH/Connect PNG and DoT to link farmers to the proposed road links. ▪ DAL and sector agencies collaborate with Ministry and Department of Information and Communication on better utilization of ICT in agriculture sector. ▪ DAL and sector agencies collaborate with financial institutions for available financial services to the agriculture sector.
	DAL, DCI, DITI, NDB, DLPP, DOT. DOWHs, Provinces & Districts Banks and Financial Services	▪ DAL and sub-sector agencies collaborate with Provincial & District Administrations, and DCI in formally establishing these Economic Corridors. ▪ DAL and Central Government Agencies to consult and collaborate with State-owned Enterprises (SOEs) to invest and participate in provision of infrastructure and utility services for large-scale agro-industrial developments.
	CEPA, DL&PP, UNITECH Lands and Surveying Dept	▪ DAL and sector agencies collaborate with DLPP and CEPA in updating the resource information database and promotion of sustainable land use options and NRM policies and protocols. ▪ Do thorough assessment and profiling of land use potential and bio-physical baseline parameters; ▪ Build capacity in land use planning and land information management and dissemination

	▪ Develop and promote Sustainable Land and Water Management Policies, Regulations and Protocols for Productive Agriculture and Mitigation of Risks from increasing population pressure on land use.	DAL-Land use Division, NARI and all sector agencies and commodity boards
KRA 5: Policy and Legal Environment Enabling Strategic Private Sector Participation and Investor-Friendly Climate	**Programme 3: Strategic Public-Private Partnerships**	DAL
KRA 6: Comprehensive Agriculture Research and Development	**Programme 4: Research and Development** ▪ Consolidate and Resource the National Agriculture Research System (NARS) for Innovation and transformation of the sector and rural PNG (AR4D).	NARI, CCRI, NARI, Commodity Boards research programs, other NARS Institutions and Programs
	Programme 5: Sector Management and Coordination	
KRA 7: Integrated Agriculture Education, Training and Extension Services	▪ Integrate Agriculture Education into the National Education System to develop next generation of smart farmers, tradespeople, professionals and entrepreneurs	DAL Commodity Boards NAQIA, NARI, FPDA
	▪ Establish and Promote Effective Agriculture Extension and Services Delivery System	Ministry and DAL Ministry of Palm Oil, Ministry of Coffee, Ministry of Livestock All commodity boards and agencies
KRA 8: Biosecurity	▪ Develop Innovative Research Programmes to Prevent Invasive Pests and Diseases	NAQIA, LDC

CCDA, CEPA, DoL&PP, Universities, DHES-RT-STSC FAO, WB, GGGI	▪ DAL, NARI and sector agencies collaborate and partner with CCDA and CEPA in developing and promotion of sustainable land and water use management policies and regulations, and; ▪ Advocacy, promotion and education on climate smart agri-food systems and to cater for impacts of Climate Change on agro-ecosystems and agriculture value chains. ▪ Do awareness on climate change and carbon inventories for value-addition of various crop enterprises.
IPA, DJAG, PNGICA, IRC,	
DOA – oversight DHERST, INA, NRI, Universities, DHERST-STSC, NRI, IFPRI, ACIAR, CGIAR, FAO, WB.	▪ Commodity Boards research programs, NARI to collaborate with Universities, DHERST-STSC and DPs for capacity building in human talents, organizational development, management systems and processes and research programs. ▪ DAL, Central Agencies and DPs (DFAT-ACNARS) collaborate and assist NARI and Commodity Research programs to integrate and consolidate NARS Facilities and Infrastructure. ▪ Universities and DHERST collaborate with Commodity Boards and NARI to upgrade research skills and competencies, integrate extension and inform education and training programs and curricula. ▪ Universities and DHERST-STSC collaborate with Commodity Boards and NARI to undertake technology packaging and dissemination. ▪ DAL, DHERST-STSC and DPs collaborate with NARI and Commodity Boards to upgrade NARS research infrastructure and facilities.
Universities, DHERST-STSC, NDOE, TVET, DfCDR & NVS, DFAT, USAID, NZAID, Chinese Embassy Scholarships	▪ DAL and sector agencies to collaborate, advise and advocate for quality Agriculture education with Universities and DHERST. and professional Cadetship for post University studies. ▪ DAL and sector agencies to collaborate with NDoE to develop and introduce agriculture curricula and its roll out in schools and support specialized STEM, and TVET Training programs for youth in agriculture. ▪ DAL and sector agencies to collaborate with NDoE and to provide Agriculture TVET trade and farming apprenticeships. Commodity Boards in collaboration with Department for Community Development & Religion and the National Volunteer Service (NVS) to mobilize youth for training and employment in agriculture.
Provincial Governments, Districts, LLGs, CBOs, Universities, Private Industry Extension and Training Programs, WB-PACD,	▪ DAL and sector agencies to collaborate with sub-national government agencies and CBOs in the provision of agriculture training and extension services. ▪ Universities and DHERST collaborate with commodity boards and NARI to undertake technology packaging and design of incentives for uptake by farmers. ▪ Partnerships with provincial governments, LLG, civil society organisations and community organisations in agriculture training and extension services.
DAL, NDOH, ICA, Customs, CEPA	▪ NAQIA, sub-sector agencies and other collaborating organisations will establish innovative research programmes and apply technologies to prevent pest and disease incursion into the country.

KRA 9: Food and Nutrition Security, and Safety Standards,		FPDA
KRA 10: Agriculture in a Changing Climate	▪ Adopt, develop and integrate Climate Smart Agricultural practices, technologies and advocacy for mitigating impacts of Climate Change	DAL and all sector and commodity agencies
	▪ Establish Directorate/Lead (and Build governance and management capacity to access, facilitate Climate-Smart Financing Modalities to incentivize agriculture producers to adopt eco-friendly and regenerative agriculture farming practices.	DAL-Mgt and APO 4 Directorate
KRA 11: Institutional Reform and Sector Development	▪ Reform and establish Institutions and Governance arrangements for efficient Administration and Coordination of the Sector and effective Management of Resources.	DAL and 3 Ministries
KRA 12: Information Management and Use - Information Communication Technology	▪ Establish a comprehensive Agriculture Resources and Information Management System (ARIMS) and e-Agric platforms for effective planning, coordination and management of the sector.	DAL, CIC, Oil Palm, LDC, All commodity agencies
KRA 13: National Agriculture Sector Plan Management	▪ Establish management desk and capacity to access, facilitate and account for use of resources and funds, and report on KPIs and delivery of outputs and outcomes for APA 11	DAL Snr Mgt, and Industry Steering Committee

DAL, NDOH, NCDC, CCDA, DNPM, DfCDR Development Partners	▪ Commodity Boards, FPDA, LDC collaborate with financial institutions and private sector to develop and implement marketing systems. ▪ Commodity Boards, FPDA, LDC, NARI and Agri-food Tech Universities and FAO-Codex to collaborate with NDOH, DCI, DITI on standards for food quality and safety, packaging and access to target markets on-shore and off-shore.
CCDA, NDoE and Schools, DHERST-STSC and Universities NEA, PPL and IPP, APEC Rural Electrification Program. FAO, WB, GGGI	▪ DAL and sector agencies partner with CCDA and Educational Institutions to provide education awareness on climate change and carbon inventories. ▪ Awareness and promotion of affordable bio-energy production in agriculture, and formulation of bio-energy policy.
DNPM/MTDP IV Secretariat DLPP, IRC, Customs, CEPA, CCDA GGGI, WB, FAO, GEF	▪ DAL and sector agencies collaborate with DLPP, CEPA, CCDA, IRC, Dept of Treasury and DPs to adopt Climate-Smart Agriculture Financing modalities in addition to MTDP4 resource envelop. ▪ DAL and sector agencies research and explore potential climate smart funding modalities in collaboration with CCDA, DPs and donors. ▪ DAL, sector agencies, farmer organisations and Provinces to adopt incentives and technologies for eco-friendly, regenerative agriculture.
All sector commodity boards and agencies DPM, DJAG. DoFP DNPM/MTDP IV	▪ DAL to collaborate with DPM to establish a transition facility in the department to oversee implementation of the NAMP and the institutional restructure of DAL to transition to the new improve structures and administration per the AAA and AIC Bills. ▪ DAL to liaise with DNPM/MTDP4 to have custody and management control over all sector funds, given DAL's capacity upgrade and reform to take its role and responsibility as the lead agency. ▪ DAL to guide commodity boards and sector agencies to align their legislations, organisational governance and financial management systems, and structures to link with the reformed Department for improved coordination of programs, resources and reporting. ▪ DAL NASP as Transition Facility to facilitate NEC Policy papers for restructure, redundancies and new staff recruitment.
All sector commodity boards and agencies DNPM & MTDPIV DICT & Telikom FAO, WB, DFAT, DCIT, NSO	▪ DAL in collaboration with the sub-sector agencies and DCIT, NSO and DNPM to establish 'Central Data Hub' for collecting, storing, processing, management and dissemination of accurate and reliable information. ▪ Collaborate with DNPM, Commodity Boards and Agencies, to agree on the terms and conditions for the ARIMS and e-Farming platforms. ▪ Seek technical assistance from the DICT, Telikom and DPs to establish the ARIMS for sector and industry performance monitoring ▪ Collaborate with sector and commodity agencies to roll out training and capacity building to utilize the ARIMS and e-Farming/e-Agriculture platforms. ▪ DAL and APA Directorate to liaise with sector agencies and establish MEL system.
DA-Fin & Corp Services, DNPM/MTDP4 Secretariat, FAO, WB-PACD/MVF, DFAT.	▪ Collaborate with key stakeholders and industry representatives to establish Directorate and Steering Committee, and establish governance and prudent financial management process and capacity. ▪ Collaborate with DAL-Management, Steering Committee and DNPM/MTDP4 Secretariat to access relevant sector funds for timely implementation of strategies, programs and activities. ▪ Collaborate with DAL, DNPM and DPs to establish dedicated competitive funding schemes and financing mechanisms to leverage and attract additional funding.

	▪ Establish ASRF 2 Directorate (and build governance and management capacity to access, facilitate and account for resources and funds, and collate reports of outputs and outcomes)	All commodity boards and agencies



DNPM/MTDP IV and Central Government Agencies, Customs, and IRC. NDoE, DHERST, NDoH. Development Partners/ Donors. Private Sector	▪ Collaborate with GoPNG and Development Partners to establish Competitive Funding Schemes and Modalities and Secure Development Grants, viz. ▪ Agriculture Education Endowment Fund and Competitive College & University Scholarships; ▪ Competitive Agriculture Research and Innovations Grants; ▪ National Agriculture Extension and Management Advisory Services Support Grants (SMASF, SSSPP, AIGS, PPAP, PACD) ▪ Facilitate for DAL and sector agencies to negotiate with relevant Central Government Agencies and DPs for initial seed capital investments to establish agriculture education endowment fund(s) and scholarships, and competitive grant funding for AgResearch, Innovation and Extension services. ▪ Collaborate with Provincial Governments and DDAs to establish effective linkages and partnerships through the National Agriculture Extension and Management Advisory Services (NAEMAS) Facility. ▪ Liaise with Customs and IRC for exemptions to import/export levies and certify tax incentives and rebates for expenditures in agriculture education, research, innovations, extension and development. ▪ Institutionalize coordination systems and contacts with each province and districts through NAEMAS Facility.



Annex 2. Implementation Budget 2023 – 2027

The investment budgets outlined below are based on the MTDP IV investments into the agriculture sector.

Oil Palm

The oil palm investment budget allocation in accordance with MTDP IV 2023-2027 is K384 million for the period of first five years.

DIP Link		Investment Programs	2023 (K'mil)	2024 (K'mil)	2025 (K'mil)	2026 (K'mil)	2027 (K'mil)	Total (K'mil)	Funding Source
1.1	1.	Oil Palm Development Program	30.0	30.0	30.0	30.0	30.0	**150.0**	GoPNG
1.11	2.	Oil Palm Downstream Processing and Industrial Hub Development	0.0	30.0	30.0	30.0	30.0	**120.0**	GoPNG/ PPP
1.9	3.	Customary Land Mobilized to develop additional large scale oil palm Plantations	0.0	10.0	10.0	10.0	10.0	**40.0**	GoPNG/ PPP
2.1	4.	Small holder Oil Palm Commodity Access Road upgrade and sealing	10.0	10.0	10.0	10.0	10.0	**50.0**	GoPNG/ DP
9.3	5.	Oil Palm Research and Development Program	4.0	5.0	5.0	5.0	5.0	**24.0**	GoPNG
		Annual Total	**44.0**	**85.0**	**85.0**	**85.0**	**85.0**	**384.0**	

Source: Medium Term Development Plan IV 2023-2027 (Section 1.1.1)

Coffee

The coffee investment budget allocations in accordance with Medium Term Development Plan IV 2023-2027 is K548 million for the period of first five years.

