

**Development of an effective phytosanitary regulatory
information management system framework for WTO
SPS compliance**

By

Marianna Theyse

**Submitted to the Faculty of Natural and Agricultural Sciences
Department of Microbiology and Plant Pathology
University of Pretoria
in partial fulfilment of the requirements for the degree
M.Inst. (Agrar) Plant Quarantine**

Supervisor: Prof. L. Korsten

July 2009

DECLARATION

I, the under signed hereby declare that the work reported herein is the result of my original research findings.

Name: Marianna Theyse **Signature:** _____ **Date:** _____

ACKNOWLEDGEMENTS

I wish to express my deepest gratitude and appreciation to my supervisor Prof. Lise Korsten whose academic support and continued guidance made this study possible. I would also like to extend my appreciation to Ms Daleen Muller and Ms Amelita Lombard of the Department of Microbiology and Plant Pathology for their administrative support and assistance.

Special thanks to the management and personnel of the National Plant Protection Organisation of South Africa who participated in the Phytosanitary Capacity Evaluation surveys, shared ideas and supported further aspects of this study.

I would like to thank the Commonwealth Secretariat: Special Advisory Services Division for sponsoring the SPS Workshop in 2008 in Malawi and also acknowledge the participants of the workshop whose inputs ensured the successful completion of the Phytosanitary Capacity Evaluation for Malawi.

A special thanks to Dr David Keetch for his inputs and contributions to the Phytosanitary Capacity Evaluation for Malawi.

DEDICATION

This thesis is dedicated to Renier for his love, patience and support during my studies and to my parents who are always there to motivate and encourage.

TABLE OF CONTENT

LIST OF FIGURES	x
LIST OF TABLES	xi
LIST OF ACRONYMS	xii
1. Introduction	1
1.1. Objective	1
1.2. Specific aims	2
1.3. Relevance Statement	2
1.4. Outline of dissertation	5
1.5. Literature cited	7
2. Literature review on International Plant Protection Convention and related capacity evaluation tools	
2.1. Introduction	9
2.2. The concept of phytosanitary capacity	11
2.3. Purpose of the Phytosanitary Capacity Evaluation tool	13
2.4. Usefulness of the Phytosanitary Capacity Evaluation tool	14
2.5. Reviews of the Phytosanitary Capacity Evaluation tool	16
2.6. Other capacity evaluation tools	19
2.6.1. World Organisation for Animal Health Evaluation Of Performance of Veterinary Services tool	19
2.6.2. Guidelines to assess capacity building for national food control systems	20
2.6.3. Biosecurity Toolkit	21
2.6.4. Performance, Vision, Strategy	24
2.7. Literature cited	26

3.	South Africa: A Best Practice Model for compliance with Article 7 on Transparency of the World Trade Organisation Agreement on the Application of Sanitary and Phytosanitary Measures	
3.1.	Introduction	29
3.2.	Material and Methods	32
3.2.1.	Publication of regulations	32
3.2.2.	National Enquiry Points	33
3.2.3.	General notification requirements	34
3.2.4.	Notification procedures	37
3.2.5.	Notification procedures when emergency actions are required	39
3.2.6.	Transparency of special and differential treatment	39
3.2.7.	World Trade Organisation Agreement on the Application of Sanitary and Phytosanitary Measures Workshops on Transparency	40
3.2.8.	Research methodology	41
3.2.9.	Analysis of the existing national notifications Mechanism of South Africa	41
3.2.10.	A Phytosanitary notifications mechanism	43
3.3.	Results	44
3.3.1.	A national Enquiry Point and National Notification Authority for South Africa	44
3.3.2.	Technical competent authorities in Department of Agriculture	46
3.3.3.	Recommended national coordinating mechanism for outgoing phytosanitary notifications	48
3.3.4.	Recommended national coordinating mechanism for incoming notifications	51
3.4.	Discussion	54
3.5.	Literature cited	57

4.	South Africa: A phytosanitary capacity evaluation for compliance with International Plant Protection Convention requirements	
4.1.	Introduction	59
4.1.1.	Overview of the International Plant Protection Organisation	59
4.1.2.	Responsibilities of a National Plant Protection Organisation	60
4.2.	Material and Methods	61
4.2.1.	Project purpose and evaluation tool design	61
4.2.2.	Research methodology	61
4.3.	Results	62
4.3.1.	Phytosanitary legislative and regulatory framework	62
4.3.2.	Sanitary and phytosanitary institutional capacity and human resources	70
4.3.3.	Pest and disease diagnostic capabilities	77
4.3.4.	Pest risk analysis capacity	81
4.3.5.	Surveillance and pest eradication capacity	89
4.3.6.	Capacity to establish and maintain Pest Free Areas, Places and Sites of Production	93
4.3.7.	Inspection systems and points of entry or exit control	94
4.3.8.	Export certification systems	99
4.3.9.	Pest reporting	101
4.4.	Discussion	104
4.4.1.	Logical Framework Analysis and recommendations for strengthening national regulatory phytosanitary capacity	104
4.4.1.1.	Phytosanitary Legislative and Regulatory Framework	105
4.4.1.2.	Human Resources and facilities	106
4.4.1.3.	Pest Risk Analysis	108

4.4.1.4.	Institutional aspects	110
4.5.	Literature cited	112
5.	Comparison study of national phytosanitary capacities of South Africa and Malawi	
5.1.	Introduction	114
5.1.1.	Research mandate and purpose	114
5.1.2.	Context and institutional environment	115
5.1.2.1.	Economic and political overview	115
5.1.2.2.	National agricultural policies	116
5.1.2.3.	Membership of international Organisations and regional trade obligations	119
5.1.2.4.	Legal Frameworks	121
5.1.2.5.	Institutional Frameworks for phytosanitary regulatory services	123
5.1.2.6.	Phytosanitary capacity building projects	124
5.2.	Material and methods	125
5.3.	Results	125
5.3.1.	Country background	125
5.3.2.	Phytosanitary Legislative and Regulatory Framework	127
5.3.3.	Human resources and facilities	127
5.3.4.	Pest Risk Analysis	131
5.3.5.	Inspections and surveillance	132
5.4.	Discussion	134
5.6.	Literature cited	136
	ABSTRACT	138

ANNEX

1.	PHYTOSANITARY CAPACITY EVALUATION LOGFRAME MATRIX – SOUTH AFRICA	140
2.	PHYTOSANITARY CAPACITY EVALUATION LOGFRAME MATRIX - MALAWI	147

LIST OF FIGURES

1. Proposed National Notifications Authority in Department of Agriculture	45
2. Recommended structure of a technical competent authority	47
3. Recommended National Coordinating mechanism for outgoing phytosanitary notifications	51
4. Recommended National Coordinating mechanism for incoming phytosanitary notifications	53
5. Functional Units of the National Plant Protection Organisation of South Africa	71
6. Steps in applying for an import permit from the National Plant Protection Organisation in South Africa	83

LIST OF TABLES

1. Number of approved posts in the Directorate Plant Health (April 2008)	74
2. Number of approved posts in the Agricultural Product Inspection Services (April 2008)	75
3. Diagnostic expertise in the National Plant Protection Organisation of South Africa (April 2008)	79
4. Diagnostic expertise outside National Plant Protection Organisation of South Africa (April 2008)	80
5. Pest risk analysis expertise in the National Plant Protection Organisation of South Africa (April 2008)	86

LIST OF ACRONYMS

ADMARC	Agricultural Development and Marketing Corporation of Malawi
ALOP	Appropriate level of protection
APIS	Directorate Agricultural Product Inspection Services
ARC	Agricultural Research Council of South Africa
BCOCC	Border Control Operational Coordinating Committee
CABI	CAB International
CBD	Convention on Biological Diversity
“the Code”	Terrestrial Animal Health Code
Codex	Codex Alimentarius Commission
CPM	Commission on Phytosanitary Measures
DEAT	Department of Environmental Affairs and Tourism
DOA	Department of Agriculture
DOH	Department of Health
DDA	Doha Development Agenda
DPH	Directorate Plant Health
DVS	Directorate Veterinary Services
ENQ	National Enquiry Point
EWS	Early Warning Systems
FAO	Food and Agriculture Organisation
FSQA	Directorate Food Safety and Quality Assurance
FTA	Free trade Agreement
GATT	General Agreement on Tariffs and Trade
GIS	Geographical Information Systems
GMO	Genetically modified organism
HIPC	Highly Indebted Poor Countries
HPLC	High Performance Liquid Chromatography
IAPSC	Inter-Africa Phytosanitary Council
ICPM	Interim Commission on Phytosanitary Measures

IICA	Inter-American Institute for Cooperation on Agriculture
IICA-PVS	Inter-American Institute for Cooperation on Agriculture Performance, Vision, Strategy
IMF	International Monetary Fund
IPP	International Phytosanitary Portal
IPPC	International Plant Protection Convention
ISPM	International Standard for Phytosanitary Measures
ISSB	International Standard-setting Body
IWG-TA	Informal Working Group on Technical Assistance
KIMS	Knowledge and Information Management Systems
NNA	National Notifications Authority
Log-Frame matrix	Logical Framework Matrix
LUSM	Directorate Land Use and Soil Management
MEPC	Malawi Export Promotion Council
MIPA	Malawi Investment Promotion Agency
NDA	Non Destructive Assay
NEPAD	New Partnership for Africa's Development
NPP CP	National Plant Protection Contact Point
NPPPIs	National Plant and Plant Product Inspection Services
NPPO	National Plant Protection Organisation
NPPOZA	South African National Plant Protection Organisation
NRT	New Revised Text of the IPPC
NTBs	non-tariff barriers
OAU	Organisation of African Unity
OECD	Organisation for Economic Co-operation and Development
OIE	World Organisation for Animal Health
OIE-PVS	International Office of Epizootics Evaluation on the Performance of Veterinary Service

ISTA	International Seed Testing Association
OEWG-BNPC	Open Ended Working Group on Building National Phytosanitary Capacity
PCE	Phytosanitary Capacity Evaluation
PIP	Pest Information Package
PPECB	Perishable Product Export Control Board
PRA	Pest Risk Analysis
PRGF	Poverty Reduction and Growth Facility of Malawi
RBM	Reserve Bank of Malawi
RPPO	Regional Plant Protection Organisation
SA	Republic of South Africa
SACU	South African Customs Union
SADC	South African Development Community
SANDF	South African National Defence Force
SAPS	South African Police Service
SARS	South African Revenue Service
SOP	Standard Operation Procedures
SPS	Sanitary and Phytosanitary
TBT	World Trade Organisation Agreement on Technical Barriers to Trade
UNDP	United Nations Development Programme
UPOV	International Union for the Protection of New Varieties
USDA-APHIS ATRIP	United States Department of Agriculture - Animal and Plant Health Inspection Service African Trade and Investment Policy
USAID	United States Agency for International Development
WHO	World Health Organisation
WTO	World Trade Organisation
WTO SPS Agreement	World Trade Organisation's Agreement on the Application of Sanitary and Phytosanitary Measures

CHAPTER ONE

Introduction

1.1. Objective

The main purpose of the National Plant Protection Organisation (NPPO) of South Africa is to protect agriculture and the environment in its territory from potentially harmful pests and diseases that could enter the country with imported plants and plant products. The NPPO cooperates with industry role-players to ensure that consignments of plants and plant products destined for export comply with the import requirements of trading partners. Senior officials from the Department of Agriculture (DOA) attend the World Trade Organisation's Sanitary and Phytosanitary (WTO SPS) Committee meetings in Geneva together with the Geneva based delegate at South Africa's Mission to the World Trade Organisation (WTO). Senior officials from the NPPO may form part of such a South African delegation when the WTO SPS Committee meeting's agenda contains phytosanitary issues that are relevant to South Africa. The NPPO of South Africa is furthermore responsible for the development and implementation of national phytosanitary capacities in accordance with the country's membership of the International Plant Protection Convention (IPPC) and the World Trade Organisation Agreement on the Application of Sanitary and Phytosanitary Measures (WTO SPS Agreement).

This study analyses and evaluates the current phytosanitary regulatory capacity of South Africa in terms of its compliance with the transparency requirements of the WTO SPS Agreement and in term of the standard-setting and implementation requirements of the IPPC. Capacity evaluations are done in order to develop and propose corrective measures and mechanisms to address the gaps and shortcomings that were identified.

The recommendations for improvement is used to guide the development of effective phytosanitary regulatory capacities in South Africa and forms a framework to guide further development of relevant information management systems for WTO SPS compliance.

The study includes a comparative study between the phytosanitary regulatory capacities of the NPPO of a developing country Member, namely South Africa, and the NPPO a least developed country Member, namely Malawi.

1.2. Specific aims

This study aims to:

- a. Develop a Best Practice Model for South Africa for compliance with WTO SPS Transparency principles
- b. Complete a Phytosanitary Capacity Evaluation for South Africa
- c. Make specific recommendations to the NPPO of South Africa to strengthen phytosanitary capacity in terms of IPPC requirements
- d. Complete a Phytosanitary Capacity Evaluation for Malawi.
- e. Compare the phytosanitary capacities of South Africa and Malawi to inform decisions by the respective governments to focus further capacity building initiatives in order to improve WTO SPS compliance.

1.3. Relevance Statement

The ability to protect human, animal and plant life and health, as defined in the World Trade Organisation's Agreement on the Application of Sanitary and Phytosanitary Measures (WTO SPS Agreement) is high on the agenda of Member countries (WTO, 1994). The growing impact of globalization and increased agricultural trade creates more potential for the spread and introduction of pests and diseases. Animal and plant pests and diseases not only affect food safety and security, but also threaten biological diversity and the

status of natural resources. This has important consequences for agricultural economic development, especially for developing countries that are major exporters of agricultural and food products.

The WTO SPS Agreement was negotiated during the WTO Uruguay Round of trade negotiations to address the concern that gains made to negotiate freer trade in agricultural commodities may be eroded if *Members* use arbitrary or unjustified technical barriers to protect domestic industries from imports (WTO, 1995). It is a legally binding instrument that came into force for developed country *Members* as of January 1995, for developing country *Members* as of January 1997 and for least-developed country *Members* as of 2000 (WTO, 2005). The WTO SPS Agreement aims to facilitate free trade that is also safe. *Members* are allowed to give food safety, animal and plant life and health priority over trade considerations provided that there is a demonstrable scientific justification for Member country's SPS measures. A set of rules, principles and benchmarks is provided to ensure that SPS measures are scientifically justified and not disguised as trade restrictions. The WTO SPS Agreement also provides procedures and criteria for the assessment of risk. *Members* have a sovereign right to determine their own appropriate level of health protection.

Members of the WTO are encouraged to harmonise their national SPS regulations with the international standards, guidelines, or recommendations, developed by the three standard setting bodies cited as the International Plant Protection Convention (IPPC), the World Organisation for Animal Health (OIE) and the Codex Alimentarius Commission (WTO, 1994). All three these international standard-setting bodies existed prior to the WTO SPS Agreement and they operate independent thereof. *Members* of each international standard-setting body are encouraged to participate in international and regional standard-setting programmes and initiatives. National SPS regulatory systems need to not only be able to withstand the challenges of accessing new markets, protecting

human, animal and plant life and health and the environment, but also participate and represent its interests and concerns in international standard-setting forums.

Some Member countries are still adjusting to the new disciplines established by the WTO SPS Agreement and are in the process of developing the adequate SPS regulatory capacities to implement these disciplines (WTO, 2005). It is generally accepted that a country's SPS regulatory capacity must be able to meet SPS requirements in the international trade arena, implement trade obligations and participate in international SPS related forums (USAID, 2003). Several studies provided evidence that the inability to meet the SPS measures of trading partners constitute non-tariff barriers to agricultural and food exports of developing countries (Henson et al., 2000, Gebrehiwet et al, 2007, Nyangito et al, 2003 and Rudaheeranwa et al, 2003). Effective SPS regulatory services can contribute to economic growth by protecting agricultural and environmental resources, protecting public health, adding value to agricultural products and expanding and diversifying the agricultural sector (USAID, 2003).

The agricultural sector of the Republic of South Africa experienced dramatic growth in response to a changing economic policy environment from protectionist statutory intervention and support of agriculture prior to the mid-nineties, to deregulation and liberalisation and an open economy thereafter. The 2007 Strategic Plan for South African agriculture aimed to address historical divisive dualism in policy and service delivery through three core strategies namely, to enhance equitable access and participation in agriculture, improve global competitiveness and profitability and to ensure equitable resource management in the sector (DOA, 2007). These strategic goals and greater integration in world agricultural trade underscores the need for the South African agricultural policies that favour, amongst others, SPS compliance support systems.

South Africa has been a contracting party to the General Agreement on Tariffs and Trade (GATT) since 13 June 1948 and a member of the WTO since its

establishment on 1 January 1995. The WTO SPS Agreement entered into force with the establishment of the WTO. South Africa is also a member of the IPPC, OIE and Codex Alimentarius Commission. A huge responsibility therefore exists for the country's regulatory institutions to effectively facilitate safe agricultural trade and stay abreast with international developments within the SPS environment. It is imperative for South Africa to continue to monitor its SPS regulatory systems with the view of enhancing its capacities to be able to (1) support domestic industry to comply with the import requirements of trading partners, (2) develop and implement effective SPS measures to protect human, animal and plant life and health, and (3) to participate in trade discussions of SPS standard-setting bodies and the WTO.

South Africa has been a signatory member of the IPPC since 6 December 1951 and deposited its instrument of ratification on 21 September 1956. In November 1997 the Food and Agriculture Organisation (FAO) Conference approved wide-ranging amendments to the IPPC. In accordance with Article XIII paragraph 4 of the Convention, the New Revised Text (NRT) of 1997 came into force on 2 October 2005 (IPPC, 1997). The South African government assessed its national regulatory structure for phytosanitary services in terms of the obligations of the NRT of the IPPC. Following this assessment a process of restructuring started in 2005 as far as financial resources allowed. The current NPPO structure was established on 1 April 2006 as a result of restructuring within the Department of Agriculture (DoA).

1.4. Outline of dissertation

In Chapter Two, South Africa's SPS national Enquiry Point and National Notification Authority capacities were evaluated according to the requirements of WTO SPS Agreement Article 7 on Transparency with the aim of developing a new effective and sustainable model for a national mechanism to ensure compliance with Article 7 on Transparency of the WTO SPS Agreement.

Because of the lack of current SPS capacities in the DoA, a proposed Best Practice Model for compliance with WTO SPS Transparency was developed.

At the time of the CPM meeting in April 2007, the PCE had been applied by 60 countries (WTO, 2008). In Chapter Three the Phytosanitary Capacity Evaluation (PCE) tool of the IPPC is used for the first time to evaluate the phytosanitary regulatory capacity of South Africa. This evaluation entails a thorough assessment of the NPPO of South Africa with the purpose to identify specific strengths and weaknesses relating to current structure and capacities. Effective information management and record-keeping is an important responsibility of a NPPO and part of the IPPC requirements of any phytosanitary regulatory service. Based on the findings and results of the PCE Logical Framework Analysis a list of prioritised recommendations to improve phytosanitary capacity to in the NPPO of South Africa is presented.

A SPS workshop was held in Malawi mainly to validate data gathered during three field visits as part of the Commonwealth Secretariat project entitled “Establishment of a Malawian Best Practices Model to address Sanitary and Phytosanitary Requirements for Plant Health”. This data is captured in a Phytosanitary Capacity Evaluation (PCE) Tool and the study focuses on the completion of a PCE for Malawi. A PCE Logical Framework Analysis was compiled and in Chapter Four the results of the PCE studies for South Africa and Malawi are compared. The aim of this comparative study is to determine the difference in capacity levels of the two countries of which South Africa is a developing country and Malawi is a Least Developed Country. The difference in phytosanitary capacity levels should inform decisions by the respective governments to focus further capacity building initiatives in order to improve compliance with the WTO SPS Agreement.

1.5. Literature cited

DoA (2007). *Strategic Plan for the Department of Agriculture for 2007.* Department of Agriculture (DOA) of South Africa, Pretoria, South Africa

Gebrehiwet, Y., Ngqangweni, S. & Kirsten, J.F. (2007). *Quantifying the trade effect of sanitary and phytosanitary regulations of OECD countries on South African food exports.* *Agrekon*, 46 (1). Pp 23 – 39.

