



Kiribati

Coconut Sector Development Strategy

October 2020



Abbreviations

ACIAR	Australian Centre for Agriculture Research
ACP	African, Caribbean and Pacific
ADB	Asian Development Bank
AMAK	Aia Maea Ainen Kiribati
APTC	Australia Pacific Training College
ATHKL	Amalgamated Telecom Holdings Kiribati Limited
CIF	Cost Insurance Freight
CSC	Coconut Shell Charcoal
CNO	Crude Coconut Oil
CDPD	Convention on the Rights of Persons with Disabilities
CPSC	Central Pacific Shipping Commission
CEDAW	Convention on the Elimination of All forms of Discrimination Against Women
CSDS	Coconut Sector Development Strategy
CSS	Coconut Sap Sugar
DFAT	Department of Foreign Affairs and Trade
DBK	Development Bank of Kiribati
DME	Direct Micro Expeller
ECD	Environment and Conservation Division
EU	European Union
EEZ	Exclusive Economic Zone
FAO	Food and Agriculture Organisation
GAP	Good Agriculture Practice
GCF	Green Climate Fund
GDP	Gross Domestic Product
GEF	Global Environmental Facility
GGGI	Global Green Growth Institute
GMP	Good Manufacturing Practice
GoK	Government of Kiribati
GSP	Generalised System of Preferences
HF/VHF	High Frequency / Very High Frequency
HR	Human Resources
IBSA	India, Brazil, South Africa
ICC	International Coconut Community
ICT	Information and Communication Technology
IDPD	Industry Development and Promotion Division
IFAD	International Fund for Agriculture Development
KANGO	Kiribati Association of National Non-government Organisations
KCCI	Kiribati Chamber of Commerce and Industries
KCDL	Kiribati Coconut Development Ltd
KCMCL	Kiribati Copra Mill Company Ltd
KCCS	Kiribati Coconut Cooperative Society
KDP	Kiribati Development Plan
KSEC	Kiribati Solar Energy Company
KIIS	Kiribati Inter Island Shipping Services
KIT	Kiribati Institute of Technology
KNSL	Kiribati National Shipping Line
KPA	Key Priority Area





KOP	K-Organic Producers
KPC	Kiribati Protestant Church
KUC	Kiribati Uniting Church
M & E	Monitoring and Evaluation
MCIC	Ministry of Commerce, Industry and Cooperatives
MICTTD	Ministry of Information, Communication, Transport and Tourism Development
MELAD	Ministry of Environment, Lands and Agriculture Development
MEHR	Ministry of Employment and Human Resources
MFAI	Ministry of Foreign Affairs & Immigration
MFED	Ministry of Finance and Economic Development
MHMS	Ministry of Health and Medical Services
MISE	Ministry of Infrastructure and Sustainable Energy
MLPID	Ministry of Line and Phoenix Islands Development
MTEC	Micronesian Trade and Economic Community
MWYSSA	Ministry of Women, Youth, Sports and Social Affairs
NCAC	National Coconut Advisory Council
NCDs	Non-Communicable Diseases
NGO	Non-Government Organisation
NPGEWD	National Policy for Gender Equality and Women's Economic Empowerment
NQP	National Quality Policy
NSO	National Statistics Office
OAG	Office of the Attorney General
PACER	Pacific Agreement on Closer Economic Relations
POETCOM	Pacific Organic and Ethical Trade Community
PIPSO	Pacific Islands Private Sector Organisation
RBD	Refined Bleached Deodorised
RERF	Revenue Equalization Reserve Fund
RSE	Recognised Seasonal Employer
SDGs	Sustainable Development Goals
SME	Small Medium Enterprise
SOE	State Owned Enterprises
SOPAC	South Pacific Applied Geoscience Commission
SPREP	South Pacific Regional Environmental Programme
SWOT	Strengths, Weaknesses, Opportunities and Threats
SWP	Seasonal Worker Programme
TVET	Technical Vocational and Education Training
UHT	Ultra High Temperature
USP	University of the South Pacific
VCO	Virgin Coconut Oil
VSAT	Very Small Aperture Terminal
WEE	Women's Economic Empowerment

Table of Contents

Foreword.....	i
Acknowledgment.....	ii
Executive Summary	iii
COCONUT SECTOR DEVELOPMENT STRATEGY	1
1.0 Approach	1
1.1 Background	1
1.2 Intent	1
1.3 Plan Development Process	1
1.4 Stakeholders and Their Roles in the Agriculture Sector	2
1.5 Key Policies and Plans Relevant to Coconut Strategy Design and Implementation: ...	2
1.6 Guiding Principles	4
2.0 Coconut Sector Plan Strategic Framework	7
3.0 Cross Sector Linkages	20
4.0 Sector Plan Implementation	26
4.1 Management, coordination and support arrangements	26
4.2 Implementation and Financing of the Coconut Sector Development Strategy	29
4.3 Monitoring and Evaluation	33
TABLES	
Table 1 Coconut Sector Links to KDP Outcomes & KV20.....	3
Table 2 Sector Objective 1, Outcomes and Indicators.....	10
Table 3 Sector Objective 2, Outcomes and Indicators.....	13
Table 4 Sector Objective 3, Outcomes and Indicators.....	16
Table 5 Sector Objective 4, Outcomes and Indicators.....	19
Table 6 Cross-sector linkages.....	20
Table 7 Cost Breakdown by Year.....	30
FIGURES	
Figure 1 Cross Sector Value Chain Responsibilities.....	6
Figure 2 Coconut Industry Organisational Structure.....	28
Figure 3 Cost by End of Sector Plan Outcome.....	31
ANNEXES	
Annex 1 Implementation Matrix.....	36





Foreword

The coconut tree has been an integral part of the Kiribati tradition and economy and this is the first Coconut Sector Development Strategy (CSDS) that highlights the significance of the coconut tree in Kiribati. The strategy aims to maximize its potential benefits and contribute to the realization of the Kiribati Vision for the next twenty years or the KV20.

The KV20 is for ***“Kiribati to become a wealthy, healthy and peaceful nation with the people at the centre of it all and leaving no-one behind”***, with a mission to “fast-track and accelerate growth through maximization of returns from natural, human and cultural capital”. The Vision is founded on four pillars: Wealth; Peace and Security; Infrastructure and Governance. The coconut sector has the potential to contribute directly to the Wealth Pillar which seeks to develop inclusive and private sector through the integration of the SMEs and the community at large in the coconut sector value chain. In addition to the four Pillars, the Vision also acknowledges the importance of gender, youth, vulnerable groups, people with disability, equity and partnership as cross-cutting principles. The vision also recognizes Kiribati’s vulnerability to climate change as a key constraint to development progress.

The Kiribati Development Plan (KDP) 2016-2019 further provides the overarching guide for the policies and strategies of the Government that will contribute to the vision: ***“Towards a better educated, healthier and more prosperous nation with a higher quality of life.”*** The KDP has Six Key Priority Areas (KPAs): Human Resource Development; Economic Growth and Poverty Reduction; Health; Environment; Governance and Infrastructure.

The CSDS is therefore anchored on the KV20 and the KDP under its KPA 2 which seeks to develop products and export diversification in the coconut sector. The strategy further supports the Government’s Manifesto ***“To increase income generation and identify value-added products and export diversification in the coconut sector”***.

The vision of this CSDS will contribute to the development of **“A Sustainable Coconut Sector for Food Security, Health, Prosperity, Job Creation and Resilience.”** It emphasizes the Government’s priorities for inclusive economic growth through programs that will increase the productivity of the coconut sector and add value to products that can be sold in high value niche markets to increase income generation and enhance the economic growth.

The strategy also recognizes that stakeholders in the coconut sector spread over several Government Ministries as well as the private sector and NGOs. Challenged with financial and human capacity constraints, I urge these agencies, organizations and individuals to collaborate with each other to avoid duplication of effort and funding.

The plight of the global pandemic the covid-19 has impact the implementation of the CSDS. To mitigate, Kiribati Government through the MCIC has given new impetus to harness the development gains of information and communications technology (ICT) and E-commerce. Zoom meetings, consultations and workshops with international consultants and other counterparts will be harnessed to ensure the CSDS is implemented successfully.

As the CSDS is founded on partnership and cooperation, I appeal to our development partners and the international community for their continued support and assistance. I extend this appeal to the local community for their support and cooperation and take ownership over this CSDS for its successful implementation, as together we build a wealthier, healthier and peaceful Kiribati.

Health (*Te Mauri*), Peace (*Te Raoi*) and Prosperity (*Te Tabomoa*).

Honourable Bootii Nauan
Minister for Commerce, Industry and Cooperatives.

Acknowledgment

The development of the Coconut Sector is an initiative of the Government through the Kiribati Development Plan 2016-2019 which seeks to enhance product and export diversification in the coconut sector. The preparation of the Coconut Sector Development Strategy (CSDS) builds on the findings and recommendations of the Coconut Sector Diagnostic Study to improve the contribution of the sector to the economy of Kiribati and to enhance the livelihoods of people living in the Outer Islands.

In developing the CSDS, Government acknowledges the pivotal role that coconuts play not only in the economy of Kiribati but in the culture as well and the methodology has been guided by the need to ensure that the strategy is based on the views and recommendations of sector stakeholders. In this context, the Government has endeavoured to ensure that stakeholder consultations have been as wide as possible and that they covered both the public and private sectors as well as other supporting institutions and non-government organisations (NGOs).

The Ministry of Commerce, Industry and Cooperatives (MCIC) would like to acknowledge the financial assistance from the India, Brazil & South Africa (IBSA) Fund that enabled MCIC to engage the Consultants, Mr. Garth Atkinson and Dr. Eric Omuru, to carry out the Coconut Industry Diagnostic Study which informs this CSDS. The MCIC also acknowledges the support of the United Nations Development Programme (UNDP) towards the completion of this Strategy.

The MCIC would also like to thank all stakeholders in South Tarawa, Aranuka and Kiritimati, who willingly gave their time to engage in the consultations, discussions, participation in interviews and in workshops and provided valuable feedback to assist in finalising the Strategy.

Lastly, acknowledgment is given to the Secretary, Senior Staff, the National Trade Advisor and the Project Manager of MCIC for their views, comments and proof reading of the drafted CSDS and to the rest of the MCIC Project Team for coordinating all the logistics and inputs to ensure the successful finalisation of the CSDS and the Implementation Plan.





Executive Summary

The Kiribati 20-Year Vision Development Plan, 2016 – 2036, emphasizes a commitment to wealth creation through revitalizing growth, increase in per cent of the private sector contribution to GDP and increase in value of exports. The KV20 also seeks to foster inclusive trade and private sector development. This theme is reflected in the Kiribati Development Plan (KDP) 2016-2019 that promotes inclusive socio-economic development particularly on the Outer Islands which are still under developed.

The Coconut Sector Development Strategy (CSDS) sets the strategic direction and signals priority areas to focus resources (financial and human) for the development of the coconut sector commencing in 2019. It provides the framework to guide coherent programs and actions from all key stakeholders to improve the economic wellbeing of the people of Kiribati through the formulation of the coconut sector development strategy.

This Strategy is based on a diagnostic analysis of the coconut sector undertaken in Kiribati in November/December 2018 and February 2019. The Diagnostic Analysis defines the context for developing the coconut sector and includes a review of the wider policy and regulatory framework of Kiribati as well as the private sector and non-government organisations that are relevant to the coconut sector. It also includes an overview of the regional and global markets for coconut products, the current status of the coconut sector and established value chains. Field work in Aranuka and Kiritimati, stakeholder interviews and a stakeholder workshop undertaken in South Tarawa and Kiritimati were used to define sector problems and opportunities and provided the foundation for developing this strategy.

The primary aim of the CSDS is to strengthen the sector through four objectives based around: coordination and implementation; improving the coconut resource base; value adding; and improving value chain efficiencies. Implementation will involve the promotion of a sector-wide approach to ensure optimisation of the use of resources through harmonisation of government agency initiatives and through partnerships with the private sector, non-governmental organizations (NGOs) and development partners. This approach will also leverage the sector's potential to promote enhanced health, prosperity, job creation for women and youth and resilience to climate change events.

Implementing the CSDS within a multi-institutional and multi-organizational context will have challenges going forward and a critical success factor will be that activities are coordinated across agencies at a high level through the establishment of the National Coconut Advisory Committee (NCAC). The NCAC will provide oversight and direction for the development of the sector and will be supported by a secretariat that will also coordinate the activities of the Working Groups (WGs) that will be established for each of the four strategic areas. Strengthening of the institutional capacity of the Ministry of Commerce, Industry and Cooperatives (MCIC) and the Ministry of Environment, Land and Agriculture Development (MELAD) will be required to ensure that key activities including capacity building and diversification of coconut products are successfully implemented. Accurate and timely statistics are necessary to allow the Government to make more informed decisions and to provide the framework for monitoring and evaluating industry progress.

Current production is well below the potential of the sector and is related to an increase in the number of senile palms, poor plantation management and land use practices. Substantial improvements in production could be achieved through a replanting program based on improved varieties that better utilises existing and under-utilised areas, particularly on Kiritimati. This program should be based on sustainable land use practices and on incentives that will encourage participation of youth. While pest control measures, particularly rodents would also increase the production output, careful consideration needs to be given to ensuring that there is no negative impact on the fragile eco-systems of Kiribati. Replanting and improved plantation management will require collaboration between island councils and MELAD to improve access to land and access to extension services.

