A STRATEGIC PLAN FOR THE PESTICIDES CONTROL BOARD 2017-2021

IICA OFFICE IN BELIZE
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ACRONYMS

AP	Action Plan
ANRI	Agriculture and Natural Resource Institute
AWP	Annual Work Plan
BAHA	Belize Agriculture Health Authority
BBS	Belize Bureau of Standards
BoD	Board of Directors
BSCFA	Belize Sugar Cane Farmers Association
CARDI	Caribbean Agricultural Research and Development Institute
CREI	Citrus Research and Education Institute
DOE	Department of the Environment
EXCOM	Executive Committee
GDP	Gross Domestic Product
GTP	Grupo Tecnico de Plaguidcidad
IICA	Inter-American Institute for Cooperation on Agriculture
IT	Information Technology
MAFFSD	Ministry of Agriculture, Forestry, Fisheries and Sustainable Development
M&E	Monitoring and Evaluation
MoA	Ministry of Agriculture
MoPH	Ministry of Public Health
NGO	Non-Governmental Organization
NRI	National Resources Institute
PCA	Pesticides Control Act
PCB	Pesticides Control Board
PPEs	Personal Protective Equipment
RCOM	Registration Committee
SIRDI	Sugar Industry Research and Development Institute
SP	Strategic Plan
SWOT	Strengths, Weaknesses, Opportunities, Threats
UB-CFC	University of Belize Central Farm Campus
USAID	United States Agency for International Development

Executive Summary

I. ***Overview:*** The Pesticides Control Board (PCB) was formally established in 1985 with the passing of the Pesticides Control Act, Chapter 216 creating the institution as a Statutory Board under the Ministry of Agriculture, Forestry, Fisheries and Sustainable Development (MAFFSD). The PCB is responsible for regulating pesticides in the country ensuring that any pesticides imported pose minimal risk to human health and the environment. The functions of the PCB include: (a) Registration of pesticides after an evaluation process that ensures any risks are acceptable; (b) Re-evaluation of the pesticides currently on the market on a 5-year cycle to ensure the products meet current standards; (c) Surveillance, monitoring, compliance and enforcement of post registration requirements; and (d) Training, public awareness and outreach initiatives to improve the regulatory process and promote responsible use and management of pesticides.

The PCB's governance mechanism is a Board of Directors (BoD) that comprises 14 members representing the major private and public sector organizations. The BoD is appointed by the Minister of Agriculture to serve for a period of two years. The Board has established an Executive Committee (EXCOM) and a Registration Committee (RCOM). The Registrar of the PCB and 8 staff members are involved in the operations and execution of technical and administrative activities.

The PCB has done a good job over the years in delivering its mandate and increasing the awareness of sections of the farming community on good pesticide use practices. However, the PCB is cognizant that it needs to position itself through the adoption of systematic planning and programming of its activities that reflect a clear direction and consistency in a logical way if it is to evolve to a higher level as a modern, more effective organization that delivers quality services and provides adequate coverage to Belize's agri-food sector. In this regard, the PCB embarked on a process to prepare a five-year Strategic Plan (SP), 2017-2021 and an Action Plan (AP) for the next two years. The SP will address the following among others: (a) A review of the performance and operations of the PCB in recent years; (b) An analysis of the scope of technical services provided, client orientation and satisfaction, and strategic alliances in both the public and non-public sector; (c) A SWOT analysis of the organization; and (d) Define the PCB's strategic goals for the next five years and major actions to be taken at the governance, managerial, technical and operational levels to enable it to respond more effectively and efficiently to rapidly changing challenges and demands.

II. ***Methodology:*** The methodology to prepare the Strategic Plan and Action Plan comprised a number of steps and actions that included: a review of various documents and reports of the PCB over the last 28 years including its work programs, reports of meetings of the Board and the Executive Committee (EXCOM); a review of the finance and budget since 2004; information on the human resource situation including reports of the technical staff; interviews and meetings with members of the BoD, the EXCOM and RCOM, the Registrar and staff members; interviews with other key persons from stakeholder institutions including extension officers of the Extension Department of the Ministry of Agriculture; and the use of two questionnaires – one for the BoD members on some key performance indicators, and the second for staff members on their work, perceptions and performance of the PCB.

III. ***Institutional Review:*** The PCB supplies **two** core services with a total staff of 9 persons - a) registration of pesticides based on the screening of applications, review and validation of the information submitted by pesticide suppliers; and b) surveillance, monitoring and enforcement of the responsible use and management of pesticides. These core activities are supported by a range of services such as training and outreach to farmers, proper use and management of pesticides including the appropriate dosage, proper storage and the responsible disposal of unused products and empty containers and public awareness and the promotion of best practices so as to protect the human body from contact with pesticides or pesticide residues and safeguard environmental health.

The PCB has a good image and reputation in the agricultural sector, particularly among stakeholders that have relations with it, as well as pesticide importers and users. However, its technical capacity is limited due to insufficient personnel to address the range of demands. The organization is a totally self-financing, its overall financial management has been sound and prudent, and it has the necessary resources to invest in a few areas to improve its efficiency and service delivery. There is potential for it to generate additional income to ensure greater financial sustainability.

Through the use of two questionnaires and interviews, both the staff and Board members identified a number of strengths of the PCB as well as areas that need to be addressed to improve effectiveness and service delivery. The PCB has done a good job over the years in regulating the use and management of pesticides in the country, improving the information base on pesticides, surveillance and monitoring, and providing a range of support services in the execution of its mandate. However, it faces many challenges due to changes in technology, illegal entry and use of pesticides and the vulnerability to climate change impacts, among others. The organization also needs to improve its registration process and

its technical capacity, its governance system, management and administrative processes, and embark on more systematic planning, monitoring and review and define indicators that reflect the achievement of results.

IV. ***Strategic Plan:*** This is the first strategic plan for the PCB that seeks to modernize it through a more effective governance system, leadership, vision and direction for the implementation of the government's policies and strategy on safer use and management of pesticides. This plan will facilitate the PCB to be more responsive to the dynamic circumstances surrounding the regulation of all aspects of pesticide importation, registration and licensing, transportation, distribution, sales, labelling, use, storage and disposal of pesticides to ensure that these products do not pose adverse effects to humans or the environment.

The Strategic Plan 2017-2021 consists of four (4) strategic goals that contribute to the overarching goal of the Plan which is to ***"Increase the responsible use and management of pesticides to protect human health and the environment of Belize"***. The Goals are to: (a) Improve the quality and efficiency of the registration and post-registration surveillance processes; (b) Safeguard the responsible use and management of pesticides: (c) Strengthen and expand strategic partnerships and inter-institutional linkages; and (d) Improve governance, management and operations. Each goal identifies a number of strategic actions to be executed that together will contribute to achieving the overarching goal of the Plan.

The Plan is grounded on the current work programs of the PCB and builds on these to achieve its vision and mission. It also focuses on the areas that need to be strengthened and makes recommendations that are important for its successful implementation. It does not suggest the need for drastic changes but to adopt a gradual and incremental approach to the organization's adjustments and streamlining that addresses the fundamentals for defining the organization's direction and establishing a solid base for effective governance, management and operations. These point to the basic requirements of an updated legislation, and for better strategic planning and execution, improved decision-making, institutional alignment, sound governance and management, monitoring, supervision and better control of resources as being the fundamentals for organizational effectiveness. The Plan also aims to make the PCB remain as a relevant and effective organization while at the same time enhancing performance, meeting diverse expectations and keeping in line with the government's development agenda, the National Development Framework for Belize Horizon 2030, the Growth and Sustainable Development Strategy (GSDS) for Belize 2016-2019, the National Agriculture and Food Policy and other relevant policy documents.

A two-year Action Plan has been developed to support the implementation of the Strategic Plan. It defines a set of priorities to be implemented as the first phase of implementation and this will serve as the basis for developing the annual work plan of the staff as part of the implementation and monitoring process in achieving the strategic goals. The first two years will focus on key activities that will streamline the organization for enhanced operational effectiveness and efficiency and key manuals and guidelines will be prepared on these. A planning, monitoring and evaluation system will be developed as a tool to guide target setting and how the achievements will be measured. The measurable outputs and indicators will be outlined in the annual performance progress reports. In addition, the PCB will continue to conduct annual financial audits and reporting to improve its transparency and accountability to its stakeholders.

SECTION I

INTRODUCTION

1.1 Background

1.01 Agriculture plays an important role in Belize's economy, contributing almost 13% to GDP, and employing about 10% of the population in 2015. The top agricultural exports over the last 4 decades continue to be bananas, sugar, citrus and marine products. Non-traditional agriculture has also played an increasingly important role in exports in recent years. Papayas, grains and legumes are a few examples, although earlier this year the leading papaya producer announced the closure of its operations.

1.02 Belize has increased its use of pesticides and other agro-chemicals over the years due to more intensification and commercial development of its agricultural production systems, the need to increase productivity and deal with pests and disease problems, and to become more competitive in both internal and external markets. All of Belize's pesticide requirements are met through imports since Belize is not a manufacturer of such products.

1.03 The Pesticides Control Board (PCB), the main statutory body responsible for regulating the use and management of pesticides indicates that Belize saw a spike in use of pesticides in the 1980s due to a direct result of the transformation of the agricultural sector, from traditional to more commercial systems of production. During this period Belize reported an increase in the production of vegetables, grains, bananas, citrus, papayas, and several other crops. There was also an increase in pest populations and diseases in the sector requiring the increased use of pesticides for the control of insects and prevalent diseases. Banana production grew substantially since the mid-1980s to become the third most important agricultural export and a large user of pesticides, and this was one of the critical driving force behind the establishment of the Pesticides Control Board (PCB). Besides the management of pesticide use in agricultural production, the PCB also regulates pesticides and related substances that are used in the industrial sector (e.g., wood treatment), in the domestic sector (e.g. aerosol insecticides, insect repellents), in vector control/public health sector and in the specialized pest control services sector (e.g. pest control operators for structural pest control).

1.2 Role of the PCB

1.04 Pesticide management in Belize is carried out by the Pesticides Control Board (PCB). The Act provides for pesticides to be regulated to ensure that they pose minimal risk to human health and the environment. The PCB is a statutory body under the Ministry of Agriculture, Forestry, Fisheries and Sustainable Development (MAFFSD) mandated with the regulation on the use of pesticides in the country. It is governed by the Pesticides Control Act, Chapter 216 of the Laws of Belize, and its enabling regulations. The Act was passed in 1985 that made provisions for the establishment of the PCB. However, the PCB became operational with the establishment of a Secretariat in 1988, three years after the Act was passed. Its establishment and early development was supported by consultancies funded by the USAID and the NRI-UK.

1.05 The Act stipulates the functions of the Board as follows:

- To advise the Minister on matters relevant to the making of regulations under the Pesticides Control Act; and

- To carry out the provisions of the Act and of the regulations governing pesticide management and use

1.06 Basically, the Act and its accompanying regulations gives the PCB its critical role with regards to regulating all aspects of pesticide importation, registration and licensing, transportation, distribution, sales, labelling, use, storage and disposal of pesticides to ensure that these products do not pose adverse effects to humans or the environment. It is also responsible for training and certification of users. Under the authority of the Pesticides Control Act, the PCB is responsible for the:

- Registration of pesticides after an evaluation process that ensures any risks are acceptable. The PCB is also responsible for the re-evaluation of the pesticides currently on the market after a 5-year cycle to ensure the products meet current standards.

- Surveillance, monitoring, compliance and enforcement of the Pesticides Control Act and its regulations.

- Training, promoting public awareness and outreach programs and initiatives that aim to improve the regulatory process and promote responsible use and management of pesticides.

1.07 The PCB is managed by a Registrar of Pesticides and is governed by a Board of Directors (BoD) comprising of 14 persons that represent the Government of Belize, large agro-producer/grower associations and other stakeholders. Since its establishment, the PCB has gradually evolved and expanded over time in terms of its functions and the scope of its services and hiring of additional staff. The growth of the PCB has been done in response to the increase in the demands for its services and the challenges that it has faced over time rather than by deliberate strategic planning. As a result, the PCB recognizes the need for it to adopt a longer term view to position itself through the adoption of systematic planning and programming of its activities that reflect a clear direction and consistency in a logical way.

1.08 The PCB also recognizes the need to be better positioned and adopt a more proactive approach to address future challenges due to a changing environment and demand for its services. Furthermore, the expansion of the PCB over the years requires that it modernizes its systems and processes to facilitate more effective management and execution of its operations. This includes the availability of guidelines and manuals to support governance and management, systematic planning, monitoring and review and the capacity building of its personnel to increase their awareness and capabilities of modern institutional practices.

1.09 In addition, Belize is signatory to several international conventions on pesticides. The Registrar of Pesticides is the designated National Authority (for pesticides) for the Rotterdam Convention and attends meetings of the Conference of the Parties. It is recognized that there is need to develop national laws to implement the Rotterdam Convention. Nevertheless, to meet compliance requirements of these and to be able to keep pace with international trade requirements to make Belize more competitive, the PCB needs to operate more strategically with greater efficiency and effectiveness in carrying out its mandate and programs with the least possible burden on its stakeholders.

1.10 Recently, the PCB initiated efforts to address some of the issues that were identified above. It embarked on an initiative to develop a five-year Strategic Plan 2017-2021 to help the Board position itself internally and externally to meet its current and future challenges. In this regard, the PCB requested and together with the Department of the Environment entered into an institutional agreement with the Inter-American Institute for Cooperation on

Agriculture (IICA) for IICA to provide institutional strengthening services and support to the organization that includes the preparation of the five-year Strategic Plan and an Action Plan.

1.3 Objectives and Scope

1.11 The PCB has been operating for the past 28 years and has taken several steps to improving its services and outreach to the agricultural sector. In this new phase of its development, the first step identified in the institutional strengthening process is to develop a Strategic Plan (SP) for the period 2017-2021 and an Action Plan to accompany and guide the implementation of the SP. The Strategic Plan was developed the PCB with technical assistance from IICA and inputs from its stakeholders.

1.12 This SP, considering that it is the PCB's first formal Strategic Plan, is a reflection of what it is currently doing that remains relevant and is needed. It also provides recommendations to build and improve on these existing activities, as well as provides for new actions to complement and contribute to achieving its mandate and to respond to the changing environment as it relates to its mission and services.

1.13 The Strategic Plan will address the following among others:

(i) An assessment of the performance and operations of the PCB in recent years, including its current structure within the framework of the Government's policy priorities for the agricultural sector and the execution of the PCB's mandate.

(ii) An analysis of the scope of technical services provided by the PCB, client orientation and satisfaction, and strategic alliances in both the public and non-public sector.

(iii) A SWOT analysis of the organization, identifying its strengths and weaknesses, and the factors that constrain its performance and the effective delivery of its services.

(iv) Define the strategic goals for the organization for the next five years and major actions to be taken at the governance, managerial, technical and operational of the PCB to enable it to respond more effectively and efficiently to rapidly changing demands, and the needs of its clientele and achieve higher levels of performance.

(v) Serve as a road map to guide the PCB and to better position itself to anticipate and address future challenges and needs within the context of its mandate.

(vi) Preparation of an Action Plan (AP) to implement concrete actions in the short and medium term based on the recommendations of the SP. It will serve as the basis for better governance, improved future planning, budgeting, monitoring and evaluation, and streamlining managerial, supervisory, technical and administration functions.

1.4 Methodology

1.14 The methodology to prepare the Strategic Plan and Action Plan comprised a number of steps and actions that are summarized below:

(i) IICA's technical team reviewed the terms of reference and identified the relevant information needed for the exercise with the BoD and the staff of the PCB.

(ii) A review was done of various documents and reports of the PCB. These included an internal review and analysis of PCB's performance and operations based on reports over the last 28 years including its current structure within the framework of the Government's policy priorities for the agricultural sector and the PCB's mandate.

(iii) A review of various reports prepared by the PCB over the years, its work programs, reports of meetings of the Board and the Executive Committee (EXCOM).

(iv) A review of the PCB's finance and budget since 2004.

(v) Information on the human resource situation including reports of the technical staff.

(vi) Interviews and meetings with members of the BoD, the EXCOM and RCOM, the Registrar and staff members to generate information on the role and effectiveness of the PCB to provide services and to meet likely future demands and needs of its clients and partners, the scope of the technical services provided, client orientation and satisfaction, and strategic alliances in both the public and non-public sector (see **Tables A1 to A4 in the ANNEX**).

(vii) Interviews with other key persons from stakeholder institutions including Extension Officers of the Extension Department of the Ministry of Agriculture.

(viii) Administered two questionnaires – one for the BoD members to gather information on some key performance indicators, and the second for staff members on their work, perceptions of the PCB's work and performance and suggestions for improvement.

(ix) Organized three sensitization sessions/workshops with the PCB Board and the staff including a review of the PCB's Vision and Mission statements and carry out a SWOT analysis.

1.5 Structure of Report

1.15 The remainder of the report contains **four** Sections and Annexes. **Section II** discusses the main findings on the organizational and functional aspects of the PCB. This includes the organizational structure, the composition of the Board of Directors (BoD) and its committees, management and administration, financial and human resources and the PCB's technical services.

1.16 **Section III** provides an analysis of the main institutional drivers of the PCB. It analyzes the responses of a questionnaire filled by staff members and one completed by BoD members on key organizational indicators of the PCB, as well as interviews of various individuals. The drivers are related to managerial, administrative, operational and technical aspects of the organization, the process of planning, monitoring and review, as well as recommendations made by staff on improving the PCB's performance and its operations. This section also provides summary information on SWOT analysis of the PCB.

1.17 The **fourth Section** is the core component of the document. It outlines the Strategic Plan for the PCB for the next five years. It discusses some key strategic perspectives on the challenges for Belize's Agri-Food industry, the Vision, Mission and Values of the Plan, the key strategic goals and major actions to be executed to achieve these. **Section V** discusses planning, budgeting, monitoring and evaluation of the Plan including aspects related to management and administrative processes, financial resources and capacity building.

