



# **PAPUA NEW GUINEA COFFEE INDUSTRY STRATEGIC PLAN**

**2008 - 2018**



“Yumi Lukautim Kofi na Kofi bai Lukautim Yumi”

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**THE COFFEE INDUSTRY CORPORATION**  
**STRATEGIC PLAN TO SUPPORT THE**  
**PAPUA NEW GUINEA COFFEE INDUSTRY**  
**2008 – 2018**

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Papua New Guinea.**

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## ABBREVIATIONS AND ACRONYMS

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|              |   |
|--------------|---|
| ACIAR        | Australian Centre for International Agricultural Research             |
| AIGS         | Agriculture Innovative Grant Scheme                                   |
| AJCA         | All Japan Coffee Association  |
| AusAID       | Australian Agency for International Development                       |
| CDA          | Coffee Development Agency   |
| CEO          | Chief Executive Officer   |
| CIB          | Coffee Industry Board   |
| CIC          | Coffee Industry Corporation Limited                                   |
| CIC Act      | Coffee Industry Corporation (Statutory Functions & Powers) Act 1991   |
| CREAC        | Coffee Research & Extension Advisory Committee                        |
| CRI          | Coffee Research Institute   |
| DIS          | Delivered-in-store  |
| EHP          | Eastern Highlands Province  |
| ENBP         | East New Britain Province   |
| EU           | European Union  |
| EXCO         | Executive Committee   |
| FDR          | Factory Door  |
| FOB          | Free On Board   |
| GB           | Green Bean  |
| GBE          | Green Bean Equivalent   |
| GDP          | Gross Domestic Product  |
| GoPNG        | Government of Papua New Guinea  |
| ha           | Hectare   |
| HACCP        | Hazard Analysis Critical Control Point                                |
| HIV and AIDS | Human Immune Deficiency Virus & Acquired Immune Deficiency Syndrome   |
| ICO          | International Coffee Organization                                     |
| IOD          | Industry Operations Division  |
| IPM          | Integrated Pest Management  |
| JETHRO       | Japan Export and Trade Organization                                   |
| kg           | Kilogram  |
| MTDS         | Medium Term Development Strategy                                      |
| NADP         | National Agriculture Development Plan                                 |
| NADS         | National Agriculture Development Scheme                               |
| NARS         | National Agricultural Research Systems                                |
| NDAL         | National Department of Agriculture and Livestock                      |
| NGOs         | Non-Governmental Organizations  |
| NY'C'        | New York 'C'  |
| PB           | Pea Berry   |
| PIP          | Public Investment Program   |
| PNG          | Papua New Guinea  |
| PM&E         | Planning, Monitoring & Evaluation                                     |
| PSC          | Premium Smallholder Coffee  |
| R&GSD        | Research and Grower Services Division                                 |
| ROB          | Robusta   |
| SCAA         | Specialty Coffee Association of America                               |
| SCAE         | Specialty Coffee Association of Europe                                |
| SHCGA        | Smallholder Coffee Growers Association                                |
| SMART        | Specific, Measurable, Achievable, Realistic, Time Bound               |
| Stabex       | Stabilization of Export Earnings of Agricultural Commodities Facility |
| WHP          | Western Highlands Province  |
| WHSS         | Western Highlands Substation  |

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## FOREWORD

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**Pugma Kopi**



**Ricky M Mitio, ML**

Coffee continues to be an important export commodity for Papua New Guinea. Almost 85% of coffee produced in PNG is grown harvested and partly processed by smallholder growers. Coffee therefore is the leading source of cash income for a large proportion of the population compared with all other agriculture export commodities including minerals. The Coffee Industry Corporation, which is empowered under the CIC Act of 1991, has the responsibility to provide both leadership and services to the coffee industry as stipulated in its Constitution.

Under our leadership as the Board Chairman and my Chief Executive Officer, CIC has undergone several major organizational and structural changes to meet stakeholders demand in a cost effective manner. In 1997, my board instituted sweeping changes in the CIC structure, its *modus operandi*, and in its financial operations. The result is a downsized, restructured, slimmer, fitter organization with new corporate strategy and new energy.

In 2002, the Corporation set out to host a National Coffee Workshop to seek stakeholders' views and to formulate strategies for the future of PNG coffee industry. Out of this was born the CIC Eight Point Plan. Effectively, there was major policy shift from setting production targets to focus on quality improvement and empowering growers to seek better prices through grower cooperative movements.

The Board also down-sized the CIC organizational restructure and merged a number of functions, which resulted in a reduction in the size of the organization from four to two divisions - Industry Operations and Research & Grower Services divisions. The process also resulted in the reduction to the number of positions to 145 staff.

Though, the processes of institutional change and re-direction are always painful, it was necessary for the Board and CIC management to do so for the reasons of budgetary constraints and the realities of PNG economy. In many cases CIC has always re-aligned itself with major national policy changes to fulfill industry aspirations.

As such, the CIC has gone in a big way to draw up the 'PNG Coffee Industry Strategic Plan 2008-2018' in direct response to the Government's National Agriculture Development Plan. In essence this is a strategic implementation plan for the NADP to be implemented for the coffee industry. The strategic plan captured most of the NADP development goals and stresses on the importance of funding and support needed to achieve the industry's vision in the next decade and beyond.



**PUGMA KOPI**  
Chairman of the Board



**RICKY M MITIO, ML**  
Chief Executive Officer





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## EXECUTIVE SUMMARY

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### OBJECTIVE

To support the development of a sustainable and competitive coffee industry in Papua New Guinea which will maximize financial returns to coffee producers and contribute to the government's economic and social policy goals.

### GUIDING PRINCIPLES

The Strategy is guided and informed by the following principles, policies, approaches and aspirations:

- Responsiveness to market trends and developments;
- Stakeholder involvement;
- Alignment with government (and development partners) policies;
- Stewardship to the coffee industry.

### DEVELOPMENT CONTEXT

Although PNG is endowed with natural resources, economic performance and living standards are still low by world standards. Population growth is faster than the economic growth.

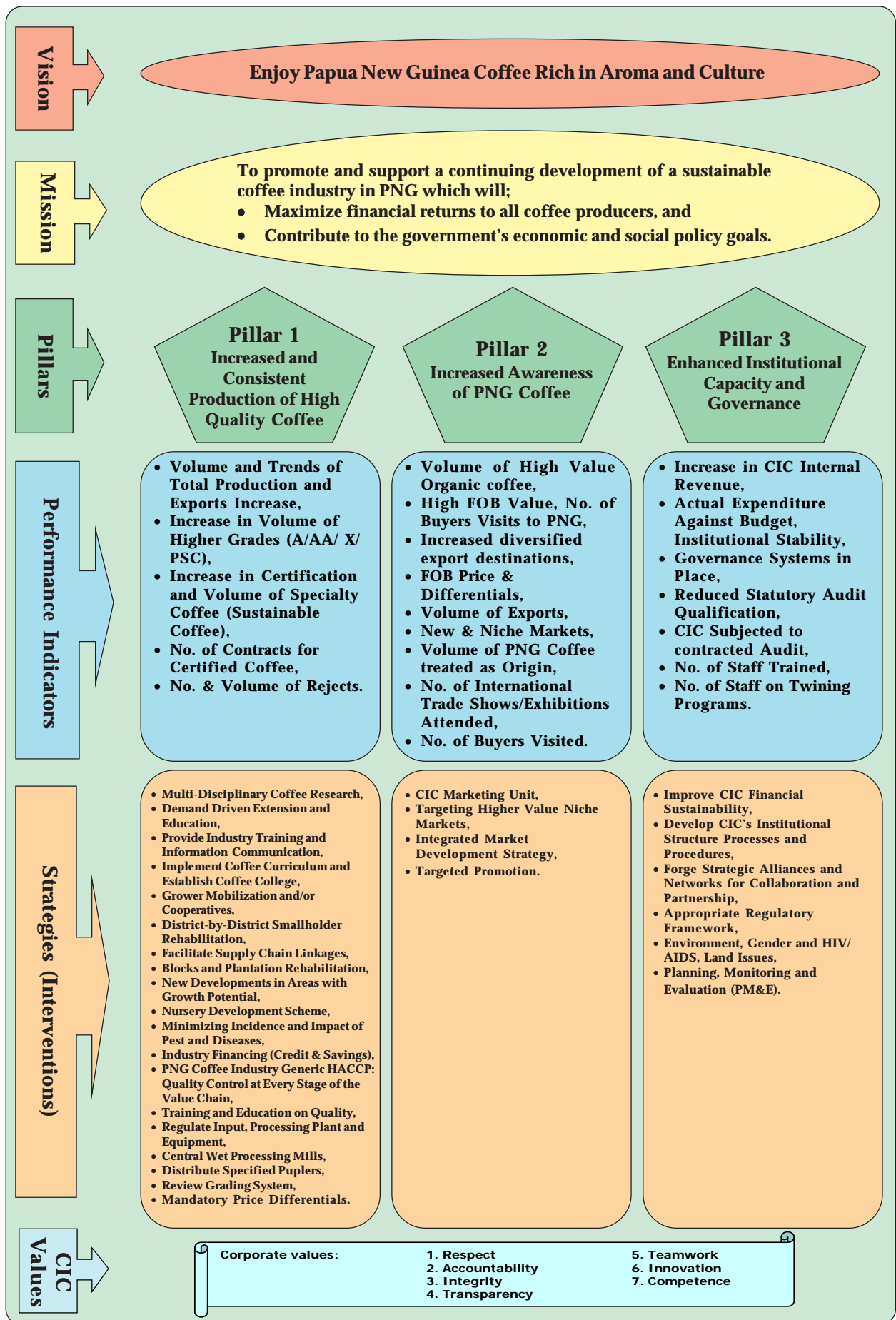
However, since 2003, positive growth have been achieved and future targets are optimistic at 5% per annum.

The GoPNG Medium Term Development Strategy (MTDS) is founded on the following Three Pillars:

- Improve governance;
- Export led economic growth; and
- Rural development and poverty alleviation.

The Agriculture sector is one focal area through which GoPNG intends to achieve the MTDS goals.

The CIC has conceptualized the vision, mission, the three pillars and the strategies (Figure 1) that will propel the industry into the next decade and beyond, consistent with government policies and stakeholders' needs and aspirations.



**Figure 1: Summary of the vision, mission, interventions and values of the PNG Coffee Industry Strategic Plan.**

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# 1. THE STRATEGY: AN OVERVIEW

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## 1.1 PURPOSE

To present the vision and mission and to outline the objectives, guiding principles, the focal areas of interventions and the role of CIC in supporting the local coffee industry. Through the Strategic Plan, CIC provides leadership and support services to the PNG coffee industry.

## 1.2 OBJECTIVE

To support the development of a sustainable and competitive coffee industry in PNG which will maximize financial returns to coffee producers and contribute to government's economic and social policy goals.

## 1.3 DEVELOPMENT CONTEXT

### Overall Economic Performance

- PNG population is currently more than five million. With a population growth rate of 2.5%, it is estimated that in 2010 PNG population will be around 10 million.
- PNG is very rich in natural resources and biodiversity.
- The social indicators have not been so good. It is much worse in rural areas of PNG.
- Rural infrastructure is fast deteriorating, hampering greatly the progress in rural areas. Service delivery systems are confused and dysfunctional.
- Although PNG's economic performance during the past 20 years was dismal, positive growth rate in real gross domestic product (GDP) has been achieved since 2003. Positive growth rates of 2.2%, 2.7%, 3.4%, 2.6% for years 2003, 2004, 2005 and 2006 respectively. This has been attributed to government's policy reforms, improved commodity prices, increased production in mineral and petroleum sector and to an extent agriculture sector. It is envisaged that growth rate will further improve to more than 5% per annum in 2010.
- Unfortunately the rural areas are yet to feel the impact of the economic growth achieved in the recent past.

