

Republic of the Fiji Islands  
Presentation

**High Level Consultation on Coconut  
Development in Asia and the Pacific  
Region**

*30<sup>th</sup> October to 1<sup>st</sup> November  
2013, Bangkok, Thailand*

# SCOPE

- **Introduction**
- **Coconut Production in Fiji**
- **Replanting and Planting Programs**
- **Coconut Processing Industry**
- **Marketing & Product Promotion**
- **Research & Development**
- **Government Policies**
- **Coconut Development Program**
- **Challenges**



# Introduction



**Land Mass** 18,000 sq km

**EFZ** 1.3 Million sq km

**Population** 837,271

**Area Under Coconuts** 65,000 ha

**Farming Community & Rural Dweller Depend on Coconuts** 100,000

**Contribute 0.6% of Export Earnings**



# Coconut Production

- 250 million nuts per year
- 35% Household consumption
- 35% Copra Production
- 30% not harvested
- 65% or 107 million nuts available for CNO (17,833MT)

**Fiji's Nut to Copra conversion Ratio is 6 nuts : 1kg Copra**







# Area Under Coconuts by Division



<b>Division</b>	<b>Area Under Coconuts [ha] 1991 NAC</b>	<b>Area Under Coconut as at 2010 [ha]</b>	<b>Productive Area Bearing [ha]</b>
<b>Central</b>	1831	2,227	1,336
<b>Western</b>	2080	2,447	1,536
<b>Northern</b>	33,176	45,240	27,144
<b>Eastern</b>	12,378	15,086	9,052
<b>Total</b>	<b>49,512</b>	<b>65,000</b>	<b>39,068</b>

# Issues on Production & Farm Productivity

- Scarcity of Labor
- Lack of Farm Level Processing
- Lack of Interest – New Generation of Farmers
- High freight Cost
- Existing Senile Stand
- Fluctuation in Copra Prices
- Natural Disaster



# **Coconut Replanting remains Government Priority**



**Total Annual Target – 123,000 nuts(890 ha)**





# Establishment of Divisional nurseries



WRS, Rabi



TCC, Taveuni

Mago & Cicia



2012 Target is to produce 123,000 Seedlings

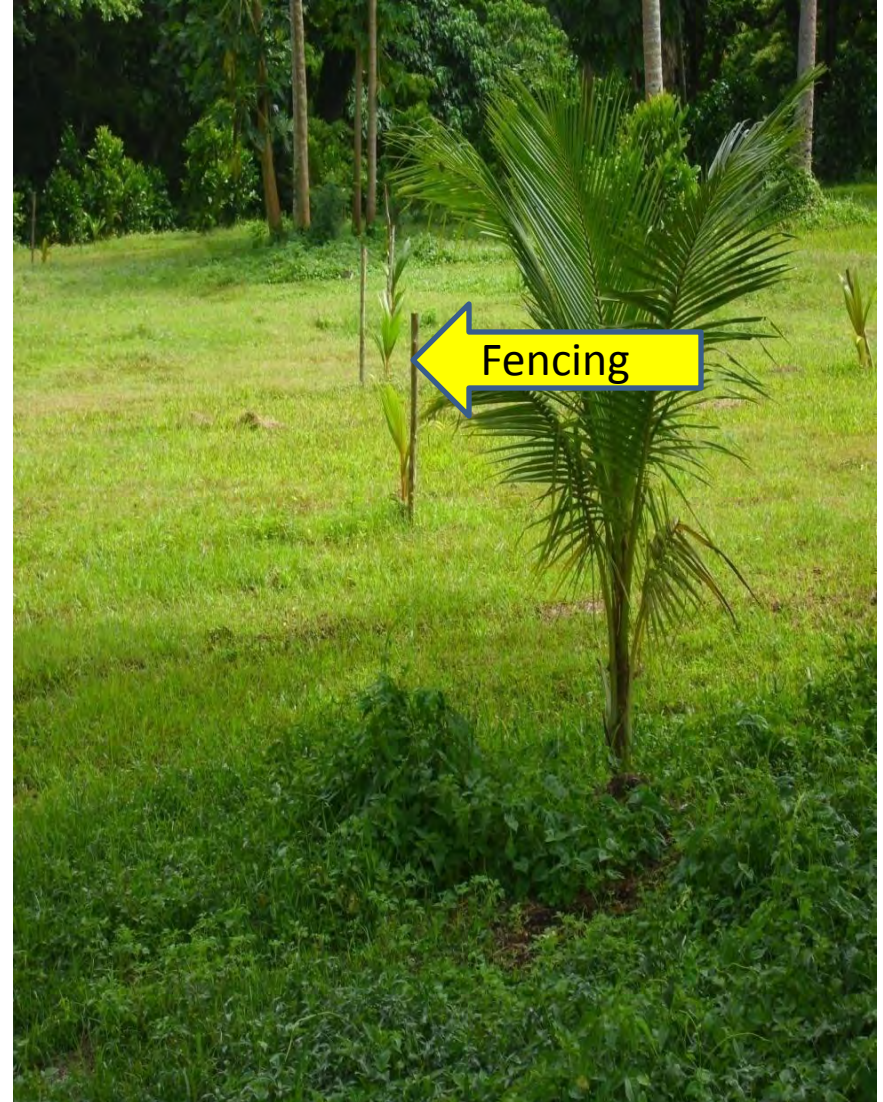
# Coconut Replanting (Boarding School initiative)