SECTION II

MAIN FINDINGS: ORGANIZATIONAL AND FUNCTIONAL ASPECTS

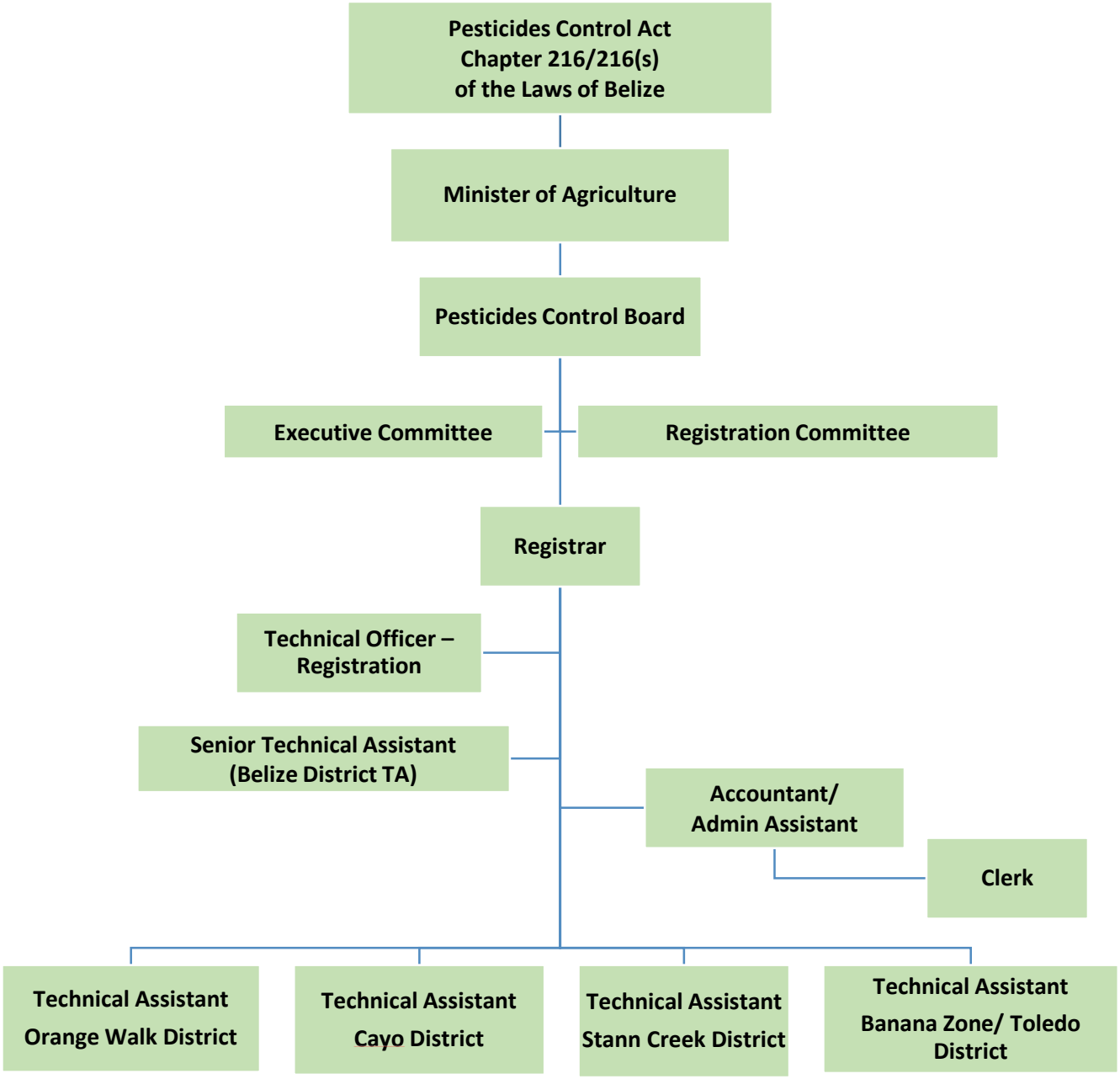
2.1 Organizational Aspects

2.01 The legislative framework that established the PCB defines its overall governance mechanism which is vested in a Board of Directors that is appointed by the Minister of Agriculture to serve for a period of two years. The organizational structure comprises four main levels of governance and operations – the Board of Directors (BoD), two committees of the Board which are the Executive Committee (EXCOM) and the Registration Committee (RCOM), the Registrar of the PCB and the staff involved in operations and execution of technical and administrative activities (see **Figure 2.1** below).

2.02 The BoD is comprised of fourteen (14) members who represents the major private and public sectors interested in the supply and use of pesticides and its control. The sectors and organizations have one member each on the Board and they comprise the following:

- The Ministry of Agriculture (MoA)
- The Belize Agriculture Health Authority (BAHA)
- The Department of the Environment (DOE)
- The Ministry of Public Health (MoPH)
- The Belize Bureau of Standards(BBS)
- The University of Belize Central Farm Campus (UB-CFC)
- The Caribbean Agricultural Research and Development Institute (CARDI)
- The Citrus Industry - Citrus Research and Education Institute (CREI)
- The Sugar Industry – Belize Sugar Cane Farmers Association (BSCFA)
- The Banana Industry - Banana Growers Association
- A small farmers' association - Asociación de Agricultores Valle De Paz
- Three pesticide importers:
  - Prosser Fertilizer
  - James Brodie & Co.
  - BELAGRO

Figure 2.1: PCB's Organizational Structure



2.03 The first six Board members are from the public sector representing governmental departments and the remaining eight are private sector representatives – comprised of research institutes, industry, small farmers and importers. In addition the Board created 4 committees, of which two are currently functional: the Executive Committee (EXCOM) which is a sub-group of 6 members of the Board and whose main function is to provide guidance on the administrative roles of the PCB, and the Registration Committee (RCOM) which has 5 members from five public sector organizations on Board. The RCOM oversees the approval and registration process and it provides guidance on the technical aspects of the PCB.

2.04 The current operational aspects of the PCB in the execution are done through 9 staff members including the Registrar, one technical staff, 5 technical field officers and 2 administrative staff (see **Table A3 in the Annex**). The Registrar also serves as the day-to-day manager of the organization, managing and coordinating the political, institutional, technical, and administrative aspects of the organization, as well as the preparation and approval of the work plan and the budget.

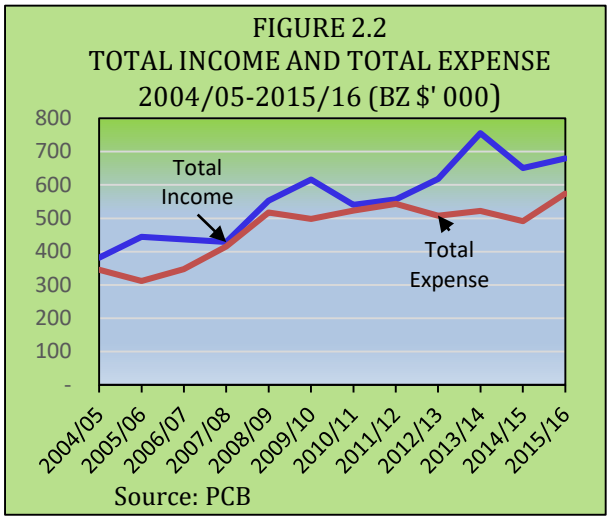
2.05 The technical staff member who has only been hired in the last 9 months, assists the Registrar in the screening of applications and pesticide registration dossiers and product research. The technical field officers conduct training of farmers and other pesticide stakeholders, conduct surveillance and monitoring of retail outlets and large farmers and associations who buy and store pesticides in bulk, and oversee compliance in the use and management of pesticides including the disposal of these and their containers. However, the field staff are not able to engage in enforcement effectively because the current legislation does not provide them with sufficient legal backing and this has been identified as a weakness of the institution. The administrative staff deals with human resource management, financial management and administrative services with the guidance of the Registrar.

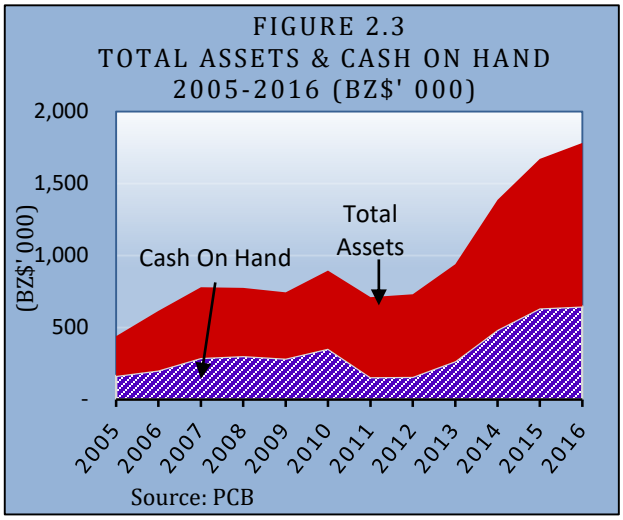
2.2 Financial and Human Resources

2.06 A review was done of the PCB's finances and budget in the last twelve years (2004/2005 to 2015/2016) and the main findings of this are summarized below:

(i) Annual income has exceeded annual expenditure for every year, except for 2004/2005. Annual income surpassed $0.5 million in 2008/2009 for the first time and has consistently remained above this level afterwards. On the expenditure side, annual

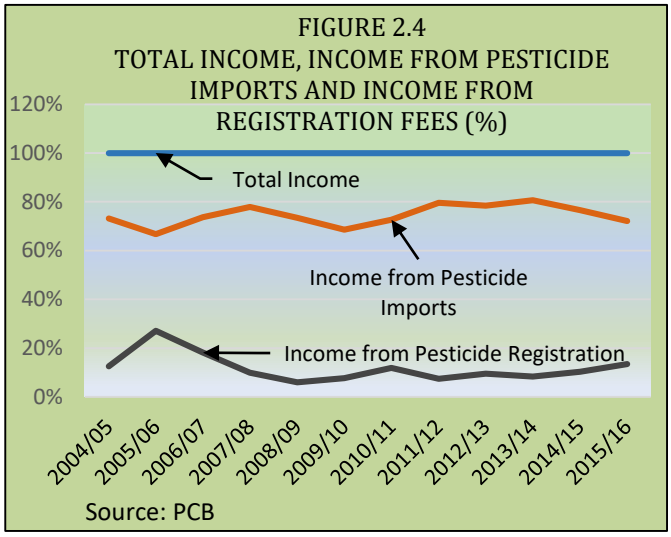
expenditures also exceeded this level for the first time in 2008/2009 and remained above it after except for two years (see **Figure 2.2**).





(ii) On the income side, the PCB has done reasonably well by implementing prudential financial management to keep expenditure under control and in generating income. The value of the total assets including cash on hand increased rapidly since 2012, reflecting a robust financial position of the organization (see **Figures 2.2 and 2.3**).

(iii) The PCB is funded mainly by regulatory fees and it receives a small amount from the government as an annual subvention. It is totally self-financing, and it depends heavily on its income from two sources - pesticide imports and from pesticide registration fees. The largest revenue source is the 2% fee levied on the value of all pesticide imports, while a five-dollar fee is collected for the processing of licenses for restricted use pesticides. Income from pesticide imports has averaged 75% of total income while registration fees contributed an average of almost 10% of its income in the review period (see **Figure 2.4**). The trend of total income generated from both sources has remained more or less stable as a percent of total income.



(iv) The government's subvention to the PCB is a small amount, averaging around 4% of total income. No contribution was made by the government for four years since 2004/2005, but the subvention was resumed in 2009/2010 with a payment of $23,000 which has since declined to about $14,400 in 2015/2016.

(v) On the expenditure side, total expenditure has significantly increased since 2005 before levelling off at around $0.5 million from 2009. The composition of total expenditure since 2010 shows that wages and salaries and gratuity payments to staff together accounted for one-half of the total costs of the organization (see **Table A5 in the Annex**). Although the trend shows that the expenditures on salaries and wages have been slowly increasing, both of these cost components has been more or less stable as a proportion of total expenditures.

(vi) In general, the review in the organization's finances and operations suggests **seven** main points that need to be highlighted:

- as a regulatory body, the organization is a totally self-financing one and the government's contribution has been minimal;

- overall financial management has been sound and prudent, and investment expenditures have remained on the conservative side;

- the PCB has the necessary resources to invest in a few areas so as to improve its efficiency and service delivery;

- additional income can be generated from the current main sources of revenue given that the level of fees charged have remained constant for many years, but this will require careful review so that higher fees should not be burdensome on the buyers of the service;

- going forward, financial management should continue to be prudent and vigilant, and financial sustainability will be an increasingly important issue to be addressed with new revenue sources to be identified, as there are factors that are likely to threaten the main income sources (see SWOT analysis in **Section III**);

- strong lobbying efforts should be made to restore the government's annual contribution to a level of more than $20,000 per year and for the payment to be made consistently on an annual basis; and

- although it is a statutory organization, and given the main sources of its revenue and cost recovery practices, the organization should also be vigilant and maintain a conscious policy of relating the delivery of its services to "value for money".

2.3 Core Technical Services and Support

2.07 The PCB supplies **two** core services under its mandate and these are supported by complementary activities. These are:

(i) Registration of pesticides which includes the screening of applications, review and validation of the dossiers prepared and submitted by the pesticide manufacturers through the local representatives, and approval of pesticides for importation into the country. All registration certificates are renewable every five years. It is the role of the PCB to review the registered pesticides to ensure they continue to meet the necessary standards and requirements before issuing a new certificate.

(ii) Surveillance, monitoring and enforcement of the responsible use and management of pesticides. The PCB is responsible for the monitoring and inspection of pesticide

businesses, the major industries and farmers. Records of sales and use are required to be maintained which may be reviewed by the PCB from time to time.

(iii) The core activities are supported by training of and outreach to farmers, pesticide applicators and importers and retailers on the dangers that pesticides can pose depending on the product's toxicity and length of exposure; the proper use and management of pesticides including the appropriate dosage, calibration of equipment, rate conversions, proper storage and the responsible disposal of unused products and empty containers. Training is also given to persons that are interested in purchasing restricted use pesticides, those pesticides considered too hazardous for sale to the general public. These persons are required to take an exam before a license is issued. The PCB also promotes the use of personal protective equipment (PPE) by pesticide handlers so as to protect the human body from contact with pesticides or pesticide residues.

(iv) Public awareness and the promotion of best practices is the second area of support to its core activities. This is done through the use of the media, promotional materials, participation and presentations made to institutions and special events such as schools, fairs, etc. The PCB is responsible for making the public aware of the overall hazards of pesticides with the aim also of preventing accidental poisoning especially of children which is a risk if the pesticides and pesticide containers are not stored and or disposed of properly.

2.08 The PCB has a good image and reputation in the agricultural sector, particularly among stakeholders that have relations with it, as well as pesticide importers and users. However, despite the dedication and knowledge of its technical personnel, its technical capacity is limited due to insufficient personnel to address the range of demands. Its field staff is limited to 5 persons, each covering a large geographic area and having multiple responsibilities.

SECTION III

ANALYSIS OF MAIN INSTITUTIONAL DRIVERS

3.1 Introduction

3.01 This section presents a discussion on a range of issues that are related to the PCB's personnel capacity, performance, technical services, strategic partnerships, and its constraints, image and credibility. They include those related to the overall direction of and the policy priorities for the agricultural sector and the PCB's role within this framework. The discussion also highlights factors related to management and operational aspects of the organization that are critical to its contribution to the sector and its support to the farming community, and presents some specific findings on a variety of issues based on a survey of the PCB's personnel and the opinions of the BoD.

3.02 The review and analysis of the PCB included the use of a questionnaire to capture information on the opinions of the organization's staff on a range of key institutional drivers, and the use of a questionnaire to capture the opinions of the BoD members on some key performance indicators (see **Table A.7 in the Annex**). Nine questionnaires were received from the technical and administrative staff and 13 questionnaires from Board members. In addition, a total of 35 persons comprising Board members, staff members as well as individuals from stakeholder institutions and persons familiar with the PCB's work were interviewed to provide their perspectives on a range of factors including the organization's performance, image, constraints and challenges (see **Table A.4 In the Annex**). The questionnaires were analyzed and the tabulated results and main findings are presented below.

3.2 Main Findings

3.2.1 Staff Questionnaires

3.03 The staff of the PCB is relatively young although several persons have been working for many years. Three-quarters of the staff belong to the category of technical personnel and the majority (67%) of the staff members have been employed for more than 8 years (see **Table A.6 in the Annex.)**.

3.04 The questionnaire asked the personnel on their knowledge of key institutional dimensions of the PCB, particularly on its general strategy and governance mechanisms. More than 80% of the staff indicate that they have a good or better understanding of the PCB's Mandate, its Mission and Vision and its Institutional Values and Principles (see **Table 3.1 below**). Most of the staff have a good understanding of the Board and its Committees – the EXCOM, the RCOM and the role of the Registrar. More than one-half of the staff members understands the decision-making role of the BoD and the overlapping responsibilities of the BoD and the EXCOM. However, only one-half and 44% respectively of the personnel have a good knowledge of the roles of the EXCOM and the RCOM, and the leadership responsibilities of the Board. Regarding the promotion of the work and image of the PCB, 75% of the responses indicate that the BoD and its Committees do a good job in promoting these but less than one-half (44%) feels that the PCB promotes its own image and work adequately.

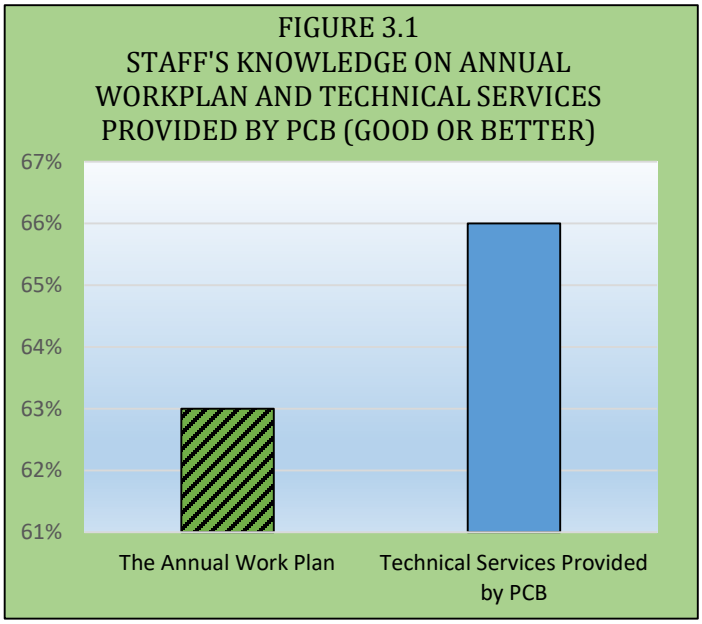
Table 3.1 - Staff's opinion of the extent of their Institutional Knowledge

Indicator	Good or Better
Q4 - Staff Understanding on:	
4.1 PCB's Mandate	**88%**
4.2 Mission and Vision of PCB	**88%**
4.3 PCB's Institutional Values and Principles	**89%**
Q5 - Staff Understanding on:	
5.1 The Board	**55%**
5.2 The Executive Committee	**66%**
5.3 The Registration Committee	**66%**
5.4 The Registrar	**89%**
Q6 - Rating of Board and Committees	
6.1 Leadership provided by Board	**44%**
6.2 Decision making by Board	**67%**
6.3 Overlapping responsibilities of Board and EC	**63%**
6.4 Overlapping responsibilities of Executive C and Registration C	**50%**
6.5 Promotion of work and image of PCB	**75%**

Note: The table above makes reference to section B in Annex A6

3.05 More than 80% of the personnel also feel that persons with whom they have a working relationship have a good or very good perception of the PCB. This response is not unexpected as 75% of the staff also felt that the PCB has made a good contribution to improve the use and management of pesticide in the country during the last couple of years (see **Table A.5 in the Annex).** In addition, the staff indicated that some major contributions of the PCB in promoting safer use and management of pesticides in the country include: expanded training and increased awareness of farmers in good pesticide use and management practices; better streamlining of the registration process and registration of diverse products; more information sharing via public awareness; the implementation of proper rules and procedures when retailing pesticides; a reduction in the use of unregistered products; and introduction of protective personal equipment across Belize to safeguard the health of mainly farmers and other users of pesticides.