DIP Link		Investment Programs	2023 (K'mil)	2024 (K'mil)	2025 (K'mil)	2026 (K'mil)	2027 (K'mil)	Total (K'mil)	Funding Source
1.1	1.	Large Plantations Rehabilitation Program	0.0	25.0	25.0	25.0	25.0	**100.0**	GoPNG/ PPP
1.1	2.	Price Stabilisation Program	0.0	10.0	10.0	10.0	10.0	**40.0**	GoPNG
1.1	3.	National Coffee Development Program	30.0	30.0	30.0	30.0	30.0	**150.0**	GoPNG/ DP
1.1	4.	Coffee Freight Subsidy	5.0	5.0	5.0	5.0	5.0	**25.0**	GoPNG
1.11	5.	Downstream Processing and Exports Support Program	0.0	30.0	40.0	40.0	50.0	**160.0**	GoPNG/ PPP
1.8	6.	Development of Coffee Export Office	5.0	5.0	0.0	0.0	0.0	**10.0**	GoPNG
2.1	7.	Coffee Commodity Roads	8.0	10.0	10.0	10.0	10.0	**48.0**	GoPNG
9.3	8.	Coffee Research and Development	3.0	3.0	3.0	3.0	3.0	**15.0**	GoPNG
		Annual Total	**51**	**118**	**123**	**123**	**133**	**548.0**	

Source: Medium Term Development Plan IV 2023-2027 (Section 1.1.2)

Livestock, Aquaculture and Apiculture

The livestock investment budget allocations in accordance with Medium Term Development Plan IV 2023-2027 is K340 million for the period of first five years.

DIP Link		Investment Programs	2023 (K'mil)	2024 (K'mil)	2025 (K'mil)	2026 (K'mil)	2027 (K'mil)	Total (K'mil)	Funding Source
1.1	1.	National Livestock Development Program	3.0	50.0	50.0	50.0	50.0	**230.0**	GoPNG/ PPP
1.9	2.	Rehabilitating and building new abattoirs	0.0	10.0	20.0	20.0	10.0	**60.0**	GoPNG/ PPP
1.1	3.	Establishment of commercial animal feed farm	0.0	15.0	20.0	10.0	5.0	**50.0**	GoPNG/ PPP
		Annual Total	**3.0**	**75.0**	**90.0**	**80.0**	**65.0**	**340.0**	

Source: Medium Term Development Plan IV 2023-2027 (Section 1.1.8)

Cocoa

The cocoa investment budget allocations in accordance with Medium Term Development Plan IV 2023-2027 is K329 million for the period of first five years.

DIP Link		Investment Programs	2023 (K'mil)	2024 (K'mil)	2025 (K'mil)	2026 (K'mil)	2027 (K'mil)	Total (K'mil)	Funding Source
1.1	1.	National Cocoa Program	2.0	15.0	15.0	15.0	15.0	**62.0**	GoPNG/ PPP
1.1	2.	Cocoa Freight Subsidy	5.0	5.0	5.0	5.0	5.0	**25.0**	GoPNG
1.1	3.	Regional, Provincial and District Nurseries Program	5.0	20.0	20.0	20.0	20.0	**85.0**	GoPNG
1.1	4.	Cocoa Downstream Processing and Value Adding Initiatives	0.0	30.0	30.0	30.0	30.0	**120.0**	GoPNG/ PPP
1.11	5.	Cocoa Access Road Upgrading and Sealing	5.0	5.0	5.0	5.0	5.0	**25.0**	GoPNG
1.8	6.	Research and Development	0.0	3.0	3.0	3.0	3.0	**12.0**	GoPNG
		Annual Total	**17**	**78**	**78**	**78**	**78**	**329.0**	

Source: Medium Term Development Plan IV 2023-2027 (Section 1.1.3)

Coconut

The coconut investment budget allocations in accordance with Medium Term Development Plan IV 2023-2027 is K316 million for the period of first five years.

DIP Link		Investment Programs	2023 (K'mil)	2024 (K'mil)	2025 (K'mil)	2026 (K'mil)	2027 (K'mil)	Total (K'mil)	Funding Source
1.1	1.	Coconut Plantation Seed Distribution	5.0	20.0	20.0	20.0	20.0	**85.0**	GoPNG/ PPP
1.8	2.	Coconut Freight Subsidy	0.0	5.0	5.0	5.0	5.0	**20.0**	GoPNG
1.11	3.	Coconut Downstream Processing and Value adding initiatives	0.0	10.0	10.0	10.0	10.0	**40.0**	GoPNG/ PPP
1.11	4.	Market Development and Trade Program	5.0	50.0	50.0	20.0	10.0	**135.0**	GoPNG/ PPP
2.1	5.	Coconut Access Road Upgrading	0.0	5.0	5.0	5.0	5.0	**20.0**	GoPNG/ PPP

9.3	6.	Coconut Research and Development Program	2.0	5.0	5.0	2.0	2.0	**16.0**	GoPNG/ PPP
		Annual Total	**12**	**95**	**95**	**62**	**52**	**316.0**	

Source: Medium Term Development Plan IV 2023-2027 (Section 1.1.4)

Rubber

The rubber investment budget allocations in accordance with Medium Term Development Plan IV 2023-2027 is K316 million for the period of first five years.

DIP Link		Investment Programs	2023 (K'mil)	2024 (K'mil)	2025 (K'mil)	2026 (K'mil)	2027 (K'mil)	Total (K'mil)	Funding Source
1.1	1.	Rubber Plantation Rehabilitation Nursery	2.0	20.0	20.0	20.0	20.0	**82.0**	GoPNG/ PPP
1.11	2.	Rubber Downstream Processing	0.0	15.0	20.0	20.0	20.0	**75.0**	GoPNG/ PPP
		Annual Total	**2.0**	**35.0**	**40.0**	**40.0**	**40.0**	**157.0**	

Source: Medium Term Development Plan IV 2023-2027 (Section 1.1.5)

Tea

The tea investment budget allocations in accordance with Medium Term Development Plan IV 2023-2027 is K80 million for the period of first five years.

DIP Link		Investment Programs	2023 (K'mil)	2024 (K'mil)	2025 (K'mil)	2026 (K'mil)	2027 (K'mil)	Total (K'mil)	Funding Source
1.1	1.	Tea Plantation Rehabilitation Program	0.0	5.0	5.0	5.0	5.0	**20.0**	GoPNG/ PPP
1.10	2.	Additional customary land mobilised for establishment of new tea plantations	0.0	5.0	5.0	5.0	5.0	**20.0**	GoPNG/ PPP
11.1	3.	Downstream processing of tea	0.0	5.0	5.0	5.0	5.0	**20.0**	GoPNG/ PPP
		Annual Total	**0.0**	**15.0**	**15.0**	**15.0**	**15.0**	**60.0**	

Source: Medium Term Development Plan IV 2023-2027 (Section 1.1.6)

Rice and Grains

The rice investment budget allocations in accordance with Medium Term Development Plan IV 2023-2027 is K360 million for the period of first five years.

DIP Link		Investment Programs	2023 (K'mil)	2024 (K'mil)	2025 (K'mil)	2026 (K'mil)	2027 (K'mil)	Total (K'mil)	Funding Source
1.1	1.	Large scale Commercial Rice and Grains farming Program	0.0	50.0	50.0	50.0	50.0	**200.0**	GoPNG/ PPP
1.1	2.	Smallholder Rice Farming Support Program	0.0	10.0	10.0	10.0	10.0	**40.0**	GoPNG/ PPP
1.11	3.	Rice Milling and Downstream Processing Support Program	0.0	30.0	30.0	30.0	30.0	**120.0**	GoPNG/ PPP
		Annual Total	**0.0**	**90.0**	**90.0**	**90.0**	**90.0**	**360.0**	

Source: Medium Term Development Plan IV 2023-2027 (Section 1.1.7)

Spices

The total spice investment budget allocations in accordance with Medium Term Development Plan IV 2023-2027 is K87 million for the period of first five years.

DIP Link	Investment Programs	2023 (K'mil)	2024 (K'mil)	2025 (K'mil)	2026 (K'mil)	2027 (K'mil)	Total (K'mil)	Funding Source
1.1	1. National Spice Development Program	2.0	10.0	25.0	25.0	25.0	**87.0**	GoPNG/ PPP

Source: Medium Term Development Plan IV 2023-2027 (Section 1.1.9)

Fresh Produce

The total fresh produce investment budget allocations in accordance with Medium Term Development Plan IV 2023-2027 is K278 million for the period of first five years.

DIP Link	Investment Programs	2023 (K'mil)	2024 (K'mil)	2025 (K'mil)	2026 (K'mil)	2027 (K'mil)	Total (K'mil)	Funding Source
1.1	1. Fresh Produce Development Program	0.0	20.0	20.0	20.0	20.0	**80.0**	GoPNG/ PPP
1.1	2. Market for Village Farmers Program (capacity building, market access, extension services, partnerships)	3.0	20.0	20.0	20.0	20.0	**83.0**	GoPNG/ DP
1.1	3. Value chain development (storage and cool room facilities, post-harvest, packaging and handling)	5.0	30.0	30.0	30.0	20.0	**115.0**	GoPNG/ PPP
	Annual Total	**8.0**	**70.0**	**70.0**	**70.0**	**60.0**	**278.0**	

Source: Medium Term Development Plan IV 2023-2027 (Section 1.1.10)



Annex 3. Agro-ecological Adaptation of Crops and Livestock

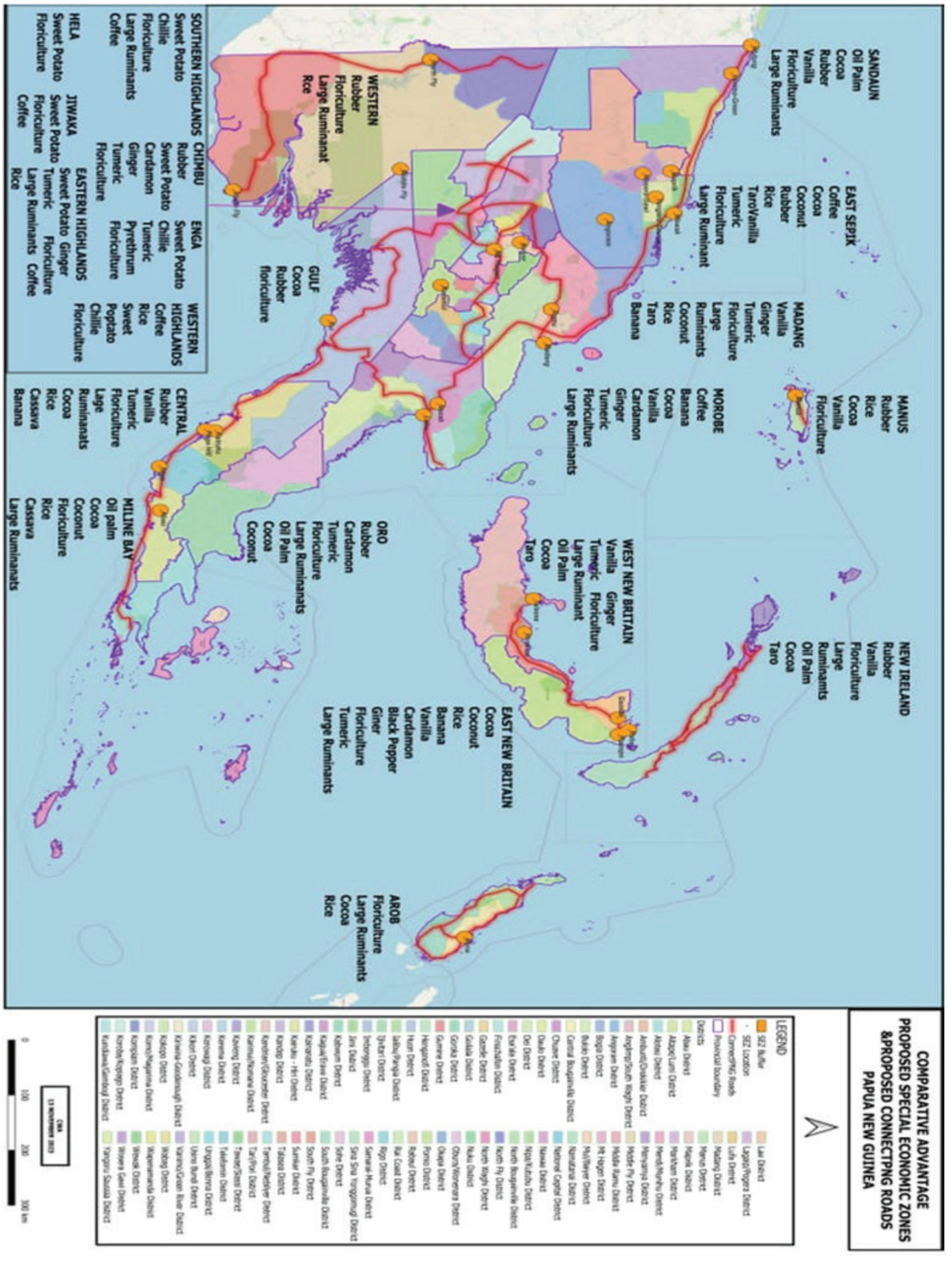
A variety of crops and livestock grow well in PNG. From lowland to highland, crops grow according to their agro-ecological adaptation as shown in the Table below.