Henson, S.J., Loader, R., Swinbank, A., Bredhal, M. and Lux, N. (2000). *The impact of sanitary and phytosanitary measures on developing countries.* Center for Food Economics Research, University of Reading, UK.

IPPC (1997). *New Revised Text of the International Plant Protection Convention (IPPC).* Food and Agriculture Organisation of the United Nations, Rome, Italy.

Nyangito, H.O., Olielo, T. and Magwaro, D. (2003) Improving Market Access through Standards Compliance: A Diagnostic and Road Map for Kenya, in J.S. Wilson and V.O Abiola (eds), *Standards and Global Trade: A Voice for Africa.* The International Bank for Reconstruction and Development/ The World Bank, USA.

Rudaheranwa, N., Matowu, F. and Musinguzi, W. (2003). Enhancing Uganda's Access to International Markets: A focus on Quality, , in J.S. Wilson and V.O Abiola (eds), 2003 *Standards and Global Trade: A Voice for Africa.* The International Bank for Reconstruction and Development/ The World Bank, USA.

USAID (2003). Trade capacity building and Sanitary and phytosanitary Control: A Resource Guide. USAID, Washington.
[[http://www.nathaninc.com/NATHAN/files/ccPageContentdocfilename353691526888SPS_\(onscreen\).pdf](http://www.nathaninc.com/NATHAN/files/ccPageContentdocfilename353691526888SPS_(onscreen).pdf) – February 2008]

WTO (1994). WTO Agreement on the Application of Sanitary and Phytosanitary Measures. World Trade Organisation, Geneva, Switzerland

WTO (1995). *Trading into the future.* World Trade Organisation, Geneva, Switzerland.

WTO (2008). *G/SPS/GEN/821: Overview of SPS capacity evaluation tools.* Committee on Sanitary and Phytosanitary Measures, World Trade Organisation, Geneva, Switzerland.

CHAPTER TWO

Literature review on International Plant Protection Convention and related capacity evaluation tools

2.1. Introduction

The protection of human, animal and plant life and health, as defined in the Agreement on the Application of Sanitary and Phytosanitary Measures (WTO SPS Agreement) of the World Trade Organisation is high on the agenda of developed and developing countries as the growing impact of `globalization and increased trade results in increased opportunity for the spread and introduction of pests and diseases. This spread and introduction of pests and diseases not only affects food safety and security, but also threatens biological diversity and the status of natural resources which in turn has important consequences for agricultural economic development. For example, if a new quarantine pest enters South Africa for which no internationally accepted mitigation options exist, such as the fruit fly *Bactrocera invadens*, it would impact on food security because agricultural production of its host plants would be affected and it would have major implications for the country's export markets. Trading partners may prohibit all exports from South Africa based on the "precautionary principle" of the WTO SPS Agreement until proof can be provided that the pest has been eradicated, or until certain affected areas can be officially declared pest free by means of surveillance or an internationally accepted mitigation treatment can be developed (WTO, 2000).

According to Gebrehiwet et al. (2007) stringent SPS standards have also proliferated as a result of the Uruguay Round Agreement on Agriculture (URAA) when tariff reduction shifted the focus to non-tariff barriers (NTBs). However, the WTO SPS Agreement stipulates that countries should base their sanitary and phytosanitary (SPS) measures on international standards and recommendations but also permits countries to raise national phytosanitary measures above the

international level provided that it is scientifically justified, non-discriminatory and based on the phytosanitary risk.

International Standards for Phytosanitary Measures (ISPMs) are developed within the framework of the International Plant Protection Convention (IPPC) and with the purpose of securing common and effective action to prevent the spread and introduction of pests of plants and plant products (IPPC, 1997). Member countries use ISPMs to develop and establish national phytosanitary measures in order to protect plant health and life from risks associated with imported agricultural commodities.

Contracting parties of the IPPC undertake to adopt legislative, technical and administrative measures for the purpose of securing common and effective action to prevent the spread and introduction of pests of plants and plant products. It is the responsibility of each contracting party to provide, to the best of its competencies, an official National Plant Protection Organisation (NPPO) (IPPC, 1997).

Developing and least developed countries with inadequate phytosanitary capacity are increasingly faced with the challenges of protecting plants and the environment, participating and representing their interests and concerns in international standard-setting forums and meeting the requirements of international legal commitments. Because of limited resources and expertise the economic interests and trade of developing countries, such as South Africa, are impeded.

Members of the IPPC are required to establish a National Plant Protection Organisations (NPPO). The responsibilities of a NPPO include the issuance of phytosanitary certificates, the inspection of consignments and regulated articles, the disinfestation or disinfection of consignments to meet phytosanitary requirements and surveillance with the objective of reporting occurrence,

outbreak and spread of pests, including the control of those pests. NPPOs are also responsible to conduct pest risk analysis, maintain pest free areas and areas of low pest prevalence, to ensure phytosanitary security of consignments after certification, training and development of staff, information management within its territory, research within the field of plant protection, the issuance of phytosanitary regulations and the provision of a national plant protection contact point (IPPC, 1997).

2.2. The concept of phytosanitary capacity

The concept of “*Capacity*” refers to the ability of individuals, organisations and systems to perform functions effectively, efficiently and in a sustainable manner (UNDP, 1998). Capacity may be quantitative e.g. number of staff or may be expressed in qualitative terms e.g. technical skills of staff and the quality of their performance (Canale, 2007). Phytosanitary capacity in South Africa therefore relates to the ability of the phytosanitary system, of which the NPPO is part of, to perform the appropriate functions as stipulated in its international obligations and national legislative and policy frameworks with the ultimate goal of protecting plant health and life, and the environment.

A capacity building need is interpreted as the gap between “*what is*” and “*what should be*” and capacity needs can be identified based on the difference between the current capacity and the desired future capacity (Canale, 2007).

Canale (2007) describes the levels and the dimensions in which phytosanitary capacity exists as:

- a. the system or environment level in which organisations, groups and individuals operate with dimensions such as policies, laws, regulations and standards, as well as mechanisms for management, communication and coordination;

- b. organisations and groups within the system level with dimensions such as the mission, structure, operational procedures, human resources, financial resources, information resources and infrastructure; and
- c. individuals within organisations and groups level with dimensions such as knowledge, skills, competencies, experience and ethics.

The UNDP (2008) defines capacity building, as it is now often referred to as capacity development, as “the process through which individuals, organisations and societies obtain, strengthen and maintain the capabilities to set and achieve their own development objectives over time”.

During the IPPC Open Ended Working Group on Building National Phytosanitary Capacity (OEWG-BNPC) meeting held in December 2008 a concept paper was developed on the definition of national phytosanitary capacity (IPPC, 2008). The proposed definition for national phytosanitary capacity is “the ability of individuals, organisations, and systems of a country to perform functions effectively and sustainably in order to protect plants and plant products from pests and to facilitate trade, in accordance with the IPPC”. The paper lists the following concepts to form the basis for the proposed definition of national phytosanitary capacity:

- a. National phytosanitary capacity refers to the combined knowledge and functions of many entities, not just the NPPOs;
- b. The reference to systems indicates that individuals and organisations should cooperate and communicate formally and informally on national, regional and international levels;
- c. Though the functions that need to be performed are technical, legal, administrative and managerial the capacity should also include the ability to apply knowledge, skills and tools that are appropriate to these functions;
- d. It is recognised that phytosanitary capacity changes over time and each country will have its own level of capacity;

- e. National policies and international obligations that may or may not be directly related to plant health considerations will influence phytosanitary capacity;
- f. Aspects that contribute to the sustainability of the performance of phytosanitary functions include: the enabling environment, private-public partnerships, staff retention programmes, mobilisation of resources, viable plans for plant health and trade and national commitment to sustainable phytosanitary capacity
- g. Though the definition refers to abilities to protect plants and plant products from pests it supports bio-security and therefore also contribute to other national and international goals that deal with the protection of biodiversity, food security and poverty reduction; and
- h. The IPPC reference in the definition aligns it with the IPPC Convention on Phytosanitary Measures New Revised Text (IPPC,1997).

2.3. Purpose of the Phytosanitary Capacity Evaluation tool

The Phytosanitary Capacity Evaluation (PCE) Tool was one of the first SPS capacity evaluation tools that was developed in 1999 and originated from a pilot project conducted by New Zealand. The project developed a questionnaire to assess phytosanitary capabilities and identify needs and priorities. It was piloted in six countries namely Cook Islands, Fiji, Solomon Islands, Indonesia, Bangladesh and Vietnam (WTO, 2008a). A multilingual version of the PCE tool was made available in Arabic, French, Spanish and English in 2004 (IPPC, 2005).

The PCE tool assists NPPO's to assess their phytosanitary capacity needs in relation to the implementation of the rights and responsibilities of the IPPC and the implementation of International Standards for Phytosanitary Measures (ISPM's). The PCE tool was modified over time to take into account new ISPM's and is a significant component of the Strategic Direction No4 (The development

of the phytosanitary capacity of *Members* by promoting the provision of technical assistance) and Article XX of the IPPC NRT (IPPC, 2006).

Needs assessment is an essential first step in the process to improve phytosanitary capacity and the PCE provides for a diagnostic tool to help contracting parties to assess the strengths and weaknesses of its phytosanitary regulatory system as well as to identify priority areas for improvement.

The rationale for the PCE is based on the following considerations (Canale, 2004):

- a. Current needs of a national phytosanitary system can be estimated by a measure of its capacity to meet international obligations of the country in an efficient and sustainable manner; and
- b. This phytosanitary capacity can be measured through an inventory of the functions and resources that must be available to the country's regulatory services to be able to comply with each of the ISPMs and to implement the major categories of activities established under the IPPC.

2.4. Usefulness of the Phytosanitary Capacity Evaluation tool

According to Canale (2004), the IPPC PCE is a technical assistance tool that:

- a. provides for self-assessment of national weaknesses and the identification of priorities by a national group of experts that is followed by validation by a larger group representing all the actors of the national phytosanitary system, thereby promoting national awareness and consensus;
- b. focuses attention of national experts on important issues and facilitates analysis of the phytosanitary system in a systematic manner; and
- c. reduce the variation among judgements of experts facing the same situation.

The PCE tool comprises of 614 questions and covers 11 areas of phytosanitary capacity that includes legislative and regulatory framework, institutional capacity and human resource skills, pest and disease diagnostic capabilities, pest risk analysis, surveillance and pest eradication, Pest Free Areas, Places and Sites of Production, inspection systems and points of entry or exit control, export certification systems and pest reporting capacity. It facilitates the identification and prioritisation of organisational phytosanitary needs in order to develop strategies and plans to improve export, import and national control.

The PCE tool addresses communication, information management and human resources and capacities that are necessary for national phytosanitary regulatory services to meet international phytosanitary obligations, especially in areas such as risk assessments that form the basis of imposing SPS measures. It also highlights the needs for adequate information management that is important to ensure phytosanitary data integrity.

The WTO SPS Agreement Article 10 recognises the special needs of developing countries in the preparation and application of SPS measures (WTO, 1994). The IPPC provides technical assistance to developing countries in order to increase their phytosanitary capacity. In particular, the IPPC encourages technical support to developing countries in order to improve the effectiveness of their NPPOs and to increase the potential for developing countries to realise the benefits of safe trade.

The IPPC PCE tool is used to identify and prioritise areas of national phytosanitary capacity that may be addressed through technical assistance and cooperation projects. It is primarily a diagnostic tool to gauge the gap between the current situation and what is needed to meet the requirements of international standards for phytosanitary measures.

The PCE results provide a country and its NPPO with a technically sound basis for determining strengths and weaknesses of the NPPO to function effectively within the WTO SPS environment. This enables the NPPO to develop and strengthen well conceived programmes that are prepared to address the capacity gaps.

2.5. Reviews of the Phytosanitary Capacity Evaluation tool

The IPPC Interim Commission on Phytosanitary Measures (ICPM) at its 6th Session in 2004 requested that a study be undertaken to determine the impact of the application of the PCE regarding national capacity building (IPPC, 2006). The CAB International (CABI) was contracted to do a study that addresses the following areas:

- a. Critical assessment of the PCE as a needs assessment tool, with recommendations for enhancements;
- b. Review of the educational values of the tool in training and awareness raising;
- c. Assessment of the impact on strategic planning at national level
- d. Assessment of the impact on other organisations internationally including the IPPC, FAO and donor and development organisations.

In December 2006 an IPPC Informal Working Group and Technical Assistance (IWG-TA) recommended the update of the PCE tool to ensure consistency with newly adopted international standards for phytosanitary measures. The IWG-TA supported the PCE evaluation report and the technical recommendations made by CAB International (CABI) on the improvements for a more functional and appropriate PCE tool. Mr Felipe Canale was contracted to revise PCE according to the recommendations of the IWG-TA and CABI.

The IPPC Commission on Phytosanitary Measures (CPM) at its 2nd session in 2007 noted the positive impacts of the PCE with reference to its intended use, in

particular on national strategic planning, justification for budgetary allocation, legal frameworks, training and awareness. It also noted that the PCE results were not regularly used for seeking external funding for phytosanitary capacity building (IPPC, 2007a). The CPM decided in 2007 that the analysis on the application of the PCE tool by an Informal Working Group on the PCE should continue.

In August 2007 an IPPC Informal Working Group on Technical Assistance (IWG-TA) reviewed the first draft of the revised PCE tool that was drafted by Mr Felipe Canale in 2007 (IPPC, 2007b). The revised version of the PCE was tentatively named “PCE 2008” and was updated to include the most recently adopted ISPMs. Its structure was rearranged into a stratified framework so that the user may follow the tool on a modular basis and go deeper into details only when needed.

The IPPC Commission on Phytosanitary Measures (CPM) at its 3rd session in 2008 noted the need for a comprehensive capacity building strategy to address the needs of developing country *Members*. The CPM in 2008 proposed that an open ended working group undertake the task of developing a draft capacity building strategy to allow for broad participation (IPPC, 2008a).

In December 2008 an Open Ended Working Group on Building National Phytosanitary Capacity (OEWG-BNPC) that comprised of 40 delegates from all FAO regions and relevant international organisations met to develop (IPPC, 2008b):

- a. a draft concept paper for a capacity building;
- b. a draft capacity building strategy ; and
- c. an indicative operational plan.

The OEWG-BNPC recognised in its report of the December 2008 meeting (IPPC, 2008b), amongst others, that:

- a. the implementation of international standards is complex and that a gap exists between the development and the implementation of standards;
- b. there are many aspects to phytosanitary capacity and different perspectives at international, regional and national level that play a role;
- c. lack of resources should not influence capacity building and partners are needed to obtain resources;
- d. more tools in addition to PCE are needed to evaluate national phytosanitary capacity;
- e. regional approaches are needed to utilise regional expertise;
- f. a phytosanitary capacity strategy should ensure that training strengthens institutions and not only individuals;
- g. improved coordination and cooperation with donors is needed;
- h. a definition of phytosanitary capacity is needed and should be applicable to individual countries;
- i. a phytosanitary capacity strategy should be based on the uniqueness of the IPPC and its comparative advantage in the phytosanitary arena;
- j. implementation of standards should have a regional focus and Regional Plant Protection Organisations (RPPOs) should play a role;
- k. IPPC visibility should be increased in order to help obtain resources; and
- l. the IPPC should be aware that a one size fits all approach will not work for the overall phytosanitary capacity strategy.

The OEWG-BNPC recommended that the IPPC moves forward by addressing the six strategic areas outlined in the draft phytosanitary capacity building strategy, namely:

- a. Assessment of country phytosanitary needs and development of national phytosanitary action plans
- b. Advise or assist countries in establishing systems for standards implementation

- c. Facilitate improved coordination and communication
- d. Implement appropriate structures in the IPPC and mobilise resources
- e. Advocacy
- f. Sustainability of the capacity building strategy

The strategic area dealing with assessment of country phytosanitary needs recommends further activities to develop methods and tools to help countries assess and prioritise their phytosanitary needs, including GAP analysis. This may be done through implementation of PCE improvements from the CABI review. The OEWG-BNPC recommended that reviews of the World Organisation for Animal Health Evaluation on the Performance of Veterinary Services (OIE-PVS) tool and Inter-American Institute for Cooperation on Agriculture Performance, Vision, Strategy (IICA-PVS) approach will assist in developing a new and more comprehensive Gap analysis process for phytosanitary needs (IPPC, 2008b).

2.6. Other capacity evaluation tools

2.6.1. World Organisation for Animal Health Evaluation of Performance of Veterinary Services tool

The World Organisation for Animal Health (OIE) began collaboration with the Inter-American Institute for Cooperation on Agriculture (IICA) on capacity evaluation tools in 2003 and developed the OIE-PVS (WTO, 2008a). This tool is designed to:

- a. assist veterinary services establish their level of performance relative to quality standards in the Terrestrial Animal Health Code (the Code);
- b. establish priorities for strategic initiatives to improve performance in key areas of veterinary services.

OIE-PVS evaluations are conducted by trained and certified OIE experts upon request of *Members*. The OIE works with Members to develop proposals for investment by donors.

The OIE-PVS contains four fundamental components:

- a. human, physical and financial resources, and the ability to attract resources and retain professionals with appropriate technical and leadership skills;
- b. technical authority and capability to address current and new issues that include prevention and control of biological disasters based on scientific principles;
- c. sustained interaction with stakeholders, to stay on course and carry out relevant joint programmes and services; and
- d. ability to access markets through compliance with existing standards and implementation of new disciplines such as harmonization, zoning and compartmentalisation.

Qualitative levels of advancement are described for each critical competency as it is set out in the Code. The OIE is examining the possibility of extending the OIE-PVS to provide a similar framework for evaluating aquatic animal health services (WTO, 2008a).

2.6.2. Guidelines to assess capacity building for national food control systems

The FAO considers the assessment of capacity needs in food safety and biosecurity as an essential first step in the process of strengthening capacity (WTO, 2008b). The FAO Guidelines to assess capacity building for national food control systems' capacity assessment step involves:

- a. review and analysis of existing capacity of the food control system;
- b. define desired future improved situation; and
- c. identify gaps and needs

The next step involves development of a capacity building strategy and action plan that would address the identified capacity needs and gaps. Needs assessment assist governments to set priorities, organise their work, improve the use of resources and raise additional resources.

FAO Guidelines exist to assess the capacity in core elements of a national food control system and to identify related capacity building needs and include the following modules for assessment:

- a. food control management;
- b. food legislation;
- c. food inspection;
- d. official food control laboratories;
- e. food safety and quality information, education and communication (IEC)

Each module provides step-by-step guidance and a participatory methodology for self assessment.

These FAO Guidelines build on and complement the United Nations World Health Organisation (WHO) Guidelines for strengthening national food control systems (WTO, 2008b). The FAO Guidelines focus on government agencies and food control authorities responsible for food safety and quality rather than verifying whether or not international standards are met by the food industry.

2.6.3. Biosecurity Toolkit

Biosecurity is defined as an approach to analyse and manage risks that exist in food safety, animal and plant life and health, and associated environmental risks. Traditionally biosecurity was managed on a sectoral basis whilst roles and responsibilities were distributed across different sectors and agencies. This highlighted a need for an integrated approach to biosecurity (FAO, 2007a).

In order to develop an integrated national biosecurity system the first step is to conduct a national biosecurity capacity needs assessment. The advantage of the process is that it assists countries to identify national priorities that will enhance biosecurity and ensure that capacity building activities are demand driven and tailored to specific needs (FAO, 2007a).

The FAO Guide to assess biosecurity capacity may be used for conducting biosecurity needs analysis (FAO, 2007b). The purpose of the FAO Guide is to:

- a. raise awareness about the synergies and interdependencies of biosecurity;
- b. assess current biosecurity capacity and performance;
- c. generate a vision of medium-term biosecurity;
- d. identify biosecurity needs and options

The Guide's assessment is informed by the following principles (FAO, 2007b):

- a. biosecurity concerns different parts of government;
- b. biosecurity sector goals are interrelated
- c. different countries and sectors are at varying stages in their ability to address biosecurity issues; and
- d. no universal model for an integrated approach for capacity building exists.