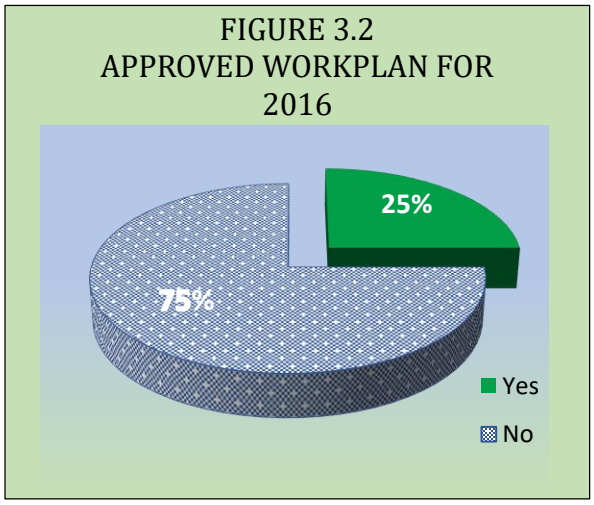
3.06 Although more than 80% of the personnel have a good understanding of the PCB's mandate, only two-thirds have a good or better understanding of the organization's technical services and even less (63%) have a good knowledge of its annual work plan (**Figure 3.1**). This reflects the need to improve information sharing and sensitization of the personnel on what and how the PCB seeks to achieve its goals.

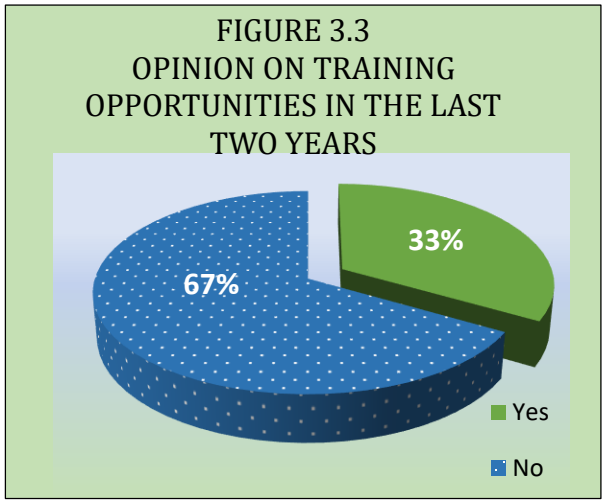


Note: The legend (x axis) on this graph makes reference to section C in Table A6 of the Annex

3.07 The staff were asked to provide their opinions on their job responsibilities, particularly on their understanding of what these are, if these responsibilities are reviewed periodically with their supervisors and the extent to which the PCB utilize their skills to execute the tasks

they have in their job responsibilities. The results of the survey on these aspects are found in **Table A.6** in the **Annex**. The staff indicated that: they do have an updated description of their job responsibilities (67%), but only 56% say that they have adequate information on their current duties and responsibilities; 76% indicate that the organization utilizes their skills and experiences, only 25% have an approved work plan (see **Figure 3.2 below**), and only 33% feels that the PCB have offered opportunities for training to improve their skills in the last two years (**see Figure 3.3 below**).





Note: The values on these pie charts make reference to section G, questions 20 & 22 in Table A6 of the Annex

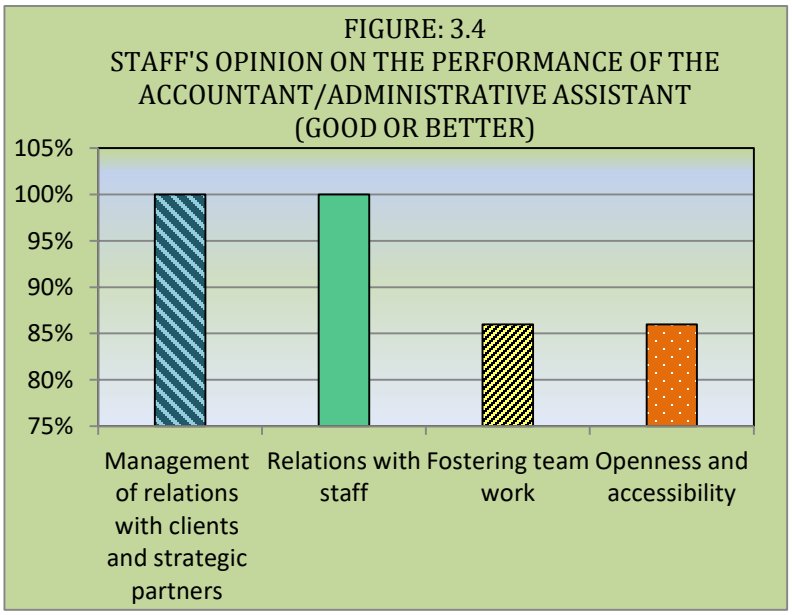
3.08 The staff graded the overall performance of the Registrar's leadership and management of the organization as good or better. **Table 3.2** below presents the main strengths and weaknesses of the Registrar on a range of factors. More than 70% of the staff indicated that the Registrar provides good leadership and management on: promoting the image and work of the PCB; management of relations with Government and strategic partners; understands and is sensitive to the culture and expectations of staff members. Only 63% felt that the Registrar did a good job at assigning tasks and responsibilities in an equitable manner.

3.09 In addition, a little more than one-half of the staff indicated that the Registrar did a good or better job at: motivating staff; encouraging team work; financial resources management; and holding regular staff meetings with staff. One factor on leadership and management that was graded the lowest was that training and staff development opportunities were not offered in an equitable manner (28%). On the issue of communications, one-half of the staff said that the Registrar uses formal and informal meetings as the more common means of communicating with them, while 75% of them feels that email is an important instrument for channeling communications.

Table 3.2: Staff's opinion of the Registrar's leadership and management	
Indicators	Good or Better
Q14 - Registrar's Performance on the following:	
14.1 Promotion of PCB's image and work	**76%**
14.2 Management of relations with the Government	**76%**
14.3 Management of relations with strategic partners	**75%**
14.4 Motivation of staff	**51%**
14.5 Encourage team work	**51%**
14.6 Financial resources management	**50%**
14.7 Equity in assigning tasks and responsibilities to staff	**63%**
14.8 Equity in offering training and development to staff	**28%**
14.9 Flexibility and tolerance to opinions from the others	**51%**
14.10 Informs the staff on her own responsibilities and meetings she attends	**51%**
14.11 Hold regular meetings with staff	**50%**
14.12 Dialogue, openness and accessibility of staff to the ES	**100%**
14.13 Understanding and sensitive to the culture and expectations of staff	**71%**

Note: The Table above makes reference to section E in Annex A6

3.10 The review also analyzed the staff's opinion on the Administrative Unit and its performance. As **Figure 3.4** below shows, the Unit received very high ratings from the staff on its performance with respect to management of relations with clients and strategic partners (100%), relations with staff members (100%), fostering team work (86%) and its openness and accessibility to staff members (86%).



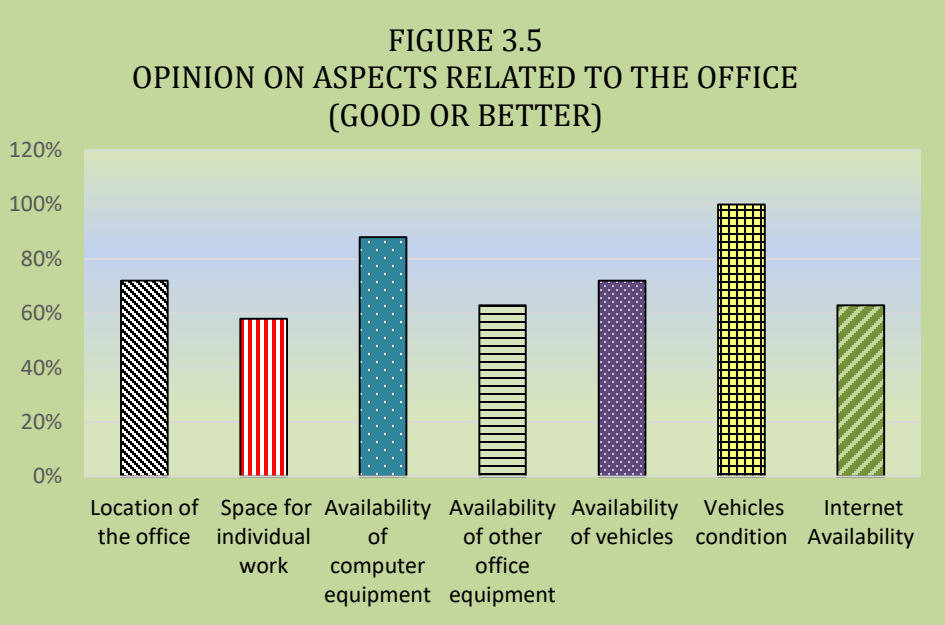
Note: The legend (x axis) on this graph makes reference to section F in Table A6 of the Annex

3.11 The staff was asked to indicate their opinions on their work environment, general communication and their office facilities. The results of the survey on these are found in **Table A.6 in the Annex. Table 3.3** below reflects a high rating of staff on various aspects of the work environment: general work environment; confidence among team members; openness to communication; commitment to work responsibilities, cooperation among the staff and motivation on the job by the staff. A lower rating (56%) was made on staff members' tolerance to criticism. Overall communications to discuss issues and improve their actions through staff meetings are considered to be good. More than 60% indicate that general communication, discussion on the work of the office and follow-up to decisions taken in the meetings are generally good or better.

Table 3.3: Work environment and communication among personnel	
Indicator	Good or Better
Q23 - Aspects of the work team	
23.1 General work environment	**89%**
23.2 Confidence among team members	**66%**
23.3 Openness to communication	**77%**
23.4 Commitment to work responsibilities	**67%**
23.5 Tolerance to criticism	**56%**
23.6 Cooperative attitude among staff	**88%**
23.7 Personnel motivation to the job	**67%**

Note: The Table above makes reference to section H in Annex A6

3.12 With regards to office facilities, two-thirds or more of the staff indicated that the location of the office is adequate or very good, there is adequate availability of computer and other office equipment, vehicles and internet availability to facilitate their work. However, most personnel (58%) indicated a lower rating on the availability and distribution of work space in the office (**see Figure 3.5 above**).



Note: The legend (x axis) on this graph makes reference to section I, question 26, in Table A6 of the Annex

3.13 Finally, the staff was asked to provide some suggestions on how to improve the PCB's performance of its technical services. The most important suggestions that they provided are summarized as follows:

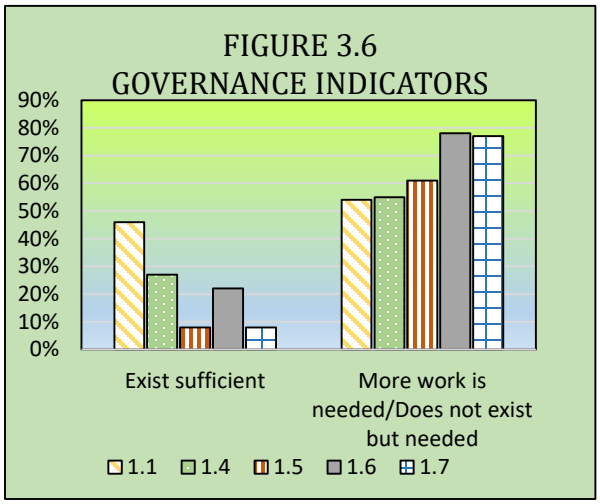
- upgrade the legislation and the regulatory aspects to include those related to registration and post-registration; general enforcement; revision and collection of fees; pesticide control operators; and aerial application;
- define the rules of procedures for the operations of the BoD and the EXCOM;
- periodic assessment of the technical programs and their performance by external persons;
- upgrade the National Pesticide Certification Program;
- field staff need more permanent and improved office facilities;
- capacity building of the technical and administrative staff;
- provide incentives to staff members; and
- technical personnel need to know how they are performing through more feedback and written comments from their supervisor when they are assessed.

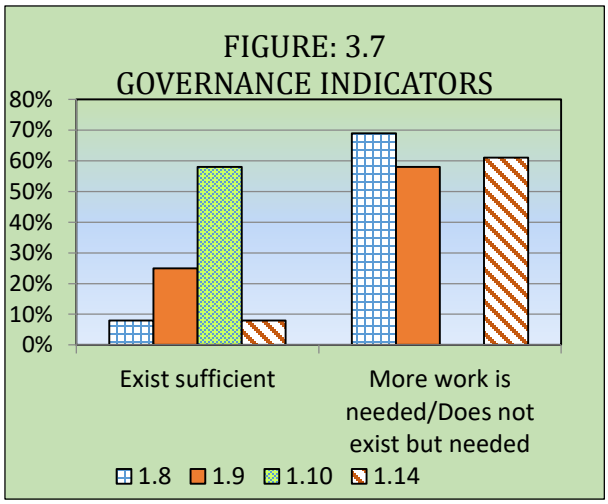
3.3 BoD's Perception on Performance Indicators

3.14 A survey was also done through the use of a questionnaire to capture the opinions of the BoD on performance indicators related to governance, planning, financial and human

resources and overall operations. The results of the survey are found in **Table A.7 in the Annex.**

3.15 On indicators of governance, the majority of the BoD responded that certain indicators do not exist or there is need to improve these in the organization. In particular, the areas identified by Board members to be improved are presented in **Figure 3.6 and Figure 3.7** below and these include: more work needs to be done to make the BoD more functional; clear and better definition and an improved understanding of the roles of the Board; Board members should receive regular training, sensitization and information about their responsibilities; new board be provided with an orientation on the organization, including the organization's mission, policies, and programs, as well as their roles and responsibilities as board members; the need for the Board to have bye-laws and a manual of operations to guide its work; and more active participation of the Board in the policy and planning process as outlined in planning section of the table.





Note: The legend (x axis) on these graphs make reference to Section 1, in Table A7 of the Annex.

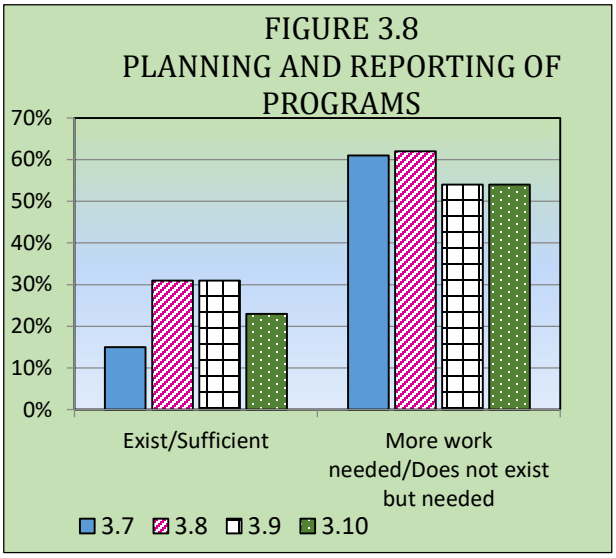
3.16 Systematic planning in the organization is weak or insufficient according to the BoD. More than 50% of the members feel that more work on all the planning indicators is needed or they do not exist is needed in the PCB (see **Table 3.4** below). The more important issues to be addressed (those that received more than 70% responses) are: the PCB's purposes and activities should be more in line and consistent with its clients' needs; the planning process should also identify the critical issues that the PCB faces; the organization' plan needs to clearly define the goals and measurable objectives that address the critical issues and develop timelines for their achievements; and an evaluation process be put in place and performance indicators identified to measure the progress toward the achievement of goals and objectives.

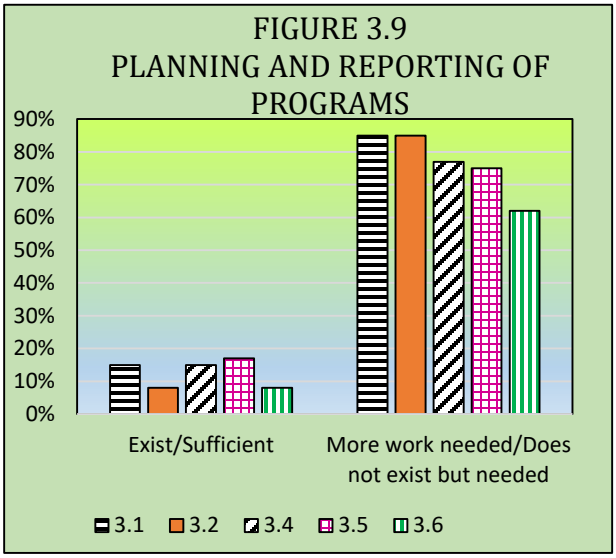
Table 3.4: Planning in the Organization[1]

	Indicator	Exist/ Sufficient	Needs Updating/More Work Does not Exist but Needed	Don't Know
2.1	The PCB's purpose and activities meet its client needs.	8%	77%	15%
2.2	The PCB frequently evaluates whether its activities and services provide the benefits needed by soliciting inputs from its clients.	8%	54%	38%
2.3	The PCB has a clear mission statement that reflects its purpose, values, services and the clients served.	42%	58%	
2.4	The Board and staff periodically review the mission statement and modify it to reflect changes in the environment.	15%	53%	31%
2.5	The Board and staff developed and adopted a written strategic plan to achieve its mission.	8%	61%	31%
2.6	The Board, staff and beneficiaries participate in the planning process.	15%	69%	15%
2.7	The PCB's plan was developed by analyzing the internal and external environment and the main challenges.	33%	50%	17%
2.8	The plan identifies the changing needs of the environment including the PCB's strengths, weaknesses, opportunities and threats.	33%	50%	17%
2.9	The planning process identifies the critical issues facing the PCB.	17%	75%	8%
2.10	The plan clearly defines the goals and measurable objectives to address the critical issues.	17%	75%	8%
2.11	The plan prioritizes the PCB's goals and develops timelines for their accomplishments.		75%	25%
2.12	The plan establishes an evaluation process and performance indicators to measure the progress toward the achievement of goals and objectives.	8%	75%	17%
2.13	Through work plans, human and financial resources are allocated to insure the accomplishment of the goals in a timely manner.	31%	61%	8%
2.14	The plan is communicated to all stakeholders of the PCB - Board, staff and beneficiaries.	23%	53%	23%

[1] Please note that columns 2 (needs upgrading/more work) and column 3 (does not exist but is needed) of the original questionnaire have been combined into a single column to reflect recommended indicators on which future actions need to be taken. Also, please note that the results presented here only reflect more than 50% of the responses in this combined column in the findings unless otherwise stated.