Table 1: Agro-ecological Adaptation of Crops and Livestock

Crop/Livestock	General Adaptability	Provincial Adaptability
Sweet potato	Highlands and lowlands	Manus, Bougainville
Banana	Up to 2200 m altitude	Central, Morobe, East New Britain, Madang
Cassava	Most provinces	Milne Bay, Central
Taro		Madang, East Sepik, Western, West New Britain, New Ireland
Sago	All provinces	Western (parts), Gulf, Sandaun, East Sepik
Yam	Coastal Provinces	Central, Milne Bay, East Sepik
Rice	Coastal to highlands	Central, Morobe, East New Britain, Bougainville, New Ireland, Madang, East Sepik, Eastern, Chimbu, Western Highlands
Wheat	Highlands	Eastern, Chimbu, Western, Enga
Coconut	Coastal Areas	East Sepik, Madang, Milne Bay, Bougainville, East New Britain, Rabaul, New Guinea
Cocoa	Coastal Areas	East New Britain, Bougainville, New Ireland, West New Britain, Manus, Madang, Morobe, East Sepik, West Sepik, Oro, Milne Bay, Central, Gulf
Coffee	Highlands	Western Highlands, Eastern Highlands, Morobe, Simbu, East Sepik, Enga, Southern Highland
Oil Palm		West New Britain, New Ireland, Milne Bay, Oro, Sandaun
Rubber	Coastal Areas	Western, Central, Gulf, Oro, East Sepik, West Sepik, Sandaun, Manus, New Ireland
Vanilla	Sea level to 600m	East Sepik, Central, Morobe, Manus, Sandaun, New Ireland, Madang, East and West New Britain
Cardamom	1200-1700m	East New Britain, Simbu, Oro, Morobe
Chilies	1500 m above	Western Highlands, Enga, Southern Highlands
Black Pepper	Up to 1200m; lowland areas	East New Britain
Ginger	Up to 1500m	Eastern Highlands, Simbu, Madang, Oro, Morobe, East New Britain, West New Britain
Turmeric	Up to 1500m	Central, West New Britain, East New Britain, Oro, Morobe, Madang, Eastern Highlands, Simbu, East Sepik
Pyrethrum		Enga
Floriculture	All provinces	
Large ruminants		Eastern Highlands, Southern Highlands, East Sepik, Sandaun, Morobe, Madang, New Ireland, West New Britain, Bougainville, Central, Milne Bay, Gulf, Oro, Western

The map in Annex 4 shows the comparative advantage of the provinces in PNG.

Annex 4. Map Showing the Comparative Advantage of the Provinces in PNG.



Annex 5. Agriculture Sector Results Framework

Note: These indicators will be refined further as part of the development of the Performance Monitoring Plan.

NASP Priority Area	Programme – Objective	Indicator
	Overall Goal • To achieve K30 billion target in the agriculture sector • Create 1 million jobs by 2030.	• 8.7 Percent growth of agriculture sector per year. • Increased contribution of agriculture to GDP in real terms.
	Purpose To increase agricultural productivity through Innovative, commercially-oriented, competitive and modern agriculture sector.	• Number of policies and institutional frameworks formulated and successfully implemented. • Percentage increase in agricultural productivity. • Percentage increase in agricultural commercialisation and competitiveness • Percentage increase in private sector investments in agricultural enterprises and agribusinesses. • Percentage increase in the quantity and quality of food available, accessible and affordable to all Papua New Guineans.
APA 1: Enhanced Productivity, Increased Scale of Production and Market Competitiveness	1.1 Commodity Commercialization 1.1.1 Large-scale Commercial Agriculture Investments and Entrepreneurship. • Commercial Rice Production in PNG. • Commercial Cattle Industry.	• Improve agriculture sector growth from its current estimate of 14% to 30% per annum by 2033.
	1.1.2 Small-holder Commercialization and Agriculture Investment • Improved Welfare of Farmers, Agriculture Producer Organisations and Communities.	• Increased farmer-household income.
	• Support Smallholder Farmers through Micro-Small-Medium Enterprise (MSME) Financing.	• Increased incomes and improved food security status.
	• Support Extension Services to farmers and Cooperative Societies to maintain quality value and supply chains.	
	• Establish Freight Subsidy Scheme for Farmers.	• Freight Subsidy Scheme Program for Farmers established.
	• Establish Price Stabilization Program for Farmers	• Proportion of farmers benefiting from price stabilisation program (%).
	• Support farmers and MSMEs with access to viable domestic and international markets.	• Increased incomes and improved food security status.
	1.2. Downstream Processing.	• Increase in total production and processing of selected commodities • Downstream Processing Facilities established.
	1.3 Downstream processing of selected crops and livestock.	
	1.4 Rehabilitation and Revival of Large-Scale Run-Down Plantations.	
	1.5 Value Adding and Establishment of Value Chains.	

	1.6 Development of Special Economic Zones for agriculture.	
APA 2: Improved Infrastructure and Access to Markets	2.1 Rehabilitation and Upgrading of Feeder and Commodity Roads.	• Percentage increase in market access, market information, external and internal trade, and rate of payment to clients.
	2.2 Rehabilitation and Modernization of existing storage and processing facilities and equipment.	
	2.3 Rehabilitation and construction of Research Centres, Irrigation systems, etc.	
	2.4 Market Infrastructure, Cooling and Storage Facilities.	
	2.5 International trade barriers addressed; adoption of code of practices for producing processed food and products for export markets.	• Product markets developed.
APA 3: Agriculture Commodity Investments and Exports	3.1 Advocate and facilitate private sector engagements and partnerships to invest in Economic Corridors and Agriculture Special Economic Zones targeting domestic and international markets and trade.	• Number Established PPP Arrangements • Established Program of Sponsorship and Active participate in Agribusiness roadshows
KRA 4: Land Mobilisation, Use and Management	4.1 Increased capacity and availability of land resource information for planning at various levels of survey intensities to meet needs of clients.	• Percentage increase in area mapped, environmental impact assessment (EA) compliance, natural resources inventories, and adoption of cleaner and sustainable land practices.
	4.2 Land use - develop sustainable land use plans for national, provincial and district levels.	• Number of land use policies, legal and institutional reforms formulated and implemented.
KRA 5: Enabling Policy and Legal Environment for Strategic Private Sector Participation and Investor-Friendly Climate	5.1 Develop investor-friendly policies and legislations for private sector participation in agribusiness. 5.2 Improve investment climate and cost of doing business.	• Increase in the number of private investors in agribusiness. • Decrease in the cost of doing business in PNG. • Reduction in the time taken for opening business in PNG.
KRA 6: Comprehensive Research and Development	6.1 Research on Agriculture Commercialisation Outcomes	• Number of Applied Research Programs and Papers Published.
	6.2 Develop Techniques and Technologies for Downstream and Commercialisation	• Number of Technologies for Downstream processing developed for application.
	6.3 Reactivate the PNG National Agriculture Research System (AR4D)	• PNG NARS is active and functional.
KRA 7: Integrated Agriculture Education, Training and Extension Services	7.1 Bridge knowledge and skills gap through education and training tailored more closely to needs of the sector i.e. Human development and capacity building.	• Number of policies and strategies on agriculture sector workforce/human resource development formulated and implemented. • Number of graduates employed in the sector at all levels. • Number of young people taking up farming and employment in agriculture.
	7.2 Integrated agriculture education and training and extension services.	• Number of Effective partnership and coordination in curricula development and training with exiting institutional structures.

KRA 8: Biosecurity	8.1: Review and finalise biosecurity strategy to establish proper research programme on invasive pests and insects such as CBB and CPB, etc.	• Established Strategy and Plan of Action (including mechanisms / programmes.
KRA 9: Food and Nutrition Security and Safety Standards	9.1 Focus at the national and agro-ecological levels on the development of key staple crops.	• Established Domestic Food Standards and Safety Policies and Protocols.
	9.2 Strengthen the National Codex Management and Coordination System.	• Percentage (%) of child underweight. (Quantitative and outcome indicator).
KRA 10: Climate-Smart Agriculture	10.1 Adopt, develop and integrate Climate Smart Agricultural practices, technologies and advocacy for mitigating impacts of Climate Change.	• Resilient agri-food systems for improved food security and nutrition. • Increased farmer incomes.
	10.2 Build governance and management capacity to access, facilitate Climate-Smart Financing Modalities to encourage agriculture producers to adopt eco-friendly and regenerative agriculture farming practices.	• Level of poverty based on food security/insecurity, level of assets and vulnerabilities, and respective responsive capacity to agriculture development programmes (qualitative and impact indicator).
KRA 11: Institutional Reform and Sector Development	11.1: Strong sector governance and leadership.	• Strengthened and improved governance and leadership built on strong agriculture M&E System for evidence-based decision-making, policies and plans.
	11.2: Develop Human Resource capacity of DAL.	• Improved staff strength able to match the NASP requirements for effective implementation.
	11.3: Sector Management and Coordination.	• Improved intra-sectoral and inter-ministerial coordination through reviewed organisational structure aligned to NASP 2024-2033.
KRA 12: Information Management and Use - Information Communication Technology	12.1 Establish a Central Data Hub (CDH) for use of accurate and reliable information by agriculture sector and industries.	• Availability of relevant information and statistics on agriculture sector.
	12.2. Re-establish Agriculture Library and information Centre to be custodian of all information produced on agriculture.	• Information is easily accessible to users.
	10.3 Adopt E-agriculture Strategy for use in sector.	• Number of new digital applications developed and adopted in agriculture.
	10.4 Capacity building on analysis and use of data in sector reports, policies and plans.	• Skilled and able to do data analysis and application.
KRA 13 NASP Management and Implementation	13.1 Establish NASP Management Secretariat.	• Efficient implementation of NASP.
	13.2 NASP Governance Arrangements.	• Established Organisational Structure and Governance System
	13.3 Financial Management and Accountability Mechanisms.	• Established Protocols and Systems with Operational Manuals.
	13.4 Capacity Assessment of DAL	• Report on the Capacity Assessment.
	13.5 Baseline Studies.	• Reports on Baseline Studies.