Biosecurity capacity is the ability of relevant organisations to perform functions effectively, efficiently and sustainable in order to protect human, animal, plant life and health and to protect associated aspects of the environment and contribute to its sustainable use.

The components of capacity can be classified into system levels and biosecurity organisational levels (FAO, 2007b).

The Biosecurity Toolkit system levels include:

- a. Policies
- b. Legislation
- c. Organisational arrangements
- d. Communication and information exchange

The Biosecurity toolkit organisational levels include:

- a. Scientific research and advise
- b. Quarantine and certification
- c. Risk profiling and priority setting
- d. Inspection, verification and enforcement
- e. Diagnostic services
- f. Emergency preparedness and response
- g. Standard setting and implementation
- h. Monitoring and surveillance

The process of biosecurity assessment and capacity building has four steps:

- a. Preparatory step
- b. Receiving and analysing existing biosecurity capacity and performance
- c. Developing a shared vision of desired future biosecurity
- d. Identifying biosecurity capacity needs and options to address them

High level support is required to do a full national biosecurity assessment. There must be an agreement on the purpose, scope and process to be followed. This is crucial as biosecurity cuts across authorities and responsibilities in different competent authorities. Cross-sectoral participation and collaboration in the assessment is essential.

Once the assessment is concluded the outputs is designed into a biosecurity strategy which should translate into policy. The policy should translate into and

clearly outline the goals and the objectives. Links should be established between biosecurity sectors which may then present a framework for collaboration.

Expected benefits from using the FAO Biosecurity Toolkit include:

- a. Improved decision and policy making
- b. Enhanced allocation of available resources
- c. Greater ability to attract new sources of funding for biosecurity activities
- d. Improved ability to comply with requirements of international agreements

2.6.4. Performance, Vision, Strategy

The Inter-American Institute for Cooperation on Agriculture (IICA) developed a Performance, Vision, Strategy (IICA-PVS) approach in collaboration with the OIE that extends beyond the animal health area (WTO, 2008a). Four different versions of the PVS have been developed to evaluate:

- a. national veterinary services
- b. national food safety services
- c. internationalisation of government services
- d. national plant health protection organisations

The IICA-PVS is meant to be more than just a diagnostic tool but is a process that may be used in active or passive modes depending on the level of commitment of the users and the official services to improve national services over a period of time. In passive mode the IICA-PVS is used to raise awareness, improve understanding and teach different sectors the basic components and critical competencies required for adequate and effective functioning of national services. It may also be used to foster dialogue, adopt common language for discussion and develop a shared vision.

In the active mode the IICA-PVS is used to assess performance, explore differences and identify priorities. Public sector participation and leadership is

crucial to ensure that actions happen. Investments are made and commitments fulfilled. Success and continuation is assured when private-public partnerships exist.

2.7. Literature cited

Canale, F. (2004). *Phytosanitary Capacity Evaluation (PCE) and its application in developing countries.* FAO report. [<http://www.fao.org> - February 2008].

Canale, F. (2007). *Review of the Phytosanitary Capacity Evaluation.* Report to IWG-TA. Food and Agriculture Organisation of the United Nations, Rome, Italy

FAO (2007a) *FAO Biosecurity Toolkit Part 1 Biosecurity principles and components.* Food and Agriculture Organisation of the United Nations, Rome, Italy.

FAO (2007b) *FAO Guide to assess biosecurity capacity.* Food and Agriculture Organisation of the United Nations, Rome, Italy

Gebrehiwet, Y., Ngqangweni, S. & Kirsten, J.F. (2007). *Quantifying the trade effect of sanitary and phytosanitary regulations of OECD countries on South African food exports.* *Agrekon*, 46 (1). Pp 23 – 39.

IPPC (1997). *New Revised Text of the International Plant Protection Convention (IPPC).* Food and Agriculture Organisation of the United Nations, Rome, Italy.

IPPC (2005). *ICPM2005/22. Report on the Phytosanitary Capacity Evaluation tool.* Food and Agriculture Organisation of the United Nations, Rome, Italy. [<http://www.fao.org> December 2007]

IPPC (2006). *CPM2006/20: Analysis of the Application of the Phytosanitary Capacity Evaluation Tool (PCE).* Food and Agriculture Organisation of the United Nations, Rome, Italy. [<http://www.fao.org> December 2007]

IPPC (2007a) *Second Session of the Commission on Phytosanitary Measures Report*. Food and Agriculture Organisation of the United Nations, Rome, Italy [<http://www.fao.org> December 2007]

IPPC (2007b) *Draft Report of the Informal Working Group on Technical Assistance and Phytosanitary Capacity Evaluation*. Food and Agriculture Organisation of the United Nations, Rome, Italy [<http://www.fao.org> October 2007]

IPPC (2008a) *Third Session of the Commission on Phytosanitary Measures Report*. Food and Agriculture Organisation of the United Nations, Rome, Italy [<http://www.fao.org> December 2007]

IPPC (2008b) *Open Ended Working Group on Building National Phytosanitary Capacity (OEWG-BNPC)*. Final report. [<http://www.ippc.int> – January 2009]

UNDP (1998). *Capacity assessment and development in a systems and strategic management context*. Technical Advisory paper No 3. Bureau for Development Policy, United Nations Development Programme

UNDP (2008). *Supporting capacity development: the UNDP approach*. UNDP Capacity Development, Group Bureau for Development Policy

WTO (1994). *WTO Agreement on the Application of Sanitary and Phytosanitary Measures*. World Trade Organisation, Geneva, Switzerland

WTO (2000). *WTO Agreement on the Application of Sanitary and Phytosanitary Measures*. World Trade Organisation, Geneva, Switzerland.

WTO (2008a). *G/SPS/GEN/821. Overview of SPS capacity evaluation tools.* Committee on Sanitary and Phytosanitary Measures, World Trade Organisation, Geneva, Switzerland

WTO (2008b). *G/SPS/GEN/831. FAO capacity evaluation tools for food safety, biosecurity and plant protection.* Committee on Sanitary and Phytosanitary Measures, World Trade Organisation, Geneva, Switzerland

CHAPTER THREE

South Africa: A Best Practice Model for compliance with Article 7 on Transparency of the World Trade Organisation Agreement on the Application of Sanitary and Phytosanitary Measures

This chapter evaluates South Africa's existing SPS national Enquiry Point and National Notification Authority according to the requirements of WTO SPS Agreement Article 7 on Transparency with the aim of developing a new effective and sustainable model for a national mechanism to ensure compliance with Article 7 on Transparency of the WTO SPS Agreement.

3.1. Introduction

The WTO SPS Agreement concerns the application of SPS measures and each Member country has the sovereign right to determine the level of protection of human, animal or plant health or life that it considers to be appropriate. The appropriate level of protection is determined based on assessments of risks involved but should not arbitrarily or unjustifiably discriminate between *Members* where identical or similar conditions prevail. *Members* must ensure that the SPS measures they choose to implement are least restrictive to trade. *Members* must apply SPS measures without unjustified discrimination to domestically and foreign produced products according to the National Treatment principle of the WTO SPS Agreement (WTO, 1994).

The WTO SPS Agreement defines SPS measures as measures that are applied to:

- a. protect human or animal life from risks from additives, contaminants, toxins or disease –causing organisms in their food;
- b. protect human life from plant- or animal carried diseases;

- c. protect animal or plant life from pests, diseases, or disease-causing organisms; and
- d. prevent or limit other damage to a country caused by the introduction and spread of pests and includes measures taken to protect the health of fish, wild fauna and flora.

Measures for animal welfare, consumer interest protection and environmental protection, other than those mentioned in paragraph 2.1 (a) to (d), are not covered by the WTO SPS Agreement (WTO, 2002).

Harmonisation of SPS measures provide the necessary health protection based on scientific evidence and at the same time improve trade flows (WTO, 1994). In order to harmonize SPS measures on as wide a basis as possible, *Members* are encouraged to base their measures on international standards, guidelines and recommendations developed by the International Plant Protection Convention (IPPC) and World Organisation for Animal Health (OIE) and Codex Alimentarius Commission, where these exist. However, *Members* may maintain or introduce stricter SPS measures if there is scientific justification, or as a consequence of an appropriate risk assessment. The SPS Agreement provides procedures and criteria for the assessment of risk and the determination of appropriate levels of protection. Based on the principle of equivalence, WTO *Members* are expected to accept the SPS measures of other *Members* if the other Member or exporting country can demonstrate that its measures achieve the same appropriate level of protection as that of the importing country. *Members* should also recognize disease- or pest free areas that may not correspond to political boundaries and adapt product requirements accordingly (WTO, 1994).

The WTO SPS Agreement's precautionary principle that is contained in Article 5.7 permits *Members* to omit the regular procedures for setting SPS measures when insufficient scientific evidence exists. This may be done with the provision that these SPS measures that they are only provisional and that more objective

assessment will be carried out when additional information becomes available in order to review the emergency measures accordingly. Members should notify provisional measures when they are imposed and again when these measures are amended. In case of an urgent health risk Members may skip the step that involves notifying the draft regulation, impose the appropriate measure and then notify the measure “immediately”. *Members* are required to designate a central government authority responsible for the implementation of the WTO SPS notification procedures and should establish “enquiry points” to provide trading partners with any SPS related information they may require. The SPS Agreement also includes provisions on control, inspection and approval procedures (WTO, 1994).

The WTO SPS Agreement is subject to the unified dispute settlement procedures of the WTO. *Members* may challenge a SPS requirement of a trading partner in terms of its compliance to the WTO SPS Agreement. Bilateral consultations are encouraged but if no satisfactory solution can be found the complainant can request the WTO SPS Committee to establish a panel. The panel seeks scientific and technical advice from experts and relevant international organisation to resolve the dispute (WTO, 1994).

Special and differential treatment for developing and least developed *Members* means that these countries may be granted longer time-frames for compliance with some or all of the WTO SPS obligations upon request. The special needs of developing and least developed *Members* should be taken into account and the WTO SPS Agreement calls for technical assistance to these *Members* to enable them to strengthen their SPS protection (WTO, 1994). It is expected that developing countries would especially benefit from the WTO SPS Agreement because it provides an international framework for SPS arrangements among countries, irrespective of their political and economical strength or technological capacity (WTO, 2002).

Consumers are benefited as the WTO SPS Agreement helps ensure food safety and encourages the use of scientific information in this regard. Exporters of agricultural products benefit from the elimination of unjustified barriers to their products which thereby reduce the uncertainty about conditions for selling to a specific market. Importers of agricultural products also benefit from greater certainty regarding their national import control measures as the basis for SPS measures which restrict trade are made clearer by the WTO SPS Agreement (WTO, 2002). The principle of scientific justification that forms the basis for challenging unjustified SPS measures provides assurance of safe imports in respect of protecting the life and health of humans, animals and plants within the scope of the WTO SPS Agreement (WTO, 2002).

Article 12.7 of the WTO SPS Agreement provides that the Committee on Sanitary and Phytosanitary Measures “*shall review the operation and implementation of this Agreement three years after the date of entry, and thereafter as the need arises*” (WTO, 1994). The first Review of the WTO SPS Agreement was completed in March 1999 and the second Review was completed in June 2005. To date no Member has proposed any changes to the basic provisions of the WTO SPS Agreement and no Member has yet questioned the WTO SPS Agreement’s science-based requirements, the encouragement of harmonisation with international standards or its obligations regarding transparency (WTO, 2005).

3.2. Materials and Methods

3.2.1. Publication of regulations

According to Article 7 of the WTO SPS Agreement, WTO *Members* are required to notify any changes in their SPS measures and provide relevant information to other *Members* according to the requirements of Annexure B of the WTO SPS Agreement (WTO, 1994). Transparency in the context of the WTO SPS

Agreement is used with the aim of achieving a greater degree of clarity, predictability, and information about trade policies, rules and regulations of *Members*. *Members* implement this concept by using SPS notifications to inform other *Members* of new or changed regulations.

Members of the WTO are required to ensure that the publication of SPS regulations such as laws, decrees or other instruments which are generally applicable and are similar in character to the instruments referred to in Annex B and that have been adopted, are published promptly in such a manner to enable interested *Members* to become acquainted with them (WTO, 2002). *Members* should allow reasonable time interval between the publication of a SPS regulation and its entry into force in order to allow other *Members* to adapt their products and methods of production according to the amended or new requirements of the importing country. At the Doha Round, commonly known as the Doha Development Agenda (DDA), *Members* decided that the “*longer timeframe*” given to developing countries to comply with trading partners’ new SPS measures and the “*reasonable interval*” in this respect should be understood as a period not less than 6 months (Baker, 2006). The entry into force of new SPS measures that contribute to trade liberalization should not be unnecessarily delayed.

3.2.2. National Enquiry Points

Each WTO *Member* must ensure that at least one national Enquiry Point (ENQ) is established in accordance with the WTO SPS Agreement (WTO, 1994) to provide official responses to questions from interested *Members* and to make relevant documents available. The text of the WTO SPS Agreement states that *Members* should designate one enquiry point. Some *Members* have chosen to establish three ENQs with one in the respective competent authority for plant health, animal health and food safety, and this has been tolerated by other *Members*.

Information and copies of documents that should be made available by *Members* include:

- a. SPS regulations proposed or adopted in its territory;
- b. control and inspection procedures, production and quarantine treatment, pesticide tolerances, food additive approval procedures applied in its territory;
- c. risk assessment procedures, and determination of the appropriate level of protection (ALOP); and
- d. participation and/ or membership to international and regional SPS organisations and systems, bilateral and multilateral agreements and arrangements within the scope of WTO SPS and texts of such agreements and arrangements.

3.2.3. General notification requirements

A revision of the notification procedures was carried out by SPS Committee at its meeting of 2 April 2002. The handbook “How to apply the Transparency Provisions of the SPS Agreement” was prepared by the Secretariat in 2000, and revised in 2003. This handbook provides guidelines on the establishment and operation of notification authorities and enquiry points (WTO, 2005).

At its meeting in 2002, the SPS Committee adopted the provision relating to the format and procedures of notification of the conclusion of equivalence agreements between *Members* further to the Decision on Equivalence. This means that ENQ’s are obliged to provide information, upon request, on the participation in any bilateral or multilateral equivalence agreements of the Member concerned and should notify other *Members* through the Secretariat of the measure(s) recognized to be equivalent and of the products affected by this recognition (WTO, 2002).

When considering whether the SPS regulation may have “significant effect on trade” the Member concerned should consider the relevant information available. Members also should consider the value or other importance of imports in respect of the importing and/ or exporting *Members*, whether from other *Members* individually or collectively, the potential development of such imports and the difficulties for producers in other *Members* to comply with the proposed SPS regulations (WTO, 2002). The concept of a significant effect on trade of other *Members* includes both import-enhancing and import-reducing effects on the trade of other *Members*, as long as such effects are significant.

The WTO SPS Agreement (WTO, 1994) stipulates that notifications may be in English, French or Spanish and *Members* shall designate a single central government authority as a National Notifications Authority (NNA) to be responsible for the national implementation of the provisions concerning notification procedures. *Members* are not expected to provide particulars or copies of published texts in any language other than that of the Member. *Members* are not expected to disclose any confidential information which would impede the enforcement of its SPS legislation or which would prejudice the legitimate commercial interests of particular enterprises (WTO, 1994). The Secretariat promptly circulates copies of each notification to all *Members* and draws attention of developing country *Members* to any notifications relating to products of particular interest to them.

The WTO document G/SPS/7/Rev.3 of 20 June 2008 (WTO, 2008) contains detailed information on recommended procedures for implementing the transparency obligations of the SPS Agreement. These recommended procedures include:

- a. Application of Annex B, paragraph 5 or 6 of the WTO SPS Agreement
- b. Timing of notifications
- c. Requesting documents relating to a notification
- d. Providing documents relating to a notification

- e. Handling of comments on notifications
- f. Addenda, revisions and corrigenda
- g. Regulations that contain both SPS and TBT measures
- h. Notification of determination of the recognition of equivalence of sanitary or phytosanitary measures
- i. Completed notifications
- j. Guidelines for national enquiry point requests
- k. Publication of regulations
- l. Access to international electronic resources related to SPS notifications and other SPS information

In the 2005 review (WTO, 2005) of the operation and implementation of the WTO SPS Agreement the SPS Committee (i) encourages *Members* to ensure full implementation of the transparency provisions of the SPS Agreement; (ii) asks that developing country *Members* clearly identify specific problems related to the implementation of the transparency provisions of the SPS Agreement; and (iii) asks that assistance be provided to least-developed and developing country *Members* in order to enable them to implement the WTO SPS transparency provisions and make use of its associated benefits.

In 2007 the WTO SPS Secretariat organised the third Workshop on Transparency to enhance the implementation of transparency obligations and to identify best practices for gaining benefits from the WTO SPS notifications system. The main recommendations from the Workshop include:

- a. Revision of Recommended Transparency Procedures contained in G/SPS/7/ Rev.2/ Add. 1 (WTO, 2002);
- b. Training and dissemination of the SPS Information Management System;
- c. Regular updates on the level of implementation of transparency provisions;
- d. Explanatory documents on timeframes related to WTO SPS transparency obligations and benefits;

- e. Establishment of a mentoring system between officials responsible for implementing transparency provisions in different *Members*; and
- f. Development of a practical procedural transparency manual to replace the “How to Apply the Transparency Provisions of the SPS Agreement”

Transparency signifies one of the fundamental principles of the WTO SPS Agreement. The aim of transparency is to achieve a greater degree of clarity, predictability and information about trade policies, rules and regulations of Members (WTO, 2008). The WTO SPS Secretariat acknowledges that managing transparency remains a challenge for many developing country Members who are struggling to implement the basic obligations in terms of the transparency provisions of the WTO SPS Agreement (WTO, 2009). Members have submitted 6,648 regular notifications and 1,086 emergency notifications as of 31 December 2008.

3.2.4. Notification procedures

Whenever a WTO Member proposes an SPS regulation of which the content is not substantially the same as the content of an existing international standard, guideline or recommendation, and the proposed regulation may have a significant impact of trade of other *Members*, *Members* shall in accordance with the WTO SPS Agreement (WTO, 1994):

- a. publish a notice at an early stage to enable interested *Members* to become acquainted with the proposal to introduce the new regulation;
- b. notify other *Members*, through the WTO SPS notification system managed by the WTO SPS Secretariat, of the products to be covered by the SPS regulation and add a brief indication of the objective and rationale of the proposed regulation. (Notifications shall take place at an early stage in order to allow for amendments to be introduced and comments taken into account);

- c. provide, upon request, copies of the proposed regulation to other *Members*. Whenever possible, *Members* should identify those parts of the regulation that deviates from international standards, guidelines or recommendation; and
- d. without discrimination, allow for reasonable time for other *Members* to submit comments in writing, discuss these comments upon request and take all comments, and the results of their discussions, into account.

In May 2008 the revised recommended procedures for transparency as contained in document G/SPS/7 Rev.3 of 20 June 2008 were adopted by the SPS Committee (WTO, 2008). These new transparency procedures and the use of the new notification formats took effect on 1 December 2009. The new procedures include, inter alia, to:

- a. clarify the definition of the comment period;
- b. encourage the notification of measures conforming to international standards;
- c. provide links for access to full texts and their translations.

.

The WTO SPS Secretariat developed a new SPS Information Management System (SPS IMS) that was launched on 15 October 2007 during the Transparency Workshop (WTO, 2009). The system includes most recent Committee documents, SPS notifications, specific trade concerns and *Members'* ENQ and NNA information.

In December 2008 the WTO SPS Committee adopted a special format and recommended procedures for the notification of determination of the recognition of equivalence of SPS measures which is now included in the new transparency procedures (WTO, 2009). As of 31 December 2008 12 supplemental and 2 equivalence notifications were circulated. The Secretariat established a mechanism for Members to inform each other of translations of notified measures that may be available in one of the WTO official languages.