# Cicia Island Coconut - Wind/Wave Break



# Mago Island Electric Fencing





**Coconut Based Farming System**



**Taro under Coconut**



**Sheep under coconut**





**Sandalwood under Fiji Tall**

# Production & Utililization of Traditional Coconut Products

Year	Activity	Production	Export
2008	Copra	13,192	-
	CNO	6,763	6,152
	Copra Meal	4,047	-
	Coconut Milk/Cream	41,897	1,920
2009	Copra	10,316	-
	CNO	5,900	4,423
	Copra Meal	3,301	-
	Coconut Milk/Cream	48,271	2,880
2010	Copra	5,842	-
	CNO	3,329	3,310
	Copra Meal	1,811	-
	Coconut Milk/Cream	50,853	5,760



# Production & Utilization of Traditional Coconut Products

- Copra is utilized in Fiji
- Coconut meal for animal feed
- Limited Value Added Downstream Coconut Products – VCO Lately for Korea
- Encourage existing Stakeholder – Pure Fiji, Mokosoi
- PPP – Organic VCO
- 2010 Value of total Export : \$6.5M



# Marketing & Product Promotion

	2012
Copra	Exported to Australia with a Return of \$0.2M
Coconut Oil	Australia[RBD] Europe/[Crude] valued at \$7M
Coconut Milk/Cream	New Zealand, Canada, Australia, USA, Kiribati \$1.3M
Tender Coconut	In the Process of Establishment

- Adoption of the National Coconut Standards which was endorsed by cabinet in 2010 will elevate quality of copra produced
- MOU's with Donor Countries/Agencies to enhance the Industry
- DOA Participating in World Coconut Day Celebration



# CICIA BIOFUEL LIMITED



FUNDED BY THE GOVERNMENT OF FIJI  
DEPARTMENT OF ENERGY



# Wholenut processing plant in TCC



2011



2012



Holding and sorting boxes



the drier



Water filter



Internet corner

# TCC whole nut processing machines



**scraper**



**squeezer**



**Desheller**



**Shredder**



**Expeller**



**Filter**

# **Coconut Product Diversification and Value Addition**

**The Ministry is focusing on this direction to maximize return to farmers.**



# **Research & Development**

# Coconut Research and Development Update

- **TCC Seed Garden Maintenance – Too Costly**
- **Whole Nut Processing Factory completed**
- **Coconut Breeder required at TCC**
- **Limited Technical Capacity**
- **Focus on Adaptive Research**
- **Pest & Diseases**
- **Establishment of Gene Bank**
- **Breed Improvement through selection**
- **Product Diversification**



# Production Constraints

## Coconut Pests

- **Stick Insect**



- **Hurricane**



- **Rhino Beetle**

# **Policy Support**

# Policy to Promote Coconut Development

- **Formation of the Crop and Livestock Council**
- **Crop and Livestock Diversification Program**
- **Government Commitment**
- **Whole Nut Processing Facility**
- **Introduction of Tariff for Imported Oil**
- **Review of Copra Price Formula**
- **Quality Standard Procedures**
- **Subsidy formula on Production Systems and Freight**
- **Zero Rated Tax on Agricultural Inputs.**
- **Structural Reform of Copra Millers Fiji Limited.**
- **Tax Free Zone**