Reliance on low value copra and coconut oil products puts Kiribati in a vulnerable position in regional and global markets. This position is further exacerbated by geographic isolation making it imperative to diversify into value-added products for niche markets. Diversification will require substantial investment in technology and in developing the technical skills of stakeholders, quality management systems, and in developing a marketing system for the Kiribati brand of coconut products. Product diversification will also provide increased employment opportunities, particularly for both women and youth.

The current reliance on low value copra and coconut oil is not financially sustainable and there is a need to diversify into value added products for sale in niche markets. Coconut products were prioritized in the context of global markets and the advantages and challenges that producing other value chains products would have in the Kiribati context. Key criteria in prioritizing products included: the level of investment and the return from value addition; the level of skills and technology required; the impact on the development of other coconut value chains; the impact on the environment; market prospects and the increase in employment opportunities. Identified prioritised value added products include: (a) VCO; (b) coconut syrup and sugar; (c) coconut food products (cream, desiccated coconut and water); (d) handicraft products; (e) charcoal and activated carbon (f) bath and washing soaps (g) coir; (h) timber.

It is important to note however that the current copra / coconut oil value chain is an important source of income to Outer Island communities and that making changes should be carried out with careful consideration to the impact that developing new value chains will have on current value chains and on household incomes.

In conjunction with product diversification, Kiribati's coconut value chains will need to become more efficient to compete in overseas markets. This will require substantial investment in climate resilient infrastructure including transport, input supplies as well as sustainable energy and water supplies. Improvements to communication technology will also be needed to ensure that producers are better able to respond to market signals.

Access to credit is a major constraint to developing the sector. The intention to establish a Small Business Fund will assist in providing finance to Small and Medium Enterprises (SMEs) along the value chain. Additional funding will also be required for investment in areas that are for the common good of all industry participants such as transport and mitigation of the impact of climate change on the sector.





The long term outcomes of this objective are aligned with the goals and objectives of the Global Environmental Facility (GEF) and the Green Climate Facility (GCF) and funding assistance should be sought through UNDP for the application process. Consideration should also be given to ensuring that improving water supplies and Outer Island electrification projects currently under preparation for the Adaptation Fund include future requirements needed for an expanded and diversified coconut sector. An important consideration both in applications for donor funding and for the long term future of the industry is that it should become financially sustainable and there is a well-defined exit strategy for donors.

The CSDS is a living document hence it can be revised and updated from time to time when the need arises. The KDP for 2021 – 2024 is still in draft so the CSDS can be updated to include the new KDP.

COCONUT SECTOR DEVELOPMENT STRATEGY

1.0 Approach

1.1 Background

The coconut sector plays a prominent part in the Kiribati economy and cultural activities. The current copra / coconut oil value chain is providing a low financial return however it plays an important part in providing a welfare net. The KV20, emphasizes a commitment to wealth creation through revitalizing growth and targets export markets. This theme is detailed out in the KDP that promotes inclusive socio-economic development particularly on the Outer Islands which are still under developed. Emphasis is given to increasing remittances as a means of enhancing investment in income generating activities. The KDP supports further development of the coconut sector as a means of increasing income providing employment opportunities and diversifying exports. The KDP contributes to the development of the coconut sector through promoting and improving the business enabling environment, identifying and negotiating trade opportunities and providing value chain financing mechanisms that are specifically tailored to the coconut sector.

1.2 Intent


The CSDS sets the strategic direction and signals priority areas to focus resources (financial and human) for the long term development of the coconut sector subject to completion of the implementation plan. It provides a framework to guide coherent programs and actions from all key stakeholders to improve the economic wellbeing of the people of Kiribati. A primary aim of the plan is to strengthen the sector through harmonisation of government agency initiatives and through partnerships with the private sector, non-governmental organizations (NGOs) and development partners, to leverage the sector's potential to promote enhanced health, prosperity, job creation and resilience in line with the KV20 Vision. Successful implementation of the plan will contribute to achieving the national vision of “*a better educated more prosperous nation with a higher quality of life.*”

1.3 Plan Development Process

The CSDS has been developed by MCIC under its mandate as the lead agency for commercialising the Coconut Sector. The process for development of the plan has been guided by the staff of the MCIC and has involved a participatory approach and broad consultation with a wide range of sector stakeholders.

Development of the plan has involved three phases: (i) a diagnostic study of the current policy framework and private sector activities to gain insight and inputs into the formulation of the strategy. This phase also involved field visits to Aranuka and Kiritimati Islands; (ii) the development of the national strategy based on the findings of the diagnostic study and stakeholder workshops held in December 2018 and February 2019; and (iii) stakeholder workshops to validate the Draft Coconut Sector Development Strategy and the Implementation Plan.





1.4 Stakeholders and their roles in the Agricultural Sector.

In line with overarching Kiribati Development Plan, the CSDS promotes private sector-led growth and recognizes that the private sector - including farmers, traders, food vendors, processors, retailers and exporters – are the major sector output generators. The private sector also provides important services to the sector and it is envisaged that private sector operators, where appropriate, will increasingly be involved in service roles.

The main function of the public sector is to provide core public goods such as data and information, research, basic extension, infrastructure (e.g. shipping and energy), access to land, establishment of standards and negotiation of trade agreements. The public sector also plays a policy and regulatory role vital to creating an enabling environment for ensuring, competitive, inclusive and sustainable private sector enterprise. The public sector also coordinates the provision of development partner (financial and technical) support to increase investment in the sector. Private sector organizations (e.g. cooperatives, Kiribati Chamber of Commerce and Industry) play important roles by providing a voice in policy formulation to ensure equitable outcomes for their members. Civil Society and Non-Governmental organizations (e.g. KANGO, AMAK) also have an advocacy role in policy formulation and provide services that support smallholder/village sustainable agriculture development, enterprise development and rural livelihoods.

A **Sector Wide Approach** (SWAp) to developing the coconut sector provides for grouping eleven sector strategies under the six priority areas of the Kiribati Development Plan. The Ministry of Commerce, Industry and Cooperatives is the lead Ministry/Agency for the Coconut Sector Development Strategy. However, the responsibilities for providing public goods and services to support agriculture development are spread over several ministries and agencies thus cutting across a number of different sector plans and boundaries of ministry/agency responsibility. Implementation of CSDS activities is only possible when they are linked to strategic activities in other sectors. It is critical therefore, in the context of the CSDS, to define the scope of the sector-wide approach. At the policy/strategic level, a more overarching perspective remains important to act as a coordinating tool to overcome fragmentation; while at the implementation level, the overarching policy needs to be broken down into mutually supporting and coherent (sector or sub-sector) programs to become workable. Therefore at the program implementation level, a very pragmatic approach needs to be put in place. This should recognize what really needs to be done ‘together’ and be designed to foster partnerships whilst also strengthening (existing) administrative and management structures. What is of utmost importance, however, is that different support efforts in the sector, whether by Government agency, the private sector, NGOs or donors, develop synergies to optimise inputs and the level of effort.

1.5 Key Policies and Plans Relevant to Coconut Strategy Design and Implementation:

- Ministry of Commerce Industry and Cooperatives (MCIC) Strategic Plan, 2016-2019.
- National Policy on Gender Equality and Women's Development (NPGEWD), 2018 - 2021
- Ministry of Health and Medical Services (MHMS) Strategic Plan, 2016-2019.
- National Quality Policy (NQP) 2017 - 2023
- Kiribati Trade Policy Framework (KTPF), 2017 - 2027

- Kiribati National Youth Policy Framework and Action Plan (NYPFAP), 2018 –2022
- Line and Phoenix Islands Integrated Development Strategy (LPIIDS), 2016 – 2036
- Ministry of Information Communication, Transport and Tourism Development (MICTTD) Strategic Plan, 2016-2019.
- Ministry of Environment, Land and Agriculture Development (MELAD) SP, 2016 – 2019
- Ministry of Labour and Human Resources Development* (MLHRD) Strategic Plan, 2016-2019.
- Ministry of Public Works and Utilities (MPWU) Strategic Plan, 2016 – 2019

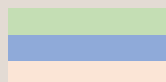
The contribution of the Coconut Sector to the outcomes of the KDP and KV20 is shown in **Table 1**.

Table 1: Coconut Sector Links to KDP Outcomes & KV20

Key Priority Area 1: Human Resource Development	
Key Outcome 1	An education and training system where quality, safety, quality, inclusive, equitable, technical and professional development opportunities are enhanced
Key Priority Area 2: Growth and Poverty Reduction	
Key Outcome 1	Increased sustainable economic development and improved standards of living for all I- Kiribati
Key Outcome 3	Raised efficiency of state-owned and private enterprises
Key Outcome 4	Improved information available to the Government including through the production of accurate and timely statistics
Key Outcome 5	Enhanced delivery of public service through effective use of development budget funds
Key Priority Area 3: Health	
Key Outcome 1	Strengthened initiatives to reduce the prevalence of risk factors for NCDs, and to reduce morbidity, disability and mortality from NCDs
Key Priority Area 4: Environment	
Key Outcome 1	To strengthen national capacity to effectively respond to the impacts of global climate change
	Promotion of food and nutrition diversity
Key Outcome 2	Improvements in biodiversity including pest and disease problems identified, control methods developed and promoted, and capacity to respond to pest problems strengthened
Key Outcome 3	Enhanced measures to address land development issues
Key Outcome 4	Behavioral change through education, awareness raising and research that promotes best waste management and pollution prevention practices
Key Outcome 5	
Key Priority Area 5: Governance	
Key Outcome 1	National governance systems improved to promote the principles of good governance including accountability, transparency and inclusiveness.
Key Priority Area 6: Infrastructure	
Key Outcome 1	Improve access to quality climate change resilient infrastructure in urban and rural areas

Key

- Contributes towards
- Strong linkages/interdependence
- Dependent on





A value chain approach provides a useful concept to help broadly define roles and responsibilities of the private sector and the lead government support agencies (**Figure 1**). This schematic does not intend to be exhaustive or exclusive. It is recognized that close working relationships and partnership between the public agencies, private sector and civil society organizations will be essential to achieving the desired Coconut Sector development outcomes. The ultimate role of all these support bodies is to help create the best incentive environment for private sector operators to increase overall efficiency and performance of the coconut value chain. Successful combined efforts should be evident through increased competitiveness of Kiribati coconut products in domestic and overseas markets.

1.6 Guiding Principles

The CSDS is based on the following guiding principles identified in the Coconut Diagnostic Study:

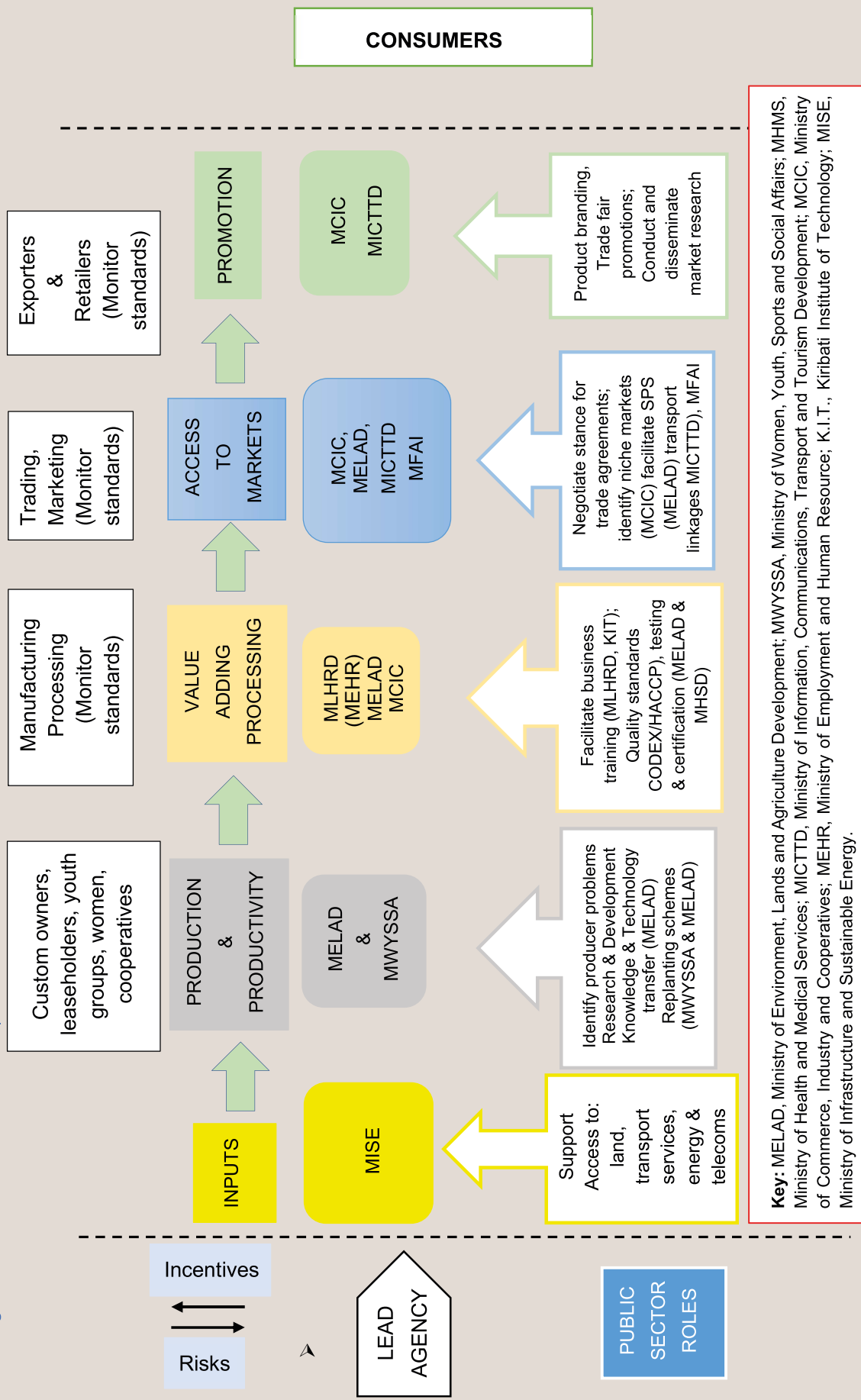
- (i) Linkage with the Development Strategy: Proposed activities to enhance the coconut sector should contribute to the achieving the KV20 Pillars and to the activities of the Key Performance Areas of the Kiribati Development Plan.
- (ii) Environmental Sustainability: The strategy recognises the need to promote sustainable business development that upholds environmental protection, management and efficient resource utilization to mitigate the impact of climate change.
- (iii) High Level National Ownership: There is need to establish a high level decision making body that is able to harmonise both government and private sector activities to optimise the use of resources.
- (iv) High Value Addition and Diversification: Coconut products were prioritized in the context of global markets and the advantages and challenges that producing other value chains products would have in the Kiribati context. Key criteria in prioritizing products included: the level of investment and the return from value addition; the level of skills and technology required; the impact on the development of other coconut value chains; the impact on the environment; market prospects and the increase in employment opportunities. VCO has the highest priority score and production would be well suited to the conditions in Kiribati. Coconut syrup and coconut sugar and unique products that are part of the cultural tradition of Kiribati and would provide excellent employment opportunities for a relatively-low investment, however the market outside Kiribati is undeveloped. There is a strong global demand for coconut food products including, desiccated coconut and coconut cream however the investment in processing equipment for coconut cream is relatively-high as is the energy cost. Similarly, the global market for coconut water is increasing rapidly but the investment in an aseptic packaging line would be very high. There is considerable scope to increase the range of handicraft products and returns to Outer Island producers. Coconut shell charcoal and activated carbon can be produced using low technology methods and as a soil amendment could be used to improve atoll soils. There is a high demand for copra meal for livestock feed in the domestic market however it is only economic when produced as a by-product if crude coconut oil which has a low score due to the high level of investment required in machinery and the low price it fetches in global markets.

- Coconut timber scores well on the basis that it would provide a source of income from harvesting of senile palms during the re-planting phase and would also assist in providing inward freight for domestic shipping services.
- (v) Capacity building. Associated with product diversification is the need to invest in up-skilling potential stakeholders and service providers to produce a range of products that meet international market requirements.
 - (vi) Equitable Distribution of Income: It is important that a diversified coconut sector provides inclusive and equal income opportunities for women, youth and disadvantaged groups.
 - (vii) Evidenced Based Policy Making: Reliable statistics are needed to monitor and evaluate progress in future initiatives to develop the sector.
 - (viii) Sustainable supply of production resources: The production resource needs to be improved to ensure that there is a sustainable and reliable supply of nuts for domestic use and for income generating activities. Achieving this will involve replacement of senile palms and improved plantation management and incentives for landowners to plant.
 - (ix) Resource Mobilisation: The future of the Coconut Sector is dependent on being able to develop a sustainable production base that is resilient to the impact of climate changes. In this regard every effort should be made to seek financial assistance from the Global Environmental Climate Fund and the Green Climate Fund for replanting programs and the development of improved plantation management practices and the protection of coastal erosion that results in loss of many food plants along the coast. Assistance will also be sought from SPC to provide advice on the replanting programme based on experience gained from similar programmes in other Pacific Island Countries.
 - (x) Financial Sustainability: While this Strategy covers the resources needed to rehabilitate the sector and to diversify into other products, there is a need to ensure that ongoing development of the sector becomes financially sustainable and does not continue to rely on donor support.
 - (xi) Infrastructure: Improvements to climate resilient infrastructure, particularly where it is related to sea transport, sustainable energy and water, will be needed to improve the competitiveness of Kiribati coconut products in international markets.
 - (xii) Access to Land: Changes to land lease arrangements particularly on Kiritimati Island will be needed to increase the area under production.
 - (xiii) Incentives: Copra production has been the mainstay of Outer Island economies for over 100 years. Careful consideration needs to be given to the timeline and the impact on household income that would result from transitioning from a copra/coconut oil based industry to other value added products. Associated with this is the need to provide incentives for replanting that will ensure that household income is not affected.





Figure 1: Cross Sector Value Chain Responsibilities



2.0 Coconut Sector Plan Strategic Framework

Mission Statement

The overall mission of the Coconut Sector Development Strategy is to transform the industry to ensure that it is competitive in both domestic and global markets and can sustainably contribute to household incomes and the national economy.

A wealthy, healthy and peaceful nation with the people at the centre of it all and leaving no-one behind

"A wealthy, healthy and peaceful nation with the people at the centre of it all, leaving no-one behind".

Sector Vision


A Sustainable Coconut Sector for Food Security, Health, Prosperity, Job Creation and Resilience

Sector Goal

Increased Economic returns from value added coconut products.

Sector Strategic Policy Objectives:

1. To ensure that the coconut sector is promoted and managed within a stable and coherent enabling policy and legislative framework.
2. To ensure an increased stable supply of coconuts for domestic consumption and processing
3. Optimize the economic returns from the coconut sector through value adding processing and promotion of coconut products in niche markets.
4. Establish and strengthen vertically integrated value chains and clusters that can improve efficiencies and financial returns to stakeholders.



Sector Plan Objective 1: *To ensure that the coconut sector is promoted and managed within a stable and coherent enabling policy and legislative framework.*

Sector Plan Outcome 1: Sector coordination improved and benefits increased through harmonization of stakeholder activities.

Strategy 1.1: Establish the National Coconut Advisory Committee and supporting secretariat that will promote the development of the coconut sector through identifying stakeholder roles and facilitating the coordination of planning and implementation of strategies.

Strategy 1.2: Ensure national budget, including development funds, is allocated and aligned with the Coconut Strategy objectives.

Strategy 1.3: Identify, review and adjust where necessary, the key policies and regulatory frameworks of government stakeholders relevant to the coconut sector to ensure these are aligned and the lead Ministries indicate in their strategic plans how they will deliver support to the Coconut Sector.

Strategy 1.4: Strengthen the institutional capacity of cooperatives to expand their activities to implement the Coconut Strategy.

Strategy 1.5: Establish a monitoring and evaluation system and maintain a data base that will provide timely and relevant information to better inform government policy and decision.

Recent updates to sector strategies have laid the foundation for a sector wide (or program-based) approach to planning and implementation to provide efficient support services and cross-sectoral policy alignment that will enable the private sector to lead and invigorate even and inclusive growth of the coconut industry. Developing a dynamic and resilient coconut sector requires harmonisation of resources across other sectors as well as continuing institutional strengthening. Although roles and responsibilities for developing the coconut sector lie across multiple government agencies, actions are poorly defined and lack direction and coordination.

Managing the interdependent goals of economic growth, social development and environmental protection will require coherent policies and institutions that are not independent and fragmented, but rather institutions that are willing to coordinate and integrate economic, social and environmental objectives at each level of policy development and decision-making.

To ensure strong leadership and better coordination in the planning, implementation and monitoring the National Coconut Advisory Committee (NCAC) will be established. The NCAC will be supported by the Industry Development and Promotion Division (IDPD) of MCIC. A working group (WG) will be formed for each of the Strategic Plan Objectives with membership based on the stakeholders' involvement of strategies. The Coconut Coordinating Unit will comprise 3 dedicated additional staff within IDPD that will cover the following areas: (i) coordination of meetings and reporting to the NCAC; (ii) development and maintenance of a statistical data base; (iii) promotion of processing and quality; and (iv) marketing.

An efficient and effective NCAC with representation from non-state actors and the private sector, is essential to ensure Government Ministries and other agencies with important roles for supporting the coconut sector, orient their activities in line with the Coconut Sector Development Strategy. The aim is to strengthen coordination and strategic partnerships to ensure that synergies are maximized and overlap and duplication of resources and effort is minimized. The CSDS provides the direction for coordination of investments from national budget resources together with all other sources of public funds for sector development (including development partner funds and technical assistance). The Government will also use the CSDS to facilitate and guide private investments in the sector and strengthen public-private partnerships.

The development of a comprehensive Implementation Plan with costed program action plans will aim to capture both expected internal and external resources for the sector and will indicate how these resources will be allocated in pursuit of the agreed policy strategic outcomes. Current funding for the sector is limited to the Copra Fund Subsidy and there is no finance available to fund implementation of essential elements of the Strategy that aim to revitalise and diversify the sector. MCIC in close cooperation with the Ministry of Finance and Economic Development (MFED) will seek to identify and secure additional levels of funding to ensure smooth implementation. The goal will be to seek development partner funding for the sector that evolves to a position of co-financing together with the Government budget. This will result in cost effective programs (and projects) that are funded across the sectors well as enhanced coherence between development partner and domestic resources.

Given that MCIC will be the lead agency for developing the coconut sector, a first step will be to assess MCIC's capacity (human and financial) and identify resource needs for delivering the support roles to priority strategic outputs and outcomes in the CSDS. Additionally, other key implementing agencies and partners will also need to assess, and where necessary build the necessary skills, knowledge, infrastructure and preparedness to deliver their intended roles in implementing the CSDS.

Well-implemented policies, laws and regulations are essential to foster the enabling environment for development of competitive agricultural markets and efficient inclusive value chains which sustain livelihoods and incomes in rural areas. Periodic reviews of Government sector policies and the regulatory framework will be essential to meet both the challenges and opportunities of a more open and competitive global trading environment, adapting to the threat of climate change as well as providing the right incentives for environmentally sound development of the coconut sector.

To ensure continued policy relevance and facilitate policy strengthening, priority will be given to conducting a coconut sector census that will include not only the production base but also socio-economic data on stakeholder involvement. It is essential that this information is analysed and reviewed within the context of Kiribati's changing economic position. MCIC will work closely with the Statistics Division of MFED and with MELAD to strengthen data collection systems, systematization, analysis and reporting. An appropriate level of staff time and financial resources will also be devoted to maintaining relevant agriculture statistical systems, to provide a strengthened evidence-base for policy decision making, planning and monitoring the coconut sector.

The full potential of cooperatives is yet to be realised given that the majority of cooperatives are not engaged in diversified activities. There is need to establish new cooperatives and clusters focusing on a range of value added products.



Although there is a regulatory framework for cooperatives, they generally lack strong governance and the vision needed to transition into activities beyond acting as copra agents. Training will be provided by MCIC staff to strengthen the capacity of cooperatives to develop business plans that will identify objectives and the resources needed to ensure that cooperatives are able to effectively fulfil a number of different roles in revitalising the sector. The NCAC will work directly with coconut stakeholders on each island.

Table 2 outlines Sector Objective 1 with Outcomes and Indicators.

Table 2: Sector Objective 1, Outcomes and Indicators

Outcome Statement	Indicator(s)
End of Sector Plan Outcome (ESPO)	
ESPO 1: Sector coordination improved and benefits increased through harmonization of stakeholder activities	<ul style="list-style-type: none"> Public expenditure on the Coconut Sector (including development partner funds) as a percentage of total government expenditure. Monitoring targets for objectives: $\geq 70\%$ achieved
Intermediate Outcomes	
1.1: A coordinated multi-sector delivery of the support to the coconut strategy outputs and outcomes	<ul style="list-style-type: none"> An effective NCAC and secretariat operating Regular, timely CSDS meetings and reports prepared
1.2: Coconut sector strategic programs are adequately resourced for successful implementation	<ul style="list-style-type: none"> Alignment of budget and development partner funds with Coconut Sector Strategic Objectives.
1.3: The key policies and regulatory frameworks relevant to the coconut sector are aligned and support the sector objectives.	<ul style="list-style-type: none"> Key Lead Agency Plans include relevant strategies/ actions/ budgets Knowledge, skills and preparedness of staff in relevant Coconut Sector implementing agencies improved
1.4: Copra cooperatives have strong and transparent governance systems and have the capacity to diversify into other activities	<ul style="list-style-type: none"> Cooperatives have established governance systems aligned to the regulatory environment Copra cooperatives transitioned into production and value adding cooperatives
1.5: A strengthened evidence-base for policy decision making, planning and monitoring the coconut sector	<ul style="list-style-type: none"> A regular supply of timely, quality coconut sector statistics that meet the need of users Regular publication and dissemination of coconut statistics.

Sector Plan Objective 2: *To ensure an increased stable supply of coconuts for domestic consumption and processing*

Sector Plan Outcome 2: A sustainable supply of coconuts that meets the demand for household use and processing into value added products.