To date 70 percent of WTO Members have submitted at least one notification. The share of notifications by developed country *Members* is 55 percent and developing country *Members* is 44 percent. A very small share of 1 percent comes from least developed country *Members*. The majority of notifications come from North America, followed by Asia, then South and Central America and the Caribbean (WTO, 2009).

3.2.5. Notification procedures when emergency actions are required

Whenever urgent health risks arise or threaten to arise, the WTO SPS Agreement (WTO, 1994) “*allows for a Member to omit the steps for notification as listed in paragraph 2.3.4. (a) to (d), as it may find necessary, provided that the Member.*

- a. immediately notifies other *Members* through the WTO SPS notification system of the Secretariat of particular regulations and the products it covers.
- b. provides, upon request, copies of the regulation to other *Members*; and
- c. allows other *Members* to make comments in writing, discuss these comments upon request and take into consideration the results of the discussions thereof.”

3.2.6. Transparency of special and differential treatment

The WTO document G/SPS/33 of 2 November 2004 (WTO, 2004) contains a decision by the WTO SPS Committee to adopt a procedure to enhance transparency of special and differential treatment in favour of developing *Members*. This proposed procedure essentially follows the current practices and recommendations as outlined in WTO document G/SPS/7/ Rev. 2 of 2 April 2002 (WTO,2002), but adds new actions regarding steps 5, 6 and 7 to take into account special needs, concerns and challenges facing developing *Members*.

This procedure was reviewed one year after its adoption to determine whether changes are required and/or its continuance is warranted. In reviewing the operation of the procedure the WTO SPS Committee decided in February 2006 to extend the procedure and to review its implementation no later than its first regular meeting in March 2008 (WTO, 2006b).

3.2.7. World Trade Organisation Agreement on the Application of Sanitary and Phytosanitary Measures: Workshop on the implementation of the WTO SPS Agreement

In March 2006 a special WTO Workshop on the implementation of the WTO SPS Agreement was held to use panel presentations and discussions to identify best-practices, including practical ways of making use of existing tools to ensure effective implementation of the WTO SPS Agreement on national level. An official from the NPPO of South Africa attended this workshop and submitted a country presentation as per notification G/SPS/GEN/690 of 12 April 2006 on its implementation of the WTO SPS Agreement's transparency principle to date (WTO, 2006a).

In October 2007 a second special WTO SPS Workshop on Transparency was held. During this workshop concrete actions that may enhance the use and usefulness of transparency provisions were discussed, developed and refined. Some important issues that were discussed include, the structure of Enquiry Points/ NNA's, access to full texts, management and length of comment periods, circulation of notifications of interest to relevant stakeholders, public and private sector coordination and consultation, contacts with other *Members* and awareness of tools and options related to the SPS Agreement / Committee decisions / WTO Secretariat (WTO, 2007). South Africa did not attend this workshop.

3.2.8. Research methodology

The methodology and approach used in this study include the following steps:

- a. Analysis of the existing national mechanism to facilitate WTO SPS notification related communication in the Department of Agriculture (DoA) by means of documentation reviews, electronic and personal interviews with relevant responsible officials in the competent technical authorities: Directorates: International Trade, Food Safety and Quality Assurance, Plant Health, and Veterinary Services in South Africa.
- b. Use findings of the literature reviews and interviews to determine the scope and effectiveness of the current mechanism.
- c. Evaluate the existing mechanism according to its capacity to comply with the requirements of the WTO SPS Agreement's principle on Transparency.
- d. Draft a new proposed Best Practice Model for an effective and sustainable national mechanism to ensure WTO SPS Transparency compliance for South Africa.

3.2.9. Analysis of the existing national notifications mechanism of South Africa

The Director International Trade, DOA is currently the official ENQ and NNA for South Africa. The NNA receives hard copy and electronic SPS notifications from the WTO Secretariat. The Geneva-based delegate at South Africa's Mission to the WTO also forwards some SPS notifications from time to time to the NNA electronically. The NNA forwards hard copy notifications by hand to the directorates responsible for SPS regulatory services in the DoA for further dissemination. Electronic notifications are forwarded electronically but time delays do occur especially when other functions require priority attention. SPS notifications are not screened at the NNA but are just forwarded to the offices of the Directors of the technical directorates Plant Health, Veterinary Services and Food Safety and Quality Assurance. The Directorate Plant Health subscribed to

the WTO SPS notification distribution list and receives WTO SPS notifications electronically from the WTO which is then screened and disseminated to relevant plant health officials. These actions raised the level of SPS awareness and transparency within the plant health competent authority to some degree. The current system includes the following problems:

- lack of technical capacity in the NNA to screen notifications to ensure that they reach the relevant technical authorities in a timely manner
- no personnel appointed to deal with SPS notifications in particular results in low prioritisation of resources and time to the notification system
- time-delays when follow-up is required through the NNA due to other functions that may have higher priority in the office of the NNA at any given time
- use of hard copies creates time-delays in distribution
- lack of effective record-keeping system results in problems when follow-up actions is required regarding any particular notification
- poor preparation and coordination amongst technical competent authorities for participation in the WTO SPS Committee meeting
- the national SPS Committee has been suspended in 2006 due to departmental restructuring but has not been revitalised and doesn't play any role in the functioning of the existing NNA/ ENQ mechanism

The major challenge that the existing system faces relates to the new procedures for transparency, and in particular, that the notification of measures conforming to international standards are encouraged (WTO, 2008). In practice this means that the risk assessment units in the competent authorities should realign the development of import conditions and national standards, regulations and guidelines to the requirements and time-lines of the WTO SPS transparency provisions.

3.2.10. A Phytosanitary notifications mechanism

Based on information and guidelines provided in the WTO SPS Workshop on the implementation of the WTO SPS Agreement of March 2006, a WTO SPS notifications dissemination system was developed and incorporated in the Operational Plan of the Division International Standards, Directorate Plant Health (DPH) for 2006/7. This national phytosanitary WTO SPS notification system was fully operational by June 2006. DPH registered on the WTO SPS Secretariat database and receives WTO SPS notifications through the WTO SPS automated system in addition to receiving them via the South African NNA office.

Incoming WTO SPS notifications are screened and sorted in terms of their phytosanitary relevance. Those relating to phytosanitary matters are disseminated to relevant role-players in the DOA for the information and/ or further attention of the appropriate managers, primarily in DPH and Directorate Agricultural Product Inspection Services (APIS). A database of processed WTO SPS notifications exists and monthly and quarterly reports are compiled. This database is available to clients on the DOA website (<http://www.doa.agric.za>). In 2006/7 DPH processed and disseminated a total of 129 WTO SPS notifications pertaining to phytosanitary issues. The DPH processed and disseminated a total of 213 WTO SPS notifications pertaining to phytosanitary issues for the 2007/8 year.

Starting in 2007, the DPH circulates notification reports at technical meetings of the phytosanitary Market Access Working Group for Fresh Fruit and Vegetables in an attempt to expand its information dissemination to industry. These working group meetings are held six times a year with two-monthly intervals and include representatives of the relevant industry bodies as well as the Perishable Products Export Control Board (PPECB). Similar meeting are envisaged with sector specific representatives from the seed, vegetable and ornamental industries.

3.3. Results

3.3.1. A national Enquiry Point and National Notification Authority for South Africa

The WTO SPS Agreement requires *Members* to establish one central NNA and one to three ENQs to deal with SPS matters. If the ENQ(s) and NNA are established as separate offices it is recommended that each office be adequately qualified to deal with relevant issues pertaining to SPS matters i.e. plant health, animal health and food safety. Many countries prefer to combine their ENQ and NNA in one office but due to organisational arrangements of technical authorities this is not recommended for South Africa. Existing human resource capacity and departmental structural constraints makes it unlikely that the NNA office could be staffed with technical personnel qualified to deal with technical notifications or requests at this stage.

In SA, the contact points for the WTO SPS relevant international standard-setting bodies (ISSB's) are located within the following national government departments:

- a. International Plant Protection Convention (IPPC) National Contact Point - Department of Agriculture, Directorate Plant Health (DPH)
- b. World Organisation for Animal Health (OIE) National Contact Point – Department of Agriculture, Directorate Veterinary Services (DVS)
- c. Codex Alimentarius Commission National Contact Point – Department of Health (DoH). Directorate Food Safety and Quality Assurance in the Department of Agriculture are responsible for food safety and quality issues relating to the WTO SPS Agreement.

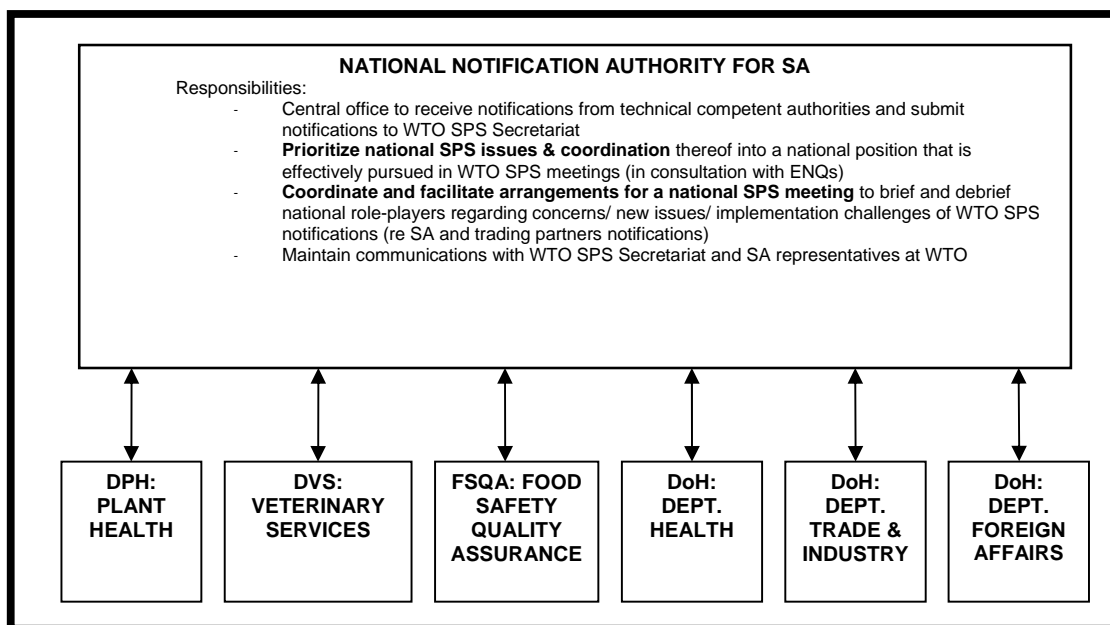
It is recommended that:

1. The DOA remains the responsible national government department to provide the central NNA for South Africa and that three ENQs are

established within the relevant technical authorities. The proposed structure is illustrated in Figure 1.

2. A central NNA office should provide the following functions:
 - a. Maintains communication with WTO SPS Secretariat and to submit country SPS notifications;
 - b. Collaborates with ENQs to prioritize and coordinate national SPS issues into a national position that is pursued in WTO SPS meetings, Geneva;
 - c. Coordinates and facilitates arrangements for a national SPS meeting to consult, brief and debrief national role-players regarding concerns/ new issues/ implementation challenges of WTO SPS notifications regarding notifications of South African and its trading partners; and
 - d. Maintains communications with WTO SPS Secretariat and SA representatives at the WTO.

Figure 1. Proposed National Notifications Authority in Department of Agriculture



3.3.2. Technical competent authorities as national Enquiry Points in Department of Agriculture

The WTO SPS Agreement requires *Members* to notify any changes in their SPS measures and provide relevant information to other *Members* according to the requirements of Annexure B of the WTO SPS Agreement. *Members* must provide official responses to questions from interested *Members* and make relevant documents available.

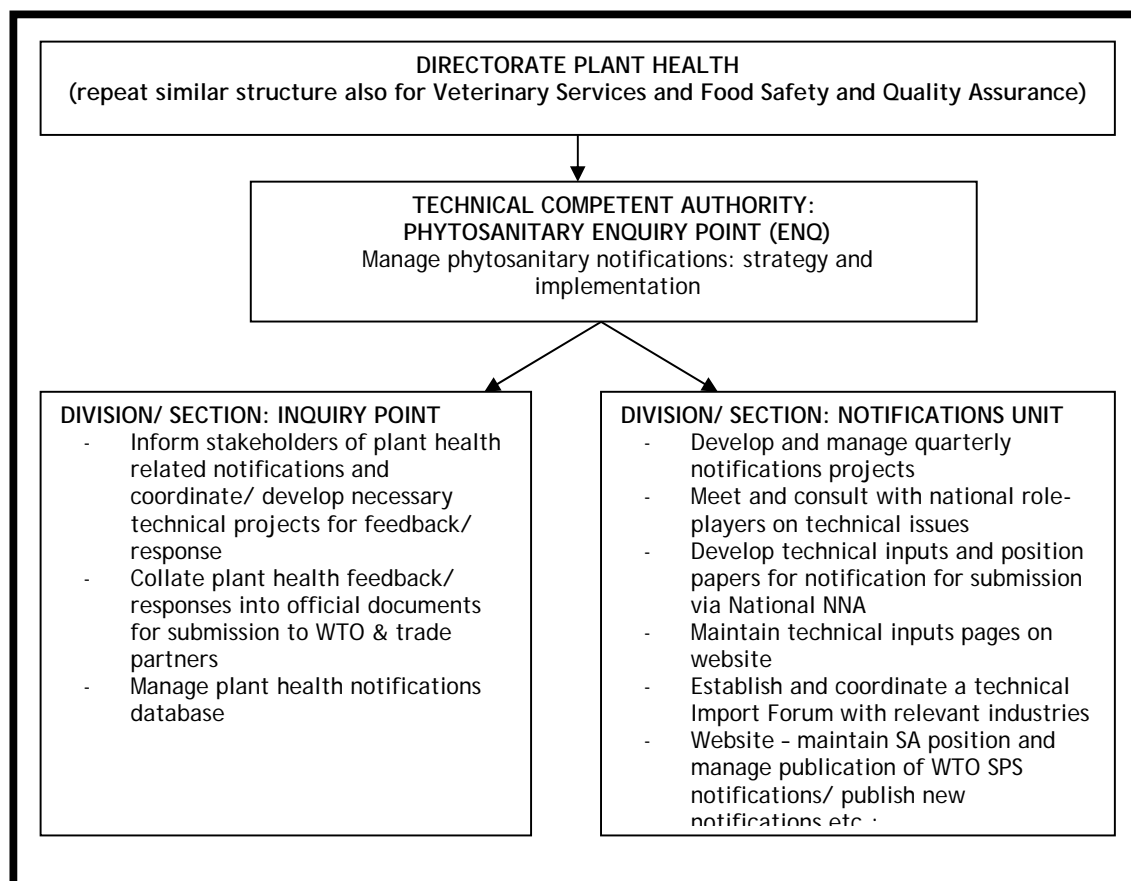
Technical experts are responsible for providing the necessary information that is submitted via the WTO SPS notification system because of the nature and technical complexity of SPS notifications. The directorates Plant Health, Veterinary Services, and Food Safety and Quality Assurance are the relevant “policy” components responsible for technical deliberations regarding WTO SPS notifications that are received or that should be submitted. No specialized structures or “technical competent authorities” have yet been established in any of the mentioned directorates in the DoA. It is recommended that a national ENQ be established in each of the technical competent authorities.

In DPH, the office established as the national phytosanitary contact point in terms of South Africa’s membership of the IPPC also deals with phytosanitary WTO SPS notifications, but with limited capacity. The official responsible for handling SPS notifications should have appropriate scientific or technical background and sufficient experience on SPS measures to enable her or him to rapidly identify sensitive messages.

Experience with the working methods of the IPPC, OIE and Codex are also important. This expertise is necessary to ensure that the importance of the original message is identified accurately, especially if the “subject” line is vaguely worded. Experience of the European Commission in respect of phytosanitary notifications has shown that without appropriate capacity, the worst case

scenario is that a sensitive message is identified but the period to send comments has expired (WTO, 2003). Figure 2 illustrates the responsibilities of the technical competent authorities in the DoA.

Figure 2 Recommended structure of a technical competent authority



It is recommended that:

1. Specialized WTO SPS units (referred to herein as a technical competent authority) be established in each of the Directorates Plant Health, Veterinary Services and Directorate Food Safety and Quality Assurance as illustrated in Figure 1.
2. Each technical competent authority acts as an ENQ and be responsible for the following functions:

- a. Informs stakeholders of relevant SPS notifications and coordinate/ develop necessary SPS projects for incoming notifications to facilitate technical feedback/ response to trading partners;
- b. Collates relevant SPS feedback/ responses into official technical documents for submission to WTO through the office of the NNA;
- c. Collates relevant SPS feedback/ responses into official technical documents in response to enquiries received from trading partners;
- d. Manages a relevant SPS notifications database for incoming and outgoing notifications;
- e. Develops, coordinates and manages quarterly SPS projects for outgoing notifications, in consultation with relevant internal role-players;
- f. Meets and consults with national role-players such as industry, research institutes, universities on technical issues;
- g. Develops technical inputs and position papers for SPS notification and for submission to WTO SPS Secretariat via the NNA;
- h. Maintains technical pages on relevant websites; and
- i. Manages relevant SPS notifications databases for plant health, animal health or food safety and provide inputs and support to the NEP and NNA for WTO SPS meetings and client inquiries

3.3.3. Recommended national coordinating mechanism for outgoing phytosanitary notifications

The WTO Workshop on the implementation of the SPS Agreement held in March 2006 provided valuable information regarding *Members'* experiences of implementation of the WTO SPS notification system on national levels. It was generally recommended by more experienced *Members*, such as the European Commission, to rather have simple work routines and user-friendly databases than sophisticated mechanisms that require specialised secretarial support (WTO, 2003). It is also of utmost importance that the relevant competent technical authority has free and direct access to relevant technical role-players in

the public and private sectors to ensure that urgent and important issues are discussed and resolved on a technical level. Figure 3 provides an illustration of the recommended national coordinating mechanism for outgoing phytosanitary notifications

It is recommended that:

1. The national coordination mechanism for outgoing notifications be implemented on two levels, namely on:
 - a. A technical level where the preparation and compilation of an SPS notifications are managed and coordinated by the relevant technical competent authority; and
 - b. A management level where the submission of SPS notifications are managed and coordinated by the central NNA office;
2. The central NNA is moved to the appropriate technical Branch in the DoA, namely Bio-security & Food Safety.
3. A human resources work study is done to determine the appropriate personnel capacity necessary to deal with the bulk of WTO SPS notifications relevant to South African national competent authorities. When such a study is undertaken it is important to take into consideration the following stages that are necessary to ensure an effective national coordinating mechanism for outgoing notifications:

Preparation stage:

4. The national technical competent authorities identify needs and prepare notification documents in consultation with specific units in relevant directorates such as the Pest Risk Analysis unit to publish new import conditions, or the Policy Norms and Standards unit to notify new national phytosanitary regulations.