Planning and reporting indicators are not identified or specified in the planning and reporting activities of the PCB. This is reflected in the responses of BoD members on several indicators, of which the most important ones (those receiving more 70%) that need to be addressed are (see **Figure 3.8 and 3.9** below): the PCB needs to do more dissemination of information to the public on its programs and services; more opportunities should be provided to clients and potential clients to participate in the PCB's program development; more capacity building of the staff so as to have sufficient skills to execute the programs; and that the programs within the PCB be integrated to provide more complete services to clients.





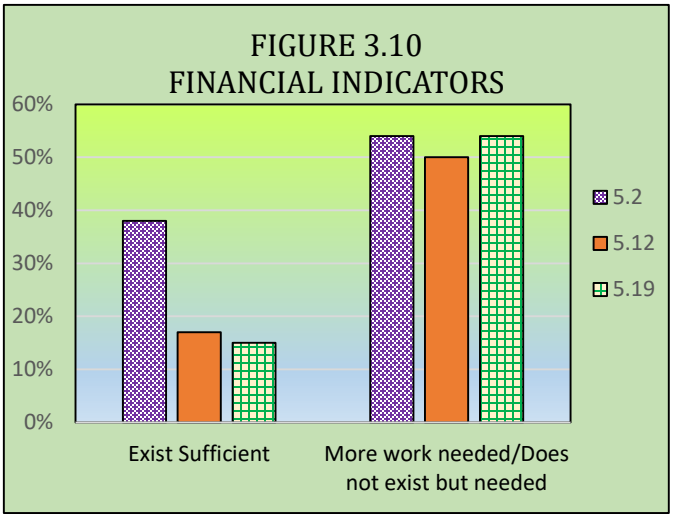
Note: The legend (x axis) on these graphs make reference to section 3 in Table A7 of the Annex.

3.17 According to the BoD's responses, little monitoring and no evaluation is done of the PCB's activities. In large part this is due to the absence of performance targets that should be defined on an annual basis to accompany the budget estimates, and there are no activities that focus on assessing their achievements. Although there are meetings of the BoD, the EXCOM and the staff on a periodic basis, much of the discussion focuses on activities executed rather than on achievements. There is also little review, monitoring or evaluation that is being done of the individual programs and on budget expenditures in relation to activities executed. In the absence of a clear direction with defined priorities and goals to be achieved and the absence of benchmarks at various levels, performance monitoring and evaluation will be difficult to achieve. Although these are the findings of the review, and given the list of evaluation indicators in the questionnaire, most of the BoD members indicate that the PCB is relatively weaker on only two indicators – annual reviews and evaluation done by the PCB on its activities to determine progress toward achieving its goals; and the need for greater stakeholder involvement in the evaluation process (see **Table 3.5 below**).

Table 3.5: Evaluation Indicators[2]

	Indicator	Exist/ Sufficient	Needs Updating/ More Work Does not Exist but Needed	Don't Know
4.1	Every year, the PCB reviews and evaluates its activities to determine progress toward achieving its goals.	15%	70%	15%
4.2	Stakeholders are involved in the evaluation process.	8%	58%	33%
4.3	The evaluation includes a review of the PCB's programs and systems to insure that they comply with its mission, values and goals.	15%	46%	38%
4.4	The results of the evaluation are reflected in its revised plan of work.	23%	46%	31%
4.5	Periodically, the PCB does a comprehensive evaluation of its programs.	25%	42%	33%

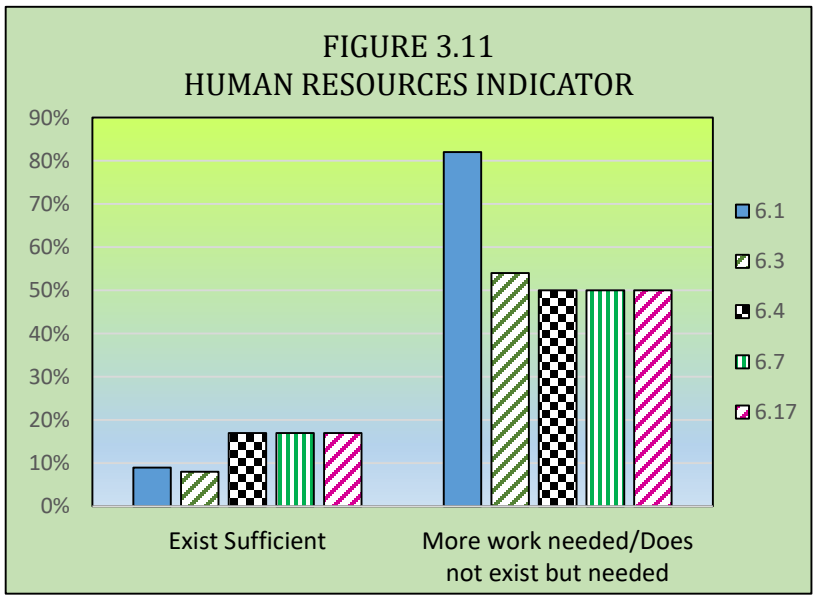
3.18 On financial indicators, the BoD gives a good rating on almost all of them. Only two were identified as requiring more action by most of the members: the PCB needs to put systems in place to provide more appropriate information needed by the Board and the staff to make sound financial decisions; and the PCB should have more suitable insurance coverage which is periodically reviewed to ensure the appropriate levels and types of coverages are in place (see **Figure 3.10** below).



Note: The legend (x axis) on this graphs make reference to Section 5, in Table A7 of the Annex.

[2] Please note that columns 2 (needs upgrading/more work) and column 3 (does not exist but is needed) of the original questionnaire have been combined into a single column to reflect recommended indicators on which future actions need to be taken. Also, please note that the results presented here only reflect more than 50% of the responses in this combined column in the findings unless otherwise stated.

3.19 The BoD indicated that the PCB needs to improve its work on several human resources indicators (see **Figure 3.11** below). The more important ones are: the need for a human resources policy and manual to guide on recruitment, termination, standard work rules, performance evaluation, promotion, vacation, etc., and providing a copy of or access to the written personnel policy to all Board members and staff members; the need for clearly written job descriptions including qualifications, duties, reporting relationships and performance indicators for its staff; employee performance appraisals should be conducted and documented annually; implement a pension system for its employees; and reward its employees for any outstanding and excellent work.



Note: The legend (x axis) on this graphs make reference to Section 6, in Table A7 of the Annex.

3.3 SWOT Analysis

3.20 A SWOT analysis was done to complement the information generated by the questionnaires to identify the PCB's strengths, weaknesses and the opportunities and threats that it faces as it looks ahead to execute its mandate. **Table 3.6** below provides a summary of the main strengths, weaknesses, opportunities and threats of the PCB. The design of the Strategic Plan and actions to be implemented are critical if the PCB is to address the weaknesses and constraints effectively and if the opportunities available are to be exploited.

Table 3.6

SWOT ANALYSIS MATRIX

Strengths	Weaknesses
• The PCB's history is credible and it has good experiences working on pesticides in the agricultural sector. • The legislative framework provides a strong and protective basis for its role and existence. • Its regulatory role provides it with a strong political and institutional leverage in the sector. • It provides a good platform to foster information exchange between partner institutions and regulatory bodies and networking with a common interest. • It has a functional governance system that has evolved over time based on institutional needs and policy direction. • Has a comparative advantage because of its knowledge of the sector, direct links with major suppliers, partner institutions and major producers. • It recognizes its role and most of the challenges it faces and has taken small but important steps to adjust to changing realities. • It is largely a self-financing organization that has a good cash inflow to fund its operations. • Its governance and operating mechanisms is comprised of several institutions that are interested to generate science-based solutions to	• From a policy standpoint, the absence of rigorous information locally on different dimensions and aspects of pesticide use to design and apply an effective pesticide policy framework using market-based instruments and environmental and/or health standards. • Heavy reliance on external information and experiences to support the registration and approval process. • Mechanisms do not exist to determine the longer term effects of pesticide use locally. • The legislation that defines and guides the PCB's governance, policy direction and operational effectiveness is outdated and weak (e.g., insufficient legal backing to address issue of non-compliance, etc.). • The governance system is too large and makes it disproportional to the operational base of the organization. • Rules of governance are weak due to the absence of manuals and terms of reference of the governance mechanisms. • Board members are volunteers and the organization does not get the desired level of inputs and contribution.

pesticide use management and their participation increase its value to the sector. • It facilitates a process of understating of the diversity of issues and scientific priorities in the theme it manages. • Financial reports (budget) reflect good transparency and accountability. • The PCB has a reasonable good credibility that is a result of continuity of leadership and very limited political interference. • It has a well-defined registration process that has been improving over time. • Its knowledge base and experiences on pesticides is good and has a comparative advantage in educating farmers on pesticide use and management. • Has development a good methodology to facilitate monitoring, surveillance and inspection for pesticide storage and retail outlets stores that sell pesticides.	• Systematic planning, monitoring and reporting mechanisms are inadequate. The current methodology and reports are not linked to pre-established indicators. • Rules of operations are also weak due to the absence of guidelines and manuals that define managerial and administrative procedures, financial management, reporting, etc. • Current reporting practices by the field staff is bureaucratic, involves excessive paperwork and burdensome on administrative staff. • Management and operational procedures need to be modernized as these have evolved over the years to perceived needs and exigencies. • Periodic review of the PCB's operations and effectiveness is not conducted in a consistent and systematic manner, nor is it tied to expected results making it difficult to track progress. • The Infrastructural support and validating mechanism(s) are insufficient for approving pesticides. • The technical evaluation process to do the risk/benefit assessment is weak or absent. • Systematic coordination with key partners to share information and coordinate work programs is absent • There is insufficient technical field staff for training, monitoring and ensuring compliance and legal use of pesticides. • Upgrading and training of technical staff is insufficient and this limits the PCB's effectiveness

	• No skills assessment or technical human resource needs carried out as challenges and situational dynamics change. • Arrangements for the field staff to share office facilities with partner institutions are informal and poor. • Not enough use of the technology available to streamline operations and increase efficiency. • Has a weak information base that is largely manually operated and not updated regularly.
Opportunities	**Threats**
• Much recognition by stakeholders of the need to update the existing legislation. • Much potential to develop collaborative relationships with key scientific resource institutions to serve as references for information. • Potential to develop more formal arrangements with other institutions for sharing facilities and coordination of work programs in the sector. • Collaboration with private agencies to provide training to technical staff. • Availability of many learning opportunities (meetings, workshops, internet, trainings, etc.) for capacity building of staff. Audit in banana sector reflects opportunities for technical staff to build skills. • The PCB is currently in a sound financial situation to facilitate critical investments for its strengthening.	• Delayed updating of the legislation can reduce the PCB's effectiveness and leverage in the sector. • Making the regulatory framework too expensive, burdensome and expensive to stakeholders. • Financial sustainability in the future – factors that affect the sustainability of large sub-sectors such as a reduction in banana production, closing of the papaya industry, use of GMOs and other technical factors could affect importation as a result of certain chemicals becoming obsolete, ban of certain active ingredients that affect importation of pesticides, etc. • Loss of institution's credibility due to lack of enforcement. • Deteriorating and limited infrastructure to facilitate PCB's operations.

• There is potential to develop additional revenue sources to support financial sustainability and expand technical staff base. • Potential exists to develop closer working relationship with private companies and for staff to participate in the testing and validation of the efficacy of products in the field. The main objective of the involvement would be from an educational and post registration standpoint. • A wide range of methodologies exist for more effective training of farmers and capacity building of the staff (e.g., Farmer Field School, use of video and online technology, etc.). • The technology is available to streamline the managerial and administrative processes and establish a robust technical information system.	• Effectiveness of PCB's work depends on maintaining continued collaboration with other institutions. • Threat to human health and the environment due to existence of "unknowns" as a result of weak monitoring and surveillance. • A rapid change in the regulatory framework that can affect PCB's work and effectiveness. • Illegal smuggling and use of non-registered pesticides and other agro-chemicals. • Reforms and development of new international standards that take considerable time to be incorporated into the PCB's decisions and operations. • Rapid developments in technology may facilitate the availability of substitutes (other technologies) with the same effect as pesticide products. • Absence of incentives for safer and responsible use and management of pesticides.

SECTION IV

STRATEGIC PROPOSAL AND PLAN

4.1 Introduction

4.01 This section presents the framework and a discussion on the Strategic Plan 2017-2021 for the PCB. In a sense, the SP presents a series of recommendations that provides a road-map for the organization for the medium term, based on the diagnosis and review of various aspects. The previous two sections discussed findings from a review of the PCB including its internal and external dimensions, the quality and effectiveness of the current technical services it provides, internal organizational aspects related to governance, management and administration, the PCB's capabilities and its strategic partnerships. The future direction of the PCB that is presented in this Section reflects its Vision, Mission and Values, the need for a more pro-active organization that not only has a sound vision and leadership to implement its mandate in the sector, but improved governance mechanisms, streamlining of operations and one that will facilitate more effective dialogue and consensus building among the key stakeholders and partners. The Plan also addresses the many managerial, technical and operational issues that affect the PCB's overall performance, its efficiency and contribution to the sector, and a basis for defining a more streamlined role and interventions in the sector. The findings from the questionnaires, the interviews with BoD members, staff and other stakeholders and their suggestions are also a part of the package of recommendations in the SP.

4.02 Although the findings from the two questionnaires and the interviews of stakeholders, along with the SWOT analysis that were presented in Section III provide a good basis for designing a Plan for the PCB, there are still many challenges that need to be considered within the context of strategic planning for the organization. A forward looking PCB needs to consider the changing dynamics of the environment and how it needs to position itself to address these while continuing to remain a relevant and effective organization in Belize's agricultural sector. This Section addresses some key strategic challenges of the PCB before entering into the elements of a Strategic Plan for the next five years.

4.2 Strategic Perspectives: Some Challenges for the Agri-Food Industry

4.03 As indicate before, the 1980s witnessed an expansion of Belize's agricultural sector particularly with the emergence of new production areas and the commercialization of agricultural activities for both the domestic and export markets. To facilitate this process of growth, the PCB was established in 1988 by legislation to safeguard human health and the environment through the responsible use and management of pesticides.

4.04 The agricultural sector plays a significant role in the economy, accounting for more than 60% of total exports, about 18% of employment and about one-sixth of total GDP (inclusive of manufacturing activities that are agricultural-based). The country has been a net exporter of various agricultural products (sugar, bananas, citrus products, corn, rice, beans, papayas, marine products and cattle being the major ones) and increasingly self-sufficient in a range of food products such as corn, beans, chicken, eggs, beef and pork and a high level of self-sufficiency in rice, potatoes, onions and certain vegetables. The agri-food sector has been a strong growth pillar and sometimes has been resilient in recession, experiencing growth even when the economy has declined. The country's growth and expansion will largely depend on increasing incomes domestically and the penetration of its exports in foreign markets based on price and quality competitiveness and efficient delivery systems among other factors. It is therefore vital that the country's agri-food industry is well-positioned to exploit an increasingly sophisticated and consumer-oriented market locally as well as to capitalize on the growing demand for food in external markets.

4.05 However, the sector faces a number of key challenges as well as threats, particularly in the areas of increasing its competitiveness in both the domestic and export markets, meet new international standards and export requirements and climate change adaptation, while at the same time achieving a high level of sustainability, and safeguarding human and environmental health. Some key challenges are highlighted below in the context of the government's overall policy priorities for the sector, and more particularly with respect to human and environmental health and the safer use and management of pesticides and other agro-chemicals.

(i) There are variations in the properties of pesticides with respect to their composition, site and timing of their application, efficacy, cost, environmental effects, toxicity, availability of alternatives, and compatibility with other alternative activities such as integrated pest management and sustainability and welfare issues. In efforts to safeguard human health, there is increasing consumer concern about pesticide use and

its residues in crops and food products around the world which has led to countries including Belize to take measures at reducing pesticide usage through a regulatory framework for safer use and management of pesticides. Furthermore, the rapid development of new technologies and the production of increasingly new agro-chemicals, many of which may not meet minimum standards for use in agricultural production and processing, require constant policing and vigilance as a public policy priority by national authorities. This is a major challenge to Belize given the limited institutional capacity and resource availability to address the range of concerns in this area. Belize needs to constantly upgrade its knowledge and information base, as well as its technical human resource capability and accompanying institutional infrastructure to meet this challenge. The PCB as the principal regulatory body has to carefully analyze the advantages and disadvantages of pesticide options on an objective basis for approval of pesticides and promotion of safer practices, as well as a possible reduction in pesticide use and residue management decisions based on a scientific, legal and economic basis.

(ii) A related challenge to the above is the increasing attention to food safety and pesticide restrictions in a range of export agricultural and food products destined to both the domestic and export markets. Existing standards are being raised and new standards are being imposed to meet both the increasing knowledge about health and safety risks and increasing aversion to risk in importing countries. Given that export agriculture will remain the main driver for both sectoral and economic growth in the country for years to come, food safety issues and higher standards and requirements in export markets require an even more rigorous approval process for pesticides accompanied by a more effective monitoring and control system. In this regard, the role of the PCB, BAHA and other public institutions are critical to overseeing the country's adherence to such export market requirements.