**COCONUT DAY CELEBRATION**

# Work Program 2013

- Establishment of Nurseries
- Continue with Replanting Program
- Capacity Building and Awareness Program
- Field Selection and Identification of mother palms
- Facilitate Farmers on Copra Driers
- Establish small holder VCO Units
- Launching of 1m tree campaign
- Pest Control





# Challenges

- Distance from Market
- Product Prices
- Aging Trees - Senile
- Product Diversification
- Natural Disasters
- Coordination of Markets
- Standardizing Quality of VCO
- Huge Potential in the Industry





# RECOMMENDATIONS/WAY FORWARD

- Focus on planting and replanting of coconut
- Empower the rural communities through product diversification
- Availability of improved varieties to Countries
- Coordinated Management Control of Pest and Diseases
- Product Development and Value Chain Improvement.
- Update on the joint Pacific Paper on Coconut

The image features two palm trees silhouetted against a sky that transitions from a pale blue at the top to a warm orange at the bottom, suggesting a sunset or sunrise. The trees are positioned on the left and right sides of the frame, with their trunks extending towards the bottom. The text is centered in the lower half of the image.

**THE TREE OF LIFE**

**IS THE CROP OF THE FUTURE**

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**FIJI COCONUT INDUSTRY**

**1. INTRODUCTION**

Fiji is an agrarian economy. Over the past century, the country has been dominated in output and value by the sugar industry. Recently the tourism sector has surpassed sugar as the main foreign exchange earner. However, the sugar industry, and by extension, the whole agriculture sector, remains a key conduit for the socio-economic empowerment of Fiji's population, in particular the 50% currently residing in rural areas. The contribution of the agriculture sector towards economic advancement remains optimistic over the potential contribution on other commodities including coconut and coconut bi-products.

Centrally located in the Pacific Ocean, Fiji's Exclusive Economic Zone contains approximately 330 islands of which about one third (1/3) are inhabited.

The total land area is 18,333sqkm wherein coconut covers an area of about 17,757ha of arable land (2009, NAC) with around 560,984 scattered trees. This is a substantial reduction (of 35%) in area under coconut from 1991 when the area under coconut then was 49,512ha with 622,152 (NAC 1991) scattered trees. The reduction was in part an aftermath of the total sales of \$3.2 million (FJD) in coconut timber.

The continuing decline of the Fiji coconut Industry is largely the consequences of natural disasters, expiring land leases, industrial development, coconut timber harvesting from senile palms, more lucrative shorter term crops like dalo and yaqona, low yields and high transportation costs with unfavorable market prices. These factors together with labor scarcity contributed immensely to the farmers losing interest in this industry.

Copra remains the most traded coconut commodity in Fiji with small scale Virgin Coconut Oil (VCO) production rapidly gaining popularity amongst rural women communities. A little under 100,000 rural dwellers (11% of total population) rely on coconut as source of livelihood.

The Coconut Sector contributes an average of around 0.54% of Fiji's export earnings between the period from 2006 to 2009(Fiji Islands Bureau of Statistics).

Despite the declining coconut production trend over the years the Government of the day remains adamant and committed in its effort of revitalizing this ailing industry. This revitalization program encompasses:

- The taking over of the CIDA (Coconut Industry Development Authority) by the government under the Ministry of Agriculture to allow better co-ordinate effort that entails the overall coconut based crop diversification program.

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- Crop and Livestock diversification programs under coconut is the way forward to address the arable land shortage yet maximize return from current coconut covered areas.
- Government funding support to ensure achievement of targeted replanting programs; ongoing training of stakeholders at the whole nut processing factory at the TCC (Taveuni Coconut Centre), and the launching of the 1million coconut tree campaign for 2013 – 2015
- Aggressive community outreach on the significant importance of the commodity.