Discussion stage:

5. The relevant technical competent authority formulates draft notifications in consultation with relevant role-players for technical inputs, when necessary
6. A decision is taken to notify the concerned measure/ legislation to the WTO SPS Secretariat or referred back to relevant technical competent authority for further information/ clarification by the Director of the relevant technical competent authority
7. The notification is submitted to NNA

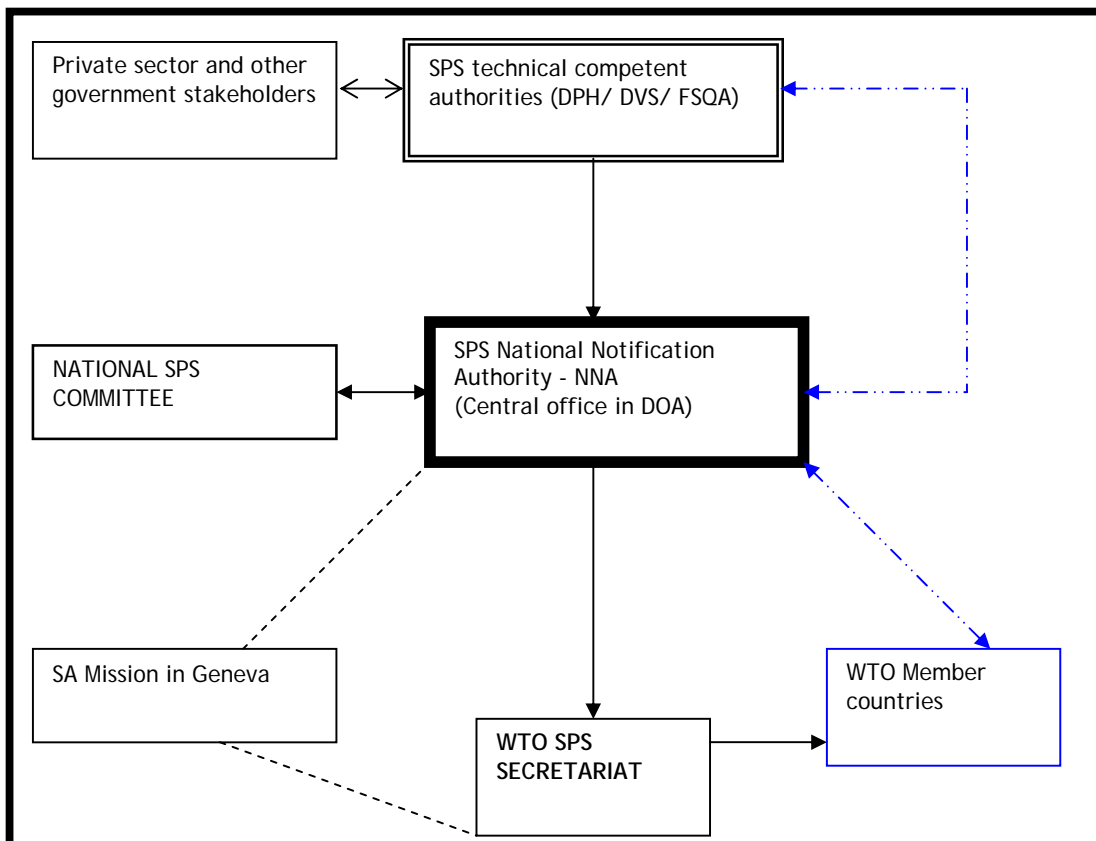
Notifying stage:

4. The NNA submits the SPS notification to the WTO SPS Secretariat within 2 days of receiving it from the technical competent authority
5. The NNA provides a SPS notifications report at each National SPS Committee meeting for the Committee to note
6. The WTO SPS Secretariat notifies *Members*

Receiving stage:

7. The NNA receives comments from *Members* which are immediately forwarded for technical analysis and consultation to relevant technical competent authorities and ENQs (DPH/ DVS/ FSQA/DoH)
8. The NNA acknowledge receipt of comments without delay
9. The relevant technical competent authority submit response to comments to NNA which submits country responses to comments to trading partners within 5 days
10. The NNA should evaluate and decide to facilitate consultation and manage the process when complicated or sensitive requests may require more time and inform trading partners accordingly
11. The NNA provides a report of country responses to SPS notification enquiries at National SPS Committee meeting for the Committee to note

Figure 3 Recommended National Coordinating mechanism for outgoing phytosanitary notifications



3.3.4. Recommended national coordinating mechanism for incoming phytosanitary notifications

Members should have a national coordinating mechanism in place to deal with and respond to WTO SPS notifications of trading partners. This is also necessary for SA, to ensure that due dates for *Members*' comments are met and that the necessary bilateral technical deliberations take place before trading partners implement their new regulations that may have a significant affect on SA trade. It is of utmost importance that the relevant competent technical authority has free and direct access to the appropriate technical role-players in the public and private sectors to ensure that urgent and important issues are discussed and resolved on a technical level without undue delay. Figure 4 provides an

illustration of the recommended national coordinating mechanism for incoming phytosanitary notifications as it is facilitated by the relevant ENQ.

It is recommended that:

1. The national coordination mechanism of the ENQ should be implemented on a technical level where SPS notifications of trading partners are assessed and technical country comments coordinated, compiled and communicated by the relevant ENQ.
2. A human resources work study should be undertaken and it should take into consideration the following stages that are necessary to ensure an effective national coordinating mechanism for incoming notifications:

Receiving stage:

3. The ENQ receives notification via SA Mission in Geneva or from WTO website or from WTO SPS Secretariat mailing list

Analysis stage:

4. The ENQ screens relevant SPS notifications to eliminate those that are not relevant to South African imports or exports

Distribution stage:

5. The ENQ disseminates only relevant notifications to relevant national stakeholders (including members of national SPS committee) within 1 day of receiving it
6. Each stakeholder representative is responsible for immediate further dissemination within its sector/ organisation

Analysis stage:

7. The ENQ screens and disseminates notifications within the relevant technical competent authorities for analysis to determine if technical country comments are necessary. If no comments are necessary, the notification is transferred to implementation stage

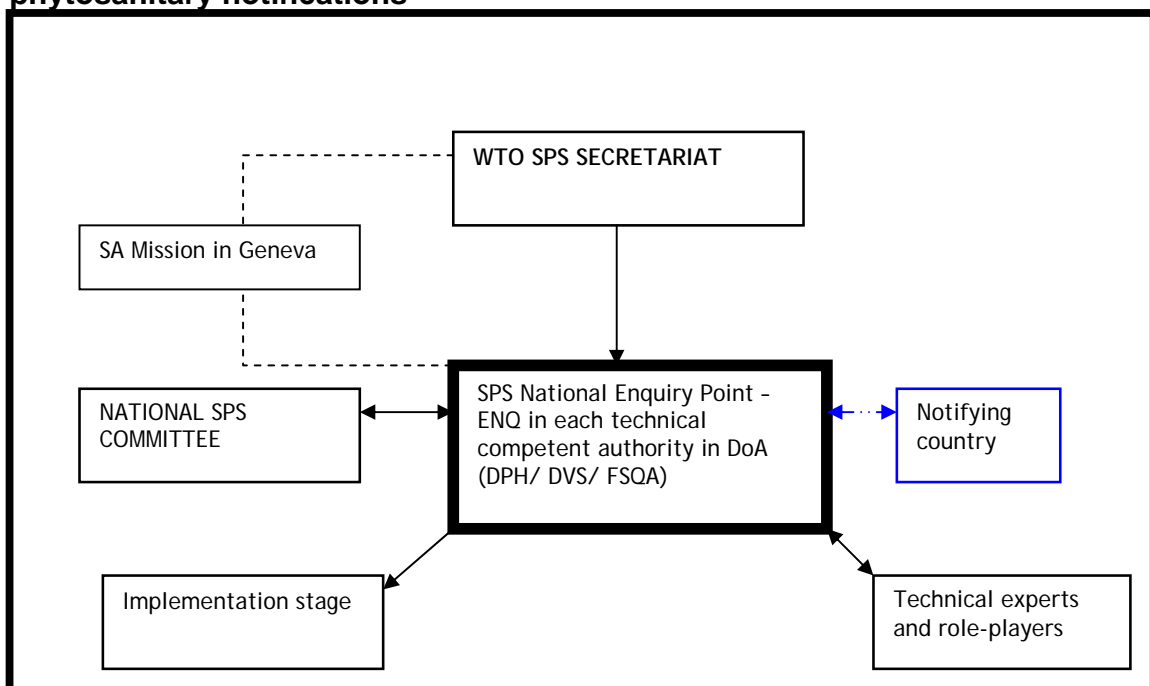
Discussion stage:

8. In case of comments, the relevant technical competent authority consults relevant role-players and collects technical inputs within 5 days
9. A technical comments report is compiled by ENQ and forwarded to the NNA for information.
10. The ENQ technical comments reports are submitted to the National SPS Committee meetings for the Committee to take note

Comment Stage:

11. The ENQ submits its technical country comments to the notifying country within 4 weeks of receiving the notification
12. Responses from the notifying country are received by ENQ and disseminated within 1 day to the relevant competent technical authorities
13. Responses from the notifying country are compiled in a technical report and submitted to National SPS Committee to take note of at the SPS Committee meeting

Figure 4 Recommended National Coordinating mechanism for incoming phytosanitary notifications



3.4. Discussion

The effectiveness of the proposed mechanism is also subject to the development of relevant and supportive Knowledge and Information Management Systems (KIMS) as well as the appropriate designation of skilled officials. It is essential that officials are well-trained, that they know what is expected from them to ensure that unnecessary delays do not occur. It is recommended that the DoA undertake a Human Resources work study to determine the exact quantity of human resources that this model requires as well as the projected financial resources necessary to fund such a structure.

The new proposed model was submitted to the office of the Director: General: Food Safety and Bio-security of the DoA and discussed at a branch strategic session in November 2008. It was decided that based on the recommendations made in this study a pilot project will be launched in April 2009 in the plant health technical authority. The necessary resources were allocated and an ENQ desk was established in the Directorate Plant Health is responsible for implementation of the proposed Model as of 1 April 2009.

The SPS pilot project is used as blue-print for later roll-out of the Model in the technical authorities for food safety and animal health. A training programme was also developed for ENQ staff and is implemented as from 1 April 2009.

The plant health pilot project includes the development of a central WTO SPS notifications database for phytosanitary notifications and publication of relevant information of the DoA website for easy reference to industry role-players. Notification formats and standard operating procedures were drafted to ensure harmonised implementation of the model. The development and implementation of the new Best Practice model supports further departmental initiatives to revitalise the national SPS Committee for South Africa.

As of February 2009 the following activities based on the recommendations of this study were implemented in the DoA:

- a. Approval of NNA/ENQ Mechanism for SPS notifications in Department of Agriculture (DoA) with implementation of pilot project in Directorate Plant Health
- b. WTO SPS training session and manual were developed for plant health, animal health and food safety personnel in the competent technical authorities (plant health, animal health and food safety)
- c. Finalisation and approval of Standard Operating Procedures and relevant forms to be used in for SPS notifications in DoA
- d. Appointment of 1 official and allocation of financial resources to establish a SPS desk in the Directorate Plant health
- e. Three information sessions in WTO SPS Transparency principle and new proposed NNA/ENQ mechanism for NPPO personnel and management
- f. IPPC contact point meetings with Codex and OIE contact points to discuss harmonisation and alignment of processes as proposed in the pilot project for the new NNA/ENQ mechanism
- g. Electronic database framework for plant health related SPS notifications
- h. Publications of WTO SPS notifications table for plant health related matters on the DoA website
- i. Review draft Terms of Reference for the national SPS Committee for SA.
- j. Attended SADC meeting with the purpose of discussing the SADC SPS Free Trade Agreement requirements for the establishment of regional SPS Committee and the subsequent development of Terms of reference.
- k. Two Plant Health officials completed WTO SPS e-training course
- l. WTO SPS Training programme was drafted for officials from the competent authorities
- m. Facilitated a WTO SPS training session for 55 new Agricultural Inspectors.
- n. WTO SPS Awareness programme was drafted

- o. Two WTO SPS training sessions and meetings were held with management of plant health and animal health technical competent authorities and designated officials

The Best Practice model was also used in February and March 2009 respectively for DoA preparation of country participation in the (i) Southern African Development Community (SADC) workshop on national food safety capacity and (ii) SADC workshop on the implementation of the SADC Free Trade Agreement SPS text and in particular the establishment of a SADC SPS Committee.

3.5. Literature cited

Baker, G. (2006). *Sanitary and phytosanitary (SPS) concerns in agricultural trade.* CRS Report for Congress. [<http://www.opencrs.com> - Dec 2007]

WTO (1994). *WTO Agreement on the Application of Sanitary and Phytosanitary Measures.* World Trade Organisation, Geneva, Switzerland.

WTO (2002). *The WTO Agreements Series: Sanitary and Phytosanitary Measures.* World Trade Organisation, Geneva, Switzerland

WTO (2002). *G/SPS/7/Rev.2: Recommended procedures for implementing the transparency obligations of the SPS Agreement (Article 7).* Committee on Sanitary and Phytosanitary Measures, World Trade Organisation.

WTO (2002). *G/SPS/7/Rev.2/Add.1:Notification of determination of the recognition of equivalence of sanitary or phytosanitary measures .* Committee on Sanitary and Phytosanitary Measures, World Trade Organisation, Geneva, Switzerland.

WTO (2003). *G/SPS/GEN/456: The EC Notification Authority and Enquiry Point for the WTO SPS Agreement on the Application of Sanitary And Phytosanitary Measures: Operational procedures and recent experience.* Committee on Sanitary and Phytosanitary Measures, World Trade Organisation, Geneva, Switzerland.

WTO (2004). *G/SPS/33: Procedure to enhance transparency of special and differential treatment in favour of developing country Members.* Committee on Sanitary and Phytosanitary Measures, World Trade Organisation, Geneva, Switzerland

WTO (2005). *G/SPS/36: Review of the operation and implementation of the Agreement on the Application of Sanitary and Phytosanitary Measures.* Committee on Sanitary and Phytosanitary Measures, World Trade Organisation, Geneva, Switzerland

WTO (2006a). *G/SPS/33A1:Decision to extent the procedure to enhance transparency of special and differential treatment in favour of developing countries.* Committee on Sanitary and Phytosanitary Measures, World Trade Organisation, Geneva, Switzerland.

WTO (2006b). *G/SPS/GEN/690:Workshop on the implementation of WTO SPS – Information for the Workshop on 31 March 2006, Communication from South Africa .* Committee on Sanitary and Phytosanitary Measures, World Trade Organisation, Geneva, Switzerland.

WTO (2007). *G/SPS/GEN/751:Analysis of the replies to the questionnaire of Enquiry Points and national notification Authorities.* Committee on Sanitary and Phytosanitary Measures, World Trade Organisation, Geneva, Switzerland.

WTO (2008).*G/SPS/7/Rev.3: Recommended Notification procedures.* Committee on Sanitary and Phytosanitary Measures, World Trade Organisation, Geneva, Switzerland

WTO (2009). *G/SPS/GEN/887/Rev.1: Review of the operation and implementation of the SPS Agreement.* Committee on Sanitary and Phytosanitary Measures, World Trade Organisation, Geneva, Switzerland

CHAPTER FOUR

South Africa: A phytosanitary capacity evaluation for compliance with International Plant Protection Convention requirements

In this chapter the Phytosanitary Capacity Evaluation (PCE) tool of the IPPC is used for the first time to evaluate the phytosanitary regulatory capacity of South Africa. Based on the findings and results of the PCE Logical Framework Analysis a list of prioritised recommendations to improve phytosanitary capacity to in the NPPO of South Africa is presented.

4.1. Introduction

4.1.1. Overview of the International Plant Protection Convention

The WTO SPS Agreement recognizes the International Plant Protection Convention (IPPC) as the international organisation to draft and adopt International Standards for Phytosanitary Measures (ISPMs) with the objective to harmonize the regulatory and risk management procedures and actions applied by trading partners regarding the international movement of plants and plant products (WTO, 1994). Although the IPPC is a non-binding treaty, all *Members* of the WTO are required to follow IPPC standards by virtue of the WTO SPS Agreement. Members may impose measures that are stricter or that are not based on ISPMs if they can scientifically justify such measures based on appropriate risk assessment. Contracting parties of the IPPC undertake to adopt legislative, technical and administrative measures for the purpose of securing common and effective action to prevent the spread and introduction of pests of plants and plant products. It is the responsibility of each contracting party to provide, to the best of its competencies, an official National Plant Protection Organisation (NPPO) (IPPC, 1997).

The New Revised Text (NRT) of the IPPC was ratified in October 2005 and makes provision for a Commission on Phytosanitary Measures (CPM) to facilitate the adoption of new ISPMs (IPPC, 1997). The CPM provides for a Standards Committee that ensures that new proposed standards are drafted in accordance with the approved CPM program. The IPPC Secretariat drives the process of country consultation for international standard setting. The IPPC started with standard-setting only in mid 1990's and is therefore still in the early stages of its standard setting programme. South Africa participates in the IPPC standard-setting processes through the member country consultation process, regional draft ISPM workshops and through its regional representative seat on the IPPC Standard Committee.

4.1.2. Responsibilities of a National Plant Protection Organisation

The responsibilities of a NPPO include the issuance of phytosanitary certificates, the inspection of consignments and regulated articles, the disinfestation or disinfection of consignments to meet phytosanitary requirements and surveillance with the objective of reporting occurrence, outbreak and spread of pests, including the control of those pests. NPPOs are also responsible to conduct pest risk analysis, maintain pest free areas and areas of low pest prevalence, to ensure phytosanitary security of consignments after certification, training and development of staff, information management within its territory, research within the field of plant protection, the issuance of phytosanitary regulations and the provision of a national plant protection contact point (IPPC, 1997). It is the responsibility of each member country to ensure that sufficient resources are assigned and NPPO personnel are competent so that the Member can comply with its obligations in terms of the IPPC.

4.2. Material and methods

4.2.1. Project purpose and evaluation tool design

This evaluation study focuses on the current phytosanitary capacity of South Africa to determine the country's phytosanitary compliance status in terms of the WTO SPS Agreement and to provide guidance in developing a Best Practice Model for IPPC compliance.

The PCE comprises of 599 questions arranged in the following specific areas that form the control points and compliance criteria for the PCE:

- Phytosanitary legislative and regulatory framework
- SPS institutional capacity and human resource skills
- Pest and disease diagnostic capabilities
- Pest risk analysis capacity
- Surveillance and pest eradication capacity
- Capacity to establish and maintain Pest Free Areas, Places and Sites of Production
- Inspection systems and points of entry or exit control
- Export certification systems
- Pest reporting capacity

4.2.2. Research methodology

The methodology and approach used in this project include the following steps:

- a. Use the FAO/ IPPC PCE tool to evaluate the phytosanitary capacity of South Africa
- b. Gather background information of South Africa by visiting relevant government websites and the review of statistical journals and reports.
- c. Gather trade related information by visiting relevant websites and reviewing relevant trade and industry reports

- d. Gather information regarding the legislative, institutional and HR capacities of the NPPO phytosanitary system through personal and electronic interviews with relevant officials and managers in the NPPO of South Africa, review of strategic and operational reports of the Department of Agriculture and visiting relevant websites
- e. Use the information that was gathered was to complete the PCE for South Africa. The PCE results are attached in Annexure A.
- f. Use the results of the PCE to determine and highlight the strengths and weaknesses and identify priority areas for improvement in the current system.
- g. Conduct a logical framework analysis based on the SWOT analysis and priority matrix results to provide guidance for the study to develop a Best Practice Model for South Africa's phytosanitary capacity.
- h. Include phytosanitary capacity issues that were not covered by the PCE in final remarks and recommendations.
- i. Submit the outcome of the PCE to the management of the National Plant Protection Organisation of South Africa to support future decision-making with regard to phytosanitary regulatory capacity development.

4.3. Results

4.3.1. Phytosanitary legislative and regulatory framework

Phytosanitary legislation exists in South Africa but it needs to be updated and aligned with international standards, guidelines and recommendations. The phytosanitary import regulatory activities of the NPPO of South Africa (NPPOZA) are mandated by the Agricultural Pests Act, 1983 (Act No 36 of 1983) and its relevant regulations. The aim of this Act is to provide for measures to prevent and control the importation of plant pests, and to provide measures for their national control. In terms of the provisions of this Act, no person is allowed to import any controlled goods into South Africa except with authorization by permit

and in compliance with the relevant import conditions as stated in the import permit. Import permits may also be issued in terms of regulation(s). The Act also makes provision for the NPPOZA to:

- do surveillance to detect pest occurrence, outbreak and spread,
- protect endangered areas,
- maintain pest free areas and areas of low pest prevalence,
- register and approve post entry quarantine facilities
- train and develop NPPO staff, and
- disseminate relevant phytosanitary information within SA.

The scope of the Agricultural Pests Act, 1983 (Act No 36 of 1983) covers plants, plant products and their pathogens, including biological control agents, insects and exotic animals as defined in the Act, as well as growth media, honey, beeswax and used apiary equipment. It is administered by the Department of Agriculture (DOA), and it has three executive officers namely, the Director of each of the following directorates: Plant Health, Agricultural Product Inspection Services (APIS) and Land Use and Soil Management (LUSM). Parts of the Act that deals with migratory pests, such as locusts, are administered by the Directorate: LUSM. Phytosanitary inspections are conducted by the Directorate: APIS and pest risk analysis and import conditions by the Directorate Plant Health.