(iii) In the domestic market, two key factors are critical in the area of pesticide use for a growing population and an expanding food demand. First, the growing importance of the tourism sector in the economy, particularly as a source of income and markets for domestically-produced food means that Belize needs to have effective policy measures to protect and safeguard this sector. Second, rising incomes and greater health consciousness among the population mean that consumer tastes and preferences for food will constantly be changing. This will require the PCB to work with other institutions to ensure greater safety to human health from both domestic food production and food imports. In addition, this area is critical to the government's

strategic efforts of contributing to a more enhanced food and nutrition security of the country.

(iv) Belize is very vulnerable to the adverse effects of climate change and climate variability and its agricultural sector, particularly the main export commodities and rural communities are all vulnerable to the impacts of climate change. Climate Change and climate variability will continue to impact the country's agricultural systems and practices such as soil fertility and land preparation; pest and disease control; and water requirements (both excess and deficits). Higher temperatures will cause increased stress on current livestock breeds, and crop types and varieties.[3] Evidence in various countries has shown that climate change is an important factor in the introduction of new and expansion of existing pests and diseases in various food crops. Farmers are likely to address this issue through the use of pesticides and other agro-chemicals as the dominant form of pest management for crops that are highly susceptible to insect attack, increased pest incidence, use of unauthorized pesticides and the lack of advice on alternative methods of control, among others. This is an important challenge to be addressed in agricultural strategies and by institutions such as the PCB, BAHA, the Extension Services and the Department of the Environment, in the context of the government's policies on better natural resources and environmental management and safeguarding human and environmental health.

(v) Belize needs to be more mindful of the environmental impact of agricultural pesticide use and the adoption of appropriate policy measures to reduce impact. More work needs to be done on replacement of relatively hazardous pesticides by other products or management practices not yet identified, and incentives provided to farmers to use less pesticides and/or choose the least environmentally-risky chemicals. This requires an urgent need to develop more comparative environmental assessment tools for pesticides, for use by both policy makers and agricultural stakeholders.

(vi) Belize has porous borders through which various food commodities as well as agricultural inputs are brought in from neighboring countries, both officially and unofficially. The country needs to remain vigilant and increase its policing and monitoring of the "smuggling" of unauthorized pesticides and other agro-chemicals in

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[3] See report on A National Adaptation Strategy to Address Climate Change in the Agriculture sector in Belize prepared for The Caribbean Community Climate Change Centre Belmopan, Belize and The National Climate Change Office Ministry of Forestry, Fisheries and Sustainable Development Belmopan, Belize, 2015.

order to effectively enforce its policy on pesticide use and management. In addition, "smuggling" of even authorized and lawfully approved agro-chemicals are likely to affect the revenue base of the government as well as that of the PCB.

(vii) In many developing countries, pesticide poisoning causes more deaths than infectious diseases due to poor regulations, monitoring of and easy access to pesticides. Although this may not be a serious problem in Belize, this is an issue that require continued vigilance by the PCB, in collaboration with other institutions in the health sector. The safer use as well as the use of safer pesticides would contribute to better human welfare and eliminating or at least decreasing the number of deaths.

(viii) A broader more integration approach involving enforcement by a range of institutions in Belize with responsibilities for existing policy measures, the need for new ones and better coordination would be required to address the broad area and issues related to better pesticide use and management. In addition to those identified above, there are issues related to capabilities, positioning and responses to be addressed in the shorter and longer term. These include outbreaks of animal and plant diseases and various emergencies in the food chain, reduce chemical fertilizer usage and adopting alternative approaches to reduce the environmental impacts on soil and water quality and more environmentally sustainable farming practices can together contribute to more efficient farming, and facilitate improved competitiveness in the agri-food sector. The range of issues pose unknown risks from both diseases and contamination hazards and require a more integrated approach, between and across Government, farming groups and the private sector to carry out risk surveillance and risk management along the food chain, and to deal with emergencies effectively on the basis of risk assessment and by building resilience into institutional strategies.

(ix) In a world where the dynamics are rapidly changing the PCB needs to be on the cutting edge of the knowledge and information space. The demand for more and better information is accelerating in today's knowledge-based and increasingly complex society, and the PCB's role in informing the agricultural community and constantly positioning it for better preparedness is growing in importance. At the same time, like other institutions, the PCB is being asked to do more with declining **real** resources. Essential to an effective response to these demands are telecommunication and computer technology developments that can enhance the PCB's analytical capabilities and improve its communication with partners and stakeholders. In this regard, the

organization needs to invest in integrating new information technologies into its operations.

4.3 Vision, Mission and Values

4.06 The first step in the development of an effective strategy is to define the organization's Vision, Mission, and Core Values in order to achieve its Strategic Goals. The Vision, Mission, and Core Values are the foundational elements of the PCB's Strategic Plan. The formulation of the strategy begins with the conceptualization of a vision or mission statement that reflects the organization's strategic intent or purpose.

4.3.1 Vision Statement

4.07 The PCB's vision statement provides its stakeholders on the direction where it wants to go and what it proposes to be at the end of its journey. That is, the vision indicates what the PCB wants to accomplish ultimately. It captures the organization's aspiration and helps the employees to feel that they are part of a larger scheme than their individual work activities. The vision statement incorporates the dynamic changes that are taking place in the environment and the process of internal adjustment and transformation that the organization needs to enact during the medium term in response to such changes.

4.08 The PCB's Vision is:

A Belize where the environment and associated eco-systems, human health and socio economic development are protected through the rational use of pesticides.

4.3.2 Mission

4.09 The ***Mission Statement*** reflects the primary purpose of what the PCB actually does; that is, what products and services it plans to provide to accomplish its goals. Building on its vision, the PCB provides a range of services to ensure safer use of pesticides to protect human and environmental health. Its mission is:

To safeguard the health of the Belizean people and the environment, through pesticide regulation and capacity building, thus promoting the availability of wholesome food through rational pesticide management.

4.10 Based on the Vision and Mission, the PCB's overarching goal is: *Increase the responsible use and management of pesticides to protect human health and the environment of Belize.*

4.3.3 Values

4.11 To achieve the goals of this Plan, the PCB will be guided by a set of Core Values or good practices that it will seek to have in place. These values reflect the ethical and legal norms and standards and best practices that will govern its governance mechanisms, personnel and their activities in pursuit of its vision, mission and goals. The PCB will be guided by the following principles to address the challenges of safer use and management of pesticides for the purpose of safeguarding wholesome food availability and human and environmental health:

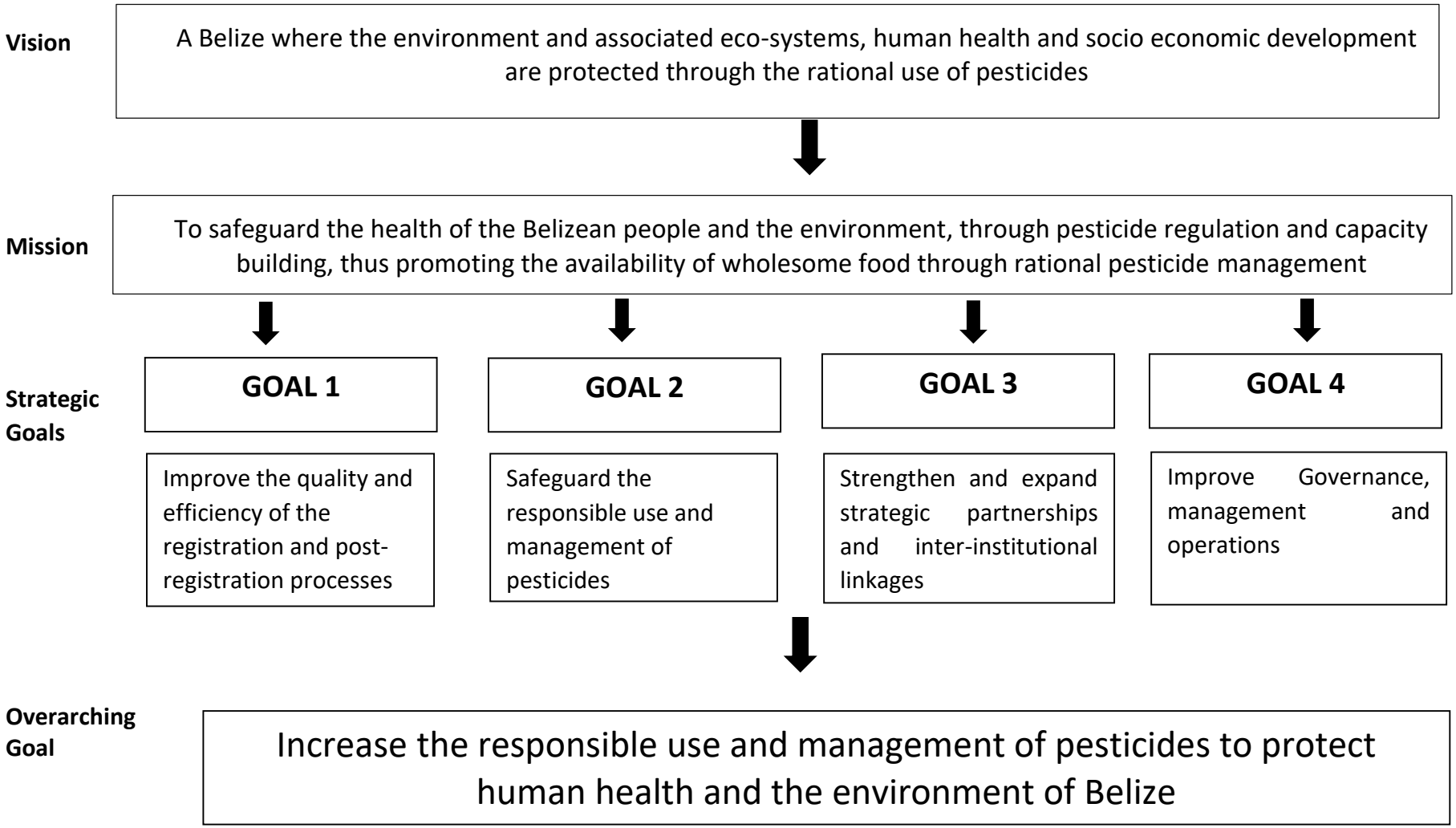
- Legal and science-based decisions;
- Strong ethics;
- Service and results-oriented;
- Teamwork;
- Transparency
- Accountability;
- Inclusive decision-making; and
- Environmentally responsible

4.4 Strategic Goals

4.12 After the analysis and findings discussed in the previous sections, the key questions to be raised in the strategic planning process is to decide on what needs to be changed, how will the changes be done and who will make the changes. The SP seeks to transform the suggestions of the BoD, staff and stakeholders and the desired changes that were identified in the SWOT analysis into clear goals. This needs to happen in all layers of the PCB, its governance mechanisms as well as in its operational levels.

4.13 In light of the above discussion, **four goals** have been defined in the Strategic Plan to be pursued over the next five years (see **Figure 4.1** below). An Action plan accompanies this Strategic Plan that provides more details on the expected results and actions to be executed, while the outputs, activities and their indicators together with the accompanying budget will be defined on an annual basis.

Figure 4.1: Overview of the Strategy



4.14 Each goal describes the organization's objectives and the priority actions that it will execute to achieve them. Basically, these goals reflect a more consolidated and focused approach by the PCB that builds on its experiences over the years and its knowledge of and the challenges faced by the sector. The Plan advocates: the search for more innovative and cost-effective ways for the PCB to provide its services; expand its technical capacity; adopt a more science-based approach to provide information to guide its decision-making; expand its outreach services to sensitize and train various groups within and beyond the agricultural sector; modernize its technological platform to manage and diffuse information; strengthen and expand its engagement with existing partners and networks and seek to engage in more diverse partnerships; enhance its financial sustainability; and modernize its governance system, managerial and operational processes to enhance sustainability.

Strategic Goal 1: Improve the quality and efficiency of the registration and post-registration processes

4.15 Pesticide manufacturers apply through a local representative, to the PCB for the registration of pesticide products in Belize. There is a checklist of documentation that they must submit along with their application for approval by the Registration Committee (RCOM). Under the current system, the PCB relies heavily on the information provided by the manufactures and third parties' evaluations and recommendations for the authorization of pesticide products to enter the country. The approval process may take anywhere between three (3) and six (6) months or even longer depending on the sufficiency of the information and the analysis by the RCOM. Once approval is given, the approved products are then imported, sold and distributed to farmers and industries through one or more of seven (7) local companies. The PCB recognizes that that there is a need to improve the evaluation process and it will strengthen its efforts to ensure that the process has the necessary rigor and thoroughness that are needed to ensure human and environmental health protection. Once these products have entered the country, it important that PCB develop and maintain a post registration surveillance system for the monitoring of the use of these pesticides as well as to establish a process for re-registration and unscheduled reviews of registered products.

4.16 Four key challenges have been identified to be addressed in the medium term to support the registration and re-renewal of registration decisions. These include:

- The reliance on most information from external sources and the lack of sufficient and adequate scientific, in-country based information to support the decisions; however, generating much of the information in country can be expensive and prohibitive and out of the realms of possibility of the PCB.

- the absence of a lab in the country to test the composition of these products and provide the science-based information needed;

- the limited pool of local expertise than can be used as references to support the process; and

- the limited and inadequate facilities and capacity in-country to conduct sound and science-based field trials to test the efficacy and impact of the products.

4.17 The first and second challenges to improve the quality of the registration process will be addressed also in strategic goal 3.

4.18 In this goal the PCB's actions will focus on:

(i) Develop as far as possible, a more rigorous science-based verification and validation process to support the registration of pesticides and related substances - assessing the safety, efficacy, quality and economic value of pesticide products with a view of registering them, if found suitable and acceptable.

(ii) Re-evaluating the products that are renewed every 5 years, to ensure that the products meet current scientific standards for their use.

(iii) Improving the information base to support the approval and registration process by expanding the list of references (both nationally and internationally).

(iv) Assess the viability of establishing a lab in-country with other partners or upgrade an existing one to facilitate the testing of pesticide and other products for the PCB's use, as well as providing testing services for partner institutions.

(v) Improving the PCB's participation in field validation trials of the products.

(vi) To manage the risks associated with registration of new pesticides, the PCB plans to conduct periodic re-evaluations of those pesticides with the most current scientific knowledge and standards.

(vii) Increase its involvement in the testing of the products through opportunities for joint review with institutions such as CARDI, the Research Department of the Ministry of Agriculture and other institutions involved in research such as CREI and SIRDI. In addition develop an on-line multi-indexed manual for pesticides with regular updates as new products are approved. This would facilitate for different types of search of products.

(viii) Identify and hire expert or specialized personnel to support the registration process in the medium term. An assessment should be made to consider whether it is more effective to hire these experts on a part time or consultancy basis or as full time permanent staff. Nevertheless acquiring this expertise in house would reduce the dependency from outside support.

4.19 The PCB has improved its registration process in the last two years by increasing the efficiency rate at which it analyzes and approves applications. However, it recognizes the need to streamline the delivery of the application, registration and licensing processes by making these more efficient and effective for both its needs and those of its clients. In the last year the PCB increased its technical capacity by hiring a technical officer to strengthen the review and screening of the dossiers submitted by applicants, ensuring that these meet its requirements. This person also conducts research on information available to verify the information submitted by the applicants. This has assisted with a more efficient and timely flow of the dossiers submitted to the Registration Committee for review and recommendations for registration of the products. However the PCB recognizes that there is scope for improving the efficiency in the registration process. In this regard, it will improve the technology use to improve the scope of its work and efficiency in a few areas to:

(i) Speed-up the registration, licensing and renewal processes and enhance operations, including the development of a tracking system of all the products registered for their timely renewal if and when required.

(ii) Ensure that all supporting documents have been submitted and payment has been made.

(iii) Develop a program to automatically notify registrants of the review status of their applications for registration.

(iv) Publishing an annual summary of regulatory changes to help keep applicants current on regulation, policy and procedural changes.

(v) Develop online access to PCB's database of registered products.

(vi) Improve the sensitization and orientation of clients of the registration and licensing processes.

(vii) Promote and verify compliance with the Pest Control Act (PCA) and its requirements.

(viii) Conduct risk evaluation and make risk management decisions based on all available data and information

(ix) Maintain a dialog with the applicants and supporting institutions on all matters related to registration

(x) Establish cleat criteria for granting, deferring or refusing registration in a timely and transparent manner

(xi) Set up systems that allow for appropriate checks and balances in decision making

(xii) Redefine the criteria for the classification of registered pesticides and conditions for registration

(xiii) Establish and maintain a post-registration surveillance system for the monitoring of pesticide use under actual conditions

(xiv) Establish procedures for re-registration and unscheduled reviews of registered pesticides

(xv) Cooperate with other governments in the establishment of harmonized pesticide registration requirements, procedures and evaluation criterial, taking into account internationally agreed technical guidelines and standards.

(xvi) Comply with the requirements of, or use as guidance, multilateral agreements for control and management of chemicals.

(xvii) Contract professional services to design and implement an information system to manage the pesticide registration scheme

(xviii) Develop a quality control scheme to ensure that the pesticides on the market comply with the physical and chemical properties declared at the time of registration

Strategic Goal 2: Safeguard the responsible use and management of pesticides

4.20 Consistent with its mandate, the PCB strives to encourage the development and adoption of good pesticide management practices that reduce the overall risk to human and environmental health. On a national level, compliance with the regulation is reported as 'moderate', particularly for those importers and users of pesticides that are monitored. There are only 7 importers but there several users in agriculture including industries, farmer associations and groups who are certified, but who are not regularly inspected by the PCB. This is attributed to insufficient technical field staff (only 5 for the entire country) as well as financial constraints to inspect each pesticide retail and storage facility. In addition, the PCB is also responsible for the licensing of both Private and Commercial Applicators, as well as pesticide dealers. In addition to its licensing responsibilities, the PCB works towards ensuring the safe use of pesticides by:

- Training and sensitizing farmers, applicators, industry personnel, extension staff of the Ministry of Agriculture, private sector and civil society. The training programs are a mechanism to ensure that users are aware of their legal obligations and are able to identify, reduce and mitigate the human and environmental risks associates with the use of pesticides such as poisoning, skin and other health problems, contamination of water bodies and ecosystems and biodiversity loss.

- Performing routine inspections of pesticide distributors and retailers to ensure that restricted-use pesticides are sold only to licensed applicators and that dealers follow the labelling and storage regulations.

- Routinely inspect the facilities and operations of commercial applicators.