## 2. COUNTRY SITUATION ANALYSIS

### 2.1 Coconut Production

- Total coconut stands of around 10million as scattered trees and plantation crop which covers an area of approximately 65,000ha of land. Fiji's current senility status is estimated to be around 70percent. 20,000ha of productive trees is estimated to give us 62,000 tones of copra. In Fiji about 33% of the coconut production is converted into copra while rest is utilized in the preparation of food for domestic purpose and in small quantity for making coconut cream.
- **Table 1: Annual Coconut Production in Nut And Copra Equivalent**

	Annual Nut Production (in million nuts)	Annual Production in Copra Equivalent (MT)
<b>2008</b>	150	25,000
<b>2009</b>	270	45,000
<b>2010</b>	100	16,666
<b>2011</b>	165	27,500
<b>2012</b>	250	41,666

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- **\*\*Fiji's nut to copra conversion ratio is 6 nuts: 1 kg copra.**
- The average nut production is 25-30nuts per tree per year for older trees while younger palms below 40 years drop around 50-60 nuts per tree per year.
- Copra yields range from 1 to 2 tonnes per hectare depending on variety, age of palm, soil fertility, and farming system adopted.
- Copra production continued to decline for the past five decades dropping from around 41,000 tonnes in the 1950s to less than 7,000 tonnes in 2012. This drastic drop in copra production from the 1950s has affected the lives of an estimated 100,000 farmers and rural dwellers in coconut growing areas. Efforts by government to revive the Industry are a priority.
- Reasons for the reduced coconut production trend include: distance from the market with high transport/freight cost, , scarcity of labour and low returns from copra; natural disasters; expiring land leases; industrial development; coconut timber harvesting from senile palms, and higher returns from more lucrative shorter term crops like dalo and yaqona.

**2.2 Area under Coconut by region or Province**

Established coconut producing areas are concentrated in the Eastern division, the Northern division and coastal area of the main island (Viti Levu).

- The growing popularity of VCO production and other coconut products and bi-product had triggered a subtle change amongst coconut growers to either replant senile/logged palms or plant new areas.
- Fiji can simultaneously expect a surge in planting and replanting of coconut trees in the near future as a ramification of recent Investor interest in establishing a Tender Coconut Water Factory in Fiji and the setting up of a number of Bio Diesel mills on smaller islands.
- The launching of 1m coconut tree initiative by government is targeted to raise the awareness at community level.

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**2.3 Age Profile of Coconut Trees**

- Around 70% of Fiji's coconut palms are more than 100 years old and are of the Fiji Tall Variety while 6% of the coconut tree population is expected to be about 50 years old, comprising about 4,000ha each of Fiji Tall and Malayan Dwarf.
- The Hybrid varieties make up 10% of the coconut tree population and cover up to 2000ha while coconut trees of mix variety comprise 14% of total population and are a little under 30 years old.

**2.4 Coconut Replanting/New Planting Program**

- The Ministry of Agriculture Extension Division in its Work Program (2012 and 2015) has and will continue to redress the issues of senile palms, low planting and replanting rate, availability of seedlings to growers, distance from markets, low returns, volatile market price, intercropping/diversification options and the general technical support through our extension service.
- The aftermath of Tropical Cyclone Tomas (2010) and lately Tropical Cyclone Evans in December of 2012 still exists in some major coconut producing areas in the Northern Division and the maritime Eastern Division. This will have an impact on the number of seed nuts that should be raised in our identified nurseries.
- The targeted establishment of 123,000 seedlings at Wainigata Station and TCC are well underway; with seed nuts sourced from existing stands at TCC and fully funded under the Coconut development Capital Projects of 2011. Included is our Small Island Concept where we identify improved farms on an island then we narrow our selection to those improved individual palms where we will continue to source seed nuts from to be raised in nurseries.
- Even though the rehabilitation program is concentrated in the North and Eastern Divisions, similar planting and replanting efforts for the Western Division is being facilitated by the Department of Agriculture through the provision of free seedlings while other associated costs are borne by the farmers. The later program is mainly for food security purposes and acreage planted will be on demand basis.
- The department of Agriculture under its effort to fast track the rehabilitation program will need the full engagement of rural communities. This will be facilitated

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through initial community awareness programs through our extension officers. They should be providing their own seeds from selected mother palms in their different localities.

**2.5 Coconut Rehabilitation by Intercropping and Livestock Integration**

- Coconut Rehabilitation in Fiji can only be successful through intercropping with small holder producers. The return from crops makes coconut a viable commodity. Coconut stand alone is not viable if copra is the end product. Livestock and crop Integration will not only enhance soil fertility but will also assist in weed control which on the other hand will fasten the coconut picking and cutting process.