When other legislation is relevant and depending on the product, necessary links are established and importers are advised of additional authorizations that are needed prior to import. The relevant legislation may include:

- Genetically Modified Organisms Act, 1997 (Act No 15 of 1997)
- Plant Improvement Act, 1976 (Act No 53 of 1976)
- Plant Breeders' Rights Act, 1976 (Act No 15 of 1976)
- Section 81 of Nature Conservation Ordinance, 1983 (Ordinance 12 of 1983)

- National Environmental Management Act, 1998 (Act No 107 of 1998)
- National Environmental Management Biodiversity Act, 2004 (Act No 10 of 2004)
- Fertilizers, Farm feeds, Agricultural remedies and Stock remedies Act, 1947 (Act No 36 of 1947)

The importation of specific plants that may be toxic to cattle may be prohibited upon request of the DOA Directorate Animal Health and specific plants with narcotic properties are prohibited upon request by the South African Police Service (SAPS).

The Agricultural Pests Act, 1983 (Act No 36 of 1983) is generally found to be effective in the areas that its mandate covers but this study identified the certain executive and policy formulation weaknesses as well as specific needs for improvement in its legislative mandate.

The ability of the NPPOZA to update current legislation or to formulate new phytosanitary policies in a timely manner is inhibited by lengthy and unclear policy development and approval procedures. Amendments and revision of legislation in South Africa requires Parliamentary approval which is a long and drawn out process. Every new legislative instrument goes through a process of public consultation and subsequent amendments before it is submitted to Parliament for approval.

A departmental lack of standard operating procedures that must be followed when new legislation or policies are developed contributes to unnecessary time-delays in policy formulation. A new national Plant Health policy that has been drafted has been rejected in 2007 as a policy document and referred back for redrafting as a draft white paper. This document must be submitted to the South African cabinet before it may be published. Currently there is no guideline on

how to develop a white paper in the Department of Agriculture and the process of policy formulation is further delayed as the NPPOZA has to make use of its own limited resources to determine correct drafting procedures.

Difficulties experiences in planning and meeting set deadlines for the approval of phytosanitary legislation prevents the NPPOZA from doing effective strategic planning for adequate human and financial resources necessary for adopting new legislation.

In 2005, the NPPOZA established the Division Policy, Norms and Standards responsible for the development and approval of any new phytosanitary legislation and policies. This NPPOZA division is staffed with technical and scientific personnel that lack legal training, expertise and skills necessary to drive policy formulation. The lack of legal expertise and knowledge in the division Policy Norms and Standards causes a dependence on inputs from legal experts outside the NPPOZA, such as officials from the Directorate Legal Services of the Department of Agriculture and the State Law Advisor. This dependence and communication further delays the process of policy formulation because phytosanitary legislation is not always prioritised by units outside the NPPOZA which in turn leads to missed target dates and estimated time-frames.

The NPPOZA is not specifically mandated by the Agricultural Pests Act, 1983 (Act No 36 of 1983) to fulfil all its national responsibilities as stipulated in the IPPC New Revised Text of 1997, Article IV (IPPC, 1997). The Act provides the necessary broad mandate for the NPPOZA to control the importation of plants, plant products and other specified regulated articles and although not specifically mandated the NPPOZA attempts to oblige its responsibilities as stipulated in the IPPC New Revised Text of 1997, Article IV (IPPC, 1997). The situation may result in legal interpretation complications and supports the need for the existing legislation to be amended in order to align the national legal mandate of the

NPPOZA with its international obligations. The existing phytosanitary legislation particularly does not include provisions for the NPPOZA to:

- do pest risk analyses
- issue phytosanitary certificates relating to the import conditions of importing contracting parties
- inspect consignments destined for export
- report in accordance with IPPC procedures pest occurrence, outbreak and spread
- disinfest or disinfect consignments destined for export
- ensure through appropriate procedures that the phytosanitary security of consignments after certification regarding composition, substitution and re-infestation is maintained prior to export
- search and seize non-compliant consignments at point of entry
- maintain a database on import regulations of trading partners
- audit the phytosanitary functions performed by trading partners
- research and investigation in the field of plant protection

The Agricultural Pests Act, 1983 (Act No 36 of 1983) does not require the NPPOZA to submit a description of the existing NPPO structure or any amendments thereof to the IPPC. However, the NPPO published the existing NPPOZA structure on the International Phytosanitary Portal of the IPPC. The NPPOZA is also not required by law to provide information regarding the NPPOZA structure to any of its trading partners upon request. The existing phytosanitary legislation further lacks in enforcement powers and NPPOZA personnel are dependant on officials mandated under other legislation such as South African Police Service (SAPS) and South African Revenue Service (SARS) to enforce detention of agricultural consignments. This inhibits effective import controls at points of entry, especially regarding the travelling public.

The Agricultural Pests Act, 1983 (Act No 36 of 1983) does not provide a mandate or executive powers to the NPPOZA to conduct phytosanitary inspection and

certification for consignments destined for exports. Phytosanitary inspections and certification are done according to IPPC principles and guidelines as outlined in relevant and export related ISPM's. There is no legislative mandate given to the NPPOZA by this Act to ensure the phytosanitary security or integrity of the consignment after export inspection and certification. This results in a weakness in the system because the risk of pest infestation after inspection, but before export, cannot be managed through regulatory controls. Infestation after inspection contributes to the interception rate of consignments exported from South Africa. High interception records in certain markets, especially for quarantine or regulated non-quarantine organisms may affect market access possibilities for South African products in those markets as well as the country's phytosanitary regulatory credibility.

A country's pest status may change at any time and may require immediate control measures to prevent its spread or implement eradication programmes, if appropriate. Control measures and amendments to regulations have to be drafted and approved by the Minister of Agriculture before it can be published in the Government Gazette as legislative instruments. Incomplete or late submission of technical and scientific data such as survey reports sometimes delays the publication of new or amended control measures. Time-consuming approval procedures that include Ministerial approval further delays publication of new or amended control measures. These publication delays may result in situations where pest status has again changed by the time the new legislation is promulgated. New legislation may therefore be outdated by the time it is promulgated and the whole procedure must be repeated according to new pest data. This makes it extremely difficult to publish appropriate control measures in time for APIS to implement the necessary phytosanitary measures to manage the pest risk. Communication procedures for pest status and surveillance data must be revised with the aim of avoiding unnecessary delays and enhancing its effectiveness.

Existing legislation does not make it compulsory for anyone in South Africa to inform the NPPOZA if a new pest is detected. The NPPOZA issued a formal request to major research institutions, relevant university departments and industry role-players to notify the PRA division as soon as a new pest is detected. This is imperative as the NPPOZA needs to conduct a PRA on the pest as soon as possible to determine whether it should be regulated or not. Because notification is not compulsory by law many new detected pests are in the country long before the NPPOZA is made aware thereof. This practice inhibits effective risk mitigation of potentially damaging exotic pests by the NPPOZA. It also prevents the NPPOZA from meeting its international pest reporting obligations in terms of the IPPC ISPM No 17 (FAO, 2002).

Some of the existing phytosanitary regulations pertaining to the activities of the NPPOZA are outdated and not user-friendly because of repeated amendments since its first publication. These amendments and additional regulations resulted in a complex legislative package that needs to be consulted as a whole when interpreting the legislation. This fragmented format of the existing legislation makes it difficult for clients to read and increases the potential for misinterpretation and subsequent non-compliance. For example, in Regulation 1013 most species, genera and items were deleted by Regulation 57 and it is therefore difficult to use as the initial Regulation needs to be read together with all its amendments. There is a need to have a single consolidated document that contains only current and valid restrictions. Furthermore, the Regulation 1013 needs to be evaluated to ensure that it is current and in line with recent international and national environmental developments and requirements.

Due to political changes in South Africa since 1994, many names of places and areas such as provinces, magisterial districts and ports of entry were changed which necessitates subsequent amendments to phytosanitary legislation. A major concern is that these names have not yet been changed accordingly in the existing phytosanitary legislation. Stakeholders such as land owners may in

some cases oppose drafted legislation, such as a prohibition on movement of certain material from an infested area to a non-infested area. Such opposition during the public consultation process may even cause such measures to be revoked and compromises bio-security controls. Wrongful names may in general also cause misinterpretation of current regulations and lead to unnecessary transgressions of the law.

South Africa has eleven official languages namely, Sepedi, Sesotho, Setswana, siSwati, Tshivenda, Xitsonga, Afrikaans, English, isiNdebele, isiXhosa and isiZulu. While each language is technically equal to every other language, English is recognised as the language of science and commerce. The Agricultural Pests Act, 1983 (Act No 36 of 1983) is available in Afrikaans and English only. A need was identified by national clients of the NPPOZA to make the phytosanitary legislation available in all eleven official languages. It is expected that translations will assist emerging importers or exporters, who do not speak English or Afrikaans, in their interpretation and consequent compliance with phytosanitary legislation.

NPPOZA officials must be well-informed and trained accordingly regarding any possible overlap of legislation as well as the appropriate cases when other legislation is relevant for the execution of their daily tasks. Law enforcement is a challenging career and officials have to deal with angry and upset clients when they have contravened the relevant Act or regulations. This necessitates further training for NPPOZA officials on how to deal with contraventions of the Act.

The NPPOZA must facilitate access to relevant phytosanitary information while protecting confidentiality rights of individual role-players in accordance with the WTO SPS Agreement and IPPC principle of transparency, and the Promotion of Access to Information Act, 2000 (Act No 2 of 2000). In accordance with the promotion of Administrative Justice Act, 2000 (Act No 3 of 2000), the NPPOZA must also ensure effective consultation with role-players and effective management of phytosanitary information.

4.3.2. Sanitary and phytosanitary institutional capacity and human resources

The DOA branch: Food Safety and Bio-security and Disaster Management focuses on managing risks associated with animal diseases, plant pests, genetically modified organisms and the registration of products used in agriculture. These regulatory functions are done to ensure food safety and to safeguard human, animal and plant health and life. The branch also develops agricultural risk and disaster management plans to reduce risks associated with natural disasters, including pest or disease outbreaks.

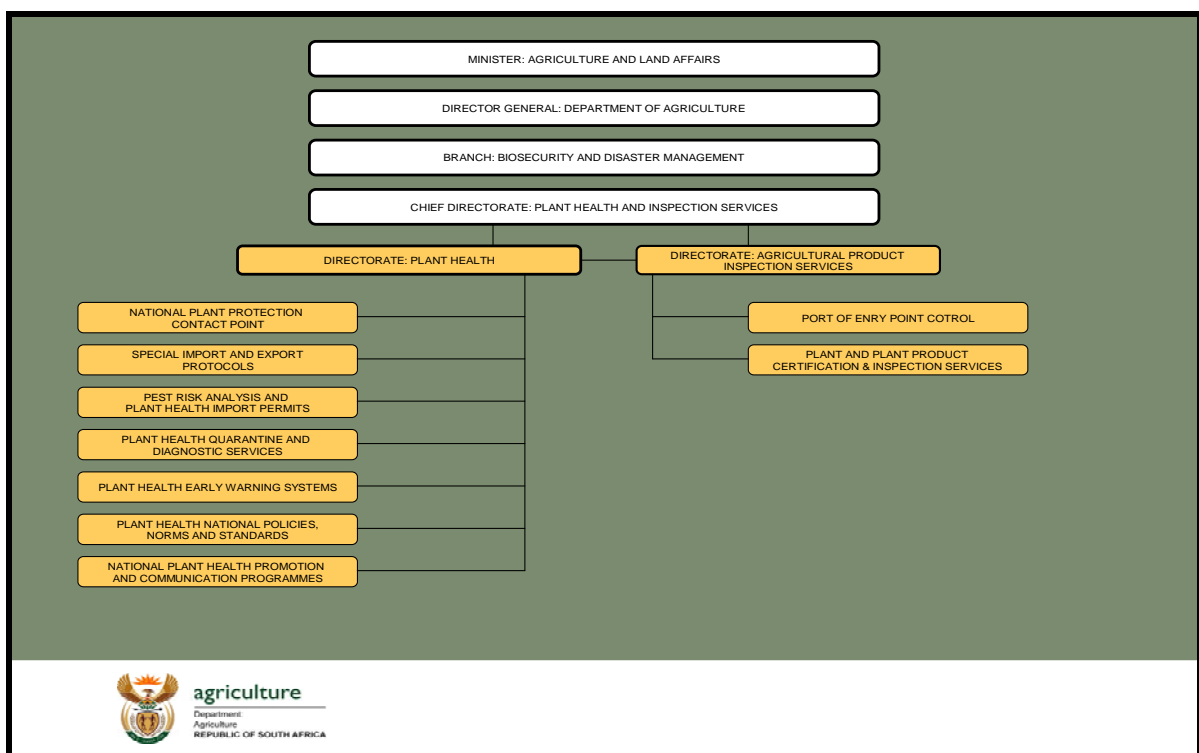
The Food and Agriculture Organisation (FAO) defines bio-security as “the management of all biological and environmental risks associated with food and agriculture, including forestry and fisheries” (FAO, 2007). By reducing the risks of introducing plant pests into the country, the NPPOZA provides an important contribution to bio-security in South Africa. One of the major threats to plant bio-security is the current invasion of foreign fruit fly species in the African continent. The NPPOZA has developed necessary contingency plans for exotic fruit flies that link into the DOA Disaster Management Plans to deal with incursions. Further prioritization is needed to facilitate the development of contingency plans for other quarantine pests.

The DOA acknowledged in its 2007 Strategic Plan for Agriculture (DOA, 2007) that the governance system for plant health and inspection services is a resource demanding process that necessitates ongoing assessment of a range of risks that include pest incursion responses and quarantine services at ports of entry.

It became evident in 2005 that South Africa needed to restructure and expand its phytosanitary regulatory system to meet the rapidly changing demands of increased agricultural imports and exports, and to align the NPPOZA with international commitments and obligations. The existing phytosanitary regulatory structure at the time no longer adequately addressed the functional demands of

the IPPC as this organisation changed and adopted its New Revised Text of 1997 in 2005. The DOA underwent a restructuring process to align itself to better comply with national and international commitments and obligations. The new NPPO organisational structure for South Africa was subsequently developed with specialised divisions that address specific aspects of the functions and responsibilities inherent to the effective functioning of the NPPOZA. The new and existing structure of the NPPOZA was implemented on 1 April 2006.

Figure 5. Functional Units of the National Plant Protection Organisation of South Africa



The NPPOZA structure consists of the directorates a) Plant Health as the national plant protection contact point and responsible for legislation and policy development and b) Agricultural Product Inspection Services (APIS) responsible for plant health inspection services and audits. This structure is in accordance with the prescribed roles and responsibilities of an NPPOZA as stated in the New Revised Text of the IPPC (IPPC, 1997) and is illustrated in Figure 5.

Functions and responsibilities of the new Directorate Plant Health include:

- development of plant health policies;
- promulgation of legislation, norms and standards to manage plant health risks and ensure compliance with international obligations and commitments;
- provision of a national contact point for South Africa with regard to the WTO-SPS and IPPC membership obligations;
- management of bilateral and multilateral plant health agreements and standards;
- Pest Risk Analysis (PRA) to facilitate technical justification for import and exports of plants and plant products;
- Maintenance and development of special plant health export and import protocols;
- management of an effective plant health import permit system; plant health quarantine and diagnostic services;
- management of an Early Warning System for the early detection of the introduction and spread of exotic and quarantine plant pests;
- plant health awareness and education programmes; and
- management of plant health information in support of a national data bank for PRA, early warning systems, diagnostic services, policies and standards.

APIS ensures that imported and exported goods are safe by means of phytosanitary inspection and certification. This directorate is responsible for phytosanitary border controls auditing, inspection and certification according to the principles of the WTO SPS Agreement, the WTO Agreement on Technical Barriers to Trade (TBT) and the Convention on Biological Diversity (CBD). It is also responsible for phytosanitary border control. Depending on the product, APIS also implements inspection standards according to the International Plant Protection Convention (IPPC), Codex Alimentarius Commission, the International

Union for the Protection of New Varieties (UPOV), the International Seed Testing Association (ISTA), and other relevant recognised bodies.

In the past much emphasis was placed on import and export controls but since the 2007 Strategic Plan a renewed thrust for inspection and audit systems for local phytosanitary control was envisaged. Another focus area is the establishment of partnerships with key role-players in areas of mutual concern, especially on trade control of regulated articles, risk management systems and pest surveillance while border control is strengthened through engagements and participation in the three tiers of the Border Control Operational Coordinating Committee (BCOCC).

Although restructuring enabled a more focused approach to managing the different functional units in the NPPOZA, it has divided policy units and inspection services into two different directorates which led to new management challenges. A potential weakness and challenge regarding this divided structure is to maintain appropriate and effective communication channels as well as transparency between the two directorates. The NPPOZA lacks standard operating procedures necessary to address cooperation and information exchange between the two directorates and existing procedures should be improved to increase productivity in general. A Deputy Directors' forum was developed and meets at irregular intervals to discuss and resolve important operational issues and management concerns.

The restructuring process aimed to address overlapping responsibilities between policy and operational units, and thereby streamlining regulatory services, but it also placed much strain on the two new directorates' human resource capacities. New divisions were developed for which suitable and adequately qualified managers had to be appointed and trained where appropriate. Some key functions and officials were relocated to other or new line function positions that marked the beginning of a transitional period for the NPPOZA wherein new

strategies, goals and objectives had to be developed and implemented. The level of expertise and knowledge of NPPOZA personnel should be enhanced through tailor-made and specialised phytosanitary and managerial training to ensure that NPPOZA can meet its international obligations at an acceptable standard.

The newly established divisions in the Directorate Plant Health were capacitated with human resources very moderately because of financial constraints and because it would be difficult to project what the real needs would be for these newly established and “experimental” policy divisions. The Directorate Plant Health human resource capacity in 2007 in terms of approved posts is presented in Table 1.

Table 1. Number of approved posts in Directorate Plant Health (April 2008)

Staff component	Number of posts
Management	14
Scientists	54
Technical support	13
Administration	19
General work/ housekeeping/ farm aids	60
Total	160

When the level of service delivery was reviewed it became clear that some of these plant health divisions’ human capacity needed re-evaluation. Human resource capacity is insufficient to render the required core services within the context of domestic, regional and international agricultural trade developments.

APIS appointed many additional personnel since 2004 and preliminary indications are that at least an additional 200 inspectors will be needed. APIS

human resource capacity in 2007 in terms of approved posts is presented in Table 2.

The NPPOZA also makes use of canine officials at designated points of entry to assist with the detection of illegally imported regulated articles. Four sniffer dogs are deployed at OR Tambo International Airport and an additional four new recruits completed their training in 2007. Further expansion of the APIS Sniffer dog programme to all international airports and major land border posts is envisaged.

Table 2. Number of approved posts in the Agricultural Product Inspection Services (April 2008)

Staff component	Number of posts
Management	13
Port of entry inspectors (includes K-9 unit staff)	112
National plant product inspectors	103
Administration	51
Auditors	8
General work/ housekeeping/ farm aids	16
Total	303

DoA human resource policies prescribe the filling of vacant posts to be advertised and NPPOZA officials should apply for promotion into higher ranks which results in a high turnover of personnel and continuous recruitment of new officials. This practice puts much pressure on already strained human resource capacity as it contributes to the high vacancy rate of the NPPOZA. A shortage of relevant phytosanitary skills and expertise in South Africa, coupled with uncompetitive salary scales and skills development backlogs further hampers the recruitment of experienced and qualified personnel.

The lack of adequately skilled human resources affects the geographic distribution of human resources and subsequently also the effectiveness of field operations within the NPPOZA. Also, some ports of entry offices are better equipped with technical, communication and reference resources than others. Adequate laboratory equipment and materials are needed for import and export inspection and certification to assess if consignments meet phytosanitary requirements. Many routine samples are sent for further laboratory analysis to verify taxonomy of intercepted organisms. This practice puts additional strain on diagnostic services capacity.