LIST OF ACRONYMS

AAA	Agriculture Administration Adjustment
agSME	Agriculture -based Small, Medium Enterprise
AIC	Agriculture Investment Corporation
AIDS	Acquired Immune-Deficiency Syndrome
AISF	Agriculture Innovation Systems Framework
APA	Agriculture Priority Area
AR4D	Agriculture Research for Development
ARMIS	Agriculture Research Management Information System
ASME	Agriculture Small-Medium Enterprise
CBB	Coffee Berry Borer
CCI	Cocoa Coconut Institute
CDH	Central Data Hub
CIC	Coffee Industry Corporation
CIMC	Consultative Implementation Monitoring Council
CPD	Cocoa Pod Borer
CSIRO	Commonwealth Scientific and Industrial Research Organisation
DA	District Administration
DAL	Department of Agriculture and Livestock
DDA	District Development Authority
DHERST	Department of Higher Education, Research, Science and Technology
DIP	Deliberate Intervention Program
DNPM	Department of National Planning & Monitoring
DoT	Department of Treasury
DP	Development Partner
DPI	Department of Primary Industry
DPM	Department of Personal Management
DSIP	District Service Improvement Program
DSP	Development Strategic Plan
EA	Environmental impact Assessment
EOP	End of Plan
FBO	Farmer-Based Organisation
FDI	Foreign Direct Investment
FER	Functional Expenditure Review
FM	Financial Management
FPDA	Fresh Produce Development Agency
GDP	Gross Domestic Product
HATI	Highlands Agriculture Training Institute

HDI	Human Development Index
HIV	Human Immune Virus
HR	Human Resource
HRIS	Human Resource Information System
ICT	Information Communication Technology
IFMS	Integrated Financial Management System
IFRS	Interim Financial Reports
IPA	Investment Promotion Authority
KIK	Kokonas Indastri Koporesen
Km	Kilometres
KPI	Key Performance Indicator
KRA	Key Result Area
LLG	Local-Level Government
LLSIP	Local-Level Service Improvement
LNG	Liquefied Natural Gas
M&E	Monitoring and Evaluation
MDAs	Ministries, Departments and Agencies
MDGs	Millennium Development Goals
MEL	Monitoring, Evaluation and Learning
MELF	Monitoring, Evaluation and Learning Framework
MOA	Memorandum of Agreement
MOU	Memorandum of Understanding
MSME	Micro, Small and Medium Enterprise
MTDP	Medium Term Development Plan
MTEF	Medium Term Expenditure Framework
NADP	National Agriculture Development Plan
NAEMAS	National Agriculture Extension and Management Advisory Services
NAIS	National Agricultural Information Systems
NASP	National Agriculture Sector Plan
NAP	National Agriculture Policy
NAPR	National Agriculture Policy Forum
NAQIA	National Agriculture Quarantine and Inspection Authority
NARI	National Agriculture Research Institute
NARSI	National Agriculture Research System for Innovation
NCD	Non-Communicable Diseases
NDOH	National Department of Health
NEFC	National Economic Fiscal Commission
NGO	Non-Government Organisation
NPC	National Procurement Commission

NPMC	Nutrition Policy Monitoring Committee
NSO	National Statistical Office
OPIC	Oil Palm Industry Corporation
PACD	PNG Agriculture Commercialization and Diversification Project
PCMC	Provincial Coordination Monitoring Committee
PEM	Protein-Energy Malnutrition
PFM	Public Financial Management
PIP	Public Investment Program
PLLSMA	Provincial and Local Level Services Monitoring Authority
PMF	Performance Monitoring Framework
PMU	Program Management Unit
PNG	Papua New Guinea
POL	Program Outcome Leaders
PPAP	Productive Partnerships in Agriculture Project
PPP	Public-Private Partnership
PS	Program Specialist
PSIP	Provincial Service Improvement Program
R&D	Research and Development
SDGs	Sustainable Development Goals
SEZ	Special Economic Zone
SIP	Service Improvement Program
SLM	Sustainable Land Management
SME	Small-Medium Enterprise
SMS	Subject Matter Specialist
SPA	Strategic Priority Area
SSSPP	Smallholder Support Services Pilot Project
StaRS	Strategy for Responsible Sustainable Development
TVET	Technical and Vocational Education and Training
UNDP	United Nations Development Program

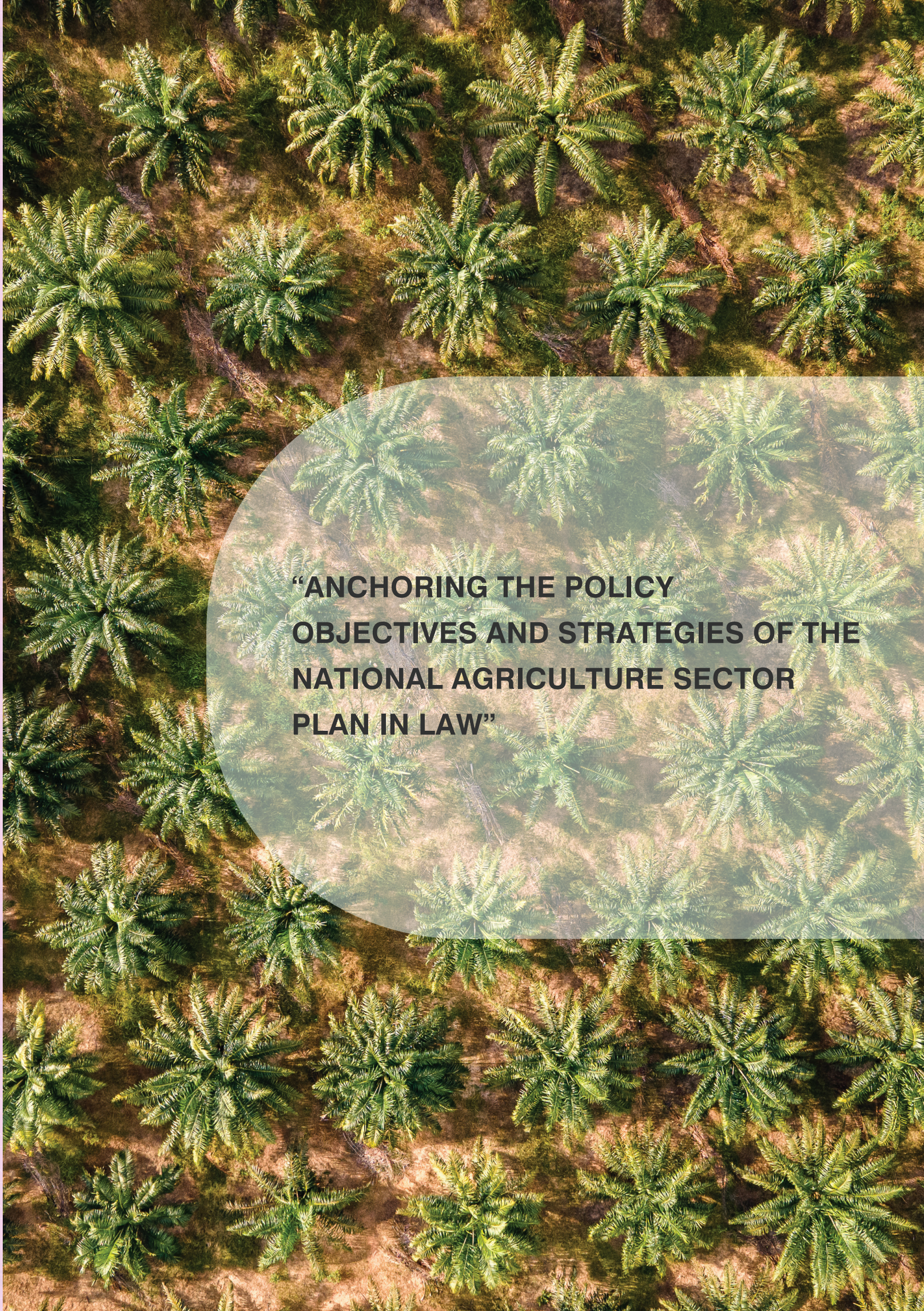
PART 3
LEGISLATIVE FRAMEWORK

The National Agriculture Sector Plan (NASP) legislative framework is critical for institutional governance to effectively implement and deliver the outcomes and objectives of the NASP.


Department of
Agriculture and Livestock

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“ANCHORING THE POLICY OBJECTIVES AND STRATEGIES OF THE NATIONAL AGRICULTURE SECTOR PLAN IN LAW”

1 CHAPTER 1. INTRODUCTION

The National Agriculture Sector Plan (NASP) legislative framework is critical for institutional governance to effectively implement and deliver the outcomes and objectives of the NASP. The legislative framework ensures principles of good governance is embedded in law and has the force sufficient to compel actors within the agriculture sector to prudently deliver their policy obligations for efficient and sustainable development of agriculture sector in Papua New Guinea.

The legislative framework is informed by the NASP Policy Objectives in Part 1 and the Agriculture Priority Areas and the Strategies identified in Part 2 of the NASP therefore providing the linkage amongst the 3 Parts to be taken and read as one sector policy document NASP 2024-2033. The proposed National Agriculture (Administration Adjustment) Act 2023 and Agriculture Investment Corporation Act 2023 are legislations necessary to provide the legal framework to foster innovation, promote investment, protect farmers' welfare, ensures environmental sustainability and essentially protects state budgeted funds, donor grants and private sector support funding into various development programs and projects in the agriculture sector delivered by commodity boards and sector agencies for financial transparency and accountability.

Legislative framework sets the legal basis for creating legal instruments like Directions, Notices, Standards, Permits and Quotas to enable a structured approach to agriculture policy implementation, monitoring and evaluation. Hence the Department of Agriculture or by whatever the name it may change to reflect the policy directive in the sector shall by force of the law, be the lead agency in Agriculture Sector to drive a centralized and coordinated program approach in development the agriculture sector.

Much has been done on the development of the legislative framework through the proposed AAA and AIC Bills of 2015 then being informed by the NEC Decision 124/2014 where the FER 2014 Report was developed, accepted and sanctioned by the National Executive Council. This part takes its cue from the previous work done on the legal framework development and incorporates the ideas and aspirations of stakeholders expressed during regional consultations on the undercurrents of a non-performing agriculture sector in PNG. It aims to cure the defects the sector expressed on why NADP 2007-2016 did not produce expected outcome and hope the legal framework will set apart NASP 2024 -2033 from all previous policies, plans, reviews and reports done within the sector.

Recapping from previous policy development in the agriculture sector, the NADP 2007-2016 and FER 2014 called for sector institutional reform of which much traction has not taken place. Within the Sector there remains some level of contention on the recommendations of FER 2014 and its impact on the success of agricultural productivity in PNG. It's been 8 years since the AAA and AIC Bills were developed as Drafting Instructions, as such the proposed Bills have been reviewed, rearranged and redrafted consistent with current policy objectives in Parts 1 and 2.

Hence the principal objective of developing this institutional legal framework is to ensure critical policy objectives and strategies set out in Parts 1 and 2 of this NASP is anchored in law, so as to provide the legal basis for effective coordination, implementation, monitoring and evaluation of the NASP to enable informed decisions to be undertaken by the Department, commodity boards, sector agencies, donors and private sector investors in the agriculture sector.

The Department of Agriculture is created under the Public Services (Management) Act and is the lead agency responsible for agriculture policy oversight of the sector. Its functions and powers are somewhat limited to fully coordinate the sector on policy matters. That is by operation of law, commodity boards and sector agencies have their respective enabling legislations resulting is disjointedness and misalignment of national policy objectives. The legislative framework aims to cure and restore the defect in disjointedness and misalignment of policies and programs within the sector by ensuring the Department is the apex body in driving, coordinating, implementing and monitoring the development of agriculture sector.

Commodity boards and sector agencies under the legislative framework shall continue their specialize functionality within their respective industry sub-sectors, either by regulating it or carry-on business promotion and investment activities to boost agriculture productivity. They will operate as independent institutions from the Department but will report on their program and project outcomes in so far as NASP funding is concerned. This institutional legal framework is critical for effective implementation of the NASP 2024 -2033.



2 CHAPTER 2. COMMODITY BOARDS AND SECTOR AGENCIES FUNCTIONS AND ROLES

Commodity Boards and Sector Agencies established by their enabling Acts have various functions and powers, that the institutional governance framework may call for consequential amendments for effective implementation of the National Agriculture Sector Plan (NASP) 2024-2033.

Commodity Boards and Sector Agencies enabling laws, functions and powers under their enabling laws are provided hereunder.

Commodity Board/Sector Agency	Enabling Legislation	Functions and Powers
Cocoa Board	Cocoa Act 1981	Sections 10 and 11
Fresh Produce Development Agency [FPDA]	Companies Act 1988	
Spice Board	Spice Industry Act 1989	Sections 10 and 11
Coffee Industry Corporation Limited [CIC]	Coffee Industry Corporation (Statutory Powers and Functions) Act 1991	Section 6
Oil Palm Industry Corporation [OPIC]	Oil Palm Industry Corporation Act 1992	Sections 5,6
National Agriculture Research Institute [NARI]	National Agriculture Research Institute Act 1996	Section 4 and 5
Livestock Development Corporation [LDC]	Companies Act 1997	
NAQIA	National Agriculture Quarantine and Inspection Authority Act 1997	Section 5 and 6
Kokonas Indastri Koporesen [KIK]	Kokonas Indastri Koporesen Act 2002	Sections 4 and5
Rubber Board	Rubber Industry Development Act 2022	Sections 7 and 8

The aim of the proposed legal framework is to align commodity boards and sector agencies, who are by virtue of their enabling Acts autonomous administratively, however in so far as the NASP program implementation is concerned, the Department as the lead agency will have oversight on the NASP Programs for monitoring and evaluation and reporting to the government.