### Medium Term Development Strategy

- The principle objectives and pillars of the government in the medium term are:
  - good governance;
  - export-driven economic growth; and
  - rural development and poverty alleviation.
- The MTDS recognizes the importance of the agriculture sector. The sector has the potential to absorb the highest number of workers than any other sector in the economy.

- The MTDS also states that the development goals of export-led growth, rural development and poverty reduction, “are best achieved by empowering Papua New Guineans to mobilize their own resources – their land, labour and skills – for improved living standards.”

### **National Agriculture Development Strategy: Horizon 2000-2012**

The National Agriculture Development Strategy (NADS) advocates:

- Greater recognition and promotion of the private sector to facilitate and attract private sector investment in agriculture sector;
- Organizational reforms of the national Department of Agriculture & Livestock (NDAL) to redefine its functions as the lead agency with legal powers and status;
- Reforms to the national agriculture extension system, with contracting of extension services to private service providers as an alternate model for extension delivery; and
- Mobilization of farmers into cooperatives to ensure effective and meaningful involvement in the marketing of agricultural produce by farmers.

### **National Agriculture Development Plan**

- Agriculture has always been the mainstay of PNG economy and would continue to play a significant role in providing broad-based income and employment opportunities to the bulk of PNG’s population in the rural areas.
- The National Agriculture Development Plan (NADP) is a national agriculture blueprint (roadmap) for the development of agriculture to:
  - Build and consolidate on past efforts but in a more concerted and focused manner to realize sustainable growth in the agriculture sector;
  - Identify and implement development activities at district levels and therefore calls for strengthening of linkages, support services and increased capacity in the districts;
  - Build objectives, targets and measurable indicators to report on milestones achieved which will also enable monitoring to check if necessary inputs were provided and if desired outputs were achieved.
- The Government needs to empower the rural population through the development of economically sustainable programs in agriculture and livestock, fisheries and forestry and other initiatives such as forming of agriculture based cooperatives, provision of improved access to credits, improved rural infrastructure and commercial entrepreneurship, but also outlines such programs for each of the different agriculture sector industries (including coffee), functional institutions and others in terms of their objectives, strategies and activities, expected outputs and budget requirements.
- The GoPNG through the NADP has committed substantial funding per year to support the interventions within the coffee industry.





## **Importance of Coffee Industry in PNG Economy**

- Major source of income for more than 50% of the PNG total population, 397,772 household, or more than 2.5 million growers,
- Coffee is grown in 15 of the 20 provinces of PNG,
- Coffee industry earns more than K350 million per annum of which 60-70% goes to coffee households.

## **1.4 GUIDING PRINCIPLES**

The Strategy is guided and informed by the following principles, policies, approaches and aspirations.

### **Responsiveness to Market Trends and Developments**

- Appropriate response to prevailing market trends and developments – the opportunities and threats,
- The segmentation of the coffee market and product differentiation. PNG has to increase its share of the high value market segments.

### **Stakeholder Involvement**

- Encourage and facilitate collaboration and constructive competition among and between all stakeholders of the industry,
- Encourage and facilitate public-private partnership and networking.

### **Alignment with Government (and Development Partners) Policies**

- Recognizing the critical role of the GoPNG and other development partners in providing enabling environment,
- Alignment with GoPNG's MTDS and NADP,
- Importance of coffee industry to the development of not only the national economy but most importantly the rural communities, and
- Global drive towards poverty reduction and alleviation.

### **Stewardship to the Coffee Industry**

The CIC's effectiveness and efficiency in providing leadership and support services:

- Policy and regulation to ensure level playing field; and
- Ensure market efficiency.

## 1.5 CIC's VISION, MISSION AND VALUES

### Vision

The CIC envisions the world to:

**“Enjoy Papua New Guinea Coffee Rich in Aroma and Culture.”**

### Mission

The Mission of CIC is:

**To Promote and Support the Continuing Development of a Sustainable Coffee Industry in PNG which will:**

- i. Maximize Financial Returns to all Coffee Producers, and**
- ii. Contribute to the Government's Economic and Social Policy Goals.**

### Mandate

By virtue of Coffee Industry Corporation Act (1991), the CIC Ltd is mandated to:

- Conduct scientific research into production, processing and waste management, and communicate coffee information through training and extension services to coffee farmers;
- Conduct industry regulation, licensing, inspections, export control, quality control, marketing and promotion, international relations, economics, finance and administration.





## Corporate Values

The following core values underpin the culture in CIC and key principles which guide the Board, management and staff of the Corporation:

### 1. **Respect**

Recognizing and promoting diversity and different roles played by individuals and stakeholders in developing this truly national commodity.

### 2. **Accountability**

We take full responsibility for our actions and results and through this we will improve public confidence in the Corporation.

### 3. **Integrity**

We protect and enhance the Corporation's reputation by demonstrating respect for others, fairness, honesty and moral values and upholding good governance.

### 4. **Transparency**

We will make decision based on sound policies and processes that are clearly communicated and understood by our stakeholders.

### 5. **Teamwork**

We share our knowledge and skills and respect each other's contribution in achieving the common goals of the Corporation. We put the interest of the team above the interest of the individual.

### 6. **Innovation**

We are a new organization pioneering into new areas of knowledge and research and the Corporation which has the best local knowledge about all aspects of coffee in PNG.

### 7. **Competence**

We are committed to being highly skilled and knowledgeable, aiming to always apply industry best practices.

To assist the CIC and the stakeholders understand and adhere to the corporate values a mnemonic aid is developed and this is:

### **RAIT TIC**

'RAIT' captures the Attitude values of the CIC while 'TIC' captures the Intellectual underpinning values of the CIC. These values will provide the impetus that will drive the Strategy.

## 1.6 STRATEGIC FRAMEWORK

The Strategy aims to respond not only to the opportunities and challenges posed by major global as well as domestic market trends and developments, but also to the development realities of PNG as a nation and her government's development priorities.

Increased income, improved living standards and poverty reduction among the rural coffee growing population are increasingly becoming the main priorities globally not only for governments, including GoPNG, but also coffee consumers.<sup>1</sup>

The three pillars expounded below encapsulate the industry's direct response to market opportunities and GoPNG's development priorities. These pillars as outlined in Figure 1 are as follow:

- Increased and consistent production of high quality coffee;
- Increased awareness of PNG coffee;
- Enhanced CIC institutional capacity and governance.

### 1.6.1 INCREASED AND CONSISTENT PRODUCTION OF HIGH QUALITY COFFEE

Increased production and productivity on the one hand and improved quality of coffee on the other, lie at the heart of maximizing returns for coffee producers of PNG. PNG has the potential to increase coffee production to well over 1.5 million bags (77,000 tonnes), provided the conditions are favorable.

Despite this great potential, over the past 10 years, PNG coffee production performance levels have been dismal compared to our Asian neighbors<sup>2</sup>. This declining trend in production is attributed to low prices, law and order problems, decline of plantation sector, abnormal weather patterns, and low yields due to ageing tree stock, inappropriate research and extension delivery mechanisms, deteriorating road infrastructure resulting in more than 40% of coffee produced not reaching market.

PNG coffee industry productivity can be improved through appropriate production and quality improvement interventions. Areas of interventions include:

#### Multi-Disciplinary Coffee Research

The researchable needs and issues are identified together with extension officers during the participatory rural appraisals and planning. Multi-disciplinary teams are then put together to address the issues and knowledge gaps. Coffee research encompasses all aspects including scientific and socio-economic studies.

<sup>1</sup> Coffee consumers (markets) are demanding to know whether the farmers growing these coffees are receiving a fair deal.

<sup>2</sup> Institute of National Affairs Agriculture Review.





### **Demand Driven Extension and Education**

Extension will be Demand Driven whereby only the training and extension services that are needed and/or demanded by farmers are provided. Some of these services are outsourced to service providers with requisite expertise but are monitored by CIC's Provincial Farmer Training and Extension Coordinators or Mobile Extension Officers. Because farmers demand the training, they have to show commitment by meeting the cost. This approach will make provision of extension services targeted, effective and efficient. Training on all aspects of coffee agronomy, pests and diseases, quality improvement, rehabilitation, expansion and infilling, new developments, marketing and financial management and bookkeeping will be provided to induce increase in production and improvement in quality. Preceding all these efforts will be the conduct of Personal Viability Trainings to facilitate for positive living.

### **Provide Industry Training and Communicate Information**

The CIC will continue to conduct training and awareness; communicate information and materials through various means like print and radios programs.

### **Develop Coffee Curriculum and Establish Coffee College**

The CIC will work in collaboration with the Department of Education and relevant institutions providing education and training to implement the establishment of coffee college.

CIC will develop, pilot and expand the Coffee Curriculum in schools as an integral part of the PNG school curriculum and to implement a Coffee College through on-campus and off-campus programs.

### **Grower Mobilization: Collaborative Groups or Cooperatives**

The initiative is aimed at grouping the scattered smallholder growers into more organized groupings amenable for extension service delivery and bulk marketing. Awareness, training and communication of technologies and materials will effectively be done through groups rather than individual farmer. The marketing will also be done as a group to ensure consistency of supply and quality.

### **Facilitate Supply Chain Linkages**

Growers are linked with exporters and processors to encourage increased participation and partnership.

The linkage will facilitate effective channel of innovations produced by CIC as incentive to motivate production and quality improvement. The exporters or processors should take ownership of coffee quality and production issues. Growers will be encouraged to adopt new business culture in the process which will be a positive trend for coffee industry.

## District-by-District Smallholder Rehabilitation

According to CIC, rehabilitating the current tree stock will increase production by more than 30%<sup>3</sup>. A massive national rehabilitation program is being designed to target the smallholder growers who now account for 85% of the total production. Smallholder gardens are currently producing on average between 0.6–0.8 tonnes GB per ha. However, under PNG conditions smallholders have the potential to produce between 1.0–1.2 tonnes GB per ha. These lower than expected yield levels are due to smallholder gardens not managed well<sup>4</sup>. Rehabilitating them will drastically increase production after a year lag.

The CIC with funding support from NADP will undertake the District-by-District smallholder coffee rehabilitation program commencing 2008. The program will initially focus on the four major coffee growing provinces; WHP, Simbu, EHP and Morobe. Work in the other provinces will follow suit thereafter.

## Blocks and Plantations Rehabilitation

Production from the blocks and plantation sector has declined to less than 20% of total production. This is due to several factors, most of which are beyond CIC's control. Generally, the managed sector has declined due to a combination of constraints including: absence of law and good order, stealing of cherry, land tenure and ownership disputes, government failing to enforce state ownership of alienated land on which most large plantations stand, worsening transport infrastructure, high level of debts and lack of credit, high costs of inputs, low coffee prices, and lack of management skills (both physical and financial).

The PNG managed sector has put PNG coffee on the world market and is recognized globally as the producer of sufficient volumes of the top-of-the-top quality coffee with assured consistency in supply and quality. However during the past decade, production has declined dramatically, as shown in Figure 9 (p 36).

The CIC intends to facilitate a massive rehabilitation program to bring back the run down plantations to their full production potential. Successful initiatives led by provincial governments and private sector will be supported. The NADP funding support will be channeled through the National Development Bank (NDB). Support to individual plantations will be disbursed after rigorous due diligence checks consistent with normal commercial operations. The CIC believes that rehabilitating plantations will not only increase production but also lift the profile of PNG as a producer of excellent quality coffee globally.

The CIC through the Ministry and NDAL will seek audience with the Ministry and Department of Lands and all relevant stakeholders to find solutions to address the ownership issue of land belonging to the State. Most of the coffee estates are on crown land. The government needs to exert ownership on her lands to facilitate revival of coffee plantations.