**2.6 Coconut Rehabilitation and Fertilizer Application**

- It is not viable to apply fertilizer due to excessive price of agro inputs and low returns from coconut farming.
- The introduction of coconut diversification programs through intercropping and livestock integration approaches should indirectly enhance soil fertility

**3. PERFORMANCE OF THE COCONUT PROCESSING INDUSTRY**

**3.1 Production and Export of Traditional Coconut Products**

- The main coconut product is copra, all of which is utilized in Fiji.
- All coconut meal produced is used locally for animal feed formulation.
- Farmer's copra get sold to one of the two main mills for coconut oil production and small bio fuel plants established in the Maritime islands, the bulk of which ends up for export while a portion is used locally for manufacture of soaps, detergents, body oils and food.
- Tabulated are the main coconut products/by-products and their destination. Refer to Annex 1 for Whole Nut Processing Facility Established by DOA in 2012.

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**Table 1: Copra and Coconut Oil Exports**

Year	2005	2006	2007	2008	2009	2010
Copra exports (\$m)	0.01	0.04	0.00	0.00	18.20	0.20
Coconut oil Exports (\$m)	3.48	2.10	4.42	8.17	4.20	5.00
Coconut oil Exports (%GDP)	0.07	0.04	0.08	0.14	0.08	NA

*Source: Ministry of Strategic Planning, National Development & Statistics*

### **3.2 Production and Export of Non-Traditional or Emerging Coconut Products**

- The limited value added downstream coconut products like VCO and other beauty therapy products that are manufactured locally, and are enjoying a window of marketing opportunity that exists both locally and overseas
- Figures for the production of non-traditional coconut products and export of downstream value added products like coconut shampoo, coconut body cream and hair conditioner are not available at the Fiji Bureau of Statistics.
- Mr. Garry Tarte of Wainyaku Estate in Taveni is the only Certified Organic producer of Virgin Coconut Oil. A total of 400 tons of Organic Virgin Coconut Oil is produced and exported annually from his own copra. This can be valued at \$2m in return as it is being sold at \$5.00 per liter in his export market. He is intending to increase production by outsource copra from his neighboring farm, but the recent cyclone Evans have a detrimental effect to production.



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**3.3 Summary of Coconut Product Utilization**

- Total estimated whole nut production is 250million nuts per year, which is equivalent to 41,600 tons of copra if it is all cut and dried. Out of the total nuts produced approximately 35% is used for household consumption; 15% for copra, 5% for VCO production and around 45% projected un-harvested and germinate under bearing trees in the plantations.
- A minimal percentage of Fiji's Crude Coconut Oil is used in the country for the fabrication of products like soap, detergents, and bio- fuels, while the bulk of it is exported as tabulated earlier.
- There is concerted effort by the Government to reduce dependency on fossil fuel imports. This later government endeavor has yielded the formulation of rural development policies that support the establishment of a number of mini biofuel mills in the outer islands. The mini mills use coconut oil to generate electricity for rural village lighting.
- The volume of coconut oil used locally has noticeably increased as a result of the recent increase in the price and production of copra as well as the marketing of coconut based products. An obvious example is our local manufacturing company, Ocean Soaps Limited, which has secured the Pacific regional market for the marketing of its coconut based products. Consequently, the increase in its output/market outlet will concurrently result in an increase in coconut oil consumption by the company.

**3.5 Number of Coconut processing Plants and their Capacities**

- There are seven Coconut Oil mills with installed capacity of 11,040 (tons) and actual annual utilization of 5,842 (tons )
- There is only one Coconut Cream processing plant with installed capacity of 60,000 ( ltrs) and actual annual utilization of 51,000 (ltrs)

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**Table: 2** **FIJI'S COCONUT OIL MILLS**

<b>Name</b>	<b>Capacity</b>
Copra Millers Fiji Ltd	24 MT
Ocean Soap	8 MT
Biodiesel Group Fiji Ltd	5MT
Niu Industries	2MT
Koro Biofuel	2MT
Cicia Biofuel	2MT
Rotuma Biofuel	2MT
3 Other Mills (Vanua Balavu, Gau,Lakeba)	6MT
<b>TOTAL</b>	<b>51 MT</b>

**4. MARKETING AND PRODUCT PROMOTION**

- The table below depicts the main Traditional Coconut Product markets while Nontraditional – value added products such as VCO and body cream, end up mainly in the Australian, New Zealand and USA niche market outlets.