4.21 However the PCB recognizes that there are still substantial deficiencies in the post registration surveillance, monitoring and enforcement programs. In this goal it aims to consolidate and improve these programs by:

(i) Strengthening the training program to ensure that those who use or advise on the use of pesticides are trained sufficiently so as to warrant that these chemicals are used appropriately and responsibly, and that farmers and applicators are able to make the necessary conversions of quantity to area and appropriate protective equipment is used.

(ii) The training modules delivered by the technical assistants in each zone will be standardized and training materials will be developed to support the program.

(iii) Expanding inspections to government agencies including schools that have employees that apply pesticides (Central Farm, College of Agriculture, ANRI, Belize High School of Agriculture, Escuela Secundaria Mexico, Tumulkin, etc.).

(iv) Improving monitoring to ensure that pesticide products are properly labelled in cases of repackaging of pesticides and that pesticide containers are properly disposed.

(v) Strengthening its outreach services as a means of communicating and raising awareness of the regulatory requirements of the Pesticides Control Act (PCA), and creating greater awareness in the general public on all aspects of safety, storage, handling and use of pesticides.

(vi) Improving the current manual as a multi-indexed resource and converting it as an on-line resource ensuring that this resource is continuously update and improved in accordance with the approval of new products.

Strategic Goal 3: Strengthen and expand strategic partnerships and inter-institutional linkages

4.22 Although the PCB has improved its services over the years in response to emerging challenges and needs, it recognizes that the quantum and scope of these services are limited due to financial, human and infrastructural resource constraints. It also recognises that the challenges to address the constraints effectively cannot be done by the PCB alone,

and that its work is complementary to and complemented by the work of several national institutions.

4.23 The PCB's goals and activities often crosscut with the interests and concerns of other national institutions in Belize's agricultural sector and other government departments. In some situations, the organization works in close partnership with these institutions to achieve mutual goals, while in others, the PCB provides information for their use. For example, there are common areas of work in the PCB that are of mutual interest to BAHA, the Extension Service of the Ministry of Agriculture, Bureau of Standards, the Department of the Environment, CARDI, etc.

4.24 Although the PCB has made efforts to engage through partnerships with institutions such as BAHA and CARDI locally, and the Central American Grupo Tecnico de Plaguidcidad (GTP) convened under the auspices of the OIRSA and other institutions regionally to better execute its mandate, a much higher and more consistent level of engagement is necessary. Belize's pesticide registration/labelling regulations are mostly harmonized with Central America due to the fact that most pesticides imported into Belize are traded within the Central American region. However, the GTP has been dissolved. The Registrar has recently obtained contact information of her Central American counterparts (although there is a high turnover of these persons due to the manner in which they are appointed after national elections) to pursue information in reference to recent advances in regional harmonization via the Union Aduanera.

4.25 It is important for the PCB to increase its cooperation with different stakeholders and the development of new partnerships across sectors. The potential benefits of such cooperation include enhanced awareness of the issues related to pesticide use and management, improved dialogue, shared expertise and information, and the development of joint actions and capacity. Many agencies undertake activities related to the PCB's activities or are in a position to assist it through partnerships in some of its core areas of work.

4.26 The PCB will execute several actions to achieve this goal that aims at strengthening existing national partnerships and networking to share information; coordinate enforcement strategies; develop frameworks for promoting other strategic partnerships and inter-institutional linkages; and explore the opportunities to raise the profile of pesticide issues in the implementation of its mandate, leverage resources and consider collaborative approaches.

4.27 The PCB believes that it is critical for the public sector to be at the table with other stakeholders to provide differing opinions and insights. A diversity of expertise and perspectives can result in the identification of emerging issues and enable its stakeholders to take a more proactive approach to its sustainability. It envisages that stakeholder engagements are collaborative and solutions oriented and it will be an active participant in these dialogues, and along with other stakeholders, offer honest and constructive feedback. A key part of this strategy is that the PCB intends to create greater accountability and to also help its stakeholders and partners to develop the mutual trust necessary to work together to identify solutions for sustainability challenges.

4.28 The key actions that the PCB will concentrate on to achieve this goal are:

(i) Create a forum to provide an opportunity for direct dialogue between interested agencies and organizations on sharing information and experiences, discuss emerging issues and find solutions to existing challenges, and consider collaboration to ensure that there is the regulation, responsible use and management of pesticides.

(ii) Use the forum in (i) above as a platform to bring the public and private stakeholders, producers and the NGO communities together in constructive dialogue to advance the PCB's organizational sustainability performance. This engagement model will comprise a group of credible external stakeholders that can provide ongoing inputs on policy, strategy and improving performance.

(iii) Develop an agenda within its annual work plan for coordination of actions, serving as references and obtaining feedback on collaborative projects, as well as to identify some priorities for further work, identify gaps, and possibly to establish new partnerships for collaborative work.

(iv) Identify opportunities for countries to provide knowledge and expertise and capacity building for it to carry out its mandate more effectively, particularly on improving the quality of the registration process in addressing the lack of sufficient and adequate information available and the limited pool of local experts to use as references.

Strategic Goal 4: Improve Governance, Management and Operations

4.29 The PCB's capability to provide services effectively to the agricultural community and be sustainable over time depends much on its governance system, sound management and operations. These are areas that need constant review and upgrading to improve their adequacy and efficiency for meeting the ever changing dynamics of the environment. The PCB recognizes several deficiencies and weaknesses internally that affect service delivery and performance.

4.30 The organization is currently under-staffed and lacks the appropriate structure to allow for greater delegation of responsibilities, less micro-management and providing technical and advisory services more effectively. Since it commenced its operations in 1988, almost 30 years ago, it has remained as a small organization having 9 staff members today to execute its mandate - a Registrar who also serves as the Manager/Director of the Board, 2 administrative support staff and 6 technical staff which includes 5 technical assistants who work in the field.

4.31 As a result of the deficiencies in the structure of the organization at the operational level, the governance mechanisms of the Board which comprises 14 representatives from the public and private sectors and farming group and the Executive Committee have taken on an increasing role in various aspects of management and operations, in addition to making decisions on strategy and the budget. The management of the organization relies heavily on the EXCOM for managerial and administrative decisions whose recommendations are then tabled to the Board for final decisions. This method of operation can be partly attributed to the varying managerial styles of the various PCB chairmen which led to a high level of micro-management on their part. This may have occurred due to the lack of standard policies, procedures and manuals to guide the role of these bodies – the Board, the EXCOM and the Secretariat.

4.32 Good governance is critical for sustainability, and the issue of sustainability in all its dimensions is a central challenge for the PCB. Two dimensions of good governance is to define the appropriate roles and responsibilities of the Board and its committees (EXCOM and the RCOM) and to contribute to longer-term value creation. Besides bringing new thinking into the decision-making process at the Board's level, sustainability begins with oversight and commitment by the Board and this follows through into the management system and processes that integrate various aspects of sustainability into day-to-day

decision-making. It is this chain of accountability that extends from the PCB's Board to the work at the field level that drives home the importance of achieving truly sustainable performance by the organization.

4.33 It has been almost three decades since the Pesticides Control Act was enacted. Since then, it has been recognized that the legislation needs to be modernized, updated and strengthened to allow the PCB to be more effective in discharging its mandate. A few areas that have been identified that need attention under the legislation include: the composition of the Board, formalization of the Executive Committee and the Registration Committee, better enforcement mechanisms, and regulation of areal application of pesticides. Furthermore, the governance mechanisms and their roles need to be streamlined to reflect well defined responsibilities with minimal overlapping.

4.34 The PCB's current internal operations are very process-driven and cumbersome making an unnecessary heavy work load for the staff. In part this resulted as an effort to address some of the concerns coming out of the 2014 independent audit of the previous 7 unaudited years. Observations by the auditor were made on the budget line item with the highest expense, that is, field operations. A financial procedures and internal controls manual was produced as a result of this audit. The current operational processes arose from actions taken to improve transparency and accountability as it related to the field operations. Nevertheless, many of the processes need to be streamlined, reducing the paper work involved and making the process less bureaucratic and cumbersome for the staff. Guidelines need to be developed to streamline both the operations and provide greater transparency to the process, particularly in the areas of planning and monitoring, human resources and financial management.

4.35 The actions that it will implement will focus on five key broad areas to achieve this strategic goal. These are:

(i) Governance and Management
(ii) Human Resource management and development
(iii) Financial Management and financial sustainability
(iv) Planning, budgeting and monitoring
(v) Modernising and updating the existing legislation to strengthen its capacity to effectively lead and champion the regulation that govern the use and management of pesticides in Belize.

4.36 The main actions that it will execute for this goal will be the following:

(i) Create a more balanced governance and operational structure given that the governance mechanisms (14 members plus EXCOM members) together is much larger than the operating mechanism (9 staff members).

(ii) Review the composition of the Board to make it more balanced, reduce the potential risk of conflict particularly as it relates to the number of representatives of the private sector (importers) and have representation that is more pro-active and contribute effectively to governance and decision-making.

(iii) Formalize and streamline the roles and responsibilities of the Board and the EXCOM by developing guidelines on these and their operations, and reduce existing overlaps of the two bodies.

(iv) Refine and strengthen the management and supervisory structure to implement, oversee and follow-up on implementation of decisions.

(v) Expand the technical human resource base to enhance service delivery and provide more coverage to improve surveillance, monitoring and follow-up.

(vi) Assess the current staff capabilities and responsibilities and strengthen their capacities through training and sensitization to position the organization to meet future challenges.

(vii) Improve human resource management through training of administrative personnel and the preparation of a human resource manual.

(viii) Develop a planning framework that reflects a major improvement in the planning, monitoring and review process with results and indicators of achievement.

(ix) Develop a sustainability strategy to ensure that the organization remains a technically and economically viable one through capacity building, improved financial management, identify new revenue sources and demonstrate increased accountability and transparency.

SECTION V

PLAN IMPLEMENTATION, MONITORING AND EVALUATION

5.1 Implementation

5.01 The PCB has done a good job over the years in delivering its mandate as a regulatory body on pesticide use and management and increasing awareness of sections of the farming community on good pesticide use practices. However, the findings highlighted in Sections II and III indicate that the PCB needs to evolve to a higher level as a modern, more effective organization that delivers quality services and provides adequate coverage to the agri-food sector. The Strategic Plan (SP) seeks to modernize the PCB through a more effective governance system, leadership, vision and direction for the implementation of the government's policies and strategy on safer use and management of pesticides.

5.02 This Plan is grounded on the current work programs of the PCB and builds on these to achieve its vision and mission. It also focuses on the areas that need to be strengthened and makes recommendations that are important for the successful implementation of the Plan. Its execution will begin in the 2016-2017 fiscal year which will involve the preparatory phase and the PCB will program the first year's activities in the new format of the Annual Work Plan (AWP) for 2017-2018.

5.03 The SP does not suggest that drastic changes be done in the PCB. The institutional capacity for such changes are limited and they are not warranted given the size of the organization. Instead, the Plan suggests a gradual and incremental approach to the organization's adjustments and streamlining that addresses the fundamentals for defining the organization's direction and establishing a solid base for effective governance, management and operations. These point to the basic requirements of an updated legislation, and for better strategic planning and execution, improved decision-making, institutional alignment, sound governance and management, monitoring, supervision and better control of resources as being the fundamentals for organizational effectiveness.

5.04 In addition, some key points are mentioned below to guide implementation of the SP.

(i) The Plan builds on the acquired knowledge and experience of the Board over the past 28 years. The Plan will be implemented by the Secretariat with strategic

oversight provided by the BoD. The Plan can only be delivered through the support of its stakeholders and the PCB working in collaboration with key private and public partners that have a direct interest in the mandate of the PCB.

(ii) It is important that the implementation of the SP starts as soon as possible. One of the first steps that need to be taken is to build awareness and sensitize the BoD and the staff on what the Plan stands for, what it hopes to achieve and how it will achieve its goals. The sensitization process seeks to inform these key groups on the future road map of the PCB and to foster a "buy-in" and ownership of the Plan. This is a very important but often neglected step in the strategic planning process. It is also important they serve as promotors of the Plan to the wider public.

(iii) The PCB will develop a brochure of the summary version of the SP in both English and Spanish for wider circulation to its stakeholders. It is recommended that the PCB also develops a short bilingual video of about 2-3 minutes about the SP which should include interviews and statements from its stakeholders. This will ensure that there is adequate media coverage of the Plan and the work of the PCB.

(iv) With the revitalization of its website which is currently in progress, the PCB will regularly disseminate information on the new SP, its implementation process and progress achieved. This is a critical component which can send a strong positive signal to all stakeholders of the PCB's commitment and leadership in the implementation of the SP.

(v) As indicated before, a two–year Action Plan (AP) has also been drafted to accompany the implementation of the SP. The AP provides a framework for implementation by translating the SP's major priority actions into key implementable activities that can be programmed, monitored and reviewed easily on their achievements and progress in the next two years.

(vi) The PCB will identify those aspects of the AP that it can implement directly through its own current programs and projects, and those that will need collaboration with other national institutions, the private sector and international partners. It can engage with strategic partners based in Belize to organize an inter-institutional platform for dialogue and consensus building to foster communication and coordination on critical issues, challenges and opportunities regarding pesticide use.

This forum will also serve to identify and develop joint project proposals and actions that support the implementation of the Plan.

(vii) The PCB will need to engage its stakeholders continuously for input and feedback on the strategic actions linked to the SP. This will require a strengthening of the process of consensus building that comprises regular discussions and sensitization among the PCB's staff and key stakeholders on the strategy, how the PCB's roles and work programs are linked to these and the expected contributions of key partners. This will generate a new but needed balance of the functions and responsibilities between the stakeholders in both the public and private sectors, facilitate better collaboration and reduce potential duplication and conflictive situations.

(viii) Link the AP to an annual planning process by establishing an integrated system for planning, reporting and periodic review. Details of the components of the system need to be developed which will also require the preparation of guidelines for the operation of each component, training of the PCB's staff on the system and their expected outputs and a monitoring and feedback mechanism to provide oversight on system implementation. Among others, the system will impose the much needed consistency and discipline that is required in the PCB's programming, reporting and review activities.

(ix) An annual work program should be constructed based on the AP. This should provide the specifics on the activities to be executed, targets to be achieved by the PCB and each of its programs with relevant performance indicators and resources to be allocated. This is consistent with the efforts to make the organization more results-oriented and facilitate more accountability by linking expenditure to achievements and results.

(x) The PCB's technical actions should be structured along programs and projects, when necessary. In this regard, the program budget approach will be enhanced, and support activities (accounts, personnel services and other administrative aspects) can be easily separated from the technical programs. In addition, the program and project methodology will impose greater discipline on programming of activities, defining benchmarks and reporting and will easily facilitate review and assessment of performance.

(xi) Greater accountability includes the organization of an annual meeting to focus only on a review of and programming of the PCB's actions on a yearly basis. This will require that annual programming and reporting will have to be done per program prior to the annual review meeting. This exercise should not be executed as a bureaucratic and complex activity. The event could be organized with the BoD and the PCB's key stakeholders to facilitate regular consultation and the building of stakeholder consensus on what is being done and achieved.

(xii) In order to implement the SP effectively, the PCB will have to address the bottlenecks on a continuing basis while enhancing its internal capacity and improving its administrative procedures over the medium term.

(xiii) Define the roles of the BoD and EXCOM early in the implementation process. These should be the bodies of the PCB that provide advisory services at the highest level of the organization including policy advice and support, review, assessment of the organization's impacts and overall performance.

(xiv) The PCB should aim to ensure effective resource mobilization through increasing its revenue base and human resource capacity over the medium term.

5.2 Internal Management Processes and Competencies

5.2.1 Improved Planning, Budgeting and Coordination

(i) The PCB should initiate the internal process of discussion and planning as soon as possible, focusing on implementing a few key actions in the 2016/17 period. It is not advisable to wait until budget planning to initiate actions to implement the Strategic Plan and the 2016-2017 Action Plan.

(ii) The PCB's fiscal year is similar to that of the Government. It is therefore important for the PCB to prepare and complete its annual action and budget planning so that it can submit to the Government the programs and funds that are tied to the subvention it currently receives. The PCB should link some activities on an annual basis to the subvention of the Government or it may risk losing it which has been decreasing over the years. It also needs to make a better justification for the

subvention with the possibility of justifying an increase in the amount to achieve some key results of the SP.

(iii) The planning and reporting cycle should be streamlined in the first year of implementation. The budget cycle for both the Government and PCB runs from 1st April to 31st March. This means that preparations for the annual planning and budgeting process needs to begin by October of each year to be submitted to the BoD and the Government by February, as budget approval of the Government is in March of each year.

(iv) In its annual planning exercise, the PCB needs to coordinate its activities with the Ministry of Agriculture with special emphasis on the departments engaged in Research and Extension, as well as with other line-Ministries and partners (BAHA, CARDI, etc.) with a view to align and harmonise its actions with theirs and its annual work programme, and estimating the budget requirements in line with the Strategic Plan so that these may be included in each line-Ministerial annual plan and budget to assist and support the work of the PCB.

5.2.2 Income and Resource Use

5.05 The PCB recognizes its responsibility to use the fees it receives and taxpayer dollars to provide the best possible pesticide regulation and support services. Therefore to consistently deliver excellent services to its clients and stakeholder, PCB must maintain financial stability and sustainability and accountability. The organization can augment its finances by maximizing the revenues it generates through its current operations and by exploring new sources of income. The PCB is also cognizant of the fact that traditional funding sources alone will not be sufficient to meet its long-term needs.

5.06 The main resource mobilization strategies to increase its revenue base include:

(i) Ensure that it can justify the current subvention it receives and make an effort to lobby the Government to increase this amount as necessary for implementing key aspects of the SP.

(ii) Review and analyze the current fee structure in place with the aim of updating these to reflect the true cost of service delivery. It will also give consideration to new fees for services that are currently offered for free (e.g., inspections). However, a careful

review will be done by the PCB before new fees or other revenue generating measures are implemented to ensure that the services are cost effective for its clients.

(iii) The PCB will seek innovative funding opportunities to expand revenue sources to deliver better services. One option is to explore non-traditional partnerships with public and private sector partners to leverage external funds.

(iv) It will continue to practice prudent financial management of its resources. The PCB will put in place measures to ensure that there is prudent financial management and these include:

- Develop a multi-year financial plan to ensure that capital and future operating needs identified in its Strategic Plan become realities.

- Develop an Operations and Finance Manual outlining the efficient and effective processes and procedures in all aspects of financial management of the organization.