Strategy 2.1: Strengthen research and extension services to improve and trial new cultivars.

Strategy 2.2: Expand seed nurseries and develop incentives to encourage engagement of youth in replanting schemes for prioritised areas.

Strategy 2.3: Expand the production and research area on Kiritimati Island through the introduction of lease arrangements for coconut producers / researchers.

Strategy 2.4: Strengthen the capacity of MELAD, NGOs and community councils to improve and promote sustainable resource management practices including: sustainable resource management (soil and water); replanting techniques and pest and disease control for coconut farmers;

Strategy 2.5: Promote and facilitate organic certification for both production and processing

Strategy 2.6: Strengthen capability, resourcing and effectiveness of extension providers (including NGOs) to promote environmentally sustainable resource management practices for the coconut sector in close cooperation with landowners and community councils.

Competing demands on the environment and differentiated impacts of climate change must be assessed and taken into consideration when formulating strategies to sustainably grow the coconut sector. Poor land use practices and limited fresh water make the sustainable management of the natural resource base critical to sustaining the coconut sector.

The coconut resource is poorly managed and a large investment is needed to ensure that the sector reaches its full potential and is able to make a sustainable and significant contribution to the economy of Kiribati. Current plantings are largely based on self-seeded palms that in places are very dense, not well managed and low yielding. In addition there is a high percentage of senile and unproductive palms.

There is considerable phenotypic variation in the coconut palms. This has come about from introductions of cultivars and cross breeding between the native and introduced palms. Attempts to improve copra yields have not always been successful due largely to poor soils, frequent droughts and government changing priorities. There is evidence however that some introductions significantly out-yield the native palms. It is important that ongoing research is conducted to evaluate the performance of improved varieties in different island environments. MELAD has a nursery on South Tarawa and Kiritimati that will be upgraded for use as a quarantine entry point and to conduct preliminary trials on cultivars introduced from the Pacific Coconut Gene Bank in Papua New Guinea before distribution to the Outer Islands.





MELAD provides a limited number of seedlings through nurseries on each island due to low demand and free seedlings provided by Agriculture, however, an extensive replanting program is needed to ensure sustainability of the resource and nurseries will need to be expanded to meet the need for increased seedling. Initially replanting will involve using seeds from existing stocks on the islands but it is expected that over time better performing varieties will be introduced. A land use survey will be conducted to determine suitable and prioritised areas. The replanting program will provide incentives to engage unemployed youth. The process of developing incentives will be lead by the Ministry of Women, Youth and Social Affairs (MWYSSA) in association with MELAD. Given that up to 60% of current palm population may need replacing then up to 540,000 palms will need to be planted each year for at least 5 years. There is therefore a significant employment opportunity for women and youth to be engaged in the replanting program. In association with the replanting program there is a need to clear old palms which could be used for timber. This is a relatively labour intensive exercise that would also provide a source of employment. The program will be overseen by island councils and island agriculture assistants. The development of financial incentives for replanting should not be based on one-off payments but should be staged over a 3 – 4 year period so that farmers are encouraged to ensure that the palm reaches the fruiting stage. It should be noted that a well organised monitoring and evaluation system would need to be established (within MELAD) to regulate payments and evaluate the effectiveness of the program. Donor funding for replanting and for activities that can contribute to the mitigation of climate change such as the production of coir and geotextiles, could be sought through traditional donors, however given that this activities are well aligned to the mandate of GCF and GEF it is recommended that applications are made to these organisations. Two important consideration in applying for GCF/GEF funding are that: (i) the application process is very specialised and technical assistance would be needed to ensure that applications are successful, and (ii) a pre-requisite of the GCF is that there should be a clearly defined and achievable exit strategy for GCF and that funded initiatives become sustainable.

Changes to the land lease arrangements on Kiritimati Island that would involve making land available to farmers on the condition that it was used to plant and maintain coconut plantations will be needed if the production potential of the Island is going to be realised.

Organic certification would provide Kiribati with a competitive advantage in international markets. Given that there has been little or no use of in-organic fertilisers and pesticides for over a decade certification would probably not require a stand-down period. Organic certification on an Island-by-island basis would be an expensive exercise and it is recommended the Outer Islands apply through PoetCom for certification on a collective basis.

Planted areas are generally left in a natural state and under growth makes harvesting difficult and a large percentage of nuts are left. Yields are further reduced by poor plant nutrition and pests and diseases, of which rats are the biggest problem. Improved plantation techniques are required to increase yields that are based on international best practices for plant nutrition and pest and disease control and that do not compromise further organic certification status.

Kiribati has limited resources to develop the coconut sector making it essential to leverage off the knowledge base of regional and international organisations. The International Coconut Community (ICC) has 18 producing member countries of which Kiribati is one, that collectively account for over 90% of the world coconut production and exports of coconut products. The ICC aims to increase productivity through improved farming systems that are environmentally sustainable.


The ICC also maintains an extensive data base on markets for coconut products, quality standards and manufacturing technology that is appropriate to the level of infrastructure. The ICC also assists in promoting product diversification and in facilitating marketing and trade. Kiribati would also benefit from increased involvement in SPC's Coconut Industry Development Program (CIPD) that organises workshops, training and seminars. In addition there a number of PIC coconut associations including the Coconut Cluster and Women in Business Development in Samoa as well as the VCO Producers Association in the Solomon Islands, that face similar constraints in developing their industries. Sharing information and experiences with these organisations would provide invaluable direction for the industry in Kiribati. Pacific Trade and Invest (PTI) is able to provide a number of services to assist Pacific Island exporters. With offices in Australia, China, Geneva, Japan and New Zealand, PTI is well situated to assist Kiribati to gain entry to high end markets.

Table 3 outlines Sector Objective 2 with Outcomes and Indicators.

Table 3: Sector Objective 2, Outcomes and Indicators

Outcome Statement	Indicator(s)
End of Sector Plan Outcome (ESPO)	
ESPO 2: A sustainable supply of coconuts that meets the demand for household use and processing into value added products	<ul style="list-style-type: none"> • Diversification of coconut-based value added products • Increase in domestic use of coconuts
Intermediate Outcomes	
2.1: An increase in yield of palms	<ul style="list-style-type: none"> • High yielding cultivars identified and trialled on all islands
2.2: An increase in the area of productive palms	<ul style="list-style-type: none"> • Senile palms replaced by new seedlings • Increase in employment of women and youth in replanting • An increase in the planted area on Kiritimati.
2.3: Increase in yield from current and replanted areas through application of GAP practices	<ul style="list-style-type: none"> • Improved control of pests (rodents) and diseases • Improved plant-nutrition, weed control and plant spacing
2.4: Adoption of internationally accepted best practices for production and value adding processing of coconuts products	<ul style="list-style-type: none"> • Documented best practices contextualized (best fit) for the Kiribati environment • Cost effective production of value added products
2.5: Promote and facilitate organic certification for both production and processing	<ul style="list-style-type: none"> • Documented best practices contextualized for the Kiribati environment • Outer Islands are organically certified
2.6: Strengthen capability, resourcing and effectiveness of extension providers (including NGOs) to promote environmentally sustainable resource management practices for the coconut sector in close cooperation with landowners and community councils.	<ul style="list-style-type: none"> • Documented best practices contextualized for the Kiribati environment • Adoption of sustainable best practices





Sector Plan Objective 3: Optimize the economic returns from the coconut sector through value adding processing and promotion of coconut products in niche markets.

Sector Plan Outcome 3: An increase in household incomes and in the contribution of the coconut sector to the GDP

Strategy 3.1: Establish an efficient market intelligence service and link potential buyers with producers and processors.

Strategy 3.2: Evaluate value added niche markets for coconut products that are appropriate to the scale of Kiribati supply capacity

Strategy 3.3: Enhance the capacity of value chain stakeholders with an emphasis on women and youth to produce value added products through training and access to technology

Strategy 3.4: Develop a Kiribati brand for coconut products

Strategy 3.5: Establish quality standards and implement quality management systems for coconut products

Currently the coconut sector in Kiribati operates as a supply driven chain for low value copra and coconut oil products and has no influence over the factors that determine the prices and trends in global oil seed markets. To move to a value chain approach the industry will need to become more innovative and proactively responsive to market signals. This will require on-going market research and analysis and dissemination of that information to value chain participants through the Coconut Coordination Unit. In the longer term the sector will need to develop and promote further investment. An Industry Development Unit will be established within the Industry Development and Promotion Division of MCIC manned with one Marketing Officer to conduct research on domestic, regional and global market trends that will guide the development of the coconut industry.

The Marketing Officer, in collaboration with relevant divisions within MCIC, will utilise the resources available through PTI to evaluate niche markets for prioritised value added products, including, VCO, handicrafts, coconut syrup and sugar, charcoal products and cocopeat.¹ Working with PTI will also assist in identifying the export pathway requirements including food safety and

market standards and in developing product brands and developing marketing strategies.

¹ The prioritised list created by the consultant team is: Virgin Coconut Oil; 2. Coconut timber; 3. Coir products; 3. Handicrafts; 4. Shell charcoal and activated carbon; 5. Desiccated coconut; 6. Crude coconut oil; 7. Copra; 8. Biofuel; 9. Coconut cream; 10. Coconut water.

Training programs on value-adding for prioritised products will be developed and delivered to women, youth and SMEs / cooperatives through K.I.T and other organisations and when possible existing programs will be used or adapted to avoid un-necessary costs. Where K.I.T does not have the expertise then specialists will need to be contracted. It is important that the value-adding processes are selected on the basis that they are efficient and provide a reasonable economic return and that they are suited to the needs of Outer Island communities. MCIC will work with MELAD to identify value-adding technology and to develop and deliver training programs that are relevant to the needs of women and youth. Training for entrepreneurs would also include business and financial management.

The market for crude coconut oil (CNO) and copra is narrow and traditionally characterised by little product differentiation. For the most part, CNO is exported to a few large companies for manufacture into refined, bleached and deodorised (RBD) oil for consumption in the importing countries or for re-export and there is very little opportunity for Kiribati to develop niche markets. Unlike crude coconut oil, relatively small quantities of VCO can be differentiated in the market in terms of its quality and certification, based on such things as origin, organic production and fair trade. In establishing niche markets Kiribati will need to develop a brand build around the country's unique geographic location, the atoll environment and the culture of the people. Branding needs to be embedded in all facets of the industry with stakeholders having ownership of their responsibility and role in establishing and maintaining the integrity of the brand.

The quality standards and quality control systems are mandatory for all exports in competitive markets. The National Quality Policy (NPQ) provides clear direction however product standards will have to be agreed on and steps taken to put in place quality management systems for all value chain. Product quality is a shared responsibility between the Government and the private sector. Government's role is to establish standards and that routine testing is undertaken to ensure that products meet accepted international requirements such as CODEX. The role of the private sector, specifically those involved in value chains, is to establish quality management systems that will ensure products meet set standards. CODEX standards should be regarded as the baseline and that standards imposed by niche markets will be more stringent. The ICC has established standards for a number of products such as VCO that are based on extensive market research and can be adopted. The National Quality Policy establishes a framework and a roadmap for quality improvement and management across all sectors. The establishment of an independent central laboratory project has been approved at the Donor Coordinating Committee (DCC) level and yet to be endorsed at the Cabinet level. It will be implemented once funding is fully secured from donor partners. Under the NQP, MELAD will increase its capacity to identify bio-hazards and to ensure that Kiribati's borders are protected against invasive species and that exported products meet the SPS requirements of importing countries. The Central Laboratory will be responsible for testing products against international standards for moisture, chemical and microbial contaminants. Further quality measures that are needed are: compliance with labelling requirements of importing countries; HACCP certification and raising awareness along value chains of shared responsibility for quality management.



Table 4 outlines Sector Objective 3 with Outcomes and Indicators.

Table 4: Sector Objective 3, Outcomes and Indicators

Outcome Statement	Indicator(s)
End of Sector Plan Outcome (ESPO)	
ESPO 3: An increase in household incomes and in the contribution of the coconut sector to the GDP	<ul style="list-style-type: none"> • An increase in the proportion of income from coconut products • An increase in the contribution of coconut based products to GDP
Intermediate Outcomes	
3.1: Establish an efficient market intelligence service and link potential buyers with producers and processors.	<ul style="list-style-type: none"> • Established data base for demand (price and volume) of value-added products • Documented communication with niche markets
3.2: Evaluate value added niche markets for coconut products that are appropriate to the scale of Kiribati supply capacity	<ul style="list-style-type: none"> • Prioritised niche markets and product requirements documented • Niche market supply chain management systems established
3.3: Enhance the capacity of value chain stakeholders to produce value added products through training and access to technology	<ul style="list-style-type: none"> • Number of value chain stakeholders including women and youth trained in value adding processes • Availability of appropriate value-adding technology and inputs
3.4: Establish a resourced marketing strategy for value added coconut products	<ul style="list-style-type: none"> • Kiribati coconut brand established and publicized • Representation and recognized branding at trade fairs • Sales records
3.5: Establish quality standards and implement quality management systems for coconut products	<ul style="list-style-type: none"> • Documented standards based on international best practices • Testing facilities for coconut products established • QMS for value-added products established

Sector Plan Objective 4: Establish and strengthen vertically integrated value chains and clusters that can improve efficiencies and financial returns to stakeholders.