<sup>3</sup> Because of the coffee leaf rust threat in 1986, a major rehabilitation exercise was undertaken that resulted in increase of production from 800,000 bags to 1,147,000 bags.

<sup>4</sup> Harding's (PNG Coffee Report Vol. 7 (1) 1988) study showed that rehabilitation of smallholder gardens resulted in a considerable drop in yield during the following coffee season. This is the major reason why smallholders do not like to rehabilitate their gardens. They do not want to sacrifice today's income for tomorrow's increase.





## New Developments in Areas with Growth Potential

The CIC has also identified areas with potential for new developments. More attention is focused on these growth areas such as East New Britain, New Ireland, Oro, Central, Milne Bay, Southern Highlands and Enga with potential for new developments to increase production. Attention will also be given to remote areas of the traditional coffee growing provinces since they have potential for new development provided transportation considerations allow.

## Nursery Development Scheme

There is a need for the replenishment of the country's tree stock. Seedlings are usually obtained from undergrowths from existing trees. For those who need to replant their plots or expand the area, availability of better planting material is essential. The CIC will propagate and disseminate both traditional and improved planting materials to farmers for replanting and new development purposes. Partnership and networking will be encouraged with other government agencies, NGOs, and the private sector to implement this strategy.

## Minimizing Incidence and Impact of Pest and Diseases

Coffee pests and diseases pose threats which can dramatically affect production and quality. The following are major coffee pests and diseases currently present in PNG are; green scale (*Coccus celatus* and *C. viridis*), ring borer (*Moroleptus cinctor*), sooty mould, brown eyespot (*Cercospora coffeicola*) and pink disease (*Corticium salmonicolor*) coffee leaf rust (*Hemileia vastatrix*). The coffee berry borer (*Hypothenemus hampei*) currently present in Irian Jaya Province of Indonesia is potentially the biggest threat. Studies have shown that a pest like CBB can cause crop loss and overall value of coffee by up to 80%. Hence CIC sees it imperative to minimize the incidence and impact of pests and diseases on coffee. The CIC has in place the Emergency Response Plan (ERP) for CBB that has GoPNG blessing and support. The ERP is currently in the implementation phase.

In addition to research, CIC also aims to prevent and curtail entry of pests and diseases by undertaking intensive monitoring and surveillance exercises in collaboration with other agricultural research and quarantine agencies both within PNG and Indonesia. Particular emphasis is on the PNG-Indonesia border to keep out the deadly CBB that is currently present in Indonesia. The negative economic impact of the pest on coffee is extremely high should it strike the PNG coffee industry.

## Industry Financing

CIC in collaboration with the NDB and other Micro Finance Institutions to ensure credit is available to coffee industry stakeholders. The CIC will collaborate with NDB to determine lending policy for coffee.

PNG coffee growers receive around 60-70% of the FOB price. On average annual export revenue of K350 million, growers end up with K210-K300 million per year. This money needs to be mobilized through an appropriate mechanism to be owned and controlled entirely by the growers, and invested for their benefit.

## **PNG Coffee Industry Generic Hazard Analysis Critical Control Point: Quality Control at Every Stage of the Value Chain**

The CIC intends to develop a Generic Hazard Analysis Critical Control Point (HACCP) for the PNG coffee industry for mandatory quality control at every stage throughout the coffee value chain. This will involve the identification of critical control points and extending regular quality inspections at factories to all processing facilities including those on plantations and those processing bought in cherry coffee through to parchment. This will inevitably mean deploying more Inspectors and further upgrading quality standards at the point of export. Specific HACCPs will be developed for those supplying specialty coffee to niche markets.

### **Certification**

Establish framework and policies for certification with reputable international certifying agencies and seek to establish an independent body locally to carry out all certifications to the requirement of overseas markets.

CIC has in place a standard for green coffee which was approved by the National Institute of Standards and Industrial Technology in 2002. The standard prescribes specifications and definitions for PNG green coffee. It contains standard parameters and criteria for sampling, analysis and determination of grades and specifications for marking and packaging. The standard draws upon provisions of the CIC Act 1991. This should be the basis to progress towards developing a certifying body in PNG.

### **Training and Education on Quality**

CIC intends to continue the policy of quality improvement, through more focused, demand led extension and research, but at the same time ensuring that growers are aware of what the market wants by rewarding them for producing better quality coffee. Extension, training and educational interventions on quality will be carried out.

### **Regulate Input, Processing Plant and Equipment**

The CIC through licensing process aims to provide standard and discipline into the conduct of industry players. Minimum acceptable standard of farms inputs, factory equipment, mills and processing plants is maintained.

### **Central Wet Processing Mills**

Encourage construction of central wet processing mills possibly owned by the cooperatives. These will minimize the use of inappropriate and not uniform processing techniques by smallholders. Furthermore, cherries harvested are pulped within the required time and quality is controlled from cherry all the way down the process.





## Distribute Specified Pulpers

Notwithstanding the strategy above, most of our farmers are smallholders scattered all over, who may not easily access a central wet processing mill. Appropriate pulper will be specified and distributed to smallholder farmers to enhance standardization of pulping machinery. These will further reduce the use of inappropriate ways of processing such as standing on the cherry, smashing cherries with rocks and other means which degrades the quality.

## Review Grading System

The CIC will review the PNG Coffee Grading System to eliminate the lower grade coffee from the system by banning the trade in the lowest qualities of cherry and parchment. It seeks to define liquor quality profiles and incorporate into the current PNG coffee grading descriptions.

## Mandatory Price Differentials

PNG has greater natural (climate and soils) advantages to produce top-of-the-top quality coffee which can drastically increase the overall value of PNG coffee exports. Such excellent quality- Specialty Coffee like those produced by Colombia, Jamaica, Kenya fetch premiums in excess of 50 cents per pound<sup>5</sup>. The famous PNG brands – Sigri Coffee and Kongo Elimbari as well as other plantation grades, attest to this fact that PNG can produce top-of-the-top quality coffee. Generally, PNG coffees of such quality, sold into these niche markets fetch prices three times higher than the prevailing market prices<sup>6</sup>. Unfortunately, PNG’s participation in the Specialty market is very low and limited at present. On average PNG exports only 3500 GB bags, mainly organic coffee every year. The other most unfortunate thing is that smallholder coffee “Y 1 Grade” which constitutes bulk of PNG’s coffee exports suffers a discount of about 15 cent per pound. This is due to perceived low and inconsistent quality.

Quality can only be improved and maintained by reinforcing the policy of mandatory price differentials for the different classes of parchment and by making it mandatory for factories, roadside buyers and other coffee dealers to prominently display the different prices they pay for different classes of parchment (and if necessary cherry) at the factory door, on their vehicles or at the buying depots.

### 1.6.1 INCREASED AWARENESS OF PNG COFFEE

The global coffee market has become very competitive. It has therefore become imperative that the PNG coffee industry promotes its coffee more aggressively, both to maintain its place in the market as well as to break into new markets.

## CIC Marketing Support Unit

The establishment of a marketing and promotion unit within CIC will be tasked specifically to increase marketing intelligence, facilitate certification of PNG coffee for niche markets, facilitate promotion targeting high value niche markets and provide training to the industry.

<sup>5</sup> ICO Reports and Giovanich *et al.* (2003) *The State of Sustainable Coffee*; a study of twelve major markets, ICO, London; International Institute of Sustainable Development, Winnipeg, UNCTAD, Geneva

<sup>6</sup> CIC Coffee Report provides details on Differentials by grade by exporter. For instance Sigri Coffee earns between 7-20% higher prices for its top grades and Kongo Elimbari X and PSC grades fetch 15 and 31% respectively in year 2002/03.

## Targeting Higher Value Niche Markets

There is no such thing as a general market for coffee; as the whole coffee market can easily be subdivided into several sub-markets or niches, each of which has significant unique characteristics that separate it from other market segments. All sales of coffee should be considered as going into a particular niche, be it boutique roaster or a major multinational. However, niche markets have come to mean very small pockets for demand for a particular well defined type or grade of coffee. For instance, organic coffee is seen as being a specialized niche market as only coffee which is certified by a third party as being produced according to the certifying agency rules for organic produce can be labeled and sold as such” (Wheeler *et al.* 2002)<sup>7</sup>. What is important for PNG is to identify or discover the high value niche markets and target them. This involves developing and restructuring the quality profile of the crop so that a larger proportion of PNG exports are targeted towards the higher value end of the market, that is, specialty or gourmet sector.

In the long run, PNG needs to set itself apart from other origins. PNG needs to build up its reputation as a quality producer, as an origin, which produce some of the world’s best coffee, coffees that have a unique and highly valued flavor, but above all an origin that can do so consistently. Thus CIC aims to re-orient the PNG coffee industry so that it is more forward looking or customer focused, than at present, focusing on supplying the market with the types and qualities of coffee for which there is growing demand (Wheeler 2002)<sup>8</sup>. The integrated marketing approach includes production and quality improvement initiative highlighted earlier.

## Targeted Coffee Promotion

Apart from generic promotion of PNG and PNG coffee, CIC and all stakeholders need to engage in more targeted promotional work especially in the European Union (EU), the USA, Japan, China and other Asian countries. Australia should also be the focus given its historical connections with PNG and the proximity. Promotional work has to be undertaken, given its potential to bring benefits to all coffee producers in PNG through diversified markets and better prices.

These can be achieved through collaboration with Investment Promotion Authority (IPA), Japan Export & Trade Organization (JETRO), Specialty Coffee Association of America (SCAA), Ministry of Foreign Affairs, Tourism Promotion Authority (TPA), and target markets in Japan, USA, Europe, and Scandinavia. Facilitate participation of industry stakeholders in international coffee shows and exhibition, Continuous study of markets, use of Internet and international involvement.

PNG has been a member of the International Coffee Organisation (ICO) since 1964. Up to the present, PNG has been an active participant at all major international coffee conferences organized by the ICO and others. The consistency in membership of the ICO, and the level of positive contributions PNG has been able to take on issues affecting the industry, has led to PNG being highly regarded in the eyes of the international coffee community.

<sup>7</sup> Niche Marketing can be defined more by the way the exporter or seller approaches a particular segment or the market than by the particular characteristics of that market segment” (CIC Coffee Discussion Paper # 29).

<sup>8</sup> PNG Coffee: An Integrated Market Development Strategy, CIC Occasional Paper.





### **1.6.3 ENHANCED CIC INSTITUTIONAL CAPACITY AND GOVERNANCE**

#### **Improve CIC Financial Sustainability**

The CIC intends to improve its financial sustainability through the following ways: increase levy, commercialize CIC plantations, properties and other services, privatize some CIC functions, increase external financing, reduce unnecessary expenditures, explore and exploit investment opportunities.

#### **Develop CIC's Institutional Structure, Processes and Procedures**

Capacity development and strengthening is imperative for CIC in order to deliver the outputs and outcomes required by its mandate. Building the capacity of CIC is essential for good governance. Improving strategic planning and budgeting, management, financial accounting, auditing and internal control, due diligence, procurement, technical review, human resource, monitoring and evaluation systems, is necessary for effectiveness.

#### **Forge Strategic Alliances and Networks for Collaboration and Partnership**

The CIC acknowledges and values the wide range of partners who contribute significantly to the development of PNG coffee industry. Effectiveness will be enhanced through identifying the strengths of specialized institutions, forging strategic alliances and positively influencing these relationships to enhance the ability of CIC to deliver its mandate.