The framework will not usurp powers of commodity boards and sector agencies who operate in their specific industries, rather it will provide a governance framework on the public resource envelop budgeted to implement the NASP 2024-2033.


LEGISLATIVE FRAMEWORK
COFFEE INDUSTRY CORPORATION
LEGISLATIVE FRAMEWORK
COCOA BOARD FUNCTIONS AND POWERS UNDER THE COCOA ACT 1981
LEGISLATIVE FRAMEWORK
OIL PALM INDUSTRY CORPORATION FUNCTIONS AND POWERS UNDER OIL PALM INDUSTRY CORPORATION ACT 1992
LEGISLATIVE FRAMEWORK
KOKONAS INDASTRI KOPERESEN FUNCTIONS AND POWERS UNDER KOKONAS INDASTRI KOPERESEN ACT 2002
LEGISLATIVE FRAMEWORK
SPICE BOARD FUNCTIONS AND POWERS UNDER SPICE INDUSTRY ACT 1989
LEGISLATIVE FRAMEWORK
FRESH PRODUCE DEVELOPMENT AGENCY
LEGISLATIVE FRAMEWORK
NATIONAL AGRICULTURE RESEARCH INSTITUTE
LEGISLATIVE FRAMEWORK
NATIONAL AGRICULTURE QUARANTINE INSPECTION AUTHORITY

3 CHAPTER 3. EXPLANATORY NOTES ON PROPOSED LEGISLATIONS

Eight years (8) has lapsed since the last attempt to develop an institutional legal framework in the agriculture sector through the proposed AAA and AIC Bills of 2015. Since then, the policy and economic dynamics within the sector has evolved, therefore warrants a review of the proposed Bills to reflect on the changes sufficiently capture in Parts 1 and 2 of the NASP. Legislative policy gaps identified enabled changes in the proposed Bills.

The proposed legislations Agriculture Administration (Adjustment) Act and the Agriculture Investment Corporation were then vetted by the State Solicitor and were issued their respective Certificate of Necessities (CoN). However, the proposed legislations were drafted in such a way that their provisions then were interdependent on each other. To have effect, they were intended to be enacted concurrently and not as standalone legislations.

This has been revised and the current Drafting Instruction for the respective proposed legislations have been rearrange to cure the defect of inter-dependency.

3.1 Proposed Legislation - AAA Bill of 2015 (NAAA)

The proposed legislation AAA Bill of 2015 has been reviewed and its Title or Name will be changed to the proposed legislation- the National Agriculture Administration Act (NAAA) to reflect the policy intent of NASP 2023-2024.

This proposed legislation will primarily empower the Department of Agriculture as the lead agency to coordinate the implementation of National Agriculture Policy and Program objectives and strategies identified in the NASP 2024-2033 and any plans developed thereafter. Essentially it provides the institutional legal framework for sector administration and governance.

The review enabled changes to be made in some parts of the proposed NAAA legislation and removal of Part V – Planning, Budgeting, Procurement and Monitoring of AAA and reinserting it into the proposed Agriculture

Investment Corporation Act (AICA) as Part VIII. Same change is made to Part IX – Agriculture Permits and Quotas of NAAA and inserted into AICA as Part IX.

After the changes, the Drafting Instruction of the proposed legislation, the NAAA is anticipated to have 13 Parts and 80 Sections of which 8 Parts are newly inserted or existing Parts rearranged. Two Parts as identified have been removed and placed under AICA where its functions appropriately fit. These changes will enable the proposed legislations to be assessed own its own merit and enacted as independent standalone legislations.

3.2 Explanatory Notes - National Agriculture Administration Act

The Explanatory Notes of the Drafting Instruction of the proposed legislation the National Agriculture Administration Act provides a brief explanation on what each part of the proposed legislation is intended to cover.

Parts	Sections	Explanatory Note
Part I - Preliminary	Sections 1-3	It will set the preliminary provisions by qualifying the proposed legislation against the Constitution and defines the application of the legislation.
Part II - Administration	Sections 4-18	This part will provide for institutional framework for the Department as the lead agency or agriculture sector apex body.
Part III - Smallholder Farmers	Sections 19 -25	This part will focus on smallholder farmers' welfare, they being recognized as the critical actors in the sector to drive rural economic development. It underpins the policy intent of people/farmer focus approach to sector development.
Part IV - Council and Committees	Sections 26-45	It will provide for institutional governance mechanisms for check and balance of responsibilities and powers vested in various actors in the sector.
Part V - Agriculture Projects Funding and Investment	Sections 46 -51	It will ensure state funds, donor grants and private sector investment on programs and projects is prudently manage to comply with strategies in Part 2 of the NASP.
Part VI - Commodity Boards and Sector Agencies	Sections 52-53	This part will provide for sector alignment enabling NAAA to have precedence over other sector legislations where a conflict arises. It also sets the legal basis for Peak Organization participation in the sector development programs.
Part VII - Administration of Agriculture Functions in Provinces and Districts	Sections 54-58	This Part will provide define the functions of PGs and LLGs within existing legal framework for the development of NASP and other sector plans.
Part VIII - Farmer Producer Incentives	Sections 59-62	It will provide the legal basis to provide incentives schemes to encourage continued farmer engagement and productivity especially to the smallholder farmers.
Part IX - Agriculture Major Commercial Investment Agreements	Sections 63-65	This Part will provide the legal basis for execution of agriculture major commercial investment agreement by the Minister to enable agriculture private sector investments.
Part X - General Investment Guidelines and Agriculture Industry Participation Certificates	Sections 66-68	This Part provides the legal basis for registering industry participants for proper accounts of industry development and evidenced based policy development.
Part XI - Enforcement	Sections 69-72	This Part will be essential for compliance of the Act, providing the basis in which this Act will be enforced by force of law.
Part XII - Offenses	Sections 73-75	This Part will create offenses and penalties for non- compliance with the Act to ensure the Act has the force of the law to be fully complied with.
Part XIII-Miscellaneous	Sections 76-79	This Part will provide the legal basis to create Regulations and Standards and any transitional matters.

3.3 Proposed Legislation – AIC Bill of 2015 (AICA).

AIC Bill 2015 is reviewed with less changes made in the proposed legislation the Agriculture Investment Corporation Act. Two additional Parts removed from AAA Bill of 2015, are inserted into AIC Bill as first above mentioned. Hence Part V and Part IX of the AAA Bill of 2015, are removed and inserted as Part VIII and Part IX respectively in the proposed legislation, the Agriculture Investment Corporation Act.

As to the synthetic correctness of legislative text, it shall be further reviewed after cabinet endorses it as Drafting Instructions and direct the First Legislative Counsel to vet and issue Certificate of Compliance of Legal Correctness, however for the purposes of Institutional Legal Framework of this Part 3 of NASP, the structure of AIC Bill 2015 very much remains the same with two additional parts included as aforementioned.

3.4 Explanatory Note – Agriculture Investment Corporation Act.

The Explanatory Notes of the Drafting Instruction of the proposed legislation the Agriculture Investment Corporation Act provides a brief explanation on what each part of the proposed legislation is intended to cover.

Parts Status	Sections	Proposed Changes
Part 1 - Preliminary	Sections 1-4	This part will be preliminary and provides for constitutional qualification and application of the proposed act.
Part II - Agriculture Investment Corporation	Sections 5-8	This Part will establish AIC as a corporatized agency.
Part III - The Board	Sections 9-20	This Part will establish the Board of AIC and its governance mechanism.
Part IV - Officers and Employees of the Corporation	Sections 21-26	This Part create the Office of the Managing Director of AIC and Officers of AIC.
Part V - Finance etc	Sections 27-35	This Part will provide for the finances of AIC.
Part VI - The Agriculture Fund	Sections 36 -38	This Part will establish the Agriculture Investment Fund and its governance mechanism.
Part VII - Business Ventures and Arrangements	Sections 39	This Part will provide for Special Purpose Joint Venture Companies with AIC
Part VIII - Planning, Budgeting, Procurement and Monitoring	Sections 40-43	This Part will provide for Budget, Planning and Monitoring System with respects to Agriculture Funds to be managed by AIC.
Part IX -,Agriculture Standards, Permits and Quotas	Sections 44-60	This Part will provide certain minimum regulatory framework for agriculture imports and exports by AIC as agriculture commercialization and investment regulator in PNG.
Part X - Miscellaneous	Sections 61-69	This Part will provide for miscellaneous such as regulations, mode of contracting, seal of AIC etc.
Part XI - Transitional Management	Section 70	This Part will provide for transitional management arrangement.

Subject to further review by the First Legislative Counsel there may be a need to insert additional provisions or Parts on Enforcement and Offenses.





Pic: Rice Farm, Launakalana

4 CHAPTER4. DRAFTING INSTRUCTIONS ON PROPOSED LEGISLATIONS

The Drafting Instructions expands on the Explanatory Notes provided in Chapter 3 and provides policy guiding notes on each proposed Sections of the Proposed Legislations, the National Agriculture Administration Act and the Agriculture Investment Corporation Act. Respective proposed sections of the legislations are informed by policy objectives and strategies of NASP 2023-2033. This chapter provides in a non-legal language for non-lawyers to understand and also assists the legislative drafters to understand the intent of each section for legislative drafting. It will enable the legislature to quickly understand the proposed legislation without the need to read the legislative text with a legal lens.

The Drafting Instruction essentially is a guide for the legislator, interested stakeholders and the general public to better understand the proposed legislation's intent and impact. It clarifies the proposed legislation and makes its interpretation more accessible and transparent.

4.1 Proposed NAAA - Drafting Instruction's Policy Guiding Notes



The Title

This section will provide for the title of the proposed legislation, which is a standard practice to identify the law.

Section 1 - Compliance with Constitutional Requirements:

This section addresses the Act's compliance with Papua New Guinea's constitution. It declares that any regulations or restrictions on rights and freedoms, such as freedom of expression, assembly, association, employment, privacy, and information, are made in the public interest and for public welfare. It also asserts the national importance of this law, aligning it with equitable distribution and leadership code principles.

Section 2: - Interpretation:

In this section the key terms and phrases used throughout the legislation will be listed and defined. This ensures clarity and consistency in the interpretation of the law.

Section 3 - Application to the State:

This section states that the Act applies to the State, binding it under the provisions of the Act. It also establishes that neither the State nor any other beneficiary can exercise rights as beneficiaries of the Agriculture Fund except as allowed by and in accordance with the Act. This emphasizes the specific legal framework provided by

the Act for the State's role as a beneficiary.

Section 4: Administration of the Act:

This Section will vest in the Departmental Head of the Department responsible for agriculture matters to administer the Act.

Section 5: Functions of the Department:

This section will outline the various functions of the Department, including policy development, sector planning, oversight of governance, and more. It specifies that these functions are additional to those granted by the Public Services (Management) Act. The Department is also required to consider the welfare of smallholder farmers while performing its functions.

Section 6: Powers of the Department:

- This section will grant the Department some minimum level of regulatory powers over the agriculture sector on policy matters.
- It will allow the Department to issue directives to commodity boards and sector agencies regarding government policies and plans.
- The Department will have broad powers necessary for carrying out its functions.

Section 7: The Department is the Agriculture Lead Agency:

- This section will designate the Department as the lead agency responsible for coordinating and developing the agriculture sector.
- It will emphasize the Department's role in aligning with government policy to ensure the sector contributes significantly to Papua New Guinea's development.
- The Department's responsibilities extend to policy development in areas like food security, safety, and nutrients. The Department can request data, statistics, or information from commodity boards or sector agencies to fulfill its functions.

Section 8: Agriculture Sector Plan:

- Under this Section, the Head of the Department will be tasked with creating an Agriculture Sector Plan to boost the sector's productivity for export. The Council will review the proposed plan to approve before finalization.
- Sector agencies and commodity boards must adhere to the approved plan.
- The plan must be periodically reviewed and updated, and compliance is mandatory.
- The Department can restructure itself for this purpose as advised by the Minister.

Section 9: Agriculture Priority Areas:

- Plans developed under this section must specify priority areas for coordination, investment, and monitoring.
- All agriculture programs and projects must align with these priority areas.
- These priority areas will guide government, donor agency, and private sector investments in agriculture.
- Financing activities outside the plan's priority areas will be considered as an

offense.

Section 10: Assignment of Agriculture Priority Areas:

- The Departmental Head will be the custodian of Agriculture Priority Areas (APA) identified in the NASP 2023 -2024 and will assign one or more APAs to commodity boards and sector agencies for implementation.