**Table 3: Major Market Destinations for Traditional Coconut Products In annually**

<b>Copra</b>	Export to Australia with a return of \$0.2m
<b>Coconut Oil including VCO production</b>	Australia (RBD), Europe (Crude) Korea VCO Valued at \$7m
<b>Desiccated Coconut</b>	N A
<b>Coconut Milk/Cream</b>	New Zealand, Canada, Australia, Kiribati and USA

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**5. IDENTIFICATION OF GAPS/OBSTACLES IN COCONUT PRODUCTION AND UTILISATION**

The coconut industry has huge potential to contribute towards the strengthening of Fiji's economy thus it is hoped that the 2013-2015 Coconut Development Program will foster this role. To capitalize on the increasing copra prices amidst huge potential for the copra industry in Fiji, efforts to boost copra production whilst minimizing operational overhead will always be considered. But on the other hand down stream processing and value addition is the way forward for the industry.

**5.1 Planting and replanting**

- The scarcity of labour and low returns from copra has over the years shifted the bulk of copra production from large producers (estate owners-80%) to small - holder producer who are now collectively producing the bulk of copra production, a swap from around 20% in yester years to 80% of production in recent years.
- This current copra production trend denotes the lack of reinvestment by large producers which to a large extent has been the result of low returns from copra when compared with higher value crops such as yaqona and dalo.
- Government efforts to rekindle interest amongst the second and third generation copra producers has been feebly embraced resulting in the slow progress and non-achievement of coconut replanting targets on large estates.
- The lack of good high yielding varieties for rapid multiplication of seedlings.

**5.2 Diversification**

- Crop and Livestock diversification programs under coconut will continue to be the way forward in order to maximize return from current coconut covered areas.
- Promotion of VCO production, handicraft and other value added products is gaining momentum and fetching a better return for farmers especially the womenfolk.

**5.3 High incidence of pest and diseases**

- Costs involved in the management of stick insect and rhinoceros beetle.

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- Lack to maintain undergrowth due to low return on investment

**5.4 Research and Development**

Limitations in Technical capacity, coupled with financial and resource restrictions, has over the years compelled the Department of Agriculture to continue subsisting to adaptive research, focusing basically on adaptability of offshore conceived developments in the coconut sector.

The Research Division in its effort to improve coconut production and explore the opportunities in value addition had put together two concept papers requesting the APCC for its endorsement.

The new dimension the department of agriculture is taking is interdisciplinary where participatory approach is the leading concept.

**5.5 Lack of Public Private Partnership**

Coconut being a crop produced largely by small holder farmers, lack of interest is being generated by the private sectors on their participation.

**6.0 PROPOSE POSSIBLE SOLUTIONS/SUGGESTIONS TO ADDRESS THE GAPS**

- To accelerate coconut replanting and planting program, government is working on the introduction of subsidy for farmers on agro inputs so as to motivate replanting of coconut.
- The government through its initiative of reviving the ailing industry had formed a Coconut Industry Task Force which is chaired by the Permanent Secretary for Finance.
- The adoption of the APCC aligned National Coconut Standard will eventually elevate the quality of copra produced which in turn will have a positive flow on effect on the quality of associated downstream products and these, will ultimately result in better returns to both copra producers and processors.

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- A number of MOUs are being formalized between Donor Countries/Agencies and the Fiji Government through the Department of Agriculture for the enhancement of the Fiji Coconut industry.
- While there is tax charged on coconut products, there is no export fee imposed to encourage expansion in this area by potential investors.

**7.0 RECOMMENDATIONS FOR FUTURE ACTION**

The drive to improving food security and livelihood enhancement to reduce poverty and develop climate change preparedness in coconut growing areas cannot be further reemphasized.

It is in all governments' interest to revitalize this very important industry. The tree of life is the future crop for the world tomorrow.