The CIC will continue to be proactive in its efforts to collaborate and partner with industry stakeholders, GoPNG instrumentalities, international bilateral and multilateral partners, banks and financial institutions, research agencies, universities, NGOs, churches, community based organizations, private sector and informal sector, to share cost, information and improve efficiency in service delivery. The CIC will seek to increase outsourcing, cost and information sharing with strategic partners. Coordination and harmonization of interventions from all these partners will be a high priority of CIC.

#### **Appropriate Legislative Framework**

The legislation governing CIC needs to be modernized to give CIC the appropriate leverage to execute its regulatory mandate. The CIC will then ensure the following areas are addressed appropriately; CIC's regulations and policies governing the industry, conduct regular inspection and monitoring, create competitive environment for coffee business, standardization of farm inputs, processing machineries, regulate chemicals entering domestic market, enforce existing government regulations and policies and regulate cherry trading.

#### **Cross Cutting Issues (Gender, HIV/AIDS, Environment and Land Tenure Issues)**

CIC is an organization that is fully supportive of gender equity, reduction of HIV/AIDS and other health issues. It is also conscious of environmental and land issues.

These cross-cutting issues will continue to be at the conscious level of CIC during the implementation of the Strategic Plan.

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## 2. IMPLEMENTATION

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### 2.1 Stakeholders Along the Coffee Market Chain

There are many links in the coffee marketing or value chain i.e. banks, insurance, transport and others. All play very important roles in the flow of coffee and money.

#### Growers

At the grower level, there are three sorts of producers:

- (i) smallholders representing 85% of production;
- (ii) “20 ha block” (5%); and
- (iii) Plantations (10%).

#### ➤ Smallholders

There are approximately 2.5 million smallholders though this number cannot be totally precise as many more family members could in some way be involved in the production, processing or marketing of coffee. A typical smallholder garden will produce around 700-1000 kg of coffee (GBE) from garden of around a hectare. Most will produce cherry to parchment using simple hand pulpers and sun drying. The parchment is then sold to roadside buyers or directly to the factory.

#### ➤ Blockholders

The “20 ha block” scheme was started in the late 1970’s using finance from the World Bank and largely administered by the then Agriculture Bank. There are around 250 blocks and they account for around 5% of production.

#### ➤ Plantations

There are around 15,000 ha of plantation coffee with the typical size of each plantation is 50 ha. Most companies are formed around several plantations; the average size of plantation group is around 300 ha. Most plantations have an established stock of trees over the past 20 years that have been recycled. Most plantations have wet and dry processing facilities and sell directly to the exporter and thus obtain the delivered-in-store (DIS) price. One third of the plantation sector is integrated through to the export stage.

#### Coffee Buyers

Most of the factories are located close to the highways, away from the villages where coffee is grown. This creates the need for buyers to go to the villages to buy parchment from the growers. The buyers provide a vital link between growers and the processors and the exporters. Buyers take a lot of risks in carrying cash into villages to buy coffee, given the law and order problems and bad road conditions.





## Processors

There are around 58 registered processing factories and around 26 unregistered factories. All factories that buy in cherry or parchment from growers need to be registered; thus unregistered factories are plantation based facilities processing their own coffee. A typical processing factory has a throughput of around 25,000 bags though there are some producing up to 100,000 bags. Many processing plants are operating at less than full capacity. Therefore if PNG coffee production were to grow there would initially be no constraints at this stage.

## Exporters

There are currently 15 registered GB exporters (of which 12 are currently active) and five roast exporters. Of the 15, there are essentially four different types of exporting companies:

### ➤ **Specialist Exporters**

These companies are middlemen in the true sense as they buy in GB from processors and sell to roasters overseas. Although their task is essentially to find a buyer and a seller most exporters are also involved in some regrading and therefore adding value. These companies represent around 36% of exports.

### ➤ **Partly Integrated Exporters**

These are largest of these companies, such as Sigri and Highlands Arabicas are primarily involved in the export stage but have some processing facilities and also own or have a share in some plantations. The other companies are to a varying degree involved in processing and plantations. These companies account for 57% of exports in 1989/90.

### ➤ **Plantation-Based Exporters**

These companies are plantation based operations that are integrated right through to the point of exports. While they are small in terms of the total volume of coffee exported (7% of total export) but they export about one third of the plantation crop.

### ➤ **Roast and Ground Exporters**

Roast exports are still a very small part of the total PNG coffee trade representing around 10 tonnes out of total exports of around 67,000 tonnes. There are currently five specialists roast exporters.

## Importers/Traders

Importers and/or traders play a vital role in getting coffee from producing countries to consuming countries. They perform the following roles:

- Purchase and store coffee from many different origins in bonded warehouses;
- Provide marketing information to roasters (developments in producing countries) and producers (developments in consuming countries and the markets);
- Provide financing to both producers and roasters;
- Take on most of the price risks involved in the coffee trade;
- Traders contribute to market liquidity by purchasing coffee when roasters are not buying and selling coffee when exporters are not shipping.

## Roasters

These are companies that transform GB into roast, ground and instant or soluble. They provide the consumer an attractive product which always maintains exactly the same standards of quality. They also carry out aggressive marketing and promotion.

## Retailers

These are supermarkets, coffee shops, fast food outlets, restaurants and others that sell coffee to the final consumer. They secure manufactured coffee, both roast and ground and instant, as well as in prepared drinks, sweets, and others and sell to consumers.

## Consumers

Coffee is a food which people consume. It is taken mainly as a drink. Consumers therefore are the most important people along the marketing chain. They are the ones who decide how much coffee they will buy, at what price and what type or quality. All effort put into coffee production, transportation, financing and insurance is aimed at satisfying the consumer.

### 2.2 Collaboration and Constructive Competition

The PNG coffee industry comprises 397,772<sup>9</sup> coffee growing households (2.5 million people), around 60 plantations, over 250 blocks, 47 wet factories, 57 dry factories, 15 exporters and five roasters.

All these stakeholders play critical roles, consistent with private sector principles, in driving the industry forward. Appropriate collaboration initiatives among growers, particularly smallholders and between growers, processors and exporters will be encouraged. Conversely, constructive competition is encouraged to enhance the efficiency of the industry. The PNG coffee industry is deemed to be competitive with a marketing system quite efficient resulting in 60-70% of FOB price is received by the growers.

### 2.3 Public – Private Partnership

Partnership with development partners is essential for growth and development of the industry. The industry requires partnerships with governments and public Instrumentalities, development partners both bilateral and multilateral, the private sector and civil society organisations who provide enabling environment and specialized functions to develop the industry.

### 2.4 Coffee Industry Corporation: Facilitative and Lead Role

#### The Coffee Industry Corporation Ltd

Since the formation of the Coffee Marketing Board in 1964, a number of institutions were established with the aim of providing services to the industry. The Coffee Marketing Board was replaced by the Coffee Industry Board (CIB) in 1976. In 1986, the Coffee Research Institute (CRI) was formed to carry out scientific research into all aspects of coffee husbandry and processing. The Coffee Development Agency (CDA) was established in 1987 as a private company following the outbreak of coffee leaf rust in 1986. In 1991, the CIB, CRI and CDA were amalgamated into a single entity called CIC by virtue of the CIC Act.

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<sup>9</sup> National Census 2000

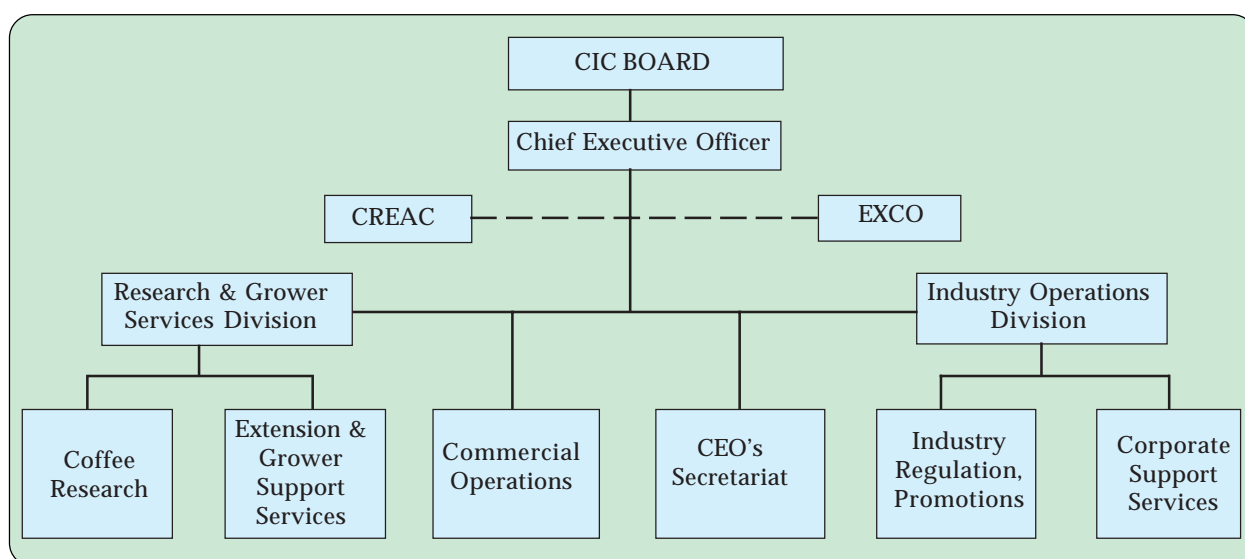


## CIC Functional Structure

The CIC Ltd was incorporated under the Companies Act and conferred with powers to be responsible for industry regulation, research and extension as set out in its Constitution. Regulatory powers and functions were conferred upon it by Parliament under the CIC (*Statutory Functions & Powers*) Act 1991.

The CIC exists to provide leadership, facilitative and support services to the Industry. The functions of the CIC include:

- Coffee research, extension and growers support services;
- Regulation and policy that will support promotion and market intelligence;
- Corporate support services.



**Figure 2: The functional structure of the Corporation.**

## 2.5 Drivers for Implementation

### The CIC Board

#### ➤ Composition of the Board

All the stakeholders mentioned earlier and the government is part owners of the CIC Ltd. They are represented on the Board. Hence the 12 member Board comprises:

- six (6) smallholders association representatives (WHP, Simbu, EHP, Momase, New Guinea Islands, Southern Region);
- three (3) government representatives (Treasury, Commerce and Industry, NDAL);
- one (1) exporter council representative;
- one (1) plantations and processors representative;
- one (1) blockholders association representative.

➤ **Role of the Board**

The Board plays the important lead role in the design and implementation of the Strategic Plan. The Board will continue to provide:

- Policy direction;
- Governance;
- Legislation;
- Political lobbying;
- Protecting the industry.

**Executive Management Committee**

➤ **Roles and Functions of Executive Committee**

The purpose of the Executive Committee (EXCO) is to facilitate the process of resource allocation and prioritization and to make appropriate recommendations to the Chief Executive Officer (CEO) and the Board for approvals consistent with the objectives of the Strategic Plan of the CIC. The EXCO is a committee of the CEO and the Board as a think-tank and driver of high impact activities carried out by CIC to ensure efficiency, accountability and to achieve desired returns on the investments.

The establishment of an EXCO, to be chaired by the CEO and comprising membership of General Managers along with a small number of selected senior managers. The committee is to operate under an express charter and with specific delegations of power.

The functions of the committee are to:

- Develop and commence implementation of the plan;
- Provide authority and allocate resources to undertake strategic, operational or human resource initiatives;
- Facilitate an ongoing process of planning;
- Allocate resources to sections or business units to undertake projects in response to requests that come before it in terms of set out procedures;
- Prioritize, monitor and control all major projects within CIC and to improve accountability for their timely and cost-effective delivery;
- Oversee the budgeting and performance management systems.