Some of the newly established divisions in the Directorate Plant Health have not been adequately staffed and vacant posts hamper the service delivery of those divisions. A lack of records and documentation in terms of standards, communication strategies and standard operating procedures for some units in the NPPOZA results in poor coordination and communication between units within the NPPOZA and in turn negatively impacts on service delivery.

Communication and information exchange between the NPPOZA and industry role-players is inadequate. A lack of effective public-private communication and coordination negatively affects exporters' ability to maintain and access export markets as NPPO's are expected to play an official and intermediary role in international trade development. Regular meetings are limited to market access working group and phytosanitary risk task team meetings. These meetings include technical role-players from certain fresh fruit industries but lack participation from other industries. Role-players from unrepresented fresh fruit industries should be encouraged to attend these meetings. A need exists to develop similar meetings with other industries that include seeds and grains, flowers and nurseries, horticulture as well as nurseries.

Adequate stakeholder consultation was not done to ensure that NPPOZA strategic planning and subsequent implementation takes stake-holder priorities

into consideration. The NPPOZA lacks effective import and export prioritization tools to address the priority concerns of stake-holders as well as NPPOZA management.

Knowledge and information management systems in the NPPOZA are fragmented and need urgent evaluation to integrate and centralise systems. The lack of readily available or retrievable data creates duplication, delays and ineffectiveness of the NPPOZA international reporting initiatives.

The NPPOZA is dependant on the South African National Treasury for its financial resources. Operational activities are planned well in advance and budgeted for at least a year before the actual implementation thereof. Allocation of funds for motivated projects depends on the availability of funds for the DOA and subsequent internal departmental prioritisation. Although the NPPOZA generates revenue from the issuance of phytosanitary certificates and import permits as well as other phytosanitary services, the treasury system does not allow the NPPOZA to use any of these generated funds. The capacity for emergency response to pest and disease situations depends on the availability of easily accessible funds. Special funds for disaster management projects are available and can be accessed if necessary but it requires effective strategic planning and budgetary planning skills and expertise by NPPOZA management.

4.3.3. Pest and disease diagnostic capabilities

The Diagnostic Services division of the NPPOZA provides diagnostic services to detect identified regulated pests on regulated imported articles. The division consists of different specialized sections that include entomology, nematology, plant pathology and virology. Weed science laboratories does not exist within the NPPOZA structure. Because of this lack of weed expertise in the NPPOZA weed diagnostic services are outsourced to weed laboratories in appropriate research institutions of the Agricultural Research Council (ARC) of South Africa.

Consultation with research institutes, universities and individual experts in any of the various disciplines may happen from time to time.

The diagnostic laboratories are situated in Stellenbosch in the Western Cape Province. A satellite laboratory is situated in Pretoria in the Gauteng province. The diagnostic laboratory in Stellenbosch is an internationally accredited P3 High Security Laboratory with state-of-the-art equipment. According to the PCE tool, this laboratory lacks the following:

- Illuminated magnifier
- X-ray equipment
- BOD incubator
- Mist extraction apparatus
- Ultra microtome
- Ultraviolet cross-linker

Documented procedures and standards exist for the identification of arthropods, fungi, bacteria, viruses and nematodes. Documented quality control procedures for laboratory operations in the NPPOZA exist. External laboratories may be used if the need arises. The NPPOZA has a documented regulatory protocol for the accreditation of external laboratories that includes audit protocols. Problems still arise when diagnostic inputs or results are communicated to other divisions within the NPPO. Knowledge and information management systems are not centralised which results in unnecessary delays in providing diagnostic reports and leads to miscommunication between key divisions within the NPPOZA. The NPPOZA lacks documented and computerized systems that would better enable technical personnel to coordinate laboratory activities.

Diagnostic personnel are not considered specialists in any of the technical disciplines and the NPPOZA lacks such expertise. Table 3 provides a summary of current diagnostic expertise in the NPPOZA.

The NPPOZA is capable of conducting some research on rapid diagnostic techniques for the detection of economically important pests but further advanced training is required for staff in most disciplines. Training is especially necessary for the use of modern rapid diagnostic methods and to keep abreast of international developments. Diagnostic skills and expertise are particularly necessary for accurate and timely evaluation of samples of high-risk plant material for propagation purposed are imported or exported under very stringent phytosanitary requirements.

Table 3. Diagnostic expertise in the National Plant Protection Organisation of South Africa (April 2008)

Scientific discipline	Qualification	Number of staff
Entomology	Basic degree	2
Entomology	Masters degree	3
Fungal Pathology	Basic degree	2
Fungal pathology	Masters degree	1
Bacterial pathology	Masters degree	2
Plant virology	Basic degree	1
Plant virology	Honours degree	2
Plant virology	Masters degree	3
Nematology	Masters degree	3

South Africa has a strong scientific human resource base outside the NPPOZA that may assist when internal diagnostic expertise is lacking. However, capacity building in taxonomy is decreasing and expertise is not adequately developed in South Africa. Many taxonomic experts from the ARC are lost to private sector institutions which renders their expertise unavailable for regulatory purposes. Table 4 provides a summary of diagnostic expertise in South Africa that exists outside the NPPO.

Table 4. Diagnostic expertise outside National Plant Protection Organisation of South Africa (April 2008)

Specialist discipline/ field	Qualification	Number specialists
Fruit flies	PhD	2
Diptera	PhD	2
Lepidoptera	PhD	3
Coleoptera	Masters degree	2
Hemiptera	Masters degree	2
Hymenoptera	PhD	2
Thysanoptera	Masters degree	1
Thysanoptera	PhD	1
Arachnida	PhD	1
Molluscs	PhD	1
General entomologists	Masters degree	5+
General entomologists	PhD	3+
Fungal pathologists	Masters degree	3+
Fungal pathologists	PhD	3+
Bacterial pathologists	Masters degree	3+
Bacterial pathologists	PhD	3+
Plant virologists	Masters degree	3+
Plant virologists	PhD	3+
General pathologists	Masters degree	5+
General pathologists	PhD	5+
Nematologists	Masters degree	4
Nematologists	PhD	4
Weed scientists	Masters degree	2
Weed scientists	PhD	3

Expertise in technical disciplines exists in the Agricultural Research Council (ARC), universities and private industry. The NPPOZA regularly uses scientific

inputs and taxonomic assistance from the scientists and specialist scientists outside the NPPO. Effective diagnostic services market access initiatives are dependent on a high-quality arthropod collections and disease herbariums to serve as a reference source when identifying organisms and validating the pest status of a country. National collections are maintained by the Biosystematics Division of the ARC and capacity in the ARC therefore directly impacts on the effectiveness of the NPPOZA diagnostic capability. Although assistance from experts outside the NPPOZA is valuable outsourcing may invariably cause delays in the diagnostic process.

4.3.4. Pest risk analysis capacity

National legislation does not require technical justification for phytosanitary measures either by the use of appropriate international standards or by the use of Pest Risk Analysis (PRA). However, the NPPOZA follows a PRA-based approach, in accordance with ISPM No 2 Guidelines for Pest Risk Analysis (FAO, 1996) and ISPM No 11 Pest Risk Analysis for quarantine pests including analysis of environmental risks and living modified organisms (FAO, 2004a) to ensure that the Appropriate Level of protection (ALOP) is achieved. The PRA process is used when determining import conditions and the execution of the relevant risk management options is done within the framework of plant health regulations. For the import of bio-control agents the NPPOZA works in close collaboration with the Agricultural Research Council (ARC), Department of Environmental Affairs and Tourism (DEAT) and other relevant research institutions. A South African model and formats for PRA has not yet been developed although PRA procedures that are implemented are based on ISPMs of the IPPC. PRA lacks adequate standard operating procedures and formats that would ensure consistency, standardisation and adequate documentation of risk assessments.

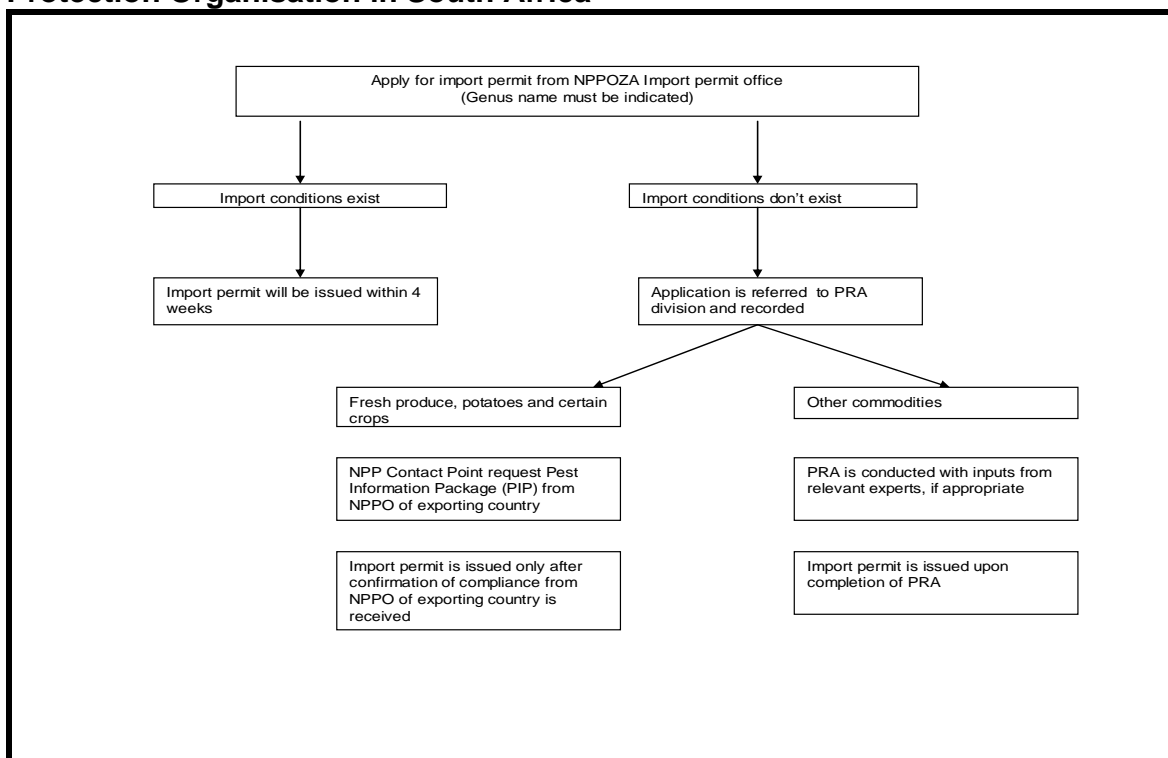
Plants and plant products can be categorized according to the risk they pose in terms of potentially spreading pests, or of being invasive. Regulated pests may be quarantine pests or regulated non-quarantine pests. A regulated article is defined in ISPM No 5 as “ any plant, plant product, storage place, packaging, conveyance, container, soil and any other organism, object or material capable of harbouring or spreading pests, deemed to require phytosanitary measures, particularly where international transportation is involved” (FAO, 2006a). Regulated articles that pose a major phytosanitary risk are prohibited from importation while those with a manageable risk are allowed importation subject to compliance to specific import conditions. Agricultural articles that pose no risk, or a negligible risk, are allowed to be imported without any import restrictions and typically include those plants and plant products that have been processed to a point where no phytosanitary risk exists. The PRA process is used to profile and list regulated articles in one of the above categories.

Potential importers must apply for an import permit with the NPPOZA import permit office unless the commodity they intend to import is published in a regulation of the Agricultural Pests Act, 1983 (Act No 36 of 1983). If the commodity is listed in a regulation the specific import conditions and whether a phytosanitary certificate from the NPPO of the exporting country is necessary will be indicated. Relevant legislation, supportive regulations and import permit application forms are available on the DOA website at <http://www.doa.agric.za> and on the IPP at <http://www.ippc.int>.

Import applications are processed on a first-come-first-served basis. PRA does not have an import prioritization tool to will enhance PRA strategic planning processes and the efficiency of the import permit system. Lack of prioritization of PRA applications, including import permit applications and new market access applications, results in sub-optimum use of phytosanitary capacity available. A list of regulated articles originating from countries cleared for importation is available on the DOA website at <http://www.doa.agric.za>. If import conditions

already exist an import permit may be issued within four weeks. Existing import conditions for over 5000 species of plants and plant products are available on an internal database that is available to PRA, the import permit office and other relevant plant health personnel. Import conditions should also be made electronically available to public on the NPPOZA website to reduce client inquiries and enhance the user-friendliness of the import application procedure. If no import conditions exist a PRA has to be conducted to determine the phytosanitary risk and the appropriate mitigation options to manage the risk involved. The NPPOZA may refer or make use of published PRAs from trading partners. The steps that have to be followed when applying for an import permit are illustrated in Figure 6

Figure 6 Steps in applying for an import permit from the National Plant Protection Organisation in South Africa



The PRA procedure, according to the IPPC ISPM No 2 (FAO, 1996) includes a three stage scientific approach that includes:

- Stage 1: PRA initiation because a potential pathway, usually an imported commodity from a specific country of origin, or a potentially regulated pest has been identified.
- Stage 2: Pest Risk Assessment that includes scientific assessments in the fields of entomology, plant pathology, nematology and weed science to determine the phytosanitary risk and economic importance.
- Stage 3: Pest risk management that includes the determination of risk management options and the efficacy and impact of those options.

Stage two of the PRA process for fresh fruit and certain other high risk regulated articles allows for the bilateral exchange of scientific data in the form of Pest Information Packages to speed up the PRA process, if appropriate. Bilateral communication and information exchange with trading partners is facilitated by the national plant protection contact point of the NPPOZA. This official communication channel ensures that the exporting country is allowed an opportunity to provide technical justification if there are concerns regarding draft import conditions and supports the general principle of transparency as required by the IPPC.

The PRA process is extremely time-consuming and can easily take up to two years to complete. Lengthy time-frames of the PRA process could be attributed to various factors but are usually because of a combination of reasons such as insufficient technical data and research, poor communication with trading partners and a lack of expertise or human capacity to assess the risk and develop the relevant mitigation options necessary to achieve the appropriate level of protection.

The only way in which the findings of a PRA that was conducted on a scientific basis by the NPPOZA can be over-ruled by the government is on basis of a

specific political consideration. Such a ruling can be made by the Minister of Agriculture. Whenever political considerations replace risk mitigation decisions that were based on a PRA the bio-security threat for SA increases.

Although all import conditions are well-documented and accessible the NPPOZA does not have a well documented system for pest risk information retrieval. Host based pest lists for most important crops are kept by PRA personnel but are not available in a centralised electronic system. Standardised procedures for PRA and the relevant report formats need to be developed and improved. Currently the NPPOZA uses the broad guidelines of relevant ISPMs of the IPPC to conduct PRA. The only well documented PRAs are those that were conducted for special markets such as the protocol for the importation of apples and pears from China. These special import and export protocols are readily available on the NPPOZA website.

The biological and bio-statistical skills and expertise of PRA staff, quality of scientific information available and timely responses of all role-players are important factors that can either delay or accelerate the process. The NPPOZA does not make use of any ad-hoc or informal groups for undertaking PRA. A team of at least three PRA experts in the NPPOZA (entomology, plant pathology and weeds) work on a single PRA at a time. Taking into consideration that at least 50% of the PRA division personnel are relatively new officials that are still being trained, it is apparent that service delivery with current capacity is insufficient.

PRA personnel are generally able to do pest categorization, identify potential introduction through single or multiple pathways qualitatively and manage the pest risk through basic risk mitigation options. However, in some cases the NPPOZA lacks the necessary expertise and PRA personnel become dependant on experts outside the NPPO to determine whether a pest may have an unacceptable economic impact or to verify alternative mitigation options. Within

this context and with these capacity constraints it would be extremely difficult for PRA to take on additional PRA priorities without compromising its current priorities. Table 5 provides a summary of the human resource capacity of the PRA team in 2007.

Table 5. Pest Risk Analysis expertise in the National Plant Protection Organisation of South Africa (April 2008)

Scientific discipline	Qualification	Number of staff
Entomology	Basic degree	1
Entomology	Honours degree	1
Entomology	Masters degree	3
Entomology	Vacant post	2
Mycology/ Bacteriology	Honours degree	1
Mycology/ Bacteriology	Vacant post	1
Virology	Masters degree	1
Virology	Vacant post	1
Weed science	Masters degree	1
Nematology	N/A	Nil
Economist	N/A	Nil
Statistician	N/A	Nil

The PRA human resource capacity lacks nematologists, an economist and a statistician. Nematology issues are currently handled by non-specialist staff which may result in sub-standard assessments and lead potential disputes. Nematology-related issues may also be outsourced if deemed necessary. Either way, this practice contributes to delays in the PRA process. The lack of an economists means that economic impact assessments of the pest in the area based on the type of damage the pest is likely to cause crop losses, control costs and so for the are not considered at all when import conditions are drafted. In this sense the final stage of the PRA process in terms of international standards are not adhered to. The lack of a statistician means that any statistical input

must be requested from experts outside the NPPOZA which causes delays and also impedes the NPPOZA's ability to negotiate on issues such as sampling methods.

Finalisation of import conditions are not only delayed by the expertise of the PRA personnel or because no acceptable practical available mitigation treatment for the pests of concern to the importing country exist. The PRA process may also be delayed because of a lack in reliable and accessible scientific data. Scientific reference materials are therefore crucial to the successful and accurate completion of a PRA. PRA officials sometimes have to rely on inappropriate or inadequate sources. The PRA team does not have access to up-to-date books as the DOA library does not contain all the necessary reference material and access to some journals is too expensive. The PRA team also does not have access to tools such as CLIMEX for pest and data matching or GIS analysis software such as MapInfo or any of its equivalents.

The NPPOZA does not do any scientific research relating to quarantine pests or mitigation options but relies on scientific data made available by international and national research and tertiary institutes, especially the ARC. It is therefore difficult for the PRA division to play an active role in stimulating regulatory oriented research agenda in South Africa.

South Africa is continuously developing and strengthening its political and economical ties with other emerging markets as well as specific countries on the African continent. Although this political prioritisation adds much to the workload of the PRA team the resources of the division are not being increased accordingly. A continuous and ever-growing backlog of import as well as export applications are proof that the existing human resource capacity of the PRA team is just not enough to handle this workload. For example, the PRA division received 975 new applications for importation of plants and plant products that are not considered "fresh produce" and for which a PRA had to be conducted in

2007. Because of the serious lack in PRA capacity and in an attempt to “manage” the work load “world conditions” are drafted for such commodities. This means that the PRA procedure is still followed but PIPs from trading partners are not used. This may speed up the process of finalising a PRA but may at the same time negatively impact on the quality of import conditions. In 2007 only 249 of the 975 applications could be finalised.

Market access issues takes priority for the NPPOZA and the establishment and maintenance of export markets and special export work programmes is vital to ensure that South Africa maintains and expands its global market share. The PRA division export desk, comprising of one senior official, who provides technical support for the export regulatory system deals with PRA related information for the purpose of accessing and maintaining new markets. In order to facilitate South Africa’s request for market access, technical and scientific information regarding pests on specific agricultural commodities (pest information packages) are provided for bilateral engagements with various countries. Pest information packages (PIPs) are drafted in liaison with scientists from research institutes and relevant industries.

Before any pest list is officially provided to the national plant protection authority of potential importing countries, the designated “export desk” of the PRA division evaluates the list to ensure its accuracy. From October 2006 to December 2007, a total of 39 market access requests for various commodities to various countries have been received. At the end of December 2007, the following progress has been made:

- PIPs in final stage of collaboration: 18
- PIPs received from industry and in process of PRA evaluation: 11
- PIPs communicated via NPPCP to trading partners: 5
- Draft import conditions based on PIPs received from trading partners: 1
- Feedback provided on draft import conditions to trading partners: 4

Whenever consignments are intercepted because of non-compliance to South African import conditions, the PRA division is responsible for making the relevant risk mitigation decision. Risk management of intercepted consignments are sometimes inhibited due to poor coordination and ineffective communication procedures between relevant units within the NPPOZA. Furthermore, the majority of the PRA team are junior and relatively inexperienced officials and cannot make yet make timely mitigation decisions and because senior personnel are not always available trade may be hampered. Incorrect interception decisions may result in trade disputes. Specialisation and training in areas of risk mitigation is currently lacking.