In order to achieve the above and qualify the above statement, it is important that all coconut growing countries should:

- Focus on planting and replanting of coconut
- Empower the rural communities through product diversification
- Make available germplasm that can easily be accessed by countries in need.
- Proper Management Control of Pest and Diseases

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**CONCEPT NOTE**

**COCONUT VALUE-ADDITION THROUGH RURAL COMMUNITY-BASED PARTICIPATORY RESEARCH  
AND EXTENSION APPROACH IN FIJI: PRODUCT DEVELOPMENT, DIVERSIFICATION, AND  
PROMOTION**

**PROPONENTS**

Research and Extension Divisions

Ministry of Primary Industries

Department of Agriculture

Republic of Fiji

**Introduction**

Fiji has not fully utilized the potential for value-addition in coconut, even though it remains the most important agricultural commodity. It is extensively grown for centuries either on plantation-scale, at smallholder farms, and even at home gardens as a sustainable source of livelihoods. Even now, coconut price is determined by the price of copra and coconut oil. Technical know-how for the production of diversified coconut products is readily available from the APCC member countries. Thus, smallholders and women organizations, out of school children groups, etc. need to be supported with technical know-how and other incentives to start coconut-based rural community-based micro-enterprises for higher incomes and employment opportunities. Value-addition through product development and its diversification is essential for profitable coconut farming, especially when coconut farmers are facing difficulties due to low price of coconut.

Coconut palm is often referred to as “Tree of Life”, reflecting its dietary-value and for its various value-added products. Every part of the tree is useful and nothing is wasted. Venturing deeper into the present technology has boosted the coconut users into another level of value-addition, and has become a multimillion dollar industry to some Asia-Pacific countries. Fiji, being part of APCC has so far not fully exploited the coconut’s full potential benefits from value-addition. Fiji in the past century trade market has always been relying on three main commodities for sustainable

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livelihoods at rural communities. These are coconut, sandalwood, and Beach-der-mer (Sea Cucumber). At present, all these three main commodities proved its existence in the agribusiness, with an increased business growth and investment. Strengthening the agricultural research and extension arms of the Ministry of Primary Industries with a priority of these selected commodities is a positive approach that will bring in ROI to the government and rural communities in all parts of Fiji. Thus, it is important for research, extension and training divisions at the Ministry of Primary Industries, Department of Agriculture to come-up together with a rural participatory multidisciplinary research and extension approaches to venture into coconut value-addition through product development, product diversification, and product awareness/promotion.

### **1.0 Relevance of the Action**

- To improve the aesthetic values of coconut palms and maximize the production of coconut and its by-products.
- To have a research-driven approach through appropriate technology on packaging of coconut water, extraction of sweet smelling aroma of indigenous flowering trees for coconut oil value-adding.
- To design and promote appropriate non-formal trainings to farmers and other stakeholders with support of the research-extension-training staffs on desirable diversification and value-addition on coconut to generate skilled rural employment.
- To maximize economic, ecological and social benefits from the existing investment and infrastructure created for coconut development.
- To ensure adequate, appropriate, timely and concurrent attention to all the links in the production, post harvest and consumption chain
- To disseminate technologies using participatory approach through demonstration and promotion to address the gaps in a mission mode.

### **1.1 Background to the Proposal**

Around the globe, there is hardly any tree that since the earliest times has been providing humankind with more uses and products than the coconut palm. It has been used as staple part of the diets of almost all Polynesian and many Asian people for centuries. It was traditionally grown for consumption, drinking, edible oil, body oil, and also served as a component for various industrial applications. Through time, economic and social developments have grown to some extent and have change the lifestyle of the Fijian people. Today's young consumers depend heavily on conventional foods. The changed food habits and availability of other

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products both in the food and industrial sectors, has brought out a drastic decline in the uses of coconut products. In the last century, on account of heavy imports of vegetable oils, animal fats, soft drinks, snacks and other fast food products, the interest of processing and producing coconut food products has negatively impacted coconut farmers and producers, forcing them to venture into other businesses. The unstable price in the coconut markets for dried coconut meat could not make much impact in pushing-up the price levels and again this was not beneficial to the farmers. In this context, it was realized that product development, diversification and promotion of coconut-derived value-added products could only help the coconut growers in getting remunerative prices. In addition the coconut crop has also been affected by outbreaks of new emerging invasive insects' pests: Coconut Stick insect and Rhinoceros beetle. It was realized that a major initiative should be started towards ecological management if these insect pests to improve its productivity and promote product diversification. This will help the small- and marginal-farmers who depends on coconut for their livelihoods. In this context to protect the interest of the coconut growers, previous initiatives had been incorporated into the agriculture arm of the government on ways to improve and strengthen coconut production, increase supply of value- adding products and meet market demands. This drive has to be maintained in order to achieve the coconut commodity's maximum potential and benefits and should converge and synergize all the efforts through vertical and horizontal integration of existing programmes and address the problems and bridge the gaps through appropriate programmes in the agriculture sector to ensure adequate, appropriate, timely and concurrent action. This would help develop a mechanism which makes coconut farming competitive and ensures reasonable returns.