**Coffee Research and Extension Advisory Committee**

➤ **Roles and Functions of the Coffee Research and Extension Advisory Committee (CREAC)**

- A technical forum for external review of CIC programs and projects;
- Acts as a forum for stakeholders and industry to share ideas;
- A forum for stakeholders to pass on their concerns on recommendations to CIC;
- A forum for stakeholders to deliver new ideas for CIC to consider in their future projects;
- A forum for CIC to present their ideas and projects to the stakeholders;
- A forum for the CIC and stakeholders to review on-going projects and new proposed projects and determine their future directions;
- A forum for scientists in other institutions to referee the scientific soundness of each research program or project;



- A forum for government and donors to monitor and evaluate physical progress of their investment in CIC;
- Report to EXCO the deliberations of the committee for further information and action;
- Evaluate and monitor the support, role and relevance of collaborating organizations to the CIC.

Within the framework, the purpose of the CREAC is to support the role of Planning, Monitoring and Evaluation office (PM&E) to provide the monitoring and evaluation of CIC operations in research, extension, coffee inspection, export control and socio-economics studies and activities.

CREAC meetings form a core function of PM&E, its meeting occurs twice in a year, first in April for a review of new proposals and programs proposed by CIC and second in October for monitoring and evaluation of on-going projects and programs which will form part of PM&E and annual report of CIC performance in the year.

The CREAC membership will have broader linkages with the coffee industry at large. This includes donor agencies, academic or research institutions abroad and within PNG as well as providers of support services to the coffee industry. Opinions that the industry stakeholders are unable to access through the CIC Board because of its limited composition are made possible via this avenue. At the same time broader composition of CREAC provides CIC with an opportunity to enhance networking as well as information sharing.

### **Research & Grower Services Division**

CIC recognizes that it has a key role to play in creating, collecting, evaluating and communicating coffee knowledge to the coffee industry.

Office of the General Manager, R&GSD supports the technical functions of CIC to ensure coffee research and grower support services are resourced effectively and efficiently.

#### **➤ Coffee Research**

Research aims to support the three strategic pillars through its multi-disciplinary programs consisting of crop production, plant protection and post harvest.

#### **➤ Extension and Grower Support Services**

The purpose of the grower services is to conduct systematic collection and transfer of coffee information and provide support services to the coffee industry.

The roles and responsibilities includes, grower support services through participatory rural appraisal planning approach, education and training, community information, smallholder, blocks and plantations rehabilitation and incentive schemes that includes coffee credit scheme, pulper distribution, nursery, freight surety and others.

### **Commercial Activities**

A commercial arm of CIC which manages 145 ha of coffee at WHSS, WHP, 100 ha at Aiyura, EHP and a number of properties that it uses to generate internal revenue.

## Industry Operations Division

CIC recognizes that it has a key role to provide industry regulation, inspection, quality control and exports, marketing and promotion. Also provide coffee statistics as well as corporate support services to the CIC that includes administration, financing, human resource management and others.

Office of the General Manager, IOD supports the regulatory, marketing, promotion, and corporate functions of the CIC.

### ➤ **Industry Regulation**

Roles and functions are to regulate the coffee industry and guide the industry to aim at maximizing exports and income. The functions include; licensing and inspection, quality and export control.

### ➤ **Economics, Promotion and Marketing**

The functions include facilitating promotion of PNG coffee both locally and internationally. Also conduct socio-economic studies, facilitate market intelligence and providing coffee statistics to industry stakeholders.

### ➤ **Corporate Support Services**

Provides support services in governance, finance, human resources, and property management. Its functions and roles are to implement; personnel and administration, and finance and accounts.

## CEO's Secretariat

The Secretariat comprises:

- Board secretariat;
- Industry support coordination;
- Public relations; and
- Planning, monitoring and evaluation.

These are offices and functions that report directly to the CEO.

### ➤ **Board Secretariat and Industry Relations**

The main functions of the secretariat include: secretarial and support duties to the Board, administer CIC policies, Act and Constitution, conduct of AGMs and Board meetings, preparation and lodgement of annual returns and reports, provide support services to the industry subsectors, management of legal matters, manage public relations activities and support to CEO's office.

### ➤ **Planning, Monitoring and Evaluation Office**

The PM&E supports the EXCO coordination and administering all programs and projects in the CIC. The PM&E provides the necessary liaison between EXCO and the CIC's project teams. The project teams may be located in PM&E or elsewhere depending on circumstances such as the size of the project team, term of the project, logistics issues and others.



A full time PM&E Manager reporting to CEO will manage the Projects office.

Functions performed by the PM&E include:

- Facilitate CIC’s planning, monitoring and evaluation process;
- Acting as a catalyst for the projects process;
- Tracking, analysing and collating project reports;
- Reporting on the progress of projects against planned milestones, and act as an *early warning* mechanism for the EXCO on project slippage;
- Undertaking a quality control function on the CIC project process, providing guidance to the project teams and input to the EXCO as necessary.

## 2.6 CIC Planning and Implementation Process

The Strategy will be supplemented with CIC’s operational plans, annual work plans and budgets.

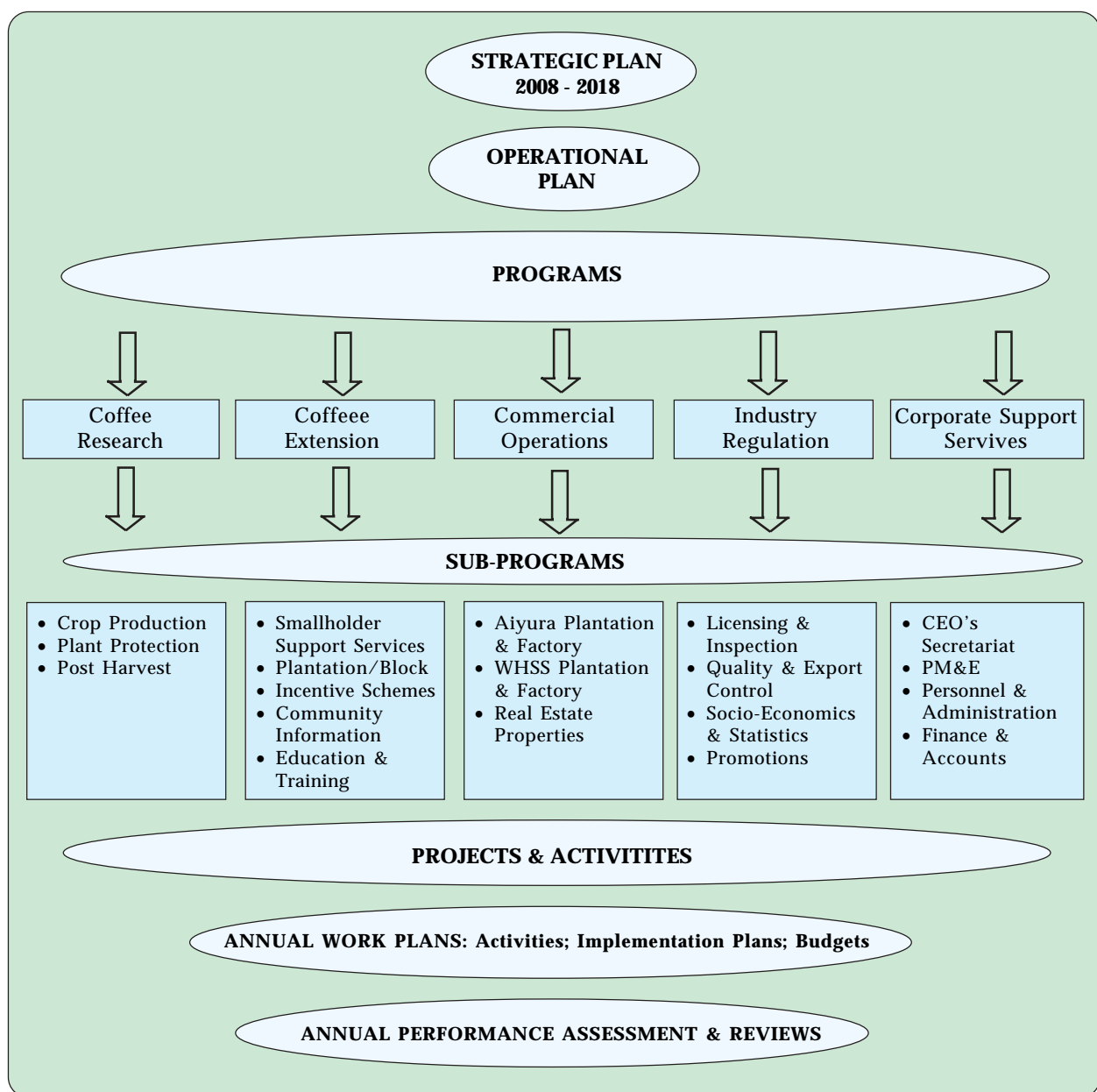


Figure 3: CIC planning and implementation process.

## 2.7 Key Issues for Effective Implementation

### A performance-based culture

CIC intends to develop a results-focused *modus operandi*, where high quality outputs and timely delivery are an integral part of daily behavior; an organization where staff at all levels take responsibility for their actions and embrace the concept of accountability.

Performance-based culture will be established in two ways:

- through personal transformation of those who work in CIC by aligning the approach to their daily work to the values of CIC; and
- through adoption of more contemporary management processes which help to shape and reinforce personal behaviors aligned to the core values.

To achieve this CIC will:

- Complete an organization-wide program to embed the shared values.
- Reconfigure decision-making processes at the top of the organization to ensure senior management accountabilities are clear.
- Improve project management and delivery skills.
- Put in place an enhanced performance management system.
- Aim to provide a more efficient and competitive remuneration system for staff. This is a huge challenge in light of current financial constraints but it is confident that this strategic planning process will bring about improvement in the financial position of CIC through an upturn in levy receipts as a result of increase volume of production of coffee over the five-year period.
- Clarifying the accountability and responsibilities of staff by reviewing current delegations of authority, and by re-defining the key performance indicators for those in senior positions. In this way, CIC continually strives for a performance based culture where managers manage, and accept responsibility for the outcomes of their sections. Managers also become responsible for the enthusiasm, motivation and development of their staff.
- The possibility that some changes in the alignment of sectional responsibilities and reallocation of functions may be required in due course. This is to ensure that CIC enjoys an organization structure that can best deliver its strategic objectives.

The CIC will establish an enhanced performance management system. This aims to:

- link performance of all staff with specific objectives that are measurable; specific, time bound and achievable;
- align behavior with the core values of CIC and assess this on a regular basis;
- re-define job descriptions, key result areas and performance indicators;
- encourage improved dialogue between supervisors and subordinates;
- simplify and improvise the appraisal cycle to six-monthly to be adhered to.





## Knowledge and Skills

Professional and knowledgeable staff is a pre-requisite for effectively developing and delivering strategic goals.

In order to systematically develop the knowledge and skills of staff, CIC aims to:

- develop a Human Resource Plan which incorporates a systematically identified information base of knowledge gaps within CIC and to then clarify how these gaps can be filled, either by training, or other forms of knowledge enhancement such as secondment to other organizations;
- identify those projects and programs within CIC where structured external technical assistance is required to upgrade the knowledge base of the staff;
- ensure CIC continues to attract and retain high quality professional staff, promote their continued development and reward their achievements through a pre-determined career path.

The identification of knowledge gaps within CIC and the complementary task of putting together a comprehensive training needs analysis with an annual training plan are important tasks that require a CIC-wide approach. They logically follow the development of this plan and the subsequent allocation of appropriate resources to undertake the actions associated with it. Organizational renewal is a key strategic outcome of effective change management.

## Internal Processes and Management of Assets

The creation of the EXCO is a mechanism for improving the quality and consistency of management decisions. It will also standardize processes and communicate outcomes throughout CIC.