Section 11: NASP Secretariat:

- The Department is required to establish a National Agriculture Sector Plan Secretariat.
- The Head of the Department, in consultation with the Department of Personnel Management will appoint staff to oversee and support the Secretariat.
- The Secretariat's responsibilities include coordinating implementation of the plan, working with other agencies and boards, and providing administrative support.
- It operates under the Department's supervision and supports the Council established by the Act.

Section 12: NASP Sector Officers:

- Under this Section, public sector agencies and commodity boards are required to designate NASP Sector Officers for the purposes of this proposed Act particularly to implement the Plan.
- NASP Sector Officers have responsibilities including coordinating with the Department on sector policy and plan implementation, monitoring and evaluation, and providing regular project implementation reports to the Secretariat.
- The Department, in collaboration with relevant agencies, will be tasked with enhancing the capacity of NASP Sector Officers for effective project monitoring and reporting of the Plan.

Section 13: Extension Services, a Delegated Function:

- Sector extension services are considered a delegated function to commodity boards by the Department under the proposed Act.
- The Department can, in the interest of implementing national policies, suspend or contract out extension services provided by commodity boards.
- The Department is responsible for establishing, maintaining, and developing the agriculture extension system.
- The proposed Act will take precedence over conflicting laws related to extension services.

Section 14: Digitalization of Agriculture Value Chain:

- This proposed section will emphasis on utilization of ICT Technology to increase production efficiency through digitalization of agriculture value chain both from the supply and demand side of agriculture production. It will provide the basis for collaboration with ICT Department and Peak Organizations to digitalized agriculture value chains.

Section 15: National Agriculture Register:

- The proposed Act will establish the National Agriculture Register, to be administered by the Department.
- The Register will be in electronic form and must be accessible via mobile devices, providing information on various stakeholders in the agriculture sector.
- Commodity boards, sector agencies, and other relevant entities will be directed to input data into the Register, and non-compliance should be an offense. This is done to enable integration of baseline agriculture data for evidence-based policy planning and development of the sector.

Section 16: Agriculture State Leases:

- The Department is to be responsible for maintaining records of Agriculture State Leases, publishing updated records annually to encourage investment.
- The Department may sublease State Leases only for agricultural purposes.
- State Leases cannot be sold, disposed of, assigned, or subleased for other purposes without Council approval.
- Non-compliance by heads of commodity boards or sector agencies is an offense. This is to protect abuse of state leases and encourage major investment in the sector.

Section 17: Agriculture Cadetship Program:

- The proposed Act will establish an Agriculture Cadetship Program to develop future agriculturalists.
- The Department, in collaboration with commodity boards and sector agencies, will coordinate and implement the program.
- Graduates in Agriculture from recognized institutions can apply for the program, which will last up to two years.
- Participants may receive allowances during the program and may join the workforce upon completion. This is to ensure capacity building program is provided by the Department to enable knowledge and skill transfer from the experience agriculture scientist to the new graduates.

Section 18: Sector Research and Development:

- This section will enable the Department to identify areas that needs research and development to effectively implement the NASP 2024-2033. The Department will be able to classify the areas that needed field practical applied research and others that may require academic research and secure funding to fund those specific research objectives where appropriate.

Section 19: Smallholder Farmers' Welfare:

- The Department, commodity boards, and sector agencies by law must prioritize the welfare of smallholder farmers in their functions and powers.
- If smallholder farmer welfare is adversely affected by these functions and powers in an enabling law, that provision of the enabling law becomes void and unenforceable.
- Protection is granted to existing smallholder farmers engaged in productive farming activities. This is to ensure the law gives effect to the policy direction on

people or farmer focus as opposed to conventional approaches of commodity focus.

Section 20: Use of Customary Land for Farming:

- The Department will encourage smallholder farmers to use customary land for agriculture.
- The Department may assist in mobilizing land for farming under the Land Act 1996, ensuring free, prior informed consent and sustainable practices is always maintained.
- The Department also interfaces with other relevant bodies on behalf of farmers. This is to enable the Department to intervene and mobilize farmers using their current customary land tenure system to engage in micro to medium scale commercial agriculture productivity.

Section 21: Community Farmer Enterprise Mobilization

- The Department will lead the commodity boards and sector agencies in mobilizing communities for smallholder farmer enterprise.
- Activities include training, information dissemination, financial support, and market access.
- The Department will assign one of its divisions to oversee community agriculture enterprise mobilization program. The Department can issue directives for commodity boards and sector agencies to comply with. Progressive reports will be submitted to the Council for consideration and funding.

Section 22: Productive Partnership:

- The Department will form partnerships with various organizations to deliver smallholder farmer enterprise activities.
- These partnerships will be governed by Partnership Agreements.
- Activities may include building training centers, market databases, providing extension services, and more.

Section 23: Farmer-to-Farmer Village Extension Service:

- The Department will collaborate with local governments and others to coordinate Farmer-to-Farmer Village Extension Services.
- Local individuals with skills are to be identified as extension service officers, serving voluntarily.
- These officers may receive service allowance fees based on program demand.
- The Department can appoint new officers as needed and the officers are to collect farming data for input into the Registry.

Section 24: Family Farm Program:

- This section will enable the Department to collaborate with training institutions to run family farm program for food security and small business development.

Section 25: Export Agency for Smallholder Farmers:

- The Department must establish an Agriculture Export Agency through an Act.

- The Agency's functions include collecting, packing, and preparing farmer produce for export and developing infrastructure.
- It defines internal governance rules through enabling instruments.

Section 26: National Agriculture Council:

- The proposed law must establish the National Agriculture Sector Council.
- Council composition includes Departmental Head, Heads of Sector Agencies and Commodity Boards (or their nominees), and other senior government officials.
- The Minister serves as the Chairman of the Council, but the Chairman may also be appointed by the Minister and reappointed for up to 3 years.

Section 27: Purpose of the Council:

- This Section will provide the policy basis as purpose of establishing the Council.

Section 28: Functions of the Council:

- Outlines the functions of the Council, including advising the Minister on strategic policy issues, recommending performance evaluations of sector agencies and commodity boards, and providing strategic policy advice to the Department.
- The Council facilitates the formulation, implementation, and review of sector policies and plans.
- It serves as a government forum for awareness of agriculture sector policies, laws, programs, and projects.The Council will assist in identifying and evaluating major investment programs, evaluating proposed sector investment plans, and addressing policy gaps.

Section 29: Powers of the Council:

- Grants the Council the power to direct or advise the Departmental Head, Sector Agencies, or Commodity Boards to comply with its meeting resolutions.
- Directives must have signed meeting resolutions attached and be approved by the Minister.

Section 30: Meetings of the Council:

- Specifies quorum requirements and the frequency of Council meetings.
- Meetings can be physical or virtual.
- Notice of meetings is required, with the agenda included.
- Members with conflicts of interest must declare and abstain from participating in the agenda of interest to them.
- Emergency meetings can be called by the Chairman.
- Minutes of meetings must be recorded and circulated.
- Decisions are made by majority vote, with the Chairman having a casting vote in case of a tie.

Section 31: Administrative Support:

- The Secretariat will provide the administrative support to the Council.

Section 32: Funding:

- Council operations will be funded by annual membership subscriptions from Commodity Boards and Agencies and through national budget appropriation.
- Rates of annual subscriptions are determined by the Minister, advised by the Council.
- The Secretariat oversees Council operations.

Section 33: Agriculture Ministerial Committee:

- It will establish the Agriculture Ministerial Committee and the Chairman shall be the Minister responsible for agriculture matters.

Section 34: Technical Advisory Committee:

- This Section will create a technical advisory committee to the NAC, the Ministerial Committee and the Minister.

Sections 35, 36 and 37: Functions of the Technical Advisory Committee (TAC), Meetings and Chairman:

- These sections will provide for the functions of the TAC, process and methods of conducting its meetings and the Chairman.

Section 38: Council May Create Sector Committees:

- The Council can create sub-sector subcommittees to address various aspects of agriculture. Each subcommittee's processes and procedures are determined by the Council and have the force of law.

Sections 39 and 40: Agriculture Audit Committee and Its Function:

- This provides the basis to establish an independent agriculture audit committee to audit programs developed under the NASP and defines its specific functions.

Sections 41-45: Provincial Agriculture Committee:

- These sections will establish Provincial Agriculture Committee, define its functions, set procedures for its meeting and define its reporting channel.

Section 46: Agriculture Project Proposal for Government Funding:

- Sector agencies and public bodies require written approval from the Departmental Head to implement project proposals.
- A Certificate of Compliance is issued upon approval. Rejection or failure to communicate approval results in the request being deemed rejected.
- This section applies before the national procurement process takes effect. This provision is the ensure resource envelop of the State funded to develop the sector must be consistent with the Plan and acts as a filter to insulate the funds from abuse and misuse.

Section 47: Approval for Quarterly Release of Warrants for Agriculture Project Funds:

- This Section will enable the Departmental Head of the Department of Agriculture to ensure project funds budgeted under MTDP IV for various sector investment programs are released to commodity boards and sector agencies based on

outcome of their deliverables. A warrant shall not be released unless funds released earlier are proven to have been used wisely and reports submitted to the Departmental Head.

Section 48: Certificate of Compliance for Sector Public Investment Program and State Guaranteed Agriculture Project proposals:

- This Section will apply to Project Proposals requiring government funding or state guarantee. Proposals must comply with policies, plans, and laws.
- A Certificate of Compliance is needed before submitting plans or proposals.
- Approved Project Proposals become part of the National Planning Framework.
- Proposals without Certificates of Compliance will not be considered for funding.
- The head of a sector agency failing to obtain a Certificate of Compliance will commit an offense.

Section 49: NASP Annual Budget Submission:

- To ensure the NASP is funded annually consistent with existing fiscal legal framework, the Department must prepare an NEC Submission for NASP funding for the next fiscal year. The budget funding submission will aim for annual budget funding equivalent to 5% of projected GDP.NEC Decision is submitted for national budget consideration.
- The Department will oversee the NASP financing and implementation.

Section 50: Agriculture Investment Tax Subsidies:

- The Department will consult with relevant agencies to develop a policy and regulation for Agriculture Investment Tax Subsidies.

Section 51: Agriculture Special Economic Zone:

- The Department will consult with relevant agencies to develop a policy and regulation for Agriculture Special Economic Zones.

PART VI: COMMODITY BOARDS AND AGENCIES

Section 52. Alignment of Commodity Boards and Agencies:

- This section will emphasize that all commodity boards, sector agencies, or anyone involved in agriculture matters should consider the proposed Act as if it was made under their enabling law for sector alignment of programs and project consistent with national policy framework.
- In case of any conflict or inconsistency between this proposed Act and their enabling laws, the provisions of this proposed Act shall take precedence. Any agency delegated with agricultural functions under other laws must collaborate with the Department and comply with the proposed Act.

Section 53: Peak Organizations:

- This section will provide the basis for Peak Organizations contribution and collaboration with the Department, commodity boards and sector agencies to improve production efficiencies in the sector.

PART VII: ADMINISTRATION OF AGRICULTURE FUNCTIONS IN PROVINCES AND DISTRICTS

Section 54. Provincial Governments Agriculture Sector Responsibilities:

- Defines the agriculture functions of provincial government. Provincial governments can create laws to enhance investments in agriculture, support capacity building for provincial agriculture personnel, implement approved agriculture extension services, and manage funds allocated for agriculture.

Section 55. Local Level Government Agriculture Sector Responsibilities:

- Defines the agriculture functions of Local Level Governments. Local Level Governments (LLGs) have the authority to enact laws to increase investments in agriculture, improve district agriculture personnel's capacity, implement climate change mitigation programs, and promote agriculture development in alignment with national and district plans.

Section 56. General Functions of Agriculture Commodity Boards and Sector Agencies:

- Commodity boards and sector agencies will be tasked with various functions, including regulating agricultural industries, conducting research and extension services, managing data for planning, overseeing public investment, facilitating market access, and supporting the establishment of local enterprises.

Section 57. Agriculture Functions in Provinces and Districts:

- This section will outline the roles and responsibilities of Provincial Administrators and District Development Authority Chief Executive Officers in agriculture development, co-ordination, and management.

Section 58. Partnership with Provinces and Districts:

- It will highlight the collaboration between the Department, Commodity Boards, Sector Agencies, Provincial Governments, and Local Level Governments to integrate national and local agriculture policies, plans, and programs for effective development.