Sector Plan Outcome 4: Kiribati coconut products are able to compete in regional and global markets.

Strategy 4.1: Improve efficiencies along the value chain including transport logistics, drying and storage critical infrastructure (energy and water) and input supplies.

Strategy 4.2: Establish information and communication technology (websites) and Outer Island e-centres for dissemination of technical and market information and e-marketing.

Strategy 4.3: Develop financing instruments that are tailored to the business models of value chain stakeholders and will improve their access to credit.

For Kiribati to effectively compete in international markets investment will be needed in climate resilient critical infrastructure including sea transport, ICT, renewable energy and water.

The geographic spread and isolation of the Outer Islands of Kiribati is a major supply chain for both domestic and in international markets. Domestic shipping services are based around outward freight with copra as the major inward freight. Domestic shipping adds a significant cost to the value chain and while it is subsidised for copra and some other coconut products² and does not impact directly the value chain actors, it does represent a significant cost to the country. Although irregular schedules do not affect bulk markets for copra, they would impact on the quality and supply times of value added products in niche markets. International shipping costs are also and require transshipment to reach overseas. An increase in the supply of coconut products, particularly timber from milling of senile palms would improve shipping profitability

and assist in reducing costs. There is noticeable omission of coconut products that qualify for the existing freight subsidy. It is recommended that all potential coconut products from the outer Islands be added to the list of the subsidy items.

The copra based value chain is well established and suited to the social environment. Phasing it out in favour of higher value products will take time and will need to be carefully considered to avoid economic hardship. In the interim, and in-line with Government policy to increase the income and profit of SOEs, including Kiribati Coconut Development Ltd (KCDL), attention will be given to improving the copra value chain. Currently all copra is sun-dried and while this has the advantage in producing a product that is free of smoky flavours, using this process means that it is difficult to reach the recommended moisture levels and results in low quality copra that is difficult to process into crude coconut oil. The use of moisture meters will allow the drying process to be carefully monitored.

² Whole coconuts, coconut drinks, coconut handicrafts, cooked toddy, coconut husks and coconut thatch.





The introduction of low cost hybrid solar driers that utilise both solar energy and husks and do not result in smoky flavours, will also be evaluated in the context of their future use in other value chains. Many copra storage sheds are in a state of disrepair and will need upgrading.

For value adding processing it is essential that there is an investment in critical infrastructure including renewable energy and water. Currently renewable energy in the Outer Islands is limited to small scale solar panels for household lighting and community meeting places. Larger scale solar based grids are needed to power small scale processing equipment including graters used in the production of VCO, testing equipment and mixers for making coconut syrup. There is also need to upgrade the processing centres per Island in order to meet the expected quality standards including HACCP certification for international markets.

It is also essential that disruptions to processing through mechanical breakdowns are minimised. It is important that there is a good inventory of manufacturing machinery, spare parts, packaging and food additives. Capacity of the community needs to be enhanced through Kiribati Institute of Technology (KIT) on maintenance of coconut related equipment. Initially the scale will be relatively small and diverse and it would be not be cost effective to warehouse some items. The Government will work with the private sector, including cooperatives to establish input supply chains that where possible maximise the benefits of economies of scale.

KCDL has a key role to play in the future development and diversification of the coconut sector. Specifically this will involve working with SMEs to assist in further processing and refinement of raw material from the Outer Islands, facilitation of testing and quality control, packaging, storage and shipping. This will require an investment in KCDL facilities and in human resource development.

A fast ICT system that is accessible to all stakeholders is pivotal to developing an efficient and responsive industry. An effective ICT system would enable strong and compelling social marketing messages to be conveyed to consumers that would assist in promoting products, and the country as a whole, to high end markets. A coconut website will be developed that will be used to promote Kiribati products and will also act as a direct e-marketing system. For the Outer Islands the establishment of e-centres would improve internet access for communities.

The development of value added products is currently constrained by the lack of credit. Value chain development and strengthening is dependent on access to credit that is tailored to meet the needs of each area of the value chain. For coconut producers this will mean a grace period or low interest rates until the palms start to come into production. For processors credit will need to take account of areas where land is communally owned or leased from the Government and forms of lending that are not dependent on physical assets, such as group lending to cooperatives will be developed. The Small Business Development Fund that is currently being developed by MCIC can fill this gap. It will provide for both established and start-up businesses and will cover a wide range of activities including processing, input supplies and marketing. The scheme will involve a combination of grants (for start-up businesses) seed capital and matching grants (for established businesses). The fund will be managed through the Development Bank of Kiribati (DBK) with MCIC providing support in the form of business training and on-going mentoring. Table 5 outlines Sector Objective 4 with the Outcomes and Indicators.

Table 5: Sector Objective 4, Outcomes and Indicators

Outcome Statement	Indicator(s)
End of Sector Plan Outcome (ESPO)	
ESPO 4: Kiribati coconut products are able to compete in regional and global markets.	<ul style="list-style-type: none"> • Market lead development of competitive value chains
Intermediate Outcomes	
4.1: Improve efficiencies along the value chain including processing, testing, transport logistics, drying and storage infrastructure and input supplies.	<ul style="list-style-type: none"> • Reduced domestic and international transport costs; • Secure input supplies at competitive prices; • Improved quality of dried coconuts; • Installation of production/testing equipment on the outer islands to improve processing technology; • Processing centre upgraded to meet the desired quality standards; and • Number of value chain stakeholders trained on agro-processing and quality control.
4.2: Establish information and communication technology (ICT) for the coconut sector for dissemination of technical and market information.	<ul style="list-style-type: none"> • Increased awareness of Kiribati coconut products in international markets; • Establishment of Coconut website; • Establishment of e-centres on the outer Islands; • Real time information flow of prices and product tracking; and • e – marketing of coconut products.
4.3: Develop financing instruments that are tailored to the business models of value chain stakeholders and will improve their access to credit.	<ul style="list-style-type: none"> • Number of new investments in the value added products; and • Availability of appropriate value-adding technology.



3.0 Cross Sector Linkages

The links between the Coconut Sector Development Strategy and the Strategic Plans of other Ministries are summarised in table 6.

Table 6: Cross-sector linkages

Strategies / Objectives	Activities	Relevance to Coconut Sector
Key Priority Area 1: Human Resource Development		
Goal 1: Improve the quality of education and training to provide students with the skills and capability to progress to a productive future.		
Ministry of Environment Lands and Agriculture Development		
Objective 4. Capacity building for stakeholders and agricultural staff	<ol style="list-style-type: none"> 1. Provide business and farm training for farmers 2. Provide extension and technical training for MELAD staff 	<ul style="list-style-type: none"> • Increased awareness of coconut IGA opportunities for farm management • Improved technical skills for farmers
Ministry of Labour and Human Resources		
Objective 1. Enhanced access to quality inclusive, equitable education and training for all I-Kiribati citizens by 2019	<ol style="list-style-type: none"> 1. Identify opportunities for skills testing and gap training of existing workers 2. To increase employment of KIT graduates in skilled/semi-skilled work on development projects (as opposed to foreign workers) 	<ul style="list-style-type: none"> • Identify training needed for production and processing of coconuts. • Diversification of the coconut sector offers employment opportunities for KIT graduates
Key Priority Area 2: Economic Growth and Poverty Reduction		
Goal 2: To enhance inclusive economic development through improving and increasing sustainable employment, financial inclusion for vulnerable groups, structural and fiscal reforms and accelerating private sector development.		
Kiribati Trade Policy Framework 2017-2027		
Ministry of Commerce, Industries and Cooperatives		
Objective 1. To enhance inclusive economic development through improving and increasing sustainable employment, financial inclusion for vulnerable groups, structural and fiscal reforms and accelerating private sector development.	<ol style="list-style-type: none"> 1. Awareness raising of value-added products and improved access to potential markets. 2. Establishing links between producers/processors and niche markets 3. Promotion of coconut products at trade fairs 	<ul style="list-style-type: none"> • Diversification into value added products • Development of market driven coconut value chain • Improved transport logistics and synergies with other products from Outer Islands

Objective 3: To implement products and export diversification strategies through the formulation and effective implementation of a coconut sector development strategy and support the effective implementation of fisheries policy by encouraging investment in value added economic activities in the fisheries sector.

4. Improved freight logistics between islands for coconut products.

1. Develop niche products to enhance diversification;
2. Review the Small Industry Centre (Business Incubator);
3. Cluster Development Initiatives
4. Best practices through participation in the International Coconut Community (ICC)
5. Enhance skills and knowledge for development of value-added products;
6. Enhance investment in value addition activities (fisheries, coconut, tourism, agriculture)
7. Conduct and rotate venue for National Coconut Day
8. Facilitate machinery and technology transfer on value added products

- Diversification into value added products
- Support for coconut SMEs
- Improved economies of scale through clustering
- Access to ICC data base for best practices, market and technical information
- Development of technical skills in product and value added processing
- Increased awareness of economic opportunities in the coconut sector

Objective 4: To strengthen and implement alternative business financing mechanisms to improve access to finance especially for Small and Medium-sized Enterprises

1. Conduct SYB for Outer Islands (mention in the text to work towards moving IYB to KIT)
2. Develop alternative business financing mechanisms for SMEs to enhance access to finance
3. Develop National Cooperative Policy accelerate the growth of and strengthen good governance in the Cooperative Sector and Credit Union.
4. Conduct cooperative and credit unions Development Trainings especially in the Outer Islands
5. Strategic Partnerships with financial institutions to enhance financial literacy.

- Increase in number and ongoing support for coconut SMEs.
- Access to finance tailored to developing the coconut value chain
- Development of cooperative revolving credit schemes for sector development and social welfare safety nets

Ministry of Communications, Transport, Tourism and Information

Objective 11: To increase and maximise the utilization of ICT for sustainable development.

1. Develop public-private strategies for the use of ICT to enhance the productivity of local businesses.
2. Encourage e-money for business transactions online

- Use of ICT to disseminate technical information on sector development
- Facilitation of transparent payment system





Ministry of Women, Youth, Sports and Social Affairs

Objective 1. Develop food processing activities that utilise locally grown fruit and vegetables for trade on all islands.

1. Establish co-operatives relevant to women's IGA as a way to enhance and sustain women's activities and income
2. Adopt a value-chain approach to improve supply and use of natural resources
3. Enable women to gain experience and knowledge of different services and products via exposure visits to other countries
4. Implement a variety of income generation activities in all sites to ensure diversity of products and services

- Increase in opportunity for women's economic empowerment
- Improved input supplies and delivery of value chain services

Objective 2. Provide training and support for activities that enhance the quality, design, and productivity of women's handicrafts.

1. Provide access to credit schemes for women working in informal sector
2. Advocate for and support the establishment of DBK's Rural Support Loans on islands where not available
3. Create revolving fund schemes as a source of credit for women involved in IGA
4. Establish markets in villages on all islands
5. Establish a main market on Tarawa selling local produce and products
6. Work with government and island councils to enhance inter-island trade through improved transportation networks and reduced freight costs

- Increase in women's investment in value adding activities
- Increase in domestic sales of value-added products
- Reduced freight costs and more regular transport of inputs and products

Ministry of Environment Lands and Agriculture Development

Objective 1. Household food, income and nutritional security and the balance of agricultural and forestry environment is sustained and maintained.

1. Increase in consumption of local food
2. Increase contribution of agriculture to household income

- Increased demand for coconut products
- Expansion of coconut sector

National Youth Policy and Action Framework 2018 – 2022

Objective 1. To explore and increase opportunities and means of providing decent employment and livelihood for young entrepreneurs.

1. Provide opportunities in a larger range of technical professions and small business development. Strategies should involve the private and community sectors and should explore apprentice and intern schemes.
2. Ensure all government investment, employment, business and trading strategies and schemes include a minimum allocation of opportunities and support for youth recruitment or small-business development, and special effort is given to provide opportunities in areas with highest youth unemployment.

- Upskilling of work force in coconut processing industries.
- Increase in employment opportunities for youth in all activities along the value chain including; replanting, plantation management and value adding opportunities

National Quality Policy 2017-2023

Objective 3: To provide a national quality promotion strategy that assists the country's enterprises in becoming more globally competitive,

1. Organize and run public quality awareness campaigns and quality awards
2. Develop a Quality Mark or label to promote products and services matching certain levels of quality (national or international standards);

- Coconut sector stakeholders aware of need to comply with quality standards
- Recognition of Kiribati products in international markets.

Objective4: To raise the quality and safety levels of products and services in Kiribati, both locally manufactured and imported, in the aims of protecting consumers, achieving better social and environmental protection and improving livelihoods.

3. Develop relevant production standards for agricultural products (e.g. for virgin coconut oil, coconut products, pest management, Good Agriculture Practice (GAP), fruit grading, etc.)

- VCO (and other products) meet international standards)

Objective 5: To build the capacities of each institution involved in the NQP implementation, allowing line Ministries and other groups to achieve their quality objectives.

4. Provide training on how to agree and prepare quality standards
5. Enhance the role and operational activities of the National CODEX committee as an inter-ministerial coordination vehicle;

- Agreed standards on coconut products.
- Compliance with international standards

Key Priority Area 3: Health

Ministry of Health and Medical Services

Goal 3: Improve population health and health equity through continuous improvement in the quality and responsiveness of health services, and by making the most effective and efficient use of available resources.