CIC expects that a process of continual renewal will gradually occur, as the values of CIC become a natural part in the daily work of managers and staff. This is expected to bring about a natural shift in attitude and culture to strengthen the processes in CIC and ultimately will; strengthen internal controls, enhance productivity, allow staff to do things in a more simple way, reduce overhead, and reduce operational risk.

More specifically, CIC proposes to improve the internal processes and management of its assets by:

- improving governance and risk management processes;
- redesigning budget processes;
- implementing a communications strategy for CIC;
- reviewing the current portfolio of services provided internally, examining the cost structure of each and comparing this with the possibility of outsourcing the function,
- putting in place an information technology (IT) strategy to provide high quality and secure information systems to support CIC's work processes and objectives;
- improving the collection and storage of data across CIC.

## Integrated Strategic and Financial Planning Cycle

The EXCO will administer a coordinated program which brings together; strategic planning, budgeting and forecasting, financial reporting and performance management, and monitoring and evaluation.

- *Strategic Planning:* The EXCO will develop a planning framework, review, discuss and amend by agreement the strategic initiatives made by sections before recommendations are submitted to the CEO.
- *Budgeting and Forecasting:* The EXCO will review quarterly updates of current financial year forecasts by sectional level.
- *Financial Reporting:* The EXCO will review quarterly financial updates on sectional budgets and financial performance against budget in accord with the plan. Where necessary, the EXCO will agree on remedial action to be taken, in order to protect budget outcomes against plan. If it is thought necessary, the EXCO may request amendment of budgets to accommodate additional expenditure judged to be essential to the aims of the CIC.
- *Performance Management:* The EXCO will agree on a performance management system that will be linked to personal accountability as well as responsibility by business units or sections. It may receive regular presentations (each month or 8 weeks) from one section or business unit dealing with key issues facing that section in relation to delivery of services and objectives. The EXCO will provide the section with support, feedback and guidance.
- The EXCO will also monitor the conduct of regular appraisal of individuals to ensure that these are being carried out in accord with agreed key performance indicators at all levels.
- *Project Management:* The EXCO will endorse to CEO and Board projects, set them in order of priority and recommend resource allocation to ensure that they are managed in accordance with agreed work plan and defined milestones.
- *Monitoring and Evaluation:* The EXCO will provide oversight and supervision on all programs and projects implementation using its monitoring and evaluation system to ensure the funding injected into the projects yield the required returns.

The implementation of the Plan will require the participation of various stakeholders and appropriate levels of resources in order to achieve the desired outcomes.



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### 3. RESOURCE FRAMEWORK

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Since 1997 the Corporation has been funded wholly by the industry, while some of its projects have been funded by the EU under Stabex, ACIAR and AusAID under Agricultural Innovation Grant Facility (AIGF). The last major government financial support to the CIC was in 1996.

For the current Plan period, it is assumed that there will be substantial budgetary support from the government through the NADP allocations and recurrent budgets. The CIC's financing plan is therefore based not only on the administration levy, sales of coffee, other incomes, project support from donors but also substantial project funding from GoPNG.

#### 3.1 Administration Levy

The levy, currently set at 10 toea per kg (or K100.00 per tonne) on all coffee exports (GBE), is the main source of income. At annual average exports of 1.1 million GB bags (66,000 tonnes), income from levy is expected to be around K6.6 million per year. In the medium term, production is expected to rise by at least 100,000 GB bags in response to the CIC's incentive and impact projects, increasing total exports to 1.2 million GB bags (72,000 tonnes). This should raise levy income closer to K7.2 million. Unfortunately 1 toea out of the 10 toea per kg of the levy goes to Internal Revenue Commission as value added tax (VAT). This leaves CIC with K6.28 million.

#### 3.2 Coffee Sales

The CIC has 245 ha planted to coffee, 100 ha at Aiyura and 145 ha at the WHSS.

Income from coffee sales over the past five years has averaged K720,000. The major factors, which have influenced sales, have been volume, type of product (whether sold as cherry, parchment or GB), quality and price. Most of the production from the WHSS was sold in cherry form until 2000. After the WHSS's own wet factory was commissioned in 2001, the CIC was able to sell parchment. From 2004 onwards the CIC plans to process parchment into GB and either sell to exporters and/or export. This will add value to the coffee. The CIC has commercialized the plantations and factories beginning 2008.

It is estimated that annual output from the plantations will average 368 tonnes GB. Forecasting prices is a hazardous exercise, but for the purposes of this Plan, an average New York price of 90 cents per pound has been assumed. It has been assumed further that the average differential for plantation types coffees will be 5 cents per pound, and exchange rate will average 0.2800 over the period. Based on these assumptions, the average DIS price is estimated at K6,778 per tonne. This translates to gross income from coffee sales of K1,356,000 per year.

Apart from maximizing income from its own plantations, CIC will also endeavour to enter into joint-venture arrangements with plantation owners to rehabilitate a number of run-down plantations as pilot projects. Such arrangements will however be made only in cases where there are clear returns on investment.

### 3.3 Other Internal Incomes

The CIC collects registration fees from coffee processors, exporters and manufacturers. These fees are currently set as in Table 1.

**Table 1: Registration fees as set by the CIC.**

| License category                       | Registration fee | Application fee | Total     |
|--|------------------|-----------------|-----------|
| Permit certificate                     | Nil              | 500.00          | 500.00    |
| Wet factories                          | 500.00           | 500.00          | 1, 000.00 |
| Dry factories                          | 1,500.00         | 500.00          | 500.00    |
| Combined – wet & dry factories         | 2,000.00         | 500.00          | 2,500.00  |
| Exporter – National owned              | 5,000.00         | 500.00          | 500.00    |
| Exporter – Grower based, Foreign owned | 8,000.00         | 500.00          | 8,500.00  |
| Exporter – Joined venture              | 10,000.00        | 500.00          | 500.00    |
| Exporter – Foreign owned (existing)    | 20,000.00        | 500.00          | 20,500.00 |
| Manufacturer                           | Nil              | 500.00          | 500.00    |
| Penalty for late application           |                  | 1,000.00        | 1,000.00  |

Revenues from the fees are based on current charges. CIC collects rental income from a number of its properties. It also sells some of its publications. Income from these sources is expected to total K100,000 per year over the Plan period.

### 3.4 Government of PNG Funding

The Government has a major role to play in the funding of coffee research and extension, but as stated above, has abdicated this role to the industry since 1997. The GoPNG has recently developed and launched the NADP with which Government funding will be allocated. It is assumed in this Plan that GoPNG will provide K19 million every year for the coffee industry.

### 3.5 Development Partner Funding

As for donors, only the EU has been funding coffee projects during the past six years. The EU continues to show interest in maintaining its support to the industry through the funding of various projects. Currently the EU has approved K3.5 million worth of coffee projects managed by the CIC. A further K2.6 million is said to be available to the industry. CIC will do its utmost to access these funds for the benefit of the industry.

Recently AusAID has shown great interest in funding CIC projects under the Agricultural Research and Development Support Facility (ARDSF). Technical assistance and support for capacity building mainly for human resource development, institutional processes and systems, and governance will come from the ARDSF Component II. Funding for small projects will come from Agricultural Innovations Grant Scheme (AIGS). It is estimated that CIC will receive K1.0 million under this program for the next five years.

Furthermore, ACIAR is supporting coffee research projects in the areas of crop protection, post harvest and market chain analysis on various marketing systems. For the next three years, CIC will receive a total of K1.38 million from these projects.

The CIC has built up its capacity to develop projects and access government and donor projects funding by creating a project office since September 2003. This office will continue to play a vital role in accessing project funding, which will support the CIC implement the Plan.

### 3.6 Five-Year Financial Plan

The following five-year financial plan (Table 2) is tentative, given the uncertainties as hinted earlier. It will therefore be necessary to revise this plan regularly.

**Table 2: Tentative five-year financial plan, 2008 to 2012.**

|                                 | 2008         | 2009         | 2010         | 2011         | 2012         | 2013         | Total         |
|---------------------------------|--------------|--------------|--------------|--------------|--------------|--------------|---------------|
| <b>K "Millions"</b>             |              |              |              |              |              |              |               |
| <b>INCOME</b>                   |              |              |              |              |              |              |               |
| <b>CIC Internal</b>             |              |              |              |              |              |              |               |
| Levy Receipts                   | 6.60         | 6.60         | 6.60         | 7.70         | 7.70         | 7.70         | <b>35.20</b>  |
| Other Internal Income           |              |              |              |              |              |              |               |
| Coffee Sales                    | 1.62         | 1.62         | 1.62         | 1.62         | 1.62         | 1.62         | <b>9.70</b>   |
| Rental Income                   | 0.20         | 0.20         | 0.20         | 0.20         | 0.20         | 0.20         | <b>1.00</b>   |
| Registration Fees               | 0.10         | 0.10         | 0.10         | 0.10         | 0.10         | 0.10         | <b>0.50</b>   |
| Interest Income                 | 0.10         | 0.10         | 0.10         | 0.10         | 0.10         | 0.10         | <b>0.50</b>   |
| Others                          | 0.10         | 0.10         | 0.10         | 0.10         | 0.10         | 0.10         | <b>0.60</b>   |
| <b>Sub-total - CIC Internal</b> | <b>8.72</b>  | <b>8.72</b>  | <b>8.72</b>  | <b>9.82</b>  | <b>9.82</b>  | <b>9.82</b>  | <b>55.60</b>  |
| <b>GoPNG Funding</b>            |              |              |              |              |              |              |               |
| NADP                            | 28.60        | 13.10        | 20.90        | 13.10        | 22.10        | 13.10        | <b>110.90</b> |
| Recurrent                       | 6.00         | 6.00         | 6.00         | 6.00         | 6.00         | 6.00         | <b>36.00</b>  |
| <b>Sub-total - GoPNG</b>        | <b>34.60</b> | <b>19.10</b> | <b>26.90</b> | <b>19.10</b> | <b>28.10</b> | <b>19.10</b> | <b>146.90</b> |
| <b>Development Partners</b>     |              |              |              |              |              |              |               |
| EU                              | 8.00         | 8.00         | 8.00         | 8.00         | 8.00         | 8.00         | <b>48.00</b>  |
| AUSAID                          | 5.00         | 5.00         | 5.00         | 5.00         | 5.00         | 5.00         | <b>30.00</b>  |
| ACIAR                           | 2.00         | 2.00         | 2.00         | 2.00         | 2.00         | 2.00         | <b>12.00</b>  |
| Others                          | 1.00         | 1.00         | 1.00         | 1.00         | 1.00         | 1.00         | <b>6.00</b>   |
| <b>Sub-total Partners</b>       | <b>16.00</b> | <b>16.00</b> | <b>16.00</b> | <b>16.00</b> | <b>16.00</b> | <b>16.00</b> | <b>96.00</b>  |
| <b>TOTAL INCOME</b>             | <b>59.32</b> | <b>43.82</b> | <b>51.62</b> | <b>44.92</b> | <b>53.92</b> | <b>44.92</b> | <b>298.50</b> |
| <b>EXPENDITURE</b>              |              |              |              |              |              |              |               |
| Operational Costs*              |              |              |              |              |              |              |               |
| CIC Projects                    | 4.00         | 4.00         | 4.00         | 5.00         | 5.00         | 5.00         | <b>27.00</b>  |
| NADP Projects                   | 28.60        | 13.10        | 20.90        | 13.10        | 22.10        | 13.10        | <b>110.90</b> |
| Donor Projects                  | 16.00        | 16.00        | 16.00        | 16.00        | 16.00        | 16.00        | <b>96.00</b>  |
| Administration & Overheads      | 7.72         | 7.72         | 7.72         | 7.82         | 7.82         | 7.82         | <b>46.60</b>  |
| Capital Expenditure             | 3.00         | 3.00         | 3.00         | 3.00         | 3.00         | 3.00         | <b>18.00</b>  |
| <b>Total Expenditure</b>        | <b>59.32</b> | <b>43.82</b> | <b>51.62</b> | <b>44.92</b> | <b>53.92</b> | <b>44.92</b> | <b>298.50</b> |

**Note:**

\*Funds expended on specific projects.