PART VIII: FARMER PRODUCER INCENTIVES

Section 59. Primarily Producer Enterprise:

- The Department will be responsible for establishing and coordinating producer enterprise programs in collaboration with various stakeholders.
- Commodity boards and sector agencies must ensure that producers within their industries organize themselves into micro, small, and medium enterprises to improve agriculture products' cultivation, production, processing, and marketing.

Section 60. Primary Producer Incentives:

- The Department will be tasked with establishing and coordinating incentives for primary producers, which may include input subsidies, tax incentives, and policies to support their income during market fluctuations.

Section 61. Major Commercial Investment Incentives:

- The Department will be responsible for establishing and coordinating incentive programs for large commercial investments in agriculture.
- These incentives aim to attract private sector partnerships, promote industry growth, and ensure transparency in the process.

Section 62. Tax Rebate Incentive for Private Sector Companies:

- This section will introduce a Tax Rebate System for private sector companies participating in agriculture investments. The Tax Rebate System will cover various aspects of agriculture research, extension services, and fuel and transportation services to rural smallholder farmers.

PART IX: MAJOR AGRICULTURE COMMERCIAL INVESTMENT AGREEMENTS

Section 63. Power to Enter into Agriculture Major Commercial Investment Agreements:

- This Section will ensure the Minister, with the advice of the National Executive Council, can enter into agreements on behalf of the State for major agriculture commercial investment projects or financing of such projects.
- These agreements will include provisions related to how the Minister exercises discretion and the dispute resolution mechanisms.

Section 64. Circumstances Under Which the Minister May Require Major Agriculture Commercial Investment Project Agreements:

- This Section will ensure the Minister to direct the execution of Major Project Agreements, when the State's assets, leases, or infrastructure are involved in large agriculture commercial investments.

Section 65. Effect of Major Commercial Agriculture Investment Agreement:

- This section will address the hierarchy of authority between the Major Project Agreement and the Act. In case there's a conflict between the provisions of the Major Project Agreement (an agreement with an investor for large commercial agriculture projects) and this Act, the provisions of this Act will take precedence. This section is included to ensure that the Act remains the ultimate legal framework governing agriculture-related matters, even in the presence of specific agreements.

Section 66. Investment Requirements:

- This section will outline the requirements that potential investors in agriculture must fulfill. Investors are expected to demonstrate both adequate financial and personnel capacity to undertake specific agriculture investment projects. Additionally, when expressing interest, they should provide an agriculture business plan that includes a study on the social, environmental, and economic impacts of their proposed project. Investors are also required to comply with the Investment Promotion Act 1992 and any other relevant regulations.

Section 67. Investment Procedures:

- Here, the procedures for potential investors in large-scale agriculture projects are explained. It will state that interested investors must formally notify the

state by writing to the Departmental Head expressing their intention to develop an agriculture project. The Departmental Head is then required to respond in writing, either approving or rejecting the proposal within three months. If no response is received within the stipulated time-frame, the notice is automatically considered rejected. Detailed processes are expected to be prescribed in regulations.

Section 68. Agriculture Industry Participation Certificates:

- This section will discuss the issuance of Agriculture Industry Participation Certificates to investors. The Departmental Head, based on advice from the Council, will be responsible for issuing these certificates. These certificates serve as legal documents authorizing investors to provide services to the agriculture sector. They are subject to annual review by the Council, and it's important to note that having this certificate doesn't exempt the enterprise from complying with other relevant laws.

Section 69. Notices:

- This section will empower the Departmental Head to issue notices as part of the enforcement process outlined in Part XI. These notices are likely to be in a prescribed format and are an essential tool for enforcing compliance with the Act.

Section 70. Directions:

- This section will enable the Departmental Head, based on the advice of the NEC (National Executive Council), can issue directives to sector agencies, commodity boards, or other entities involved in agriculture matters. These directives can cover various areas, such as the allocation of funds, delivery of policies and plans, investment matters, and more. It's important to follow these directives, as non-compliance can lead to legal consequences.

Section 71. Investigation, etc:

- This section will outline the powers and duties of the Departmental Head in investigating and responding to matters related to agriculture services. This includes accessing properties, data, handling complaints, suspending non-compliant projects, and issuing directions to sector agencies and commodity boards for information and cooperation.

Section 72. Powers of Officers of the Department:

- Department officers will be granted specific powers when enforcing the Act. These powers include entering and searching premises or systems, interviewing individuals with relevant information, requiring information, and seizing items related to breaches of the Act.

Section 73. Offenses:

- This section will create general offenses under the Act. It will specify that individuals or corporate bodies failing to comply with any provision of the Act, where no specific penalty is provided, are guilty of an offence. Penalties for such offenses include fines and imprisonment.

Section 74. Matters Relating to Offenses:

- This section will clarify that the imposition of penalties under the Act doesn't prevent other actions, such as disciplinary measures, the cancellation of licenses, or ordering the convicted person to pay for damages caused by their offence. It also highlights that action of employees or agents of corporate bodies can be considered as actions of the body corporate itself.

Section 75. Prosecution of Criminal Offenses:

- This section will specify that criminal offenses under the Act can be prosecuted either by the Department for summary offenses or by the Public Prosecutor for indictable offenses.

Section 76. Regulations:

- This section will provide the legal basis for the Head of State to make regulations that complement the Act. These regulations may cover various matters required for the effective implementation of the Act, ensuring it remains comprehensive and adaptable.

Section 77. Standards:

- This section will provide the legal basis for the Head of Department to create Sector Standards where appropriate.

Section 78. Investment Fund, Permit and Quotas:

- This as miscellaneous provision will provide pointers or directions for the creation of Investment Fund, Permit and Quotas by another Act.

Section 79. Transitional:

This section will address the transition from previous plans to the Act. It will stipulate that the National Agriculture Strategic Plan 2024-2033, approved before the Act's enactment, is considered the first Plan the Act when it comes into effect.

4.2 Proposed AICA - Drafting Instruction's Policy Guiding Notes



Section 1 - Compliance with Constitutional Requirements.

- This section will address the Act's compliance with Papua New Guinea's constitution. It will declare that any regulations or restrictions on rights and freedoms, such as freedom of expression, assembly, association, employment, privacy, and information, are made in the public interest and for public welfare. It will also assert the national importance of this law, aligning it with equitable distribution

and leadership code principles.

Section 2 - Interpretation.

- This section will provide definitions for key terms used in the Act to ensure clarity and consistency in its interpretation. It will define terms such as “Agencies” (referring to technical agencies in the agriculture sector), “Agriculture Fund” (established under Section 27), “Chairman” (the head of the Board), and many more. These definitions help in understanding the Act’s provisions.

Section 3 - Application to the State.

- This section will state that the Act applies to the State, binding it under the provisions of the Act. It will also establish that neither the State nor any other beneficiary can exercise rights as beneficiaries of the Agriculture Fund except as allowed by and in accordance with the Act. This emphasizes the specific legal framework provided by the Act for the State’s role as a beneficiary.

Section 4 - Application of Public Finances (Management) Act 1995.

- Here, it will explain that the Public Finances (Management) Act 1995 applies to the Corporation and, to the extent applicable, to the Commodity Boards and Sector Agencies. This means that financial management practices outlined in the Public Finances (Management) Act 1995 will be followed, and the Corporation and related entities are considered trading enterprises. However, some specific sections of the Public Finances (Management) Act, such as Sections 51, 52, 58, 59, 61, and 63, do not apply to the Corporation or the Commodity Boards and Agencies.

Section 5 - Establishment of the Corporation.

- This section will establish the Agriculture Investment Corporation of Papua New Guinea as a legal entity. The Corporation will be described as having perpetual succession, meaning it continues to exist regardless of changes in its leadership. It can hold property, has a seal, can enter into legal proceedings, and has directors responsible for its management and control.
- It will also emphasize the importance of sound business principles in the Corporation’s operations and requires its directors to act with care, diligence, and skill, similar to what a prudent businessperson would exercise in similar circumstances.
- These sections will set the foundation for the establishment of the Agriculture Investment Corporation, define key terms, outline constitutional compliance, and establish how financial management regulations apply to the Corporation and related entities

Section 6 - Objects of the Corporation.

- This section will outline the objectives of the Corporation. These objectives include securing funding for agricultural research, extension services, and micro, small, and medium-sized enterprises (SMEs). The Corporation will also administer the Agriculture Fund and collaborate with various stakeholders to develop the National Agriculture Plan and Standards System.

Section 7 - Functions of the Corporation.

- This section will elaborate on the functions of the Corporation. These functions

include securing funding for agriculture projects, allocating funding to viable projects in partnership with other entities, and establishing public-private partnerships. The Corporation will also be responsible for monitoring agricultural enterprises' compliance and promoting the participation of Small and Medium Producer Enterprises.

Section 8 - Powers of the Corporation.

- This section will grant the Corporation the necessary powers to carry out its functions. It will allow the Corporation to perform various actions such as entering into agreements, acquiring assets, and managing the affairs of business enterprises. However, it will restrict certain financial activities without prior consent.

Section 9 - The Board.

- This section will establish the Board of Directors of the Agriculture Investment Corporation. It will outline the composition of the Board, including ex-officio members, representatives recommended by the Minister, and independent directors. The appointment process, terms, and qualifications of directors are also to be specified.

Section 10 –-Chairman.

- This section will designate the Secretary for the Department as the Chairman of the Board. In the Chairman's absence, the Acting Secretary of the Department assumes the role and responsibilities of the Chairman.

Section 11 - Secretary of the Board.

- This section will mandates the appointment of a Company Secretary who will serve as the Secretary of the Board. The Company Secretary is responsible for organizing Board meetings and maintaining meeting records.

Section 12 - Meetings of the Board.

- This section will outline the timing and procedures for Board meetings, including quorum requirements and the role of the Chairman or Acting Secretary in presiding over meetings. It will also allow the Board to determine alternative meeting methods.

Section 13 - Leave of Absence of Directors.

- This section will empower the Chairman to grant leave of absence to Directors under specific circumstances, taking into account the Board's attendance policies.

Section 14 - Vacation of Office of Director.

- This section will detail the conditions under which a Director's appointment may be terminated, including death, incapacity, resignation, absence from meetings, or conduct that diminishes the integrity of the Board.

Section 15 - Vacancy or Defect Not to Affect Powers or Functions.

- This section will ensure that the Corporation's actions are not invalidated due to vacancies on the Board or defects in appointments.

Section 16 - Duties of Directors.

- This section will establish the duties of Directors and references compliance with Schedule 2, which provides further guidance on their responsibilities.

Section 17 - Disclosure of Material Interest.

- This section will require Directors to disclose any material interests in matters being considered by the Board and outlines procedures to prevent conflicts of interest.

Section 18 - Delegation by the Board.

- This section will allow the Board to delegate specific functions, duties, powers, and authorities to individuals or bodies, subject to certain limitations.

Section 19 - Avoidance of Transactions

- This section will provide a mechanism for the Corporation to avoid transactions involving a Director with a material interest, subject to specific conditions.

Section 20 - Remuneration of Directors of the Board

- This section will address the fees, allowances, and expenses payable to Directors, excluding ex-officio Directors, for their services.

Section 21 - Appointment of Managing Director

- This section will establish the position of Managing Director, outlining their roles, responsibilities, and terms of appointment.

Section 22 - Removal of Managing Director

- This section will detail the grounds and procedures for terminating or suspending the appointment of the Managing Director.

Section 23 - Powers, Duties, and Functions of the Managing Director

- This section will define the scope of powers, duties, functions, and authorities of the Managing Director.

Section 24 - Delegation by the Managing Director

- This section will allow the Managing Director to delegate their powers, duties, functions, and authorities to specific individuals or bodies, as authorized by law or the Board.

Section 25 - Appointment of Officers

- This section will grant the Managing Director the authority to appoint officers and employees necessary for the Corporation's operations. These appointees are to be considered part of the public service.

Section 26 - Consultants.

- This section will permit the Corporation to engage consultants when needed within budgetary limits, outlining their roles and conditions of employment.
- These sections will collectively define the structure, responsibilities, and

powers of the Agriculture Investment Corporation, ensuring transparency and accountability in its operations and decision-making processes.

PART V - FINANCE, ETC.

- This section will establish the financial framework for the Agriculture Investment Corporation, outlining the sources of its capital and operational funds.

Section 27. Capital

- This Section will outline the composition of the Corporation's capital. It will include:

a. Funds allocated to the Corporation through the National Annual Budget process.
b. Net assets acquired by the Corporation.
c. Changes in the capital account due to accounting principles.

Section 28. Operational Fund.