National Food Policy 2013 – 2017

Strategic Objective 4: Strengthen Food Safety Standards (MHMS Lead)

1. Organize awareness raising workshops with food business operators on shared responsibility for food safety
 2. Awareness raising and training of trainers on Good Manufacturing Practice (GMP) and HACCP
 3. Balance the focus of controls between imports and market surveillance, and inspection/monitoring of food-processing establishments (processors and catering)
- Improvement in safe food handling for domestic markets
 - Compliance testing with international food standards including Codex and HACCP
 - Processing meets international GMP standards

Key Priority Area 4: Environment

Goal 4: Facilitate sustainable development through approaches that protect biodiversity and support the reduction of environmental degradation as well as adapting to and mitigating the effects of climate change

Ministry of Environment, Lands and Agriculture Development

Objective 1: Sustainable atoll crop production systems developed and promoted

1. Adoption of Atoll Agroforestry systems and soil management technologies.
 2. Promotion of pest and disease control mechanisms
- Sustainable coconut plantations
 - Introduction of improved varieties
 - Reduced losses from pests and diseases

Key Priority Area 5: Governance

Goal 5: To strengthen national governance systems to promote the principles of good governance including accountability, transparency, and inclusiveness

Ministry of Commerce, Industry and Cooperatives

Objective 5: To develop a National Cooperative Policy to build the capacity of the cooperative movement and to promote good governance.

1. Participation of cooperatives in activities organized by ICA or other agencies
 2. Conduct and rotate venue for National Cooperative day
 3. Facilitate transition of existing copra cooperatives into value addition and productive sector.
- Strengthen governance and range of responsibilities of cooperative including: financial and credit management, supply chain management, quality control, and marketing
 - Increased involvement of cooperatives in diversified value chains

Key Priority Area 6: Infrastructure

Goal 6: To improve access to quality climate change resilient infrastructure in urban and rural areas

Ministry of Information, Communication, Transport, and Tourism Development

Objective 27: Improving seaports and maritime control

1. Improve and upgrade domestic and international seaports
2. Renewing of KNSL fleets and improving control of Open shipping registry.

- Improved logistics for value added coconut products and timber

Objective 29: Improved communication infrastructure including internet connections

3. Establishment of e-centers in the outer islands
4. Provide assistance and support to island council tele-centers

- Improved flow of information between producers, processors and markets.
- Websites to promote e-marketing of coconut products





4.0 Sector Plan Implementation

4.1 Management, coordination and support arrangements

Responsibility for implementation of the CSDS lies across a number of Government agencies, non-government organisations as well as the private sector (**Figure 1**). However the focus of revitalising the coconut sector is on the promotion of value addition activities through the development and support of SMEs and cooperatives. Also important is the development of niche market opportunities. These activities fall within the mandate of MCIC and its responsible divisions.

The oversight responsibility for the general direction and coordination of the Coconut Sector Development Strategy implementation will rest with the National Coconut Advisory Committee (NCAC) under the Industry Development and Promotion Division of MCIC. Membership of the NCAC will comprise Secretaries from each relevant ministry, nominated representatives from the private sector, engaged in coconut value chain development and representative of women organisation/NGO to be nominated based on the Terms of Reference as endorsed by Cabinet. The first meeting will consider and decide (by majority vote) on the length of Chairperson position. The NCAC will be supported by the Industry Development and Promotion Division (IDPD) of MCIC. The IDPD will be responsible for day-to-day implementation of the CSDS and will also be responsible for monitoring and evaluation.

The NCAC will meet quarterly to:

- Review progress reports from the NCAC Secretariat and / or those from each of the four Sector Strategy Working Groups.
- Advise on policy issues, problems and constraints raised by the NCAC Secretariat and / or the Working Groups
- Review recommendations from any external consultants engaged by the NCAC to carry out specific work.
- Commission an independent annual review of the progress of the NCAC.
- Approve amendments and future phases of the NCAC.
- Provide guidance and support to the NCAC Secretariat and WGs to achieve the CSDS key development objectives and outcomes.
- Determine additional NCAC related tasks to be undertaken by the NCAC Secretariat, WGs or individual sector agencies on its behalf.
- Assist in requesting additional resources from government for CSDS implementation as required.
- The National Coconut Advisory Committee will provide recommendations to the Secretary and the Minister for the Ministry (MCIC) for consideration and approval.

At the technical and operational level four Working Groups (WGs) will be formed focused on each of the CSDS Policy Objectives (SPOs). The membership of these WGs will be selected from key agencies (government and other) with particular interests and support roles related to the SPO. These four WGs will be responsible for the successful implementation and monitoring of the CSDS. To ensure that appropriate expertise and capacity is in the WGs, the Secretaries / CEOs of the agencies involved will nominate an appropriate staff member to attend meetings according to the needs of the meeting agenda.

These working groups will meet at least every two months and will:

- ◇ Define relevant actions and maintain work-plans and schedules for implementation of the CSDS.
- ◇ Ensure that relevant strategies and actions are included in implementing partner agencies' plans.
- ◇ Oversee the work of consultants.
- ◇ Organize training workshops as required.
- ◇ Monitor progress by implementing agencies and advise on action to overcome problems.
- ◇ Collect data to monitor performance of the CSDS and prepare monitoring reports for the NCAC to review.
- ◇ Analyse policy issues and prepare policy papers and policy briefs for NCAC to review.
- ◇ Disseminate information on the CSDS to all stakeholders.

The Industry Development and Promotion Division acting as a secretariat will organize the NCAC and Working Group meetings; prepare the agendas, meeting minutes and reports as required. Under the guidance of the NCAC and with the support of the WGs, the Industry Development and Promotion Division will prepare a sector communication plan to ensure that all stakeholders are provided with a regular and timely flow of information on progress in the activities being implemented under the CSDS, thus ensuring full awareness and continued support for the CSDS programs.

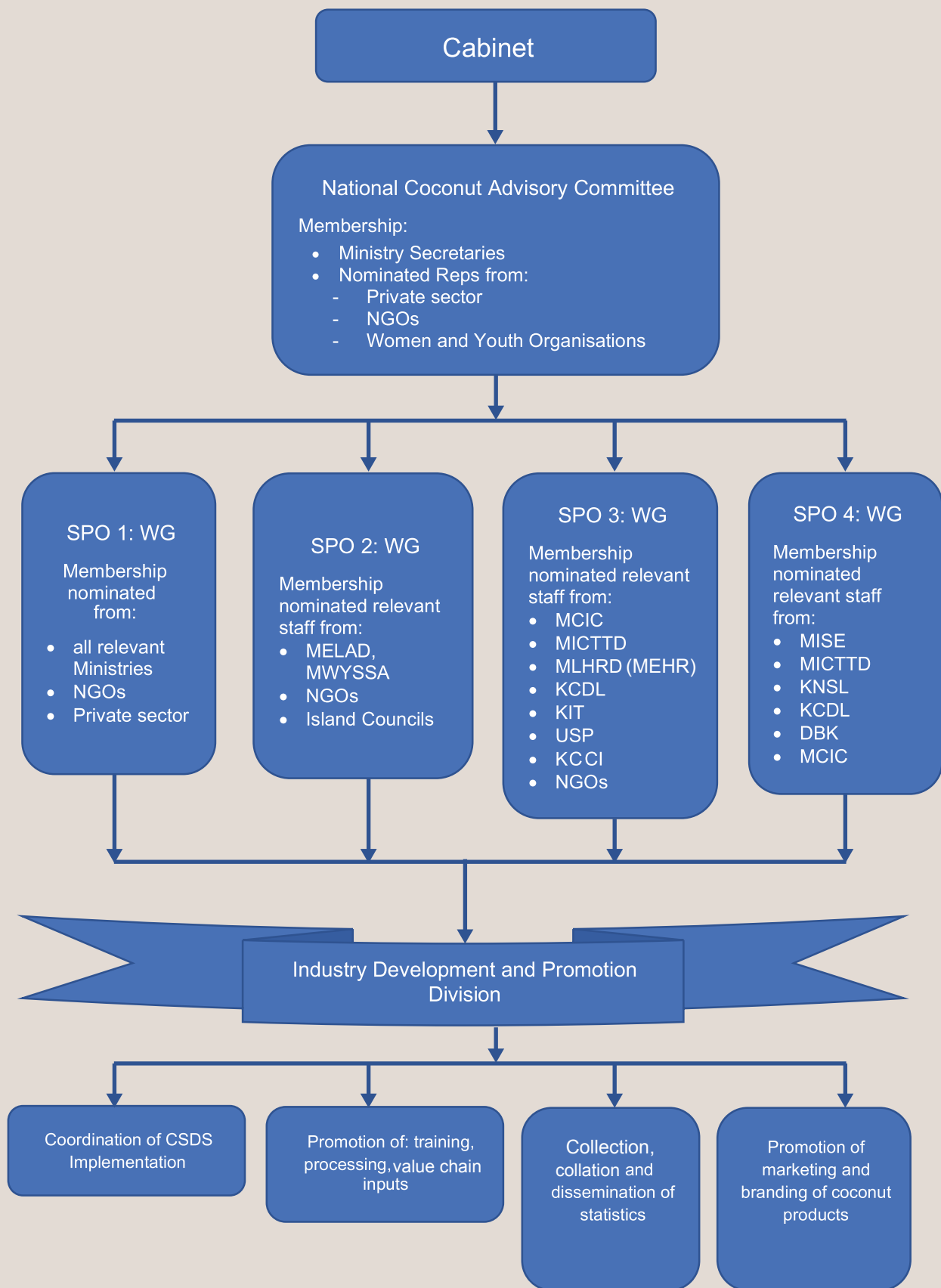
To support the NCAC and to serve the wider industry needs, the Industry Development and Promotion Division, in collaboration with relevant divisions within MCIC, will also provide additional support services including:

- (i) Marketing. This will involve identifying and establishing market contacts and documenting product requirements and disseminating information to stakeholders as well as facilitating participation in trade and promotion events.
- (ii) Statistics. This will involve identifying information requirements, establishing a database, facilitating the collection, collation and analysis of statistics for dissemination to industry stakeholders.
- (iii) Quality, Processing and Inputs. This will involve facilitation of workshops on quality documentation of product quality requirements, developing of processing Centres; installation of processing /testing equipment; and facilitation of industry testing, among others. Activities will also include facilitation and organisation of industry workshop, trainings on processing and assistance to the private sector to identify and procure inputs for value adding processing.

The organisational structure for implementing the CSDS is shown in **Figure 2**.



Figure 2. Coconut Industry Organisational Structure



4.2 Implementation and Financing of the Coconut Sector Development Strategy

Implementation of strategic actions will be broken down into manageable, mutually supporting priority programs and projects designed to deliver the four end of sector outcomes (detailed in section 2.0) subject to completion of the implementation plan. The implementation plan will unpack each intervention strategy under the four development outcomes into broad-based activities, activity delivery timeframe, responsibility for carrying out each activity, and the expected outputs following successful delivery of the activity. This detailed implementation plan will facilitate coordination of the multi-sector policy strategic actions.

An important component of the implementation plan will be the phasing of program and project activities. It is recognized that not all required activities can be implemented immediately and simultaneously. While some priority actions can be implemented in the short-term, others may require further development, advocacy, preliminary research or a pilot phase. The time frame indicated in the Implementation Plan (Annex 1) can be extended to an appropriate and more convenient date to the stakeholders.

4.2.1 Human Resources³

The current Industry Division of MCIC comprises three staff: a Senior Industry Officer; a Industry Officer and a Industry Assistant. Three additional staff will need to be recruited to strengthen the capacity of IDPD. The Senior Industry Officer will be responsible for overall management of the CSDS and coordination with other ministries. Other new positions will include: (i) Statistics Officer (ii) Processing and Training Officer (iii) Marketing Officer.

- Statistics Officer (SO) will be responsible for developing and coordinating the collection, collation and distribution of statistical information on the coconut sector. This will involve facilitation of surveys of the production base, value adding processes and exports that will inform and assist government and private sector decision making.
- Processing and Training Officer (PTO) will be responsible for identifying new and appropriate technology to improve value adding processing. The PTO will also be responsible for coordinating industry training needs analysis, development and delivery of stakeholder training programs along the value chain including production, processing and quality management.
- Marketing Officer (MO) will be responsible for: identifying new markets; facilitation of negotiations for supply contracts; liaising with potential buyers directly and through NCAC as well as regional and international organisations such as Pacific Trade and Invest and the International Coconut Community; facilitation participation in trade fairs; identifying market standards and working with the PTO to ensure standards are met; and dissemination of market information to stakeholders.

MELAD will play a key role in implementing the CSDS through its involvement in:

- introduction and trialling of new varieties
- distribution of seedlings
- monitoring of the replanting programme
- production technology transfer
- biosecurity

³ These recommendations will be reviewed by MCIC and PSO.



It is proposed therefore that 3 additional staff are recruited to ensure the timely function of these activities.

- Coconut Research and Seedling Officer (CRSO) will be responsible for identifying, introducing and conducting trials on new varieties as well establishing and maintaining nurseries for distribution of seedling of improved palms on the Outer Islands.
- Coconut Replanting Officer (CRO) will be responsible for developing and monitoring the coconut replanting scheme on each of the Outer Islands. The CRO will liaise with the MWYSSA and MCIC to develop incentives and with Island Councils to ensure that the program is implemented effectively and meets its objectives.
- Coconut Production Technology Transfer Officer (CPTTO) will be responsible to identifying changes needed to improve and increase the output of the current production base including plantation management, pest and disease control and nutrition. The CPTTO will develop and deliver training to producers on the Outer Islands.