- Develop annual plans to include programs and activities outlined in the Strategic Plan and that involve strategic budget planning and forecasting based on revenue and expenditure trends and external factors that could impact the PCB's funding and its ability to meet future program needs.

- Conduct annual budgeting and quarterly monitoring of approved expenses.

5.2.3 Administrative Processes

5.07 Streamlining of the administrative processes is a major area to be addressed in the SP to improve efficiency at the operational level. To achieve the strategic objectives and actions set out in the SP, the PCB will take key administrative initiatives to streamline its administrative processes by:

(i) Developing, adopting and implementing an Operations Manual for the Board and the Executive Committee.

(ii) Developing, adopting and implementing a Human Resource Manual.

(iii) Design and adopt standards and protocols to facilitate the work and reporting by the technical staff.

(iv) Increase and adopt the technology available to facilitate the work of the technical and administrative staff. This will require investment in the required technology to enhance streamlining, processing and decision-making.

(v) Improve data-based decision making. The PCB will identify key information it needs to improve its decision-making process at both the technical and administrative levels and develop the necessary instruments and systems for collection and analysis.

(vi) Improve accountability of the staff by:

- Reviewing their terms of reference and revise these to be clear, relevant and aligned with the tasks of the AP.

- Conduct annual evaluation of the staff based on an approved work plan in line with the SP, AP and the AWP that define the specific goals, performance objectives and indicators that have been jointly established between the Registrar and the employee. This will also help to monitor progress in the achievement of the SP.

5.2.4 Capacity Development

5.08 The PCB recognizes that one of the organization's major strength is its staff. Staff turnover has almost been negligible over the years. The staff consider themselves to be loyal and dedicated to the organization and its work, a finding that is supported by the fact that 70% of the staff has been with the organization for more than 14 years, and most of the stakeholders interviewed indicated that PCB is doing a fairly good job with its limited personnel.

5.09 A first step in the implementation process is to assess the managerial, technical and administrative personnel requirements of the PCB to implement the SP versus the skills and competencies of its current staff. An inventory of in-house skills and the development of a training plan for its staff will require both investment from PCB and uptake by the staff. As part of the human resource assessment, a review of the job descriptions to suit the needs

of the Board to carry out its mandate, the development of a good AWP and related performance appraisal mechanisms is needed. The overall purpose of this step is to define the longer term staffing needs of the organization.

5.10 Capacity development is critical to greater efficiency and longer term sustainability. Currently, the PCB has allocated a small budget for training and it needs to strengthen and formalize its policy on study leave for its staff. It is important that the PCB invests in employee training and development. A major strategic focus of this Plan is to build staff capacity and provide the environment necessary for more productive service delivery. The organization will ensure continuous training of the technical and administrative staff in order to provide them with the relevant knowledge and skills for improving internal efficiencies and service delivery. The PCB will also consider existing staff for any promotions or vacancies that may become available as the organization grows.

5.11 An area that needs to be addressed as an urgent issue in human resource management is succession planning. This will need to be considered by the Board to ensure continuity of efficient service delivery and smooth transition in management and operations.

5.2.5 Employee Engagement

5.12 The PCB's employees are the organization's most valuable resource. They have much to offer to the organization based on their knowledge and years of experience in their respective areas and programs of work. Productivity, employee satisfaction, program quality and customer satisfaction can all be positively impacted by soliciting and considering inputs from them, fostering collaboration and effective communication among them, especially given the challenges of physical separation between the main office and the location of the four field staff.

5.13 It is important for the PCB to conduct an assessment of the current organizational structure with the purpose of making recommendations of the personnel needed for it to effectively and efficiently carry out its mandate, to best meet the needs identified in the strategic priorities, and build and maintain a public-service oriented, inclusive, high-performing workforce by investing in and engaging employees. By enhancing inclusion, the PCB can create a higher performance organization. It will accomplish this through a number of initiatives designed to improve organizational performance, enhance employee engagement, and increase efficiency and accountability. Such initiatives may include:

(i) The staffing needs assessment will provide recommendations for investments towards achieving optimum staffing capacity.

(ii) Actively seek, through formal and informal means, employee feedback to improve organizational performance; employee recruitment, retention and development; and, work life quality.

(iii) Enhance the leadership skills of the current PCB staff to develop future leaders.

(iv) Develop employees' capabilities to enhance the organization's ability to meet its vision and mission and to increase the ability of employees to achieve rewarding careers within the organization.

(v) Encourage employees to embrace new challenges in an environment of open innovation.

(vi) Implement a plan to upgrade the information technology (IT) that focuses on providing all employees with the same quality of IT support.

5.3 Monitoring and Evaluation

5.14 Monitoring and evaluation (M&E) activities of the Plan need to be incorporated in the annual planning process. It would be a mistake to consider them as ex-post activities, i.e., the plan to monitor and evaluate them is done after the AWP has been prepared and implemented. Some key actions to enhance the M&E activities include:

(i) Progress on the delivery of the SP will be reviewed annually as part of the set of core activities of the PCB. The EXCOM can assume the responsibility of periodic monitoring in the implementation by tracking specific activities and their achievements.

(ii) To ensure that the PCB remains focused on its strategic goals, its AWP will align priorities, investments, efforts and resources to the strategic actions of the Plan and will be closely monitored to track its accomplishments. The monitoring process will determine whether implementation is on schedule or if any changes are required based on the changing environment and needs.

(iii) The implementation of the Plan will be reviewed on a semester basis by the BoD. Management will provide quarterly progress reports indicating overall progress on the strategic objectives and actions based on the indicators established. This will require that the staff establish targets of the SP to include in the development of their work plans to facilitate better monitoring of the progress and achievement of the strategic objectives and actions. The review will involve looking at:

- progress made against the plan;
- reasons for deviation from the plan; and
- challenges experienced that may negatively affect its implementation and alternative solutions to address these.

(iv) Review of both the SP and AP will be done on an annual basis when the annual review and reporting is done of the AWP. The PCB will closely monitor the Plan with its stakeholders, ensuring that any new developments, measures, techniques and alternatives related to pesticide use and management that can impact human health and the environment are considered for future policies, strategies and actions.

(v) The PCB will report annually on its progress in meeting the commitments in this SP through its annual report to the BoD and the Ministry of Agriculture. Reporting on specific commitments will also be done through updates on its website and targeted communications to stakeholder groups.

(vi) At the end of the Strategic Plan period, the PCB will conduct an assessment to establish the achievement of the strategic goals. This will be done by an external group with support from the technical staff and a budget.

5.4 Success of the Plan

5.15 **What successes should be expected from implementation of the Plan?** The following are some key ones to be highlighted:

(i) A PCB that better understands and interpret the challenges and issues related to pesticide use and management and is positioned to take advantage of contributing to safer human and environmental health in Belize.

(ii) Absence or insignificant levels of pesticide residues that are of important public health or major economic consequence in the agri-food chain and to meet trade requirements.

(iii) The adoption of more sustainable farming practices in key areas that deliver greater resource efficiency and reduced negative environmental impact from the use of alternatives to harmful pesticides.

(iv) A more streamlined and effective governance system that makes sound policy decisions and provides adequate guidance and advisory services to the PCB's operations.

(v) The PCB's decision-making process on registration and post-registration practices are based on more sound scientific evidence and information.

(vi) A PCB that has simplified its processes to allow for its clients and stakeholders to comply with regulations with the minimum bureaucratic procedures possible.

(vii) Stakeholders can transact more business with the PCB primarily by electronic means through a relevant and secure system that is linked to effective and efficient processes.

(viii) A better skilled, more knowledgeable, innovative and efficient group of personnel working in an integrated manner to achieve the priorities of this Plan and ensuring that measurable results are achieved.

(ix) A more confident, stakeholder oriented and appropriately skilled staff with adequate facilities to provide services and using a modernized information system.

(x) A more financially and technically sustainable PCB to address the challenges and problems of Belize's agri-food sector in the area of pesticide use and management.

(xi) A PCB that ensures that Belize meets its compliance requirements based on being a signatory to regional and international agreements.

(xii) A PCB with stronger enforcement mechanisms and leverage through the necessary legislation and other regulations.

(xiii) A PCB that can deliver more effectively quality and accessible services that meet the needs of its clients, stakeholders, partners and other institutional commitments.

(xiv) A more developed, matured and extended partnership between the PCB and key national institutions such as the BAHA, CARDI, Extension Service, etc., that reflects better coordination at addressing common problems and challenges in pesticide use, build technical capacity and sharing information to achieve common objectives.

(xv) More strategic partnerships between the PCB, governmental institutions, industry and farming groups working towards a shared vision.

(xvi) Improved awareness and participation by under-represented groups in the farming community in the areas training and education on pesticide use.

(xvii) A better awareness and understanding by larger sections of the public on the challenges, regulations and safer use of pesticide.

(xviii) Stakeholders value the important contribution of the PCB and its staff to more safe and sustainable farming systems, the rural community and the environment.

(xix) Wider recognition across the agricultural sector and the general public of PCB's value-added contribution to safer human and environmental health.

ANNEXES

Table A1
Board Members of the PCB

PCB Board Members	
Board Member	Organization Representing
Roberto Harrison	Ministry of Agriculture
Martin Alegria	Department of the Environment
Jose Trejo	Bureau of Standards
John Bodden	Ministry of Health
Stephen Williams	University of Belize
Francisco Gutierrez	Belize Agricultural Health Authority
Ever Blandon	Asociación de Agricultores Valle De Paz
Herbert Masson	Prosser Fertilizer
Erasmo Franklin	James Brodie & Co.
Rodrigo Blanco	Banana Growers Association
Veronica Majil	Citrus Growers Association
Wilbert Ramclam	BELAGRO
Alfredo Ortega	Belize Sugar Cane Farmers Association

Table A2
The PCB's Committee Members

The PCB's Executive Committee

Executive Committee	
Name	Organization Representing
Erasmo Franklin	James Brodie
Roberto Harrison	Ministry of Health
Veronica Majil	Citrus Growers Association
Maxine Monsanto	Department of the Environment
Francisco Gutierrez	Belize Agriculture Health Authority
John Bodden	Ministry of Health

The PCB's Registration Committee

Registration Committee	
Name	Organization Representing
Leo Sosa	Department Of The Environment
Garry Ramirez	Ministry of Agriculture
Mark Bernard	Ministry Of Health
Francisco Gutierrez	Belize Agriculture Health Authority

Table A3
The PCB's Staff Members

Pesticides Control Board Staff		
Employees	Position	Zone base
Miriam Ochaeta Serrut	Registrar of Pesticides	PCB Secretariat
Nonato Canto	Senior Technical Assistant	Zone 5 PCB Secretariat-San Antonio
Orticio Tush	Technical Assistant	Zone 4 – South Independence-San Roman
Edgar Silva	Technical Assistant	Zone 1 –North, Yo Creek, Corozal Town
Selvin Molina	Technical Assistant	Zone 2-PCB Secretariat Duck Run 2
Peter Shol	Technical Assistant	Zone 3 Hope Creek Laguna
Ginnel Ozaeta	Technical Officer	PCB Secretariat
Jeanell Canto	Clerk	PCB Secretariat
Dorothy Genus	Accountant/Administrative Assistant	PCB Secretariat
Amira Salazar	Cleaner	PCB Secretariat

Table A4
Persons who participated in the interviews

Persons Interviewed		
Participant	Position	Organization Representing
Nonato Canto	Senior Technical Assistant	Pesticides Control Board
Orticio Tush	Technical Assistant	Pesticides Control Board
Edgar Silva	Technical Assistant	Pesticides Control Board
Selvin Molina	Technical Assistant	Pesticides Control Board
Peter Shol	Technical Assistant	Pesticides Control Board
Ginnel Ozaeta	Technical Officer	Pesticides Control Board
Jeanell Canto	Clerk	Pesticides Control Board
Dorothy Genus	Accountant/Administrative Assistant	Pesticides Control Board
Miriam Ochaeta Serrut	Registrar of Pesticides	Pesticides Control Board
Roberto Harrison	Board Member	Ministry of Agriculture
Martin Alegria	Board Member	Department of the Environment
Jose Trejo	Board Member	Bureau of Standards
John Bodden	Board Member	Ministry of Health
Stephen Williams	Board Member	University of Belize
Francisco Gutierrez	Board Member	Belize Agricultural Health Authority
Ever Blandon	Board Member	Asociación de Agricultores Valle De Paz
Herbert Masson	Board Member	Prosser Fertilizer
Erasmo Franklin	Board Member	James Brodie & Co.
Rodrigo Blanco	Board Member	Banana Growers Association
Veronica Majil	Board Member	Citrus Growers Association
Wilbert Ramclam	Board Member	BELAGRO
Alfredo Ortega	Board Member	Belize Sugar Cane Farmers Association

Denzel Castillo	Extension Officer	Ministry of Agriculture
Barry Palacio Leonardo Eck	District Coordinators	Ministry of Agriculture
Gary Ramirez	Registration Committee	Ministry of Agriculture
Clifford Martinez	Partner	Ministry of Agriculture
David Reynolds	Local Representative	Midwest Steel (MWS) Spanish Lookout
Fay Garnet	Local Representative	Agro-Centro in S.A.
Nerie Sanz	Local Representative	Supplier
Joshua Jiron	Importation Client	Agro Vet Jiron and Sons
Clifford Martinez	Partner	Ministry of Agriculture
Jorge Polanco	Partner	PAHO
Martin Lindo	Partner	CARDI
Adrain Zetina Letticia Westby	Partner	SIRDI
Eduardo Leiva	Partner	Department of Cooperatives
William Usher	Other Extension and Importers	

Table A5

Income and Expenses of the PCB 2004/05–2015/16

	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11
Ordinary Income/Expense							
Income							
Importation from Pesticide Fees	279,309.12	296,166.35	321,496.78	334,021.60	405,574.06	422,697.01	392,630.47
Pesticides registration fees	48,099.98	120,350.24	79,244.65	42,691.93	32,716.50	47,625.00	64,350.01
Government Subvention	12,000.00	-	-	-	-	23,988.00	21,600.00
Other	42,517.24	27,486.10	35,899.17	51,937.37	114,319.57	122,160.18	62,040.24
Total Income	381,926.34	444,002.69	436,640.60	428,650.90	552,610.13	616,470.19	540,620.72
Cost of Goods Sold	-	-	-	-	4,891.76	21,206.44	3,162.84
Gross Profit	381,926.34	444,002.69	436,640.60	428,650.90	547,718.37	595,263.75	537,457.88
Expense							
Recurrent Expense							
Personnel Expenses							
Salaries & Wages	129,261.04	121,525.16	125,786.21	170,567.58	191,846.98	220,391.86	231,384.06
Gratuity	19,652.47	18,855.80	17,425.92	24,614.26	27,593.48	31,967.92	32,998.08
Operational Expenses							
Mobilization Expenses	84,098.27	87,252.24	85,875.95	96,319.02	112,799.93	123,721.95	134,271.00
Utilities & Maintenance	21,568.11	18,248.03	20,322.08	21,599.19	22,753.92	23,030.33	21,443.58
Programmatic Expenses							
Public Awareness	7,675.46	9,811.96	12,102.58	17,903.34	42,502.65	16,380.14	20,874.69
Pesticide Training Programs	16,262.93	9,185.45	17,464.42	20,978.62	14,800.27	24,695.93	8,502.08
Other	67,077.67	46,818.80	68,521.83	63,963.62	105,243.07	58,154.94	73,584.12
Total Expense	345,595.95	311,697.44	347,498.99	415,945.63	517,540.30	498,343.07	523,057.61
Net Ordinary Income	36,330.39	132,305.25	89,141.61	12,705.27	30,178.07	96,920.68	14,400.27
Net Other Income	-	-	(17,688.30)	(30,322.80)	(40,542.80)	(12,634.49)	
Net Income	36,330.39	132,305.25	71,453.31	(17,617.53)	(10,364.73)	84,286.19	14,400.27

Income and Expenses of the PCB (Continued)
2004/05-2015/16

	2011/12	2012/13	2013/14	2014/15	2015/16
Ordinary Income/Expense					
Income					
Importation from Pesticide Fees	443,165.17	484,974.83	609,626.81	498,017.30	490,088.97
Pesticides registration fees	41,191.42	58,697.11	62,699.99	67,172.75	91,297.81
Government Subvention	21,600.00	21,600.00	21,600.00	21,600.00	14,400.00
Other	51,005.94	53,313.86	62,092.84	63,899.70	83,906.43
Total Income	556,962.53	618,585.80	756,019.64	650,689.75	679,693.21
Cost of Goods Sold	3,309.70	10,519.06	6,848.76	8,624.95	12,646.98
Gross Profit	553,652.83	608,066.74	749,170.88	642,064.80	667,046.23
Expense					
Recurrent Expense					
Personnel Expenses					
Salaries & Wages	248,345.47	232,045.35	225,336.31	231,764.81	266,635.09
Gratuity	37,834.78	33,693.98	33,137.60	33,553.84	41,979.03
Operational Expenses					
Mobilization Expenses	142,103.95	121,715.05	125,216.95	112,073.06	110,443.20
Utilities & Maintenance	29,152.62	27,341.07	27,230.96	27,558.88	35,610.44
Programmatic Expenses					
Public Awareness	11,720.50	14,664.93	15,282.23	10,287.00	36,147.98
Pesticide Training Programs	13,583.46	22,972.71	12,995.44	4,899.20	8,332.88
Other	60,387.03	55,513.53	82,825.51	70,845.99	74,982.89
Total Expense	543,127.81	507,946.62	522,025.00	490,982.78	574,230.75
Net Ordinary Income	10,525.02	100,120.12	227,145.88	151,082.02	92,815.48
Net Other Income	-	-	100.00	(1,039.75)	-
Net Income	10,525.02	100,120.12	227,245.88	150,042.27	92,815.48

Table A6

Indicators of Performance for the PCB staff Members

A. General Information

1. Indicate the personnel category in which you are employed presently:

75%Technical 25%Administrative

2. How long have you been working in the PCB?

11%Less than a year 11%1 to 3 years

11%More than 3 and up to8 years 67%More than 8 years

B. Orientation and Institutional Knowledge

3. From 1 to 5, **1**being the **lowest** and 5 the **highest** value, how do you rate the quality and usefulness of the orientation that you received when you started working in the PCB?

1. 0% 2. 25% 3.38% 4.25% 5.13%

4. From 1 to 5, how do you qualify your understanding on the following?

4.1 PCB's mandate

1.0% 2.0% 3.11% 4.44% 5.44%

4.2 Mission and Vision of PCB

1.0% 2.0% 3.11% 4.44% 5.44%

4.3 PCB's institutional values and principles

1.0% 2.0% 3.11% 4.89% 5.0%

5. From 1 to 5, how do you qualify your understanding on the roles/functions of the following PCB's governing bodies and institutional mechanisms?