## **1.2 Situation Analysis**

Managing the coconut commodity is absolutely necessary because of its increasing demand and high potential of returns. There is a need to increase coconut re-planting, mass production and increase its supply continuously. The coconut grown areas of Taveuni, Vanua Levu, Yasawa group, Lau group, Lomaiviti group, Kadavu and Vitilevu needs to be replanted with young coconuts as most of the coconut are senile and have passed their maximum fruiting periods. Strengthening of coconut pest management is vital towards the improvement of the quality of coconut produced. With the assistance from the Government of the day, and other development partner agencies, coconut products through value-adding and diversification have gained local and international demands for an increase in domestic supply, and this is currently arousing investors' interest on this commodity. The most demanding coconut products in the Fiji market today is virgin coconut oil, coconut soap, and coconut water because of its health benefits which has been proven through scientific research and public responses on its health boosting effects. The sale of coconut water products in the market is slowly taking momentum and will be a product that will make a difference in the soft drink market. This is one area that really needs to be looked into; the supply



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of coconuts to produce these products; process involved for maintaining quality of the end-product and meeting of market demands. It is a collective approach between the Ministry of Agriculture and the Ministry of Provincial Development with a mission to achieve the full potential that coconut commodity has, releasing its benefits back to the Government and to the community economically and socially.

**1.3 Problems to be addressed**

To rediscover, develop, and diversify value-added products from coconuts through research and technology, and transfer of information to coconut farming areas through extension, training and participatory approaches. In the past, villagers and rural communities knew the processing of dried coconut meat as the only source of income. Through technology and research, virgin coconut oil, coconut soap, and coconut water etc, are added-value products of the coconut commodity apart from its industrial products. The demand of these coconut products is very high, but the supply is not enough to meet the existing market.

**1.4 Beneficiaries**

- There would be an overall benefit to the coconut industry and enhancement of coconut value adding products.
- Increase in employment opportunities for rural communities in the establishment of coconut business centers.
- Broaden market opportunities for producers by rediscovering and with new alternative value-added products from coconut.
- Source of livelihoods for coconut farmers/producers who are the direct beneficiaries. The other beneficiaries will be rural-based and business communities, and the Government.

**Identification of beneficiaries**

- All coconut farmers and estate owners and other stakeholders.
- Turnover of foreign exchange.
- Reduction in rural to urban drift.
- Reduction to poverty level in the rural areas.

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**1.5 Project Rationale**

The sudden rise in the demand of coconut products has not filtered in well into the minds of land owners and coconut farmers. Addressing the great opportunity of utilizing this multimillion dollar commodity to our villages and rural communities in the coconut growing localities would be most appropriate to instill the needed technology to drive these people into coconut processing and value-adding specialists thus gaining the maximum benefits through promotion and implementation of value adding technologies/products.

**2.0 Description of the action and its effectiveness**

Coconut value-added products produced locally that are already in the local and international markets are virgin coconut oil, coconut soap and desiccated coconut. The need to expand value-adding processes to other coconut products is of paramount importance. To have a research-driven approach on product development and formulation such as packaging of coconut water and promote it as a sports health drink will support the objectives of the Fiji Government for Fiji made brand. Like Fiji Water products, it can be a multimillion dollar return of investment to local producers if the right approach is undertaken. It will also contribute to poverty alleviation, create sustainable livelihoods, and provide rural employment.

**3.0 Sustainability of the action**

The new approach addresses the diversification of coconut-value added products using rural community-based participatory research and extension driven systems. It is focused to rediscover, further develop and promote (extend) appropriate technologies and value-added products to end-users for their maximum product development, diversification, and promotion. Thus, the actions proposed will have long-term sustainability boosting Fiji's economy through small-scale and large-scale value-adding processing centers.