It is not envisaged that other key ministries will require additional staff during the start-up phase however a “contact point” will be established within each ministry. The IDPD will develop a communication plan for liaison with each the “contact point.” This situation can be re-evaluated during annual program reviews.

4.2.2 Financial Resources

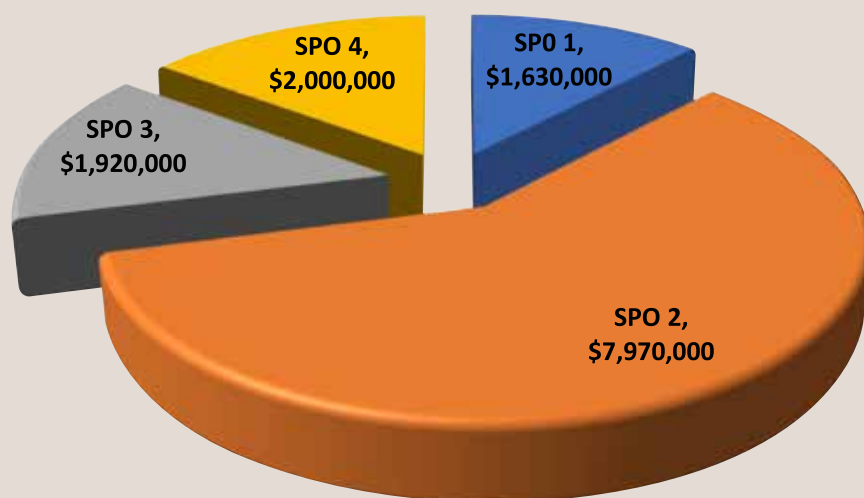
The indicative total cost to implement the CSDS is approximately A\$ 13.16 million; the cost to deliver ESPO1 (Coordination and Implementation) is approximately A\$1.7 million; to deliver ESPO2 (Improving the Coconut Resource Base) will require approximately A\$ 7.97 million; to deliver ESPO3 (Value Adding) will cost about A\$ 1.07 million; and to deliver ESPO4 (Improving Value Chain Efficiencies) will require A\$2.4 million. The costs by year and by source are provided in **Table 7**. A summary of costs over the first 5 years by ESPO is given in **Figure 3**. The total cost to the Government of Kiribati would be \$2.6 million. The remainder of the funding will be sourced from donors.

Table 7: Cost Breakdown by Year

	Year 1		Year 2		Year 3		Year 4		Year 5	
	GoK	Other	GoK	Other	GoK	Other	GoK	Other	GoK	Other
ESPO 1	76,000	120,000	76,000	720,000	76,000	160,000	76,000	160,000	76,000	160,000
ESPO 2	132,000	1,302,000	172,000	2,302,000	72,000	1,282,000	72,000	1,282,000	72,000	1,282,000
ESPO 3	50,000	100000	400000	100000	40000	100000	40000	100000	40000	100000
ESPO 4	20,000	10000	110000	2250000	10000		10000		10000	
Total	278,000	1,532,000	758,000	5,372,000	198,000	1,542,000	198,000	1,542,000	198,000	1,542,000

The cost of implementing the CSDS strategic programs will be shared among national budget and development partners and where possible private/foreign investment. In some cases Public support may be provided by donors directly to the private sector, especially when support via government encounters capacity constraints. However, where donors support private actors directly, this should be non-distorting and aligned with the sector policy and reflected in government’s books for compatibility purposes.

Figure 3: Cost Breakdown by End of Sector Plan Outcome



4.2.3 Cost Norms

The Implementation Matrix includes costs for activities under each strategy. These costs are estimates and are only intended to provide an overall approximate for the purpose of guiding the Government in seeking donor assistance and in determining budget allocations. Further work by the stakeholders is needed if more accuracy is required.

The following cost norms have been used:

- Sector Strategy 1. Coordination and Implementation

- Human Resources (\$250,000). A cost of \$15,000 / year has been used. This assumes 3 mid-level positions in the Industry Development and Promotion Division, plus the cost of additional office equipment (desk, computer). An allowance for staff travel has also been included.
- Value Adding Capacity Building (\$600,000). The cost of training has been estimated at \$4,000 and training can be provided through existing providers (i.e. MCIC) in Kiribati.
- National Coconut Advisory Committee (\$4,000). Assumes four meetings / year at a cost of \$1,000 / meeting.
- Coconut Census (\$600,000). This estimate is based on the cost of the 2015 Population and Housing Census which was just under \$1.0 million. However this census was more detailed and involved the use of a lot more resources in the form of enumerators, training, travel costs and analysis than would be required for a coconut census.
- Dissemination of information (\$100,000). This assumes \$25,000 / year production and publication of information brochures to coconut cooperatives in each of the coconut producing islands.



- Sector Strategy 2. Improving the Coconut Resource Base

- Human Resources (\$250,000). A cost of \$15,000 / year has been used. This assumes 3 mid-level positions in MELAD and plus additional office equipment (desk, computer). An allowance for staff travel has also been included.
- Variety Trials (\$100,000). This assumes \$25,000 / year for collection of local varieties with good growth and yield characteristics. It also assumes introduction of new varieties from the PNG gene bank. Funding also covers establishing and maintaining the trial areas for four years.
- Expanding seed nurseries (\$100,000). This assumes 1 nursery / island at a cost of approximately \$5,000 / nursery. It is likely that some of the small islands will not need large nurseries and that the larger islands e.g. Kiritimati will need more than one nursery. Coconut nurseries can be simple structures that involve fencing and in some cases might also need irrigation.
- Replanting (\$6.0 million). This assumes a current resource of about 4.3 million trees of which 60% will be replanted over the next 4 years at a cost of \$2.0 / nut. A 20 % contingency has also been included to ensure that there is scope negotiating to provide incentives.
- Cadastral Survey and Land Registry (\$700,000). This estimate is at best an educated guess that assumes that there is sufficient in-house expertise which may not be the case.
- Extension Packages (\$50,000). This assumes there is sufficient in-house capacity to develop extension materials.
- Farmer field schools (\$160,000). This assumes 4 farmer field schools / island @ \$2,000 / school.
- Organic certification (\$200,000). This is an estimate and based being able to negotiate a pathway to cover blanket certification for all producing islands. It is probable that the actual cost may exceed this.
- Training needs analysis (\$20,000). This assumes 1 visit by MCIC (and others where necessary) staff to each of the producing islands.
- TOT Training Packages (\$60,000). This assumes in-house (MELAD) capacity to develop training packages.
- Delivery of Training to Island Stakeholders (\$60,000). This assumes 1 training / producing Island.
- Networking (\$10,000). Assumes \$2,000 / year for communications.

- Sector Strategy 3. Value Adding

- Develop a brand for Kiribati coconut products (\$20,000). Assumes interactive rounds of stakeholder meetings to develop the brand and registration of the trade mark.
- Participation in trade fairs and market visits (\$400,000). This assumes a joint public / private sector trip/year to trade fairs within the region as well as China and Japan.
- Training needs analysis for processors and handicrafts (\$40,000). This assumes a trip to each coconut producing island by MCIC staff.
- Training manuals (\$100,000). This assumes the production of manuals for 2 – 3 of the prioritised products.
- Upgrading of KCDL (\$700,000). This assumes additional equipment to enable KCDL to further process, package and store value added products. Included in this is the cost of training for KCDL staff in new skills.

- TOT for value adding (\$100,000). This assumes training for prioritised products only.
- TOT on Quality control and Marketing of Coconut products.
- Delivery of training for processors (\$160,000). This assumes 8 trainings for each of the producing islands over the 4 year period. It also assumes that some training e.g. for VCO production by the fermentation method is relatively simple and would not be as involved as training for handicraft products.
- HACCP Certification (\$200,000). This assumes that all end processing facilities will be HACCP certified. It will not be necessary to certify all stages of processing for some products but those involved in the final stages of processing will need to be certified.
- Product testing (\$200,000). Assumes periodic sampling of food grade products and that this will be carried out by the new testing facility. This figure is only an estimate as there are no costings of the service at this stage.
- Installation of processing and testing equipment in selected Outer Islands;
- Upgrading of Processing Centres on the Outer Islands to meet HACCP Requirements;

- Sector Strategy 4. Improving Value Chain Efficiencies

- Conduct assessment of transport and critical infrastructure (\$50,000). This includes visits to each of the producing islands to evaluate the need for solar energy panels and tanks for holding water.
- Upgrade transport and critical infrastructure (\$1.2 million). This assumes upgrading 11 mooring buoys @ \$15,000 and the lighter fleet (11 craft @ \$35,000 / craft).⁴ Critical infrastructure includes large scale solar arrays (up to 25 kWh) @ \$50,000 each. Water tanks are costed at \$1,800 / tank.
- Hybrid driers (\$50,000). This assumes that models can be based on existing regional designs that have been developed in Fiji used elsewhere in the Pacific. Cost estimate is based on trialling 10 units in different sites to evaluate their effectiveness to dry coconuts for copra production and for VCO production.
- Upgrading of KCDL facilities and capacity building (\$700,000). Assumes addition of new equipment needed to further process, package and store value added products including VCO and skills training for staff.

4.3 Monitoring and Evaluation

An effective and affordable monitoring and evaluation (M&E) system will be essential to ensure that strategic directions are achieving the desired end of sector plan outcomes and impact. This will require initially that there is sufficient baseline data in place, and subsequently, systematic data collection on relevant indicators. Good monitoring will allow appropriate adjustments to the plan framework during implementation.

Currently there are data limitations for monitoring policy outcomes and a first priority will therefore be to establish baselines for a minimum set of core indicators that need to be measured. Where possible these indicators should be common to other relevant national policy and planning frameworks, particularly the KDP.

⁴ Makin, Kuria, Marakei, Maiana, Banaba, Aranuka, Beru, Nikunau, Tamana, Arorae, Teraina





It will then be important to ensure the relevant data is collected in any future household income and expenditure survey (HIES) and community and population survey as well as any other surveys that may be conducted by involved ministries. Agriculture Census, Agriculture (crops, livestock and fisheries) Surveys, Household Income and Expenditure Surveys (HIES), Demographic Health Surveys (DHS), nutritional surveys, and Population Census. Under the ASP SPO1, a strategy to strengthen the agricultural statistical system will be implemented which will help to improve the quality and timeliness of relevant data for monitoring the ASP.

Whilst at the policy level, outcome indicators may show whether the policy is right; at the program level, indicators need to yield enough information for day-to-day management of the sector program and its budget and thus show whether the program does what it should. At the goal and end of sector plan outcome levels the M&E framework in **Annex 1** identifies a minimum set of core indicators that should be tracked.

The Industry Development and Promotion Division under the leadership of the NCAC and in close cooperation with the four WGs will be responsible for establishing the M&E framework and preparing regular three monthly CSDS implementation monitoring reports. The CSDS will be reviewed annually with the Annual Review Report being tabled to the NCAC for approval no later than end of February of the subsequent year.

ANNEX 1

IMPLEMENTATION PLAN



Annex 1: Implementation Plan

Strategic Plan Objectives (SPOs)	Strategies	Activities	Time Frame	Performance Indicators	Means of Verification	Lead Agency	Support Ministries / Agencies	Est. Budget	Potential Funders
SPO 1: To ensure that the coconut sector is promoted and managed within a stable and coherent enabling policy and legislative framework	1.1 Establish the National Coconut Advisory Committee and support unit	a. Develop cabinet submission with TOR and proposed membership to establish the NCAC	a. 30/04/21	a. Submission including TOR approved by cabinet.	a. Cabinet records	a. MCIC	a. MFED	a. NCAC budget \$80,000	a. GOK
		b. List of nominated NCAC members for cabinet approval	b. 30/04/21	b. Cabinet approval of NCAC membership	b. Cabinet records	b. MCIC	b. MFED	b. n/a	b. n/a
		c. Approval for additional support staff	c. Cabinet Approval	c. Cabinet approval of NCAC membership	c. Cabinet records	c. MCIC	c. MFED	c. IDPD budget \$250,000	c. GOK
	1.2: Ensure the Coconut Strategy is resourced.	a. Prepare detailed cross-sector budget and submit to	a. 30/04/21	a. Cabinet approves budget	a. Cabinet records	a. MCIC	a. MFED	a. n/a	a. n/a

Annex 1: Implementation Plan

		cabinet for approval b. Mainstream Coconut Sector priorities with budget in the MCIC Strategic Plan other sector plans and Kiribati Development plan	b. 31/07/21	b. Coconut sector priorities linked to relevant sector priorities and budget	b. Sector Strategic plans	b. MCIC	b. All relevant ministries	b. n/a	b. n/a
	1.3: Identify, review and adjust where necessary, the key policies and regulatory frameworks of government stakeholders relevant to the coconut sector.	a. NCAC review of current government strategic workplans and implementation plans relevant to the coconut sector b. Relevant ministries submit detailed workplans and budget requirements to NCAC.	a. 31/05/21 b. Yearly reviews	a. NCAC recommendations for additions and alterations needed to support the CSDS including budgets. b. Cabinet approval of budgets	a. Cabinet records b. Cabinet records	a. MCIC b. MCIC	a. All relevant ministries b. All relevant ministries	a. n/a b. n/a	a. n/a b. n/a
	1.4: Strengthen	a. Implement policy	a. Commence 1/06/21	a. Documented workplan.	a. M & E Reports	a. MCIC	a. MLHRD MEHRD	a. n/a	a. n/a