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## 4. MONITORING AND EVALUATION

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### 4.1 Planning, Monitoring and Evaluation Framework

Being able to closely monitor and evaluate the implementation of the Strategic Plan is critical. It enables the organization to ensure resources and efforts are applied accordingly to realize the intended outputs, outcomes and impacts. Hence a robust PM&E Framework and/or System is necessary in CIC. The CIC is in the process of developing and institutionalizing the PM&E System.

The Figure 3 describes the planning and implementation process. The CIC undertakes the planning process at strategic level setting the broader scenario and long term direction of the organization and industry. This involves consultation with stakeholders of the industry. Programming and project planning follows setting the programmatic thrusts and goals the organization is accountable for. Then on annual basis work plans and budgets are developed, approved and implemented.

The Figure 4 depicts the PM&E structure and system where the Board and Executive Management concern themselves with broader impacts and outcomes the organization is accountable for at program level. Down the structure divisional and sectional heads are concerned outputs and activities carried contributing to the desired outcomes and impacts.

The Table 3 summarizes the Results Framework. It intends to describe the cascading objectives, from the broad (long-range) to specific (short-range) objectives of CIC. The framework includes: The goal or the intended impact that CIC only contributes to, the specific purpose for which the CIC exists or is created and the major outputs (i.e. three pillars) that CIC has to produce in order to realize her purpose.

Against each of the expected goal, purpose and outputs, realistic targets and indicators are developed to measure achievements. Data sources, reporting mechanisms or means of verification is also devised. The framework serves as the basis for regular monitoring and evaluation.

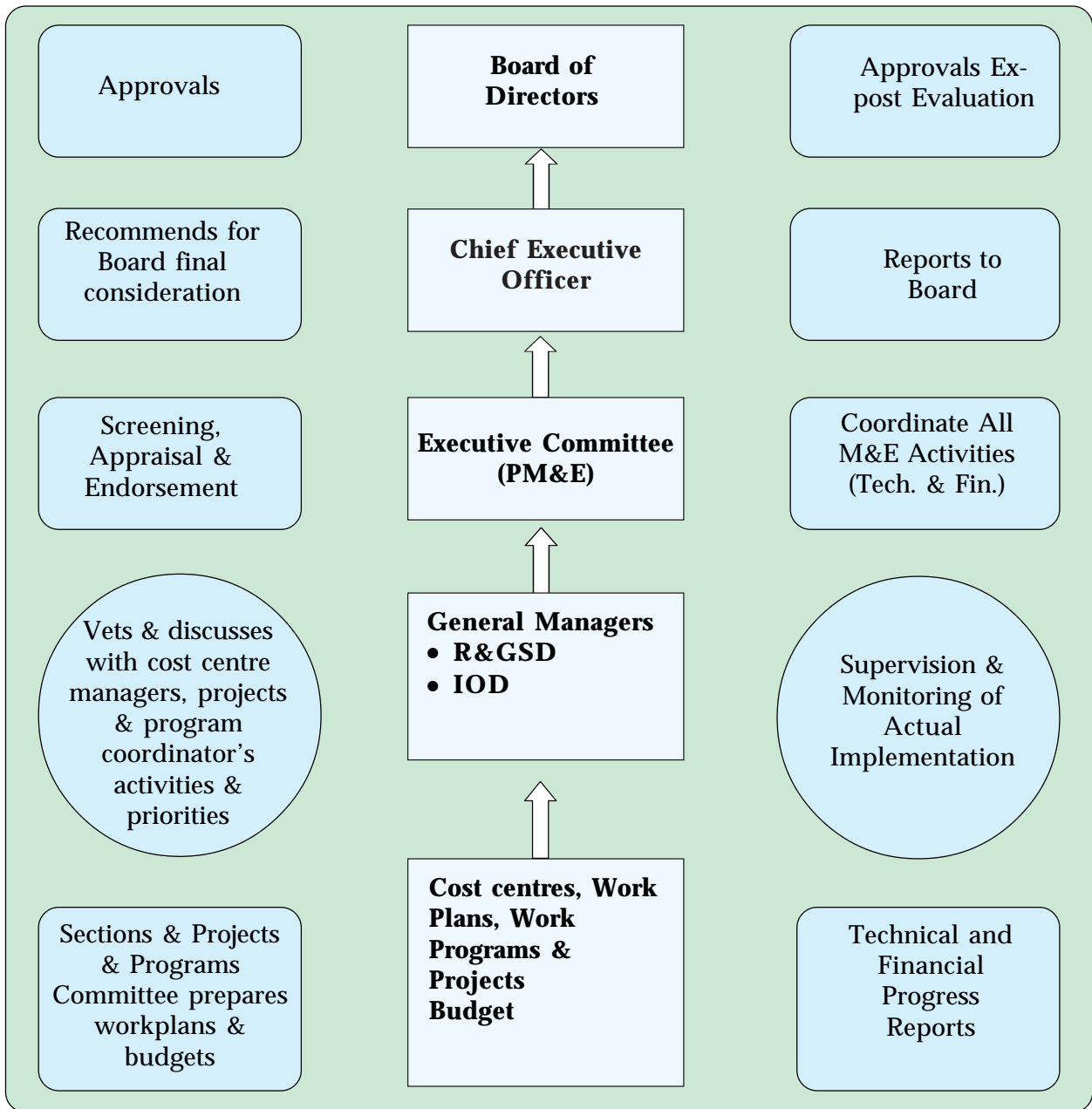
### 4.2 PM&E Office as EXCO Secretariat

The CIC has established the EXCO that drive the regular monitoring and oversight. Quarterly, annual and mid-term reviews of the Strategic Plan will be conducted by CIC. However, an ex-post evaluation assessing the impact (success or otherwise) of this Plan will be undertaken by an independent evaluator.

All strategic planning, implementation, monitoring and evaluation will be driven by the EXCO, supported by the PM&E office as the secretariat. The capacity of the PM&E Office will be enhanced with requisite expertise and systems to coordinate all PM&E activities.

The PM&E office will conduct training for all CIC sections to self monitor and evaluate based on results. Sectional heads and/or Project Managers are tasked to report through their General Managers to the EXCO on the technical and financial progress of the implementation of the work plans and projects.





**Figure 4: Planning, monitoring and evaluation framework.**

**Table 3: Results framework.**

| Narrative  | Indicators  | Means of verification  | Assumptions  |
|--|---|--|--|
| <b>GOAL</b>  |   |  |  |
| Improved Living Standards of Coffee Producers.         | Health and Housing Conditions; No. of kids going to schools.  | Health Reports; National Household Surveys; NSO Statistics and Reports; LLGs & District Records and Reports.                                       |  |
| <b>PURPOSE</b>   |   |  |  |
| To Maximize Financial Returns to All Coffee Producers. | Total Coffee Export Value; Coffee Income Levels of Growers; Proportion of Retail & FOB Prices received by Producers.  | NSO Reports and Statistics; External & Internal Socio-economic Surveys; BPNG Quarterly Economic Bulletin; CIC Reports and Statistics; ICO Reports. | Global coffee prices are favourable. Farmers Apply Coffee Income sensibly. |
| <b>OUTPUTS</b>   |   |  |  |
| 1. Increased Production of High Quality Coffee.        | Increase Volume and Trend of Production & Export; Increase Volume of Higher Grades; Certification & Volume of Certified Coffee Exports, No. of Contracts; No. of Rejects. | CIC Reports and Statistics, Processors Outturns, Exporters Contracts, ICO Reports, Buyers/ Importers Feedback, Certifying Agencies Reports.        | Farmers willingness and Favorable Weather Patterns.                        |
| 2. Increased Awareness of PNG Coffee.                  | Entry into and Volume of Exports to Niche Markets; PNG Coffee Treated as Unique Origin; Promotions; No. of Buyers Visiting.   | CIC Statistics and Reports; Exporters Reports; ICO Reports; International Market Reports; Market Survey Reports.                                   |  |
| 3. Increased Capacity of CIC.                          | Increased Internal Revenue; Budget Management (Revenue vs Expenditure); Institutional Stability; Governance Systems; Reduced Audit Qualifications; Competences of Staff.  | CIC Budget and Financial Reports; Audit Reports; Institutional Audits or Evaluations; Staff Performance Appraisals; CIC Assets and Facilities.     | No Undue Political Interference.   |

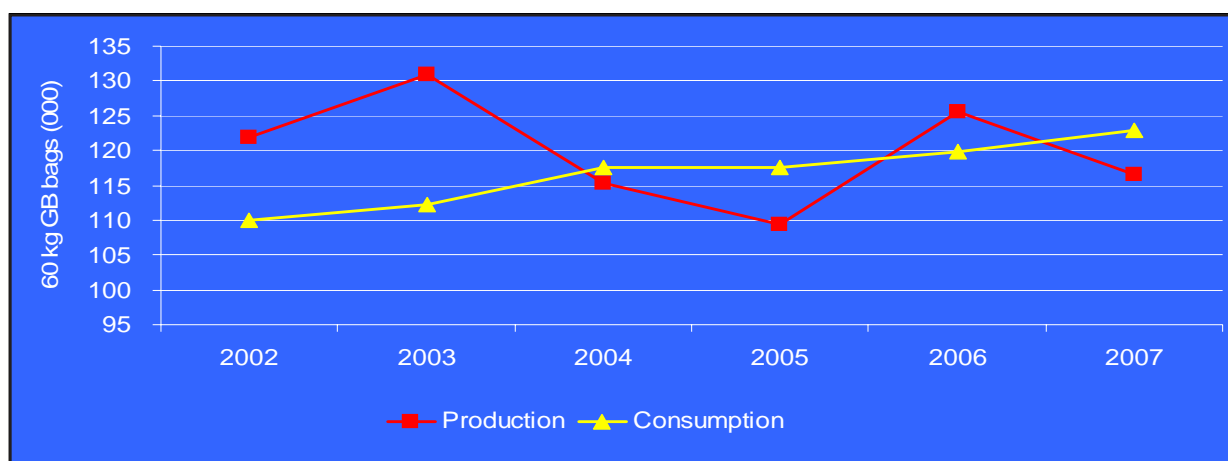


## 5. BACKGROUND PAPERS

### 5.1 Global Economic, Market Trends and Developments

#### Market Trends

World production has increased dramatically in the last 15 years, especially as a result of the rise of Vietnam as a new origin and increased productivity due to mechanization and adoption of high yielding varieties in Brazil. Consequently, world production has increased from around 87 million GB bags in 1995/96 to over 115 million GB bags in 2006/07 (Figure 5).



**Figure 5: World coffee production and consumption, 2002-2007** (Source: International Coffee Organization).

On top of the increase in production, the transfer of stocks from producing to consuming countries since the collapse of the ICO quota system in 1989 had resulted in high consumer stocks that have become a permanent feature of the market. Carry-over stocks have averaged 50 million GB bags in the last 30 years.