5.1 The Board

1. 0% 2.11% 3.33% 4.33% 5.22%

5.2 The Executive Committee

1.0% 2.11% 3.22% 4.44% 5.22%

5.3 The Registration Committee

1.0% 2.11% 3.22% 4.33% 5.33%

5.4 The Registrar

1.0% 2.0% 3.11% 4.67% 5.22%

6. From 1 to 5, how do you qualify the following regarding the Board and its Committees?

6.1 Leadership provided by the Board

1.0% 2.11% 3.44% 4.33% 5.11%

6.2 Decision-making by the Board

1.0% 2. 11% 3.22% 4.67% 5.0%

6.3 Overlapping responsibilities of the Board and the Executive Committee

1.0% 2.13% 3.25% 4.63% 5.0%

6.4 Overlapping responsibilities of the Exec. Committee and Registration Committee

1.0% 2.13% 3.38% 4.50% 5.0%

6.5 Promotion of the work and image of the PCB

1.0% 2.13% 3.13% 4.50% 5.25%

7. Do you think that it is necessary for the roles of the Board and the various Committees to be streamlined and be made clearer to staff?

0%Yes 89% No 11%ICQ

C. Perceptions on PCB's Technical Services

8. From 1 to 5, how do you qualify your understanding of the following:

8.1 The Annual Work Plan

1.0% 2.25% 3.13% 4.38% 5.25%

8.2 Technical services provided by PCB

1.0% 2.11% 3.22% 4.33% 5.33%

9. From 1 to 5, how do you qualify the PCB's overall contributions to better use and management of Pesticides in the country in the last two years?

1.0% 2.0% 3.25% 4.50% 5.25%

10. What do you think are the four (4) most important contributions of the PCB to the agricultural sector in the last year?

D. Image and Perception of the PCB

11. In general, what perception do external persons with whom you are related in your work have on the PCB's work and image?

44% Very good 44%Good 0%Poor 11%ICQ

12. Do you consider that the PCB promotes its image and work adequately in the country?

44% Yes 33%No 22%ICQ

13. Indicate which are the four main methods used by the PCB to promote its image and work (radio, brochures, web, newspaper, publications, meetings, etc.).

E. Registrar's Leadership and Management

14. From 1 to 5, how do you qualify the last Registrar's performance on the following aspects?

14.1 Promotion of PCB's image and work

1. 0% 2. 0% 3.25% 4. 38% 5. 38%

14.2 Management of relations with the Government

1. 0% 2. 13% 3.13% 4. 38% 5. 38%

14.3 Management of relations with strategic partners

1. 0% 2. 0% 3.25% 4. 50% 5. 25%

14.4 Motivation of staff

1. 0% 2. 13% 3.38% 4. 13% 5. 38%

14.5 Encourage team work

1. 0% 2. 13% 3.38% 4. 13% 5. 38%

14.6 Financial resources management

1. 0% 2. 13% 3.38% 4. 25% 5. 25%

14.7 Equity in assigning tasks and responsibilities to staff

1. 0% 2. 38% 3.0% 4. 38% 5. 25%

14.8 Equity in offering training and development Opportunities to staff

1. 0% 2. 14% 3.57% 4. 14% 5. 14%

14.9 Flexibility and tolerance to opinions from the others

1. 0% 2. 25% 3.25% 4. 13% 5. 38%

14.10 Informs the staff on her own responsibilities and meetings she attends

1. 0% 2. 13% 3.38% 4. 38% 5. 13%

14.11 Hold regular meetings with staff

1. 0% 2. 0% 3.50% 4. 25% 5. 25%

14.12 Dialogue, openness and accessibility of staff to the ES

1. 0% 2. 0% 3.0% 4. 40% 5. 60%

14.13 Understanding and sensitive to the culture and expectations of staff

1. 0% 2. 14% 3.14% 4. 14% 5. 57%

15. What are the most common methods used by the Registrar to communicate with the personnel?

	Frequently used	Occasionally used	Not used	ICQ
15.1 Formal Meetings	50%	50%	☐	☐
15.2 Informal Meetings	50%	50%	☐	☐
15.3 E-mail	75%	25%	☐	☐

F. Performance of the Administration Unit

16. From 1 to 5, how do you qualify the performance of the PCB's Accountant/Administrative Assistant on the following aspects?

16.1 Management of relations with clients and strategic partners

1. 0% 2. 0% 3.0% 4. 57% 5. 43%

16.2 Relations with staff

1. 0% 2. 0% 3.0% 4. 29% 5. 71%

16.3 Fostering team work

1. 0% 2. 0% 3.14% 4. 43% 5. 43%

16.4 Openness and accessibility

1. 0% 2. 0% 3.14% 4. 29% 5. 57%

G. Job Responsibilities

17. Do you have an updated description of your job responsibilities?

67%Yes 22%No 11% ICQ

18. Do you have adequate information on your current duties and responsibilities?

56%Yes 44%No

19. From 1 to 5, to what extent do you think that the PCB takes advantage of your skills, experience and capacity for the job you currently perform?

1. 0% 2. 0% 3.25% 4. 38% 5. 38%

20. Do you have an approved work Plan (WP) for this year?

25%Yes 75%No

21. How often do you review with your supervisor the progress accomplished in your WP?

25%frequently 63%in the annual evaluation 13%Never

22. Has the PCB offered you opportunities for training to improve your skills in the last two years?

33%Yes 67%No

H. Work Environment and Communication among Personnel

23. From 1 to 5, how do you qualify the following aspects of your work team?

23.1 General work environment
1. 0% 2. 0% 3.11% 4. 67% 5. 22%

23.2 Confidence among team members
1. 0% 2. 11% 3.22% 4. 22% 5. 44%

23.3 Openness to communication
1. 0% 2. 0% 3.22% 4. 33% 5. 44%

23.4 Commitment to work responsibilities
1. 0% 2. 0% 3.33% 4.11% 5. 56%

23.5 Tolerance to criticism
1. 0% 2. 0% 3.44% 4. 0% 5. 56%

23.6 Cooperative attitude among staff
1. 0% 2.0% 3.11% 4. 44% 5. 44%

23.7 Personnel motivation to the job
1. 0% 2. 0% 3.33% 4. 11% 5. 56%

24. From 1 to 5, how do you rate the staff meetings to discuss and improve the following aspects?

24.1 Communication
1. 0% 2. 0% 3.50% 4. 13% 5. 38%

24.2 Work of the Office
1. 0% 2. 0% 3.38% 4. 38% 5.25%

25. From 1 to 5, how do you rate the follow-up process for decisions taken in the staff meetings?
1. 0% 2. 13% 3.25% 4. 63% 5. 0%

I. Office Facilities

26. From 1 to 5, how do you qualify the following aspects related to the Office?

26.1 Location of the Office

1. 0% 2. 14% 3.14% 4. 43% 5. 29%

26.2 Space for individual work

1. 0% 2. 29% 3.14% 4. 29% 5. 29%

26.3 Availability of computer equipment

1. 13% 2. 0% 3.0% 4.50% 5. 38%

26.4 Availability of other Office equipment

1. 13% 2. 13% 3.13% 4. 38% 5. 25%

26.5 Availability of vehicles

1. 0% 2. 14% 3.14% 4. 43% 5. 29%

26.6 Vehicles condition

1. 0% 2. 0% 3.0% 4. 43% 5. 57%

26.7. INTERNET availability

1. 13% 2. 13% 3.13% 4. 25% 5. 38%

27. How often do you use the internet service for information?

100%Frequently ☐Occasionally ☐Have not used it

28. From 1 to 5, how would you rate the usefulness of the internet for your work?
1. 0% 2. 0% 3.0% 4. 22% 5. 78%

J. Suggestions

29. Please provide up to five (5) suggestions for improving the PCB's performance or its technical services. If needed, please use extra sheets of paper to make your suggestions.

Table A7

Indicators of Performance for the PCB Board Members

1. Governance Indicators

	Indicator	Exist/ Sufficient	Needs Updating/ More Work	Does not Exist but Needed	Don't Know
1.1	The PCB has a fully functional Board.	46%	54%		
1.2	The Board is appointed by clearly prescribed procedures and process.	62%	23%	15%	
1.3	The Board's composition ensures that its remains diverse with respect to gender, ethnicity, culture, and skills and/or expertise.	54%	23%	15%	8%
1.4	The roles of the Board are well defined and understood by Board members and staff.	27%	55%		18%
1.5	The Board has bye-laws and a manual of operations to guide its work.	8%	15%	46%	31%
1.6	The Board actively participates in the policy and planning process as outlined in planning sections of this checklist.	22%	78%		
1.7	Board members receive regular training/sensitization and information about their responsibilities.	8%	31%	46%	15%
1.8	New board members are oriented to the organization, including the organization's mission, policies, and programs, as well as their roles and responsibilities as board members.	8%	23%	46%	23%
1.9	The Board has a process for handling urgent matters between meetings.	25%	58%		17%
1.10	The PCB has a conflict-of-interest policy and all Board members and staff acknowledge and comply with the policy.		25%	33%	42%
1.11	The Board holds meetings regularly as required by its bye-laws or manual of operations.	77%	15%		8%
1.12	Board meetings have written agendas and materials relating to significant decisions are given to the Board in advance of the meeting.	58%	33%		8%
1.13	The Board has a written policy prohibiting employees and members of employees' immediate families from serving as Board members.	8%	8%	15%	69%
1.14	The PCB has a manual of operations for the organization.	8%	15%	46%	31%

2. Planning in the Organization

	Indicator	Exist/ Sufficient	Needs Updating/ More Work	Does not Exist but Needed	Don't Know
2.1	The PCB's purpose and activities meet its client needs.	8%	77%		15%
2.2	The PCB frequently evaluates whether its activities and services provide the benefits needed by soliciting inputs from its clients.	8%	23%	31%	38%
2.3	The PCB has a clear mission statement that reflects its purpose, values, services and the clients served.	42%	50%	8%	
2.4	The Board and staff periodically review the mission statement and modify it to reflect changes in the environment.	15%	15%	38%	31%
2.5	The Board and staff developed and adopted a written strategic plan to achieve its mission.	8%	38%	23%	31%
2.6	The Board, staff and beneficiaries participate in the planning process.	15%	46%	23%	15%
2.7	The PCB's plan was developed by analyzing the internal and external environment and the main challenges.	33%	25%	25%	17%
2.8	The plan identifies the changing needs of the environment including the PCB's strengths, weaknesses, opportunities and threats.	33%	25%	25%	17%
2.9	The planning process identifies the critical issues facing the PCB.	17%	58%	17%	8%
2.10	The plan clearly defines the goals and measurable objectives to address the critical issues.	17%	58%	17%	8%
2.11	The plan prioritizes the PCB's goals and develops timelines for their accomplishments.		58%	17%	25%
2.12	The plan establishes an evaluation process and performance indicators to measure the progress toward the achievement of goals and objectives.	8%	42%	33%	17%
2.13	Through work plans, human and financial resources are allocated to insure the accomplishment of the goals in a timely manner.	31%	38%	23%	8%
2.14	The plan is communicated to all stakeholders of the PCB - Board, staff and beneficiaries.	23%	15%	38%	23%

3. Planning and Reporting of the PCB's Programs

	Indicator	Exist/ Sufficient	Needs Updating/ More Work	Does not Exist but Needed	Don't Know
3.1	The PCB actively informs the public about its programs and services.	15%	85%		
3.2	Clients and potential clients have the opportunity to participate in the PCB's program development.	8%	62%	23%	8%
3.3	Sufficient resources are allocated to ensure each program can achieve the established goals and objectives.	31%	46%		23%
3.4	Staff has sufficient training and skills to execute the programs.	15%	77%		8%
3.5	Programs within the PCB are integrated to provide more complete services to clients.	17%	75%		8%
3.6	Each program has performance indicators to insure that the program meets its goals and objectives.	8%	31%	31%	31%
3.7	Performance indicators are reviewed annually.	15%	23%	38%	23%
3.8	The PCB networks and collaborates with other organizations to produce the most effective services to clients.	31%	54%	8%	8%
3.9	The PCB has a reporting system that provides information periodically on its achievements, constraints and challenges.	31%	46%	8%	15%
3.10	The periodic reports on achievements are reviewed by the Board.	23%	54%		23%

4. Evaluation Indicators

	Indicator	Exist/ Sufficient	Needs Updating/ More Work	Does not Exist but Needed	Don't Know
4.1	Every year, the PCB reviews and evaluates its activities to determine progress toward achieving its goals.	15%	62%	8%	15%
4.2	Stakeholders are involved in the evaluation process.	8%	33%	25%	33%
4.3	The evaluation includes a review of the PCB's programs and systems to insure that they comply with its mission, values and goals.	15%	31%	15%	38%
4.4	The results of the evaluation are reflected in its revised plan of work.	23%	31%	15%	31%
4.5	Periodically, the PCB does a comprehensive evaluation of its programs.	25%	17%	25%	33%

5. Financial Indicators

	Indicator	Exist/ Sufficient	Needs Updating/ More Work	Does not Exist but Needed	Don't Know
5.1	PCB follows accounting practices which conform to accepted standards.	69%	31%		
5.2	The PCB has systems in place to provide appropriate information needed by the Board and staff to make sound financial decisions.	38%	54%		8%
5.3	The PCB prepares timely financial statements including the Balance Sheet and Statement of Revenue and Expenses which are useful for the Board and staff.	62%	31%		8%
5.4	The PCB prepares an annual comprehensive operating budget that includes costs for all programs, management and operations and all sources of funding. This budget is reviewed and approved by the Board.	62%	38%		
5.5	The PCB monitors the costs of its programs and services through the documentation of staff time and direct expenses.	42%	42%		17%
5.6	The PCB prepares cash flow projections.	46%	38%		15%
5.7	The PCB periodically forecasts revenues and expenses to assist in making sound management decisions during the year.	38%	38%		23%
5.8	The PCB reconciles all cash accounts monthly.	42%	25%		33%
5.9	The PCB has a review process to monitor that it is receiving appropriate and accurate financial information from internal processing.	31%	38%	8%	23%
5.10	All contracts, purchase agreements and grant agreements are reviewed to ensure legal and institutional compliance.	33%	33%		33%
5.11	The payroll is prepared following appropriate government regulations and PCB policy.	42%	33%		25%
5.12	The PCB has an accounting and procedures manual to guide its practices and follows these.	17%	50%		33%
5.13	The PCB has documented a set of internal controls, including the handling of cash and deposits, approval over spending and disbursements.	33%	42%		25%
5.14	The PCB has a policy on authorized check signers and the number of signatures required on checks in excess of specified dollar amounts.	54%	15%	8%	23%
5.15	All expenses of the organization are approved by a designated person before payment is made.	46%	15%	8%	31%

5.16	Capital expenditure are reviewed annually and priorities established.	54%	31%		15%
5.17	The PCB has established a plan identifying actions to take in the event of a reduction or loss in revenue.	8%	25%	17%	50%
5.18	The PCB has established, or is actively trying to develop, a reserve of funds to cover at least three months of operating expenses.	23%	31%		46%
5.19	The PCB has suitable insurance coverage which is periodically reviewed to ensure the appropriate levels and types of coverages are in place.	15%	54%		31%
5.20	The PCB has a system and procedures in place to safeguard its assets.	23%	31%		46%
5.21	The PCB files income tax and social security on a timely basis as required by law.	62%	15%	8%	15%
5.22	The PCB has an annual, independent audit of its financial statements, prepared by a certified public accountant.	58%	17%	17%	8%
5.23	In addition to the audit, the Accountant prepares a management letter containing recommendations for improvements in the financial operations of the organization.	33%	25%		42%
5.24	The Board is responsible for interviewing auditors and hiring an auditor.	31%	23%	23%	23%
5.25	The Board or an appropriate committee, reviews and approves the audit report and management letter and with staff input and support, and implements any necessary changes.	50%	25%	8%	17%
5.26	Training is provided to appropriate staff on relevant accounting topics and financial management.	15%	31%		54%
5.27	The PCB has a back-up system that stores and protects all its financial and human resources and other information.	8%	25%	8%	58%

6. Human Resources Indicators

	Indicator	**Exist/ Sufficient**	**Needs Updating/ More Work**	**Does not Exist but Needed**	**Don't Know**
6.1	The PCB has a human resources policy and manual to guide it on recruitment, termination, standard work rules, performance evaluation, promotion, vacation, etc.	9%	27%	55%	9%
6.2	The PCB follows non-discriminatory hiring practices.	31%	31%	8%	31%

6.3	The PCB provides a copy of or access to the written personnel policy to all members of the Board and all staff members.	8%	23%	31%	38%
6.4	The PCB has clearly written job descriptions including qualifications, duties, reporting relationships and performance indicators.	17%	50%		33%
6.5	The Board conducts an annual review/evaluation of its Secretary in relationship to a previously determined set of expectations.	8%	23%	15%	54%
6.6	The Secretary's salary is set by the Board in a reasonable process and is in compliance with the organization's compensation plan.	23%	15%	8%	54%
6.7	The PCB requires employee performance appraisals to be conducted and documented annually.	17%	50%		33%
6.8	The PCB provides salary increases of its staff based on their performance evaluations.	23%	31%	15%	31%
6.9	The PCB has a compensation plan, and a periodic review of salary ranges and benefits is conducted.	31%	23%	15%	31%
6.10	The PCB has a pension system for its employees.		31%	38%	31%
6.11	The PCB has permanent staff and/or contracts its staff for specific periods.	69%	15%	8%	8%
6.12	The PCB has a timely process for filling vacant positions to prevent an interruption of program services or disruption to organization operations.	46%	15%	8%	31%
6.13	All new employees are given an orientation of the organization's mission, activities and their respective job responsibilities.	38%	31%		31%
6.14	The PCB has a process for reviewing and responding to ideas, suggestions, comments and perceptions from all staff members.	8%	38%	8%	46%
6.15	The PCB provides opportunities for its employees' professional development and training in their job skill area and also in such areas as cultural sensitivity and personal development.	31%	31%	8%	31%
6.16	The PCB provides incentives to its employees so as to motivate and encourage them.	25%	8%	33%	33%
6.17	The PCB rewards its employees for any outstanding and excellent work.	17%	8%	42%	33%
6.18	The PCB maintains records of its staff time that are treated as confidential information and guarded carefully.	25%	25%		50%