- This section will require the Corporation to establish and maintain an operational fund, named the Agriculture Investment Corporation Operational Fund, which will receive various sums to support the Corporation's operations.

Section 29. Bank Accounts and Cheques.

- This Section will specify that the Corporation should maintain bank accounts as needed for its operations and details the procedures for depositing and signing cheques or other negotiable instruments.

Section 30. Expenditure

- This Section will outline the Corporation's budgetary responsibilities. It will require the submission of operating budgets for approval, funding by the State, and the allocation of expenditures to specific Commodity Boards and Agencies.

Section 31. Investments

- This section will permit the Corporation to invest surplus funds in various ways, including state securities, approved banks, short-term markets, or other authorized methods, depending on approval from the treasury authority.

Section 32. Application of Monies.

- Section will restrict the use of the Corporation's funds to cover its expenses, obligations, and liabilities as defined by the Act.

Section 33. Accounts and Records.

- This section will require the Corporation to maintain proper accounts and records of its transactions, payments, and assets, following generally accepted accounting principles.

Section 34. Audit.

- Section will empower the Auditor-General to inspect and audit the Corporation's accounts and records and report any significant findings to the Minister. It will

also allow the Auditor-General to employ a registered company auditor for this purpose.

Section 35. Reports and Financial Statements

- Section will mandate the Corporation to prepare an Annual Report and financial statements, which must be furnished to the Minister and the National Executive Council. The Auditor-General must review these documents, and if the audit is not completed in time, the unaudited financial statements are submitted, marked as "unaudited," followed by the audited version when available.

Section 36. Liability to Taxation.

- This section will establish the Corporation's liability to pay taxes, duties, fees, and other financial obligations under existing laws, with specific exceptions outlined. It will also address the tax implications of asset transfers or vesting in the Corporation.

PART VI - AGRICULTURE FUND

Section 37 – Establishment of the Agriculture Investment Fund.

- This section will establish the Agriculture Fund, which aims to support various aspects of the agriculture sector in Papua New Guinea. Its objectives include funding agribusinesses and associated programs, investing in agricultural research and technology, facilitating the establishment of agricultural enterprises, providing farm input subsidies, and maintaining infrastructure assets of commodity boards and agencies.

Section 38 - Composition of the Agriculture Investment Fund

- This Section will outline the composition of the Agriculture Fund, which includes dividends from the Corporation's equity holdings in agriculture-related businesses, a portion of the agriculture sector's contribution to the Gross Domestic Product, funding from external donor agencies, fees from registration of
- Agriculture Industry Participants, appropriations from the National Agriculture Development Plan, and additional contributions from the State as regulated.

Section 39 - Management of the Agriculture Investment Fund

- This Section will discuss the management of the Agriculture Fund, emphasizing that it is an asset of the Corporation and should be used in accordance with its specified objectives. Funding disbursed under sub-funds mentioned in Section 27(3)(a), (b), (c), and (d) should follow the operational guidelines and procedures of each sub-fund and be overseen by respective sub-committees. Capital Formation Agreements with commodity boards and agencies are also mentioned, outlining specific terms for these agreements.

Section 40 - Integrated Agriculture Planning Budgeting, Monitoring and Data Systems

- Here it will relate to integrated national agriculture planning, budgeting, monitoring, and data systems. The Departmental Head has the authority to establish these systems and can request information and data from relevant entities involved in agriculture-related functions.

Section 41 - Competitive Grant Conditions

- This Section will outline competitive grant conditions, but it suggests that this provision might be more suitable in the Agriculture Investment Corporation Bill.

Section 42 - Recovery of Grant Monies

- This Section will discuss the recovery of grant moneys, allowing the Agriculture Investment Corporation to recover grant amounts if the recipient fails to use them as per the grant conditions.

Section 43 - Reports

- This Section will focus on reports, requiring the Department and Agriculture Investment Corporation to submit annual reports on their progress and performance. Commodity boards, agencies, provincial administrations, and district development authorities also have reporting obligations related to agriculture investment projects.

Section 44 - Special Purpose Join Venture Companies

- This Section will address special purpose joint venture companies, stipulating that those established by Commodity Boards should be deemed to have Corporation consent, and new ones require Corporation approval.

Sections 45 to 49 - Agriculture Permits and Quotas

- These Sections will detail the standard agriculture permits and quota system. These sections outline the establishment of standard agriculture import/export permits, quota permits, and related conditions. The Minister has the authority to issue and amend these permits, and there are penalties for non-compliance.

Sections 50 to 60 - Enforcement of Permits and Quotas etc

- These Sections expand on Permit and Quotas and will discuss the application, criteria, issuance, administration, amendment, suspension, cancellation, and offenses related to permits, including penalties for various offenses.

Section 61 - Quota System

- It will establish a quota system for animal and plant products and beverages, outlining the Minister's authority to declare products subject to quotas and the administration of these quotas by the Agriculture Investment Corporation. The Minister has the power to waive quotas in certain situations where hardships are demonstrated.

Section 62. Indemnity

- This section will provide indemnity and protection to every Director against legal actions or claims that may arise from their actions or omissions carried out in good faith and without negligence in the course of executing their duties under the Act. However, this indemnity will not cover situations where a Director contravenes provisions of the Act.
- This section will also allow for the regulation of the indemnity. It can be amended or adjusted through regulations, covering various aspects such as the State's conduct in civil claims, funding for pending claims, cooperation of

indemnified parties, determining payment amounts without litigation, and the appointment of legal representatives. Importantly, these regulations cannot apply without the express agreement of the Director involved.

Section 63. Offices

- This section will grant the Corporation the authority to establish and maintain offices in different locations within the country. It allows for the discontinuation of such offices if necessary. One of these offices will be designated as the principal or head office and is required to be situated in Port Moresby.

Section 64. Attorney

- The Corporation will be given the power to appoint an attorney, whether located within or outside the country, through an instrument under its seal. This appointed attorney can act on behalf of the Corporation and exercise the powers and functions authorized by the instrument.

Section 65. Mode of Making Contracts etc.

- This section will outline how contracts, deeds, or other instruments on behalf of the Corporation are to be made, varied, or discharged. The Managing Director, with the endorsement of the Board, holds the authority to execute these agreements, and they are legally binding on the Corporation and all parties involved.
- Contracts that would require a seal if made between private individuals can be executed on behalf of the Corporation under the Corporation's seal by the Managing Director with the endorsement of the Board.
- Contracts requiring written signatures can also be executed on behalf of the Corporation by the Managing Director with the endorsement of the Board.
- Contracts valid by verbal agreement among private individuals can be made on behalf of the Corporation by the Managing Director with the endorsement of the Board.
- This subsection clarifies that the section does not invalidate contracts executed by a duly appointed attorney of the Corporation, provided the contract would be valid if executed by the attorney personally.

Section 66. Successors to Director Nominators

- This section will provide the mechanism for appointing successors if an appointee ceases to exist without a designated successor.

Section 67. Custody of Corporate Seal

- This Section will ensure the seal of the Corporation is to be kept by the Company Secretary of the Board.

Section 68. Authentication of Documents

- This section will establish that a document or writing with the Corporation's seal and signature is considered evidence, and in the absence of evidence to the contrary, it is conclusive evidence that the document or writing was properly sealed by the Corporation.

Section 69. Regulation

- This section will grant the Head of State, acting on advice, the authority to create regulations that are not in conflict with the Act. These regulations can cover any matters required or permitted by the Act, facilitating its implementation and the Corporation's objectives.

Section 70. Interim Board of Directors

- This section will establish an Interim Board of Directors until the full Board can be appointed. The Interim Board is responsible for managing the Corporation during the transitional period.
- The Interim Board is composed of various officials, including the Secretary of the Department as Chairman, the Secretary of the Treasury Department or nominee, the Managing Director of the Agriculture Investment Corporation, and two individuals with relevant knowledge and experience appointed by the Minister. The Interim Board is granted the powers and duties of the regular Board, ensuring the Corporation's continuity. Members of the Interim Board have specific terms and conditions of service and will serve until the regular Board is constituted. The dissolution of the Interim Board does not affect actions or decisions taken during its tenure, and the Corporation remains the same body corporate before and after the dissolution.
- This section will also provide essential details regarding indemnity, office establishment, appointment of an attorney, contracting procedures, succession planning for appointees, seal custody, authentication of documents, regulatory authority, and the role of the Interim Board during the transitional period.



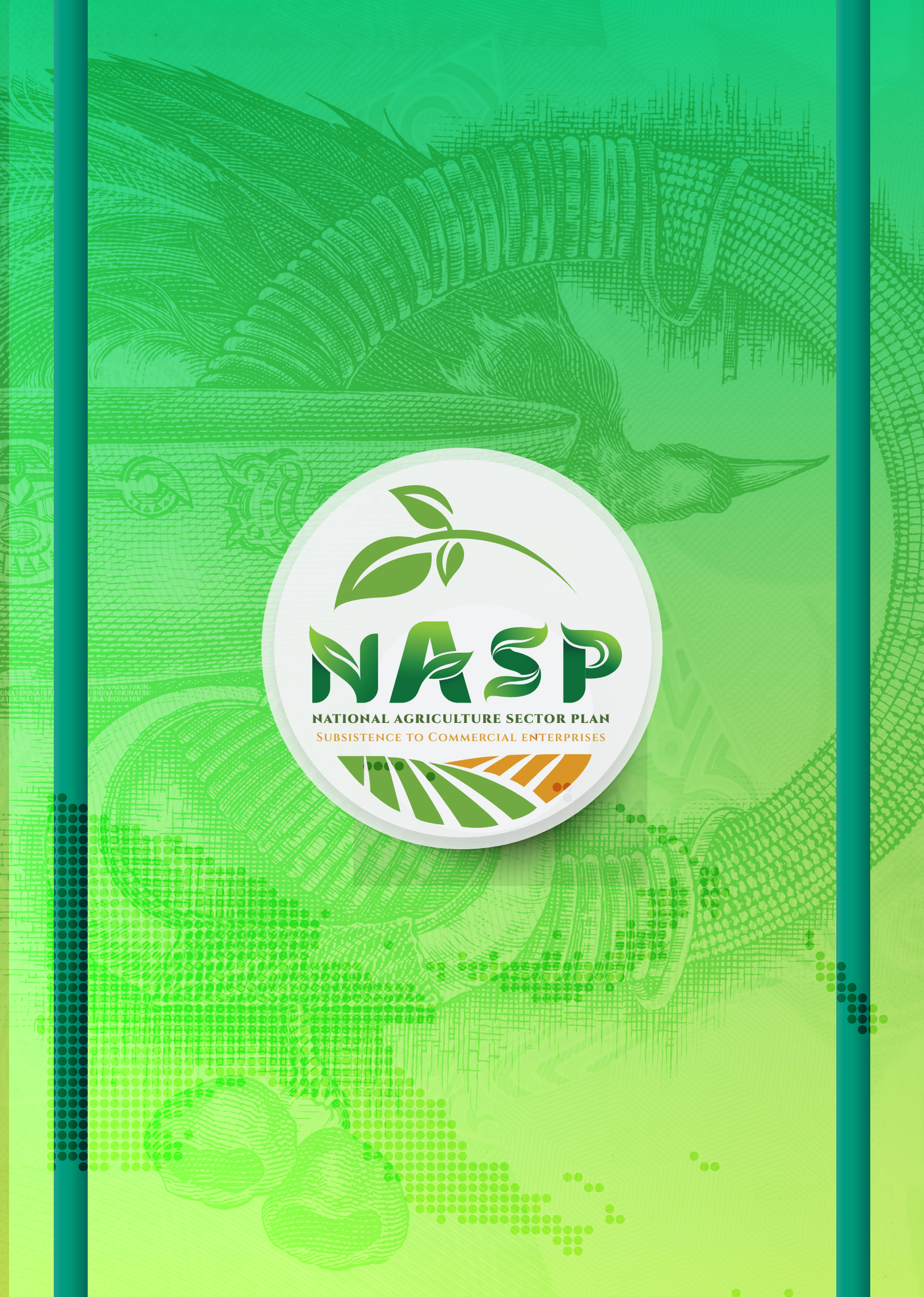







Queen Emma
PREMIUM
WHITE
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MILK CHOCOLATE
Queen Emma
DARK CHOCOLATE
75% COCOA
140g NET
Queen Emma
MILK CHOCOLATE
RICO RICE
RICE BILONG PNG
5kg




NASP
NATIONAL AGRICULTURE SECTOR PLAN
Subsistence to Commercial enterprises