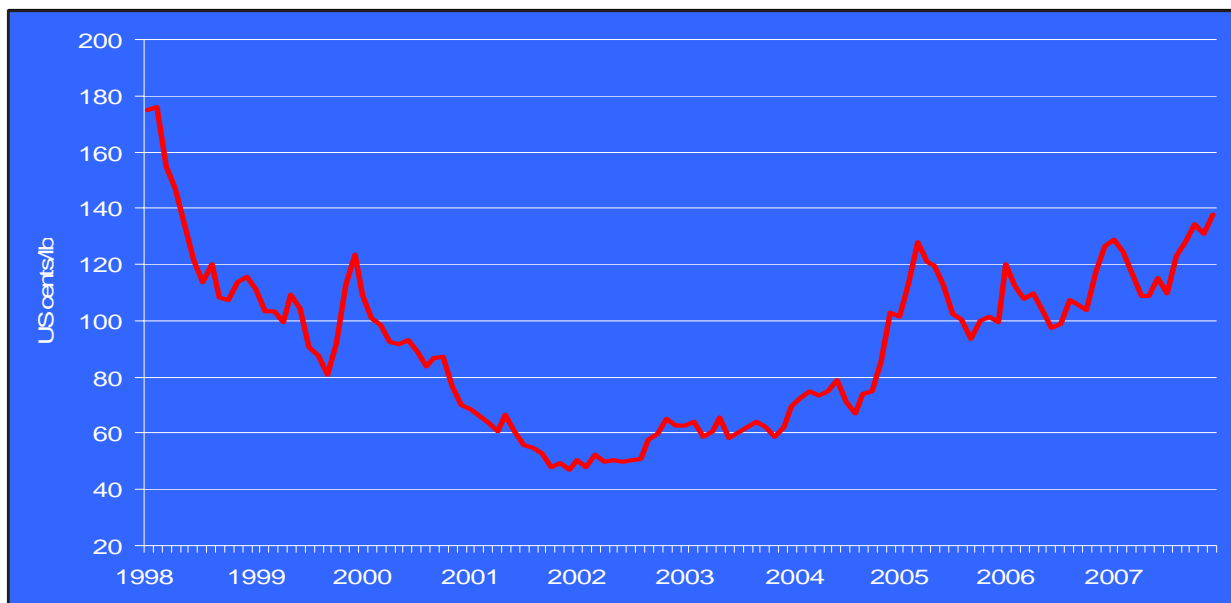
According to the ICO, demand for coffee comprising consumption in consuming and producing countries has been increasing steadily at around 1.5% per year. Demand for coffee depends on income in consuming countries, drinking population and consumer preference for coffee. World consumption is around 92 million GB bags with 71:21 million GB bags split between consuming and producing countries, respectively.

Consumption in the traditional markets of Europe and the USA is said to have reached its peak, while there are strong signs of growth in demand in Eastern European countries particularly Poland and Russia and some of the newly independent economies of the former USSR. Newly emerging Asian countries particularly China, India and South Korea are likely to provide strong demand for coffee.

Consumption in coffee producing countries represents 23% of world consumption and is also a potential growth area. Brazil, which is the largest producing country, is itself also the second largest consuming country after the USA. Currently Brazil consumes 18 million GB bags of coffee it produces.

As an internationally traded commodity, the price of coffee is primarily determined by demand and supply in the world market. Demand for coffee comprises of consumption in consuming and producing countries, while supply is a function of production and carry over stocks from previous years. Coffee production is typically volatile while demand is usually stable. Volatility in coffee prices is therefore primarily derived from volatility in coffee production, although in the last years, speculative involvement of large funds in coffee futures markets has added to extreme volatility.

World coffee prices are not only volatile but had been on a downward trend. Huge increase in world production (and its inherent volatility) against a more steady increase in demand has set prices on a long-term downward trend (Figure 6). The only respite for coffee is when there is a frost in Brazil such as in 1994.




**Figure 6: Average indicator prices (other mild Arabicas, New York) 1998-2007**  
(Source: New York Board of Trade).

### Market Developments

Apart from the above market fundamentals there are other developments in the international coffee trading arena, some of which open up opportunities and others pose threats to coffee producing countries like PNG. These developments include:

- Greater concentration of market power at the exporting, trading and roasting stages of the coffee marketing chain;
- Greater vertical integration at the production and retail levels;
- Greater competition due to an increase in the number of producing countries as well as in the number of individual exporters;
- Preference for high quality coffees from the specialty and gourmet segment of the coffee market;
- Increasing health consciousness by consumers that leads to issues of traceability;
- Increasing use of Robusta combined with low quality Arabica as substitutes for high quality Arabica;
- Improved processing and extraction technologies enabling roasters to use less coffee than before;
- Increasing pressure on multinational roasting companies for traceability and transparency resulting in these companies being more willing to deal directly with coffee producers;



- 
- Improved communication systems making market information more readily available on a “real time” basis;
  - real-time banking exchange settlements systems which make exporting business more efficient;
  - Improvements in transportation systems enabling roasters to adopt just-in-time purchasing strategies.

### Global Coffee Market Segmentation

There is growth in the demand for high quality coffee by consumers. Consumers are now more aware of what constitutes good quality coffee, and are demanding it, thanks to the success of the educational initiatives launched by the SCAA, Specialty Coffee Association of Europe (SCAE) and the All Japan Coffee Association (AJCA). Specialty coffee includes exotic coffees such as certified organic, bird-friendly, shade-grown and fair trade. These coffees sell for significant price premiums over bulk or conventional coffees.

In recent years structural changes have significantly altered the markets for coffee. A set of new and emerging paradigms are likely to dictate coffee’s future, and will have permanent effects on the livelihoods of the millions who depend on it. Coffee has historically been subject to frequent supply/price changes due mostly to weather shocks as a result of emerging global warming phenomenon. The industry is now undergoing a structural change in the nature of supply, particularly increases in both the quantity and quality of Brazil and Vietnamese coffees.

Concurrent with supply changes, there have been structural changes in demand both at the industrial level and at the consumer level. These include increasing demand for differentiated and higher value products, new technology allowing greater fungibility in coffee supplies, and geographic-generational shifts in the popularity of different types of coffee products.

Coffee as a commodity that is priced according to the New York or London Exchanges is the dominant trade for the global coffee industry. However, a growing group of producers and coffee firms are pursuing strategies that are independent of commodity exchange trading and pricing. Many of these alternatives include some differentiation of the coffee, usually by either quality or cultivation processes.

Such emerging trade paradigms may offer producers alternative ways to capture the long-term value of sustainability by linking superior prices to demonstrable advancements in both the quality of the coffee and to more sustainable cultivation and trade practices.

The demand picture has become complex with slow or stagnant overall growth from the traditional major importing countries, while promising segments within these markets are experiencing strong demand. These include high-quality and differentiated coffees as well as novel forms of soluble coffee.

Many coffee producing countries are now seeking new strategies and ways to redefine their market position away from a commodity trading system that they increasingly perceive as onerous and partly responsible for the loss of share of market value.

Differentiation is a popular consideration. Differentiation by producers requires them to distinguish their products because of distinct origin, defined processes, or exceptional characteristics like superior taste or few defects. They consist of various types of coffees that can be traded through more lucrative channels than the typical industrial grades that flow in the undifferentiated commodity channels and include:

- Geographic indications of origin (appellations);
- Gourmet and specialty;
- Fair trade;
- Eco- friendly or shade grown.

While these differentiated market segments can provide some producers with competitive advantages and added value, they're not necessarily easy to access and are still relatively small. Nevertheless, they are important because of their high growth rates and their ability to command a price premium. Although much of the coffee industry feels that premiums paid to growers for certified coffees are reasonable, it may be prudent to de-emphasize price premiums as a reason for entering these markets since it is quite plausible, in some cases at least, they would diminish. They should not however be discounted for their sometimes considerable impact on the income of farmers.

As markets for differentiated coffees grow there is an increasing need to understand the sometimes complex verification or certification processes that apply to the so-called sustainable coffees - organic, fair-trade, and eco-friendly - as well as to those using geographic indicators of origin. Differentiated coffees are not a panacea and industry surveys indicate that two other factors are equally or perhaps more important to be competitive in today's coffee markets: quality and consistency.

Global coffee consumption has shown noticeable regional differences. North America and Japan are growing slowly. Northern European consumption, particularly in Germany is stagnant, but in Southern Europe, there are some increases. Emerging markets in Asia, Eastern Europe and the former Soviet Union that are not traditional coffee consumers are posting rapid growth in consumption. Consumption has been mixed in producing countries and Brazil, now the world's second-largest consumer, still sets the benchmark.

Given the long-term historic cycles, it is likely that supply will eventually align more closely to market demand and that prices will recover. While conditions for producers will certainly improve as that happens, it will not signal an end to their problems. Price recovery may be only temporary while issues of their social, environmental, and economic sustainability will remain. Other emerging trends will also have a significant influence on their future competitiveness and sustainability. The structural changes in the global coffee industry over the past few years will have a powerful influence on the nature of these markets. This influence could be as important as the cyclical, often weather-related, shifts in supply and demand that have considerably influenced the coffee market in the past.

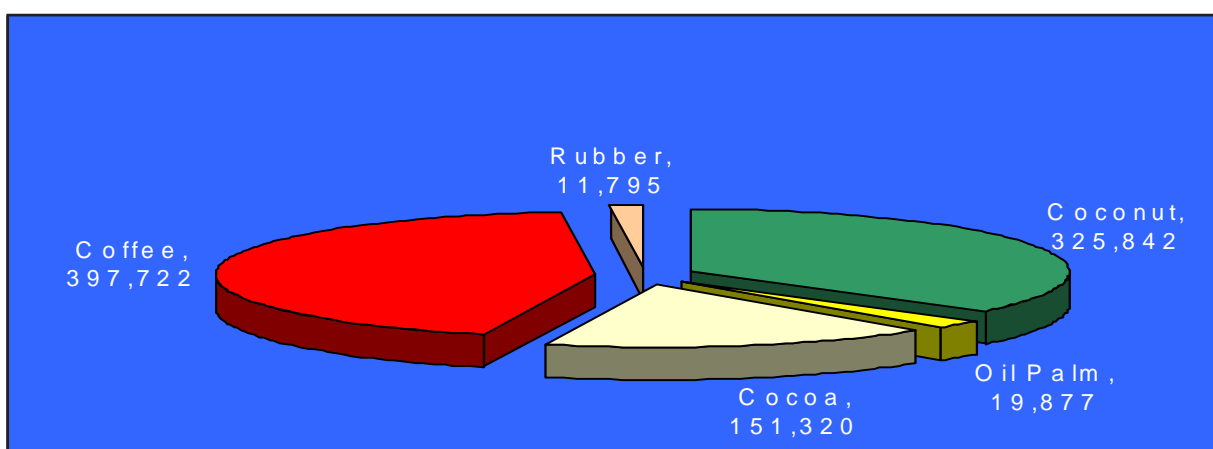


## 5.2 PNG Coffee Industry

### Relative Importance

Coffee is the largest employer in the agricultural sector in PNG. According to the 2000 National Census, 397,772 households are involved in growing coffee (Figure 7). This represents 2.5 million or almost 50% of the population of PNG. Most of the households in the highlands provinces depend on coffee as a major source of cash income there being no major alternative cash crops.

In addition, the industry employs some 15,000 to 20,000 people as full time as well as part-time workers. As coffee income provides spin-off effects to industries such as transportation, construction, manufacturing retail and wholesale, insurance, banking and other allied industries, it also indirectly contributes income generation and employment creation in other sectors of the economy, particularly in the highlands provinces.



**Figure 7: Household involved in export crop industries** (Source: National Statistical Office, 2000).

Coffee has also been the largest foreign exchange earner in the agricultural sector until 2001, when oil palm took over the lead. Coffee contributes 31% to total agricultural export earnings, while Oil Palm contributed 40%. Coffee's contribution to GDP is 6.6% of total agricultural sector.

Smaller producing countries like PNG would not stand a chance in the world market place had it not been for Brazil and Vietnam producing low quality unwashed Arabica and Robusta, respectively.