Annex 1: Implementation Plan

	the institutional capacity of cooperatives to expand their activities to implement the Coconut Strategy.	measures to strengthen cooperatives (Trade Policy Framework) b. Undertake a training needs assessment of cooperatives c. Implement training programmes for cooperatives based on the outcome of the Training needs assessment; d. Promote the establishment of new Cooperatives in the coconut related products.	– will be ongoing. b. 31/12/20 c. Ongoing d. Ongoing	b. Training needs analysis report. c. Number of cooperatives receiving training. d. Number of ICCs established	b. M & E Reports c. M & E Reports d. MCIC reports	b. MCIC c. MCIC d. MCIC	b. MWYSSA c. MLHRD MWYSSA d. MWYSSA	b. \$10,000 c. \$590,000 d. n/a	b. IFAD c. IFAD d. n/a
	1.5: Establish a monitoring and evaluation system and	a. Identify data requirements (including other ministries)	a. 31/10/20	a. Documented stakeholder agreed data requirements .	a. IDPD reports b. IDPD reports	a. MCIC b. MCIC	a. NSO b. NSO	a. n/a b. n/a	a. n/a b. n/a

Annex 1: Implementation Plan

	maintain a data base.	b. Establish data base c. Undertake a coconut palm census d. Conduct regular surveys of sector activities	b. 30/11/20 c. 30/09/21 d. Ongoing	b. Data base operational c. Census report disseminated d. Reports on sector activities disseminated to stakeholders	c. IDPD reports d. IDPD reports	c. MCIC d. MCIC	c. NSO d. NSO	c. 600,000 d. 100,000	c. Bilateral donors d. GOK
SPO 2: To ensure an increased stable supply of coconuts for domestic consumption and processing	2.1: Strengthen MELAD research and extension services to improve and trial new cultivars.	a. Recruit 3 additional staff – 1 to be research officer stationed in Kiribati b. Develop research plan and methodology c. Establish trial areas & conduct trials d. Conduct ToT for MELAD staff on extension and trial methodology	a. 30/11/20 b. 30/11/20 c. Ongoing trials d. 31/03/21	a. Staff recruited b. Research plan approved by NCAC c. Designated trial areas and trial results d. Identified staff trained.	a. MELAD reports b. NCAC meeting minutes c. MELAD reports d. MELAD reports	a. MELAD b. MELAD c. MELAD d. MELAD	a. n/a b. n/a c. n/a d. n/a	a. \$250,000 b. n/a c. \$100,000 d. \$60,000	a. GOK b. GOK c. GOK d. GOK





Annex 1: Implementation Plan

	2.2: Expand seed nurseries and develop incentives to encourage engagement of youth, cooperatives and associations in replanting schemes for prioritised areas.	a. Rehabilitate seed nurseries b. Develop an agreed incentive scheme for replanting c. Identify & plant prioritised replanting areas	a. 30/01/22 b. 28/09/21 c. Ongoing	a. Nurseries established b. Incentive scheme implemented c. Number of coconuts planted	a. MELAD reports b. Cabinet funding approval c. MELAD reports	a. MELAD b. MELAD c. MELAD	a. n/a b. n/a c. n/a	a. \$100,000 b. \$6,000,000 c. n/a	a. GoK b. GEF, GCF, SPC c. n/a
	2.2 Changes to the land lease arrangements for coconut plantation on Kiritimati.	a. Revision of land lease laws b. Cadastral survey c. Establish a land registry	a. 31/03/22 b. 31/07/22 c. 31/10/22	a. Land lease review completed b. Cadastral survey completed c. Land registry established	a. OAG report b. MELAD Survey reports c. MELAD reports	a. OAG ⁵ b. OAG c. OAG	a. MELAD b. MELAD c. MELAD	a. n/a b. \$700,000 c. \$200,000	a. n/a b. Bilateral donors c. Bilateral donors

⁵ Office of the Attorney General

Annex 1: Implementation Plan

	2.3: Improve plantation management including replanting techniques and pest and disease control for coconut farmers.	a. Develop extension packages b. Conduct farmer field schools	a. 31/03/22 b. Ongoing	a. Documented training packages b. Number of farmers trained	a. MELAD reports b. MELAD reports	a. MELAD b. MELAD	a. n/a b. n/a	a. \$50,000 b. \$160,000	a. IFAD b. IFAD
	Strategy 2.4: Promote and facilitate organic certification for both production and processing	a. Develop and implement staged plan for organic certification across Outer Islands	a. Completed by July 2024	a. Organic certification documented	a. MELAD reports	a. MELAD	a. n/a	a. \$200,000	a. Bilateral donors
	Strategy 2.5: Strengthen capability, resourcing and effectiveness of extension providers (including NGOs) to promote	a. Conduct training needs analysis b. Develop and deliver training packages for TOT	a. 31/12/21 b. 31/07/22	a. Needs analysis report b. Trainers from relevant agencies trained	a. MELAD reports b. MELAD reports	a. MELAD b. MELAD	a. MWYSSA b. n/a	a. \$20,000 b. \$60,000	a. GCF & GEF b. GCF & GEF





Annex 1: Implementation Plan

	environmentally sustainable resource management practices for the coconut sector in close cooperation with landowners and community councils.	c. Develop and deliver training packages for farmers and NGOs	c. 31/12/22	c. Number of people trained	c. MELAD reports	c. MELAD	c. n/a	c. \$60,000	c. GCF & GEF
	2.6: Develop and extend networks and strategic alliances in regional and international coconut communities.	a. Identify key regional and global organisations and establish a communications plan	a. Ongoing	a. Documented exchange of information	a. MCIC reports	b. MCIC	a. KCCI	b. \$10,000	a. GOK
SPO 3: Optimize the economic returns from the coconut	3.1: Establish an efficient market intelligence (in association with PTI)	a. Develop a brand for coconut products b. Identify potential	a. 31/03/22 b. 31/10/21	a. Website operational b. Documented buyers	a. IDPD Reports b. IDPD reports	a. MCIC b. MCIC	a. All stakeholders b. MELAD / KCCI	a. \$20,000 b. n/a	a. GOK b. n/a

Annex 1: Implementation Plan

sector through value adding processing and promotion of coconut products in niche markets.	service and link potential buyers with producers and processors.	buyers & relevant trade fairs. c. Participation in trade fairs	c. Ongoing	c. Attendance at trade fairs	c. IDPD reports	c. MCIC	c. MELAD / KCCI	c. \$200,000	c. Bilateral donors
	3.2: Evaluate value added niche markets for coconut products that are appropriate to the scale of Kiribati supply capacity	a. Identify markets for prioritised products b. Conduct market analysis c. Market visits	a. Ongoing b. Ongoing c. Ongoing	a. Product requirements for prioritised markets b. Market reports c. No. market visits	a. IDPD reports b. IDPD reports c. IDPD reports	a. MCIC b. MCIC c. MCIC	a. MELAD / KCCI b. KCCI MELAD c. KCCI MELAD	a. n/a b. n/a c. \$100,000	a. n/a b. n/a c. Bilateral donors
	3.3: Enhance the capacity of value chain stakeholders to produce value added products through training and access to technology	a. Conduct training needs analysis b. Develop training manuals c. Conduct TOT d. Conduct stakeholder training for processing	a. 31/08/21 b. 31/10/21 c. 30/11/21 d. Ongoing	a. TN guidelines b. Manual completed c. Participant feedback on Training d. Participant feedback on Training	a. IDPD Reports b. Published training manuals c. IDPD Reports d. KCDL Reports	a. MCIC b. MCIC c. MCIC d. MCIC	a. KIT, MWYSSA b. KIT MWYSSA c. KIT, MWYSSA d. KIT MWYSSA	a. \$20,000 b. \$100,000 c. \$100,000 d. \$160,000	a. GOK b. GOK c. GOK d. GOK





Annex 1: Implementation Plan

	3.4: Develop a Kiribati brand for coconut products	a. Conduct stakeholder consultations to develop brand messaging & logo	a. 30/11/21	a. NCAC approval of brand	a. NCAC reports	a. MCIC	a. All stakeholders	a. \$20,000	a. GOK
	3.5: Establish quality standards and implement quality management systems for coconut products	a. Develop with the stakeholders minimum quality standards for prioritised products based on international best practices b. Develop with the stakeholders value chain quality management systems and disseminate to stakeholders c. Obtain HACCP certification for all processing facilities	a. 31/05/21 b. 30/09/21 c. Ongoing	a. Documented standards independently reviewed and approved b. QM systems disseminated to stakeholders c. HACCP reports	a. IDPD reports b. IDPD reports c. IDPD reports	a. MCIC b. MCIC c. MCIC	a. MHMS b. MELAD c. MHMS MELAD	a. n/a b. n/a c. \$200,000	a. n/a b. n/a c. SPC

Annex 1: Implementation Plan

		d. Conduct regular product testing to ensure compliance	d. Ongoing	d. Documented tests	d. IDPD reports	d. MHMS	d. MCIC MELAD	d. \$200,000	d. GOK
SPO 4: Establish and strengthen vertically integrated value chains and clusters that can improve efficiencies and financial returns to stakeholder s.	4.1: Improve efficiencies along the value chain including transport logistics, drying and storage infrastructure and input and output supplies.	a. Conduct assessment of transport and storage facilities on the Outer Islands including storage sheds, slipways, lighter craft and mooring buoys.	a. 30/06/22	a. Transport facilities on all target islands assessed	a. KNSL Reports	a. MICTTD	a. MCIC	a. \$10,000	a. GCF
		b. Conduct assessment of critical infrastructure including water and solar energy for processing	b. 28/02/22	b. Water and solar energy facilities on all target islands assessed.	b. MISE Reports	b. MISE	b. MCIC, MELAD	b. \$10,000	b. GOK
		c. Upgrade transport, water ,energy and critical infrastructure to value	c. 31/07/23	c. Transport and critical infrastructure operational	c. MISE & KNSL Reports	c. MISE & MICTTD	c. MCIC	c. \$1,500,000	c. GCF





Annex 1: Implementation Plan

		addition process;	d. 31/07/23	d. Number of hybrid driers built and tested.	d. MELAD Reports	d. MELAD	d. MCIC	d. \$50,000	d. SPC
		d. Develop & pilot trial hybrid drier designs	d. 31/07/23	d. Number of hybrid driers built and tested.	d. MELAD Reports	d. MELAD	d. MCIC	d. \$50,000	d. SPC
		e. Develop a procurement plan for input supplies	e. 31/10/21	e. Procurement plan completed	e. IDPD Reports	e. MCIC	e. MFED	e. n/a	e. n/a
		f. Review the list of products under the freight subsidy scheme to include other potential products which are excluded.	f. 30/06/21	f. Revised list of freight subsidized coconut products	f. Min. of Finance Gazette	f. MFED	f. MICTTD	f. n/a	f. n/a
4.2: Establish information and communication technology (ICT) including a website for the coconut	a. Establish and maintain Coconut website	a. Site established and maintained	a. 28/02/22	a. Site established and maintained	a. IDPD Reports	a. MCIC	a. MICTTD / KCCI	a. \$50,000	a. GOK
	b. Establish E-Centres on the outer Islands;	b. E- centres operational	b. 31/07/23	b. E- centres operational	b. MICTTD Reports	b. MICTTD	b. MCIC	b. \$100,000	b. GOK
	c. Implement e-marketing of	c. Volume of product sold	c. 31/07/23	c. Volume of product sold			c. MICTTD / KCCI	c. n/a	c. n/a

Annex 1: Implementation Plan

	sector for dissemination of technical and market information.	coconut products		through e-marketing	c. IDPD Reports	c. MCIC			
	4.3: Develop financing instruments that are tailored to the business models of value chain stakeholders and will improve their access to credit.	a. Develop business models for each segment of the value chain	a. 31/07/22	a. Stakeholder agreed business models developed	a. IDPD Reports	a. MCIC	a. MFED	a. n/a	a. n/a
		b. Develop a business model to upgrade KCDDL in-line with the development of prioritised value-added products.	b. 31/07/22	b. Stakeholder agreement on KCDDL business model	b. KCDDL Reports	b. MCIC	b. MFED	b. n/a	b. n/a
		c. Upgrade KCDDL infrastructure to meet requirements of further processing, storage and exporting of products	c. 31/07/23	c. Infrastructure operational	c. KCDDL Reports	c. MISE	c. MCIC	c. \$500,000	c. GCF
							d. MEHR		





Annex 1: Implementation Plan

		d. KCDL capacity building	d. 31/12/22	d. KCDL staff trained	d. KCDL Reports	d. MCIC	d. MEHR	d. \$200,000	d. Bilateral donors
		e. Develop credit models for eligibility under the Small Business Fund	e. 31/05/21	e. Credit models approved	e. IDPD Reports	e. MCIC	e. MFED	e. n/a	e. n/a