Five PRA personnel were exposed to international PRA training by the Tuskegee/ USDA-APHIS ATRIP programme in the past five years but two of these officials resigned during the last two years. Newly appointed PRA officials have not received any formal PRA training aside from benchmark training. Existing capacity of skilled professionals as well as the infrastructure for information exchange is inadequate. A lack of skilled personnel makes communication of technical information inaccurate and ineffective which inhibits common understanding of the phytosanitary risks. It also negatively effects the development of credible management options, policies and regulations.

4.3.5. Surveillance and pest eradication capacity

Regulated articles provide a pathway for pest introduction and may enter a country either through commercial import channels, or through importation by private entities for own use, or through illegal importation by ignorant or ill-informed travellers or through wilful illegal importation. Despite strict import controls by the NPPOZA certain quarantine pests such as pepper mild mottle virus and a phytoplasma of the aster yellows phytoplasma group on grapevine have been introduced into South Africa. This kind of pest introduction has vast economic implications for the relevant agricultural sectors. Areas where the risk

for introduction of regulated pests is high include ports of entry, and international postal and courier services.

The NPPOZA Early Warning Systems (EWS) division is responsible for the NPPOZA emergency preparedness and follows a systems approach in developing contingency plans involving the relevant functional divisions within the NPPOZA in order to rapidly react to pest incursions of phytosanitary importance. Contingency plans include emergency phytosanitary actions and measures that need to be implemented when a pest is detected. Environmental, financial and legislative issues are also considered when contingency plans are drafted. Depending on the situation and organism, a pest risk assessment or a delimiting survey will be conducted to determine the exact extent and possible impact of the incursion.

The EWS Division of the NPPOZA is responsible for emergency actions following the introduction of a quarantine pest and is mandated by Section 4 of the Agricultural Pest Act, 1983 (Act 36 of 1983). National legislation does not provide a mechanism for obtaining emergency funds but it may be requested from National treasury via the Agricultural Disaster Management Directorate of the DOA. National standards and guidelines exist for emergency responses and pest eradication for exotic Tephritidae species. EWS divisional capacity should be enhanced in order to develop similar standards, standard operating procedures and guidelines for the eradication of other quarantine pests. Existing personnel do not have the capacity to assess the feasibility of appropriate eradication programmes especially regarding cost/ benefit analysis. A national manager is responsible for coordinating pest eradication actions but no permanent management team is established. Additional personnel from APIS may be deployed to assist with implementation of eradication programmes whenever necessary.

This division draws on data provided by PRA, APIS, industry experts and research institutions to profile and predict potential phytosanitary threats. The official pest database for South Africa has not been developed and existing data is not efficient. Existing pest data are not regularly updated because there is no legal requirement for anyone identifying a new pest in the country to report it to the NPPOZA. Existing plant pest records are compiled from information sources such as the NPPOZA, universities, producers, museums, text books, journals and research institutes in South Africa.

Access to spatial and pest data is important for effective pest detection. The NPPOZA developed a Geographic Information System (GIS) sub-station but its effectiveness depends on reliable data capturing. Pest information gathering from various sources should be improved. The NPPOZA relies heavily on the research community, educational institutes and agricultural industries to submit new pest data for official notification and incorporation into the national quarantine pest database. In many instances, information is withheld for research publication purposes or because stakeholders realize that the official publication thereof may lead to phytosanitary measures that will have significant impact on their business.

The EWS division is a small unit with only junior positions and therefore does not create opportunities for surveillance expertise to be developed. It has only 1 national manager and no regional managers or support personnel. The division consists of four full time trained officials that are responsible for the development and implementation management of all national surveillance programmes. Approximately 20 additional inspectors are available at any given time to assist with operational activities regarding surveillance on a part-time basis. Specialised training in surveillance principles and procedures is necessary.

APIS inspectors are responsible for the implementation of the relevant surveys that are coordinated by the EWS division and the Diagnostic Services are

responsible for relevant identification of sampled or trapped organisms. Crops officially surveyed for pests on a regular annual basis include *Solanum tuberosum*, *Vitis vinifera*, *Citrus spp* and *Triticum spp*.

Standard operating procedures were developed and documented for surveillance and pest eradication. Surveillance data and reports that are kept by the NPPOZA include details such as scientific name of pest and its host, plant parts affected, means of collection, name of collector, date and name of identifier, date and name of verifier as well as its geographical location. However, administrative and logistical problems still exist in coordinating surveys and recording its results. More effective communication and cooperation strategies between internal and external role-players are necessary.

A national exotic fruit fly surveillance programme was developed and implemented since April 2006 to monitor and ensure early detection of any incursions of exotic fruit flies at ports of entry and in fruit producing areas. Any detection will trigger the immediate implementation of national contingency plans. Similar surveillance programmes are necessary for other important quarantine pests in South Africa but departmental funding is limited.

Departmental procedures for obtaining financial resources for emergency actions or eradication are in place but it should be budgeted for in advance. Because emergency pest outbreaks cannot be predicted special disaster management funding is available from National Treasury.

The results from the PCE indicated that the following surveillance equipment are not readily available for inspectors undertaking surveillance:

- Sweep nets
- Killing jars
- Quadrant grids
- Spades

- Hand lenses
- Knives

The EWS division evaluates PRA data on a regular basis and provide reports of high risk regulated articles to APIS port of entry offices in order to strengthen border import controls. When non-compliant imported consignments are intercepted by APIS the PRA division is informed and appropriate risk mitigation actions are implemented. An interception report is then submitted to the (NPP CP) and a notification of non compliance is subsequently communicated to the NPPO of the exporting country in accordance with ISPM No 13 (FAO, 2001). A standard communication procedure exists but too many unnecessary time-delays occur.

There is a need for an interactive website application where updated information regarding important and high priority invasive pests can be disseminated. The website should be used for the public to submit pest reports and also for the NPPOZA to publish pest alerts as required. More detail information material in various media and languages are necessary to reach all potential importers. Funding for awareness material for the NPPOZA is limited and national campaigns must be coordinated by the Agricultural Information Services Directorate of the Department of Agriculture. This requirement for publication and awareness campaigns may in some instances prevent timely and effective communication when plant health projects are not adequately prioritised.

4.3.6. Capacity to establish and maintain Pest Free Areas, Places and Sites of Production

Existing legislation provides for the development of control measures to establish pest free areas, places and sites of production. The legislative processes are so time-consuming that the pest status of an area may have changed again by the time the control measure has finally been promulgated. The NPPOZA should

improve internal processes of processing survey and inspection data to speed up the promulgation of control measures.

Pest free areas are successfully maintained by the NPPOZA for *Cuignardia citricarpa* (Citrus Black Spot) and for Citrus Greening. The NPPOZA has the necessary resources and systems to maintain and monitor the pest freedom and appropriate buffer zones of existing pest free areas. The NPPOZA has the necessary procedures in place to establish and maintain product identity, consignment integrity, phytosanitary security and on-site audits, reviews and systems appraisals. Because of human resource capacity issues pest free places are maintained in collaboration with the Agricultural Research Council (ARC) and other private research institutes in South Africa. It is necessary to investigate opportunities for the establishment of more pest free areas for *citrus spp* to gain market access.

The NPPOZA has the expertise to declare that an area, place of production or production site meets the critical requirements for pest free status as specified in ISPM 10 (FAO, 1999). However, no pest free production sites or pest free places of production that may enhance export opportunities for South Africa, have yet been declared.

The EWS division maintains records of general and specific surveys to support the establishment of pest free areas, places of production and production sites. Records include actions taken on pests found as well as action taken to ensure product identity, consignment integrity and phytosanitary security.

4.3.7. Inspection systems and points of entry or exit control

According to international standards for phytosanitary measures the country of export is responsible for phytosanitary certification of traded commodities in accordance with the import conditions of the importing country. The importing

country verifies this phytosanitary certification processes at the designated ports of entry and only allows the importation of consignments that comply with its import conditions. If a consignment does not comply with the import conditions of the importing country certain phytosanitary measures such as detention and treatment or destruction of the consignment are implemented to contain or manage the phytosanitary risk involved.

In South Africa, APIS implements such phytosanitary regulatory controls and capacities at designated ports of entry to facilitate the safe importation of intended imports and also to regulate unintended imports. Inspectors are mandated by Section 2 of the Agricultural Pests Act of 1983 (Act No 36 of 1983) to examine plants, plant products or related articles imported into South Africa. Without this regulatory control at the port of entry the risk of pests and diseases entering, establishing and spreading in South Africa and opportunities for illegal smuggling and bioterrorism are increased.

South Africa has ten international airports but NPPOZA inspection facilities exist only at Cape Town, Durban and OR Tambo international airports. Agricultural goods transported via Lanseria, Mpumalanga (Nelspruit) and Port Elizabeth International Airports are detained by SA Customs and or SA Police Services for inspections by NPPOZA inspectors. South Africa has seven international seaports but only four are designated entry or exit points for agricultural goods namely Cape Town, Durban (including City Deep Container depot), Port Elizabeth and East London. South Africa has fifty two land border posts but only eleven are designated for use in international agricultural trade. In general airports and seaports are better equipped with technical, information and communication resources. Inspections at some remote border posts are further hampered by transport and telecommunication problems. This together with the lack of a centralised knowledge and information management system for inspection and certification delays sampling and subsequent processing of diagnostic data.

Import control at points of entry targets the trans-boundary movement of agricultural products at the official border entry gates between South Africa and its neighbouring countries. It may include visual inspections of plants and plant products, evaluation of documents, such as import permits and phytosanitary certificates accompanying agricultural products, and sampling of agricultural products for laboratory analyses and diagnostic identification, where appropriate.

Consignments that do not comply with import requirements because a disease is suspected or pests are discovered may be sent back to the place of origin, or may be treated by a registered fumigator, or irradiated if appropriate, or may be destroyed. An interception report is submitted to the National Plant Protection Contact Point (NPP CP) for notification of non-compliance to trading partners. The measure taken depends on the phytosanitary risk that product is posing to domestic agricultural production.

A consignment that does not comply with import conditions increases the risk for regulated pests to be imported. However, the following potential inspection system failures may also increase the risk of regulated pests being imported:

- lack of capacity to inspect for plant pests in consignments at the ports of entry due to quantity of imports and size of consignments,
- lack of capacity to inspect for plants and plant products in passenger luggage and vehicles,
- lack of capacity to conduct proper pest risk analysis to draft scientifically justified import conditions,
- inadequate data capturing and tracing systems,
- inadequate equipment and facilities at ports of entry to stop, inspect, detain and to handle, treat or destroy consignments.
- insufficient promotional and awareness programs to inform the general public of risks in plant and plant products,
- lack of co-ordination between relevant government departments or trading partners' NPPOs with regard to plant pest risks,

- lack of co-ordination between relevant divisions within NPPOZA to deal with intercepted consignments, or
- insufficient or ineffective surveillance, contingency and emergency response plans.

Human resource capacity in the APIS increased considerably since 2004. This sudden increase in number of inspectors resulted in increased inspections and subsequently more policy related inquiries to relevant divisions in the directorate Plant Health. However, the Directorate Plant Health did not receive similar increases in human resource capacity relative to APIS. Skewed human resource capacity and development results unnecessary delays in the inspection system whenever policy units are involved, especially in cases where imported consignments are intercepted. The Directorate Plant Health need additional PRA, EWS, diagnostic and quarantine personnel to deal with the increased workload.

Although the numbers of staff has increased APIS are experiencing a lack of adequately skilled and represented staff involved with inspection and certification. To add to the extent of this problem South Africa has many commercial land border posts that are considered to be porous and pose a high risk for the introduction of pests. Bulk consignments are inspected and recorded but porous border posts provide opportunity for smaller consignments to be smuggled into the country undetected. To address this practice would require effective and timely inspections at all ports of entry by skilled and experienced inspectors.

Potential areas for improvement include upgrades to offices and facilities at some ports of entry such as Beitbridge and Lebombo border posts. The immediate infrastructure needs at other ports include installation of X-ray machines, incinerators, and microscopes. At certain APIS offices there is still a lack of sufficient facilities and equipment such as insect proof inspection facilities, inspection tools, offloading equipment, holding areas, fumigation facilities and

destruction facilities. Information and electronic communication capacity at ports of entry also need to be improved in order to ensure that urgent information is received or sent promptly. At some remote border posts transport is a problem and results in delays in sending samples for laboratory analysis.

Another major weakness in point of entry control procedures are the lack thereof for cross border railway traffic. South Africa has seven rail border crossings, none of which are prescribed ports of entry. Border posts that are currently not listed in Regulation 1013 should also be listed and capacitated appropriately. There is no capacity currently to deal with this situation. It is therefore important for agriculture to collaborate with the SAPS and South African National Defence Force (SANDF) on the initiative to strengthen this entry points. A general lack of communication and information exchange between border control departments is observed.

In some cases, inspectors lack the basic knowledge of inspection and sampling procedures. Communication facilities and transport at land border posts is also a problem and results in delays in sending samples for laboratory analysis. Inspectors, especially those at remote ports of entry, generally lack adequate taxonomic knowledge or necessary resources and inspection tools to identify pests accurately and thereby ensure effective inspections.

Standard operating procedures are documented for inspections of mail as well as land, sea, and air cargo, but not for the inspection of passengers and their luggage. Although documented procedures exist many inspectors do not follow correct sampling procedures and are not equipped with the necessary inspection tools. Further development and training of inspectors to adhere to operating procedures exist.

APIS has a permanent training facilitator who is a senior official with much experience in operational issues. Import control training in APIS consists of

theoretical modules on the Agricultural Pests Act, 1983 (Act No 36 of 1983) and its relevant regulations as well as practical implementation of the Act, handling of quarantine material, issuance of orders, interceptions and inspection. A need exists to expand the scope of training to ensure that all NPPOZA officials undergo appropriate induction training as well as regular progressive and follow-up training. Training curricula should be extended to policy units in the NPPOZA.

Another weakness of the current import inspection system is that in some cases, imported consignments are provisionally released on an extended detention order without a physical inspection. The intention is that these consignments should be finally released at premises of the importer. However, the current available personnel are not enough to ensure that all these consignments are released after the inspection of the imported goods.

Turnaround times for inspection and certification activities may be greatly reduced through the development of a centralised knowledge and information management system for phytosanitary border controls. Such a system may accommodate client inquiries and inspection applications whilst ensuring improved and harmonised service delivery amongst APIS offices.

Further strengthening of the inspection services at all points of entry is supported by NPPOZA management and projects for its further development and funding are envisaged.

4.3.8. Export Certification Systems

Phytosanitary certificates for exports and phytosanitary certificates for re-export are issued according to the formats and standards of the IPPC, as stipulated in ISPM No 12 (FAO, 2001). A lack in applying export certification effectively may be one of the main reasons behind the recent increased interceptions of South

Africa's agricultural products in the European Union. Areas of export certification that need urgent further attention include:

- measures to improve pre-export inspections,
- certification monitoring to control fraudulence and to ensure that seals of containers are not tampered with or agricultural goods interfered with,
- lack of technical communication and co-ordination between plant health inspectors and Plant Health's Pest Risk Analysis "export desk" to verify and technically justify phytosanitary measures.

Specific infrastructure improvements necessary for effective export inspections and certification include insect proof inspection rooms, monitoring equipment, inspection posts and port facilities and updated information systems. Communication procedures between exit inspection points and regional or head offices should be improved to enable laboratory test results to be quickly communicated to exporters.

A lack of coordination amongst officials in APIS and Plant Health is a further obstacle to South Africa's compliance with import conditions of trading partners. A lack of coordination may be the result of insufficient or absent standards and standard operational procedures for internal coordination. A review of standard operational procedures is necessary to identify existing overlapping functions, to harmonise activities and to minimise duplication of efforts. A central database of import conditions of trading partners that would enable inspectors to have easy access to this information and enhance accuracy of inspection and certification should be developed.

Communication between the NPPOZA and the private sector in South Africa is inadequate and in some instances nonexistent. NPPOs are important and compulsory channels for official market access requests for agricultural products to ensure that potential technical barriers are adequately addressed. Ineffective coordination therefore directly affects exporter's ability to meet phytosanitary

import requirements of trading partners and inhibit the potential of South African exporters to access export markets.

Inadequate resources and a lack of export inspection and certification capacity have an impact on the accuracy of the phytosanitary certificate issued by APIS. The phytosanitary certificate is of paramount importance for international trade and if it is unreliable the NPPOZA may lose its credibility amongst trading partners. If credibility is lost, it may result in stricter and lengthier inspection procedures in importing countries and potentially also a loss of export markets. This has immediate and potentially serious repercussions for all stakeholders and severely affects industries that depend wholly on specific markets.

4.3.9. Pest reporting

The Director Plant Health is the official NPP CP for the NPPOZA. The Division International Standards was established to facilitate the responsibilities of the NPPCP according to the prescriptions of the New Revised Text of the IPPC (IPPC, 1997), including pest reporting. The NPP CP details were submitted to the IPPC Secretariat and are available on the International Phytosanitary Portal at <http://www.ippc.int> for easy reference. Only information communicated to the IPPC, Inter-Africa Phytosanitary Council (IAPSC), other Regional Plant Protection Organisations (RPPOs) and NPPOs by the NPPCP are deemed official.

The establishment of a NPP CP has improved communication with IPPC contracting trading partners and for some non-contracting trading partners. However, for other trading partners, especially developing countries that lack information technology infrastructure, human resources and scientific data, communicating phytosanitary information remains a major challenge.

The Division International Standards is responsible for the following specific functions, in terms of South Africa's membership to the IPPC:

- co-operate to prevent the spread and introduction of quarantine pests and to promote measures for their official control through international and national liaison,
- publish and disseminate phytosanitary prohibitions, restrictions and requirements and, on request, make available the rationale for such measures,
- promptly inform exporting countries of any non-compliance with phytosanitary prohibitions, restrictions or requirements,
- make import regulatory information available by publication, whenever possible using electronic means including Internet websites and linkage to these via the IPPC International Phytosanitary Portal (IPP) (<http://www.ippc.int>), and
- participate in international standard setting processes that include national stake-holder consultation, drafting and collating of South African country comments on draft specifications and standards,

The Division International Standards is also responsible for the following additional communication functions:

- explore and promote engagement with Southern Africa Customs Union (SACU) and SADC partners to promote regional harmonisation of phytosanitary standards,
- participate in standard-drafting RPPO working groups for comments on draft ISPM's and annual IPPC meetings,
- establish and maintain a Knowledge and Information Management System for communication and contacts,
- provide and coordinate technical inputs for bilateral/ multilateral plant health/ SPS agreements according to SA/ SACU international obligations,

- establish and improve relationships with embassies and missions in South Africa to improve international communication, and
- assist clients in export and import inquiries relating to procedures and communication..

This division exists of one manager and two technical officials. This lack of adequate human resources impacts negatively on the successful operation of the division on terms of its scope of functions as mentioned. It therefore also affects the NPPOZA ability to comply with its obligations in terms of the prescriptions of the New Revised Text of the IPPC (IPPC, 1997), including pest reporting.

The IPPC currently uses five official languages namely English, French, Spanish, Arabic and Mandarin, with Russian in the pipeline to be adopted as the sixth official language. This means that much time is spend by the NPP CP of NPPOZA on arranging for translation of bilateral communication. Only translations done by the Department of Arts and Culture is accepted by the NPPO. Unofficial translations provided by other WTO SPS Members are also accepted.

The NPPOZA was actively involved in the development of the IPP since 2005 through the participation of a South African representative on the IPP support group and has published some of its phytosanitary data on the IPP since. However, data on pest reports and phytosanitary restrictions, prohibitions and requirements is still lacking and this can only be remedied once the relevant databases are updated and consolidated in order to retrieve data more efficiently. The NPPOZA contact point uses direct communication to trading partners for information exchange and make use of the IPP to publish phytosanitary information as far as its human resources allows.

According to ISPM No 1 the principle of transparency requires that contracting parties should publish and disseminate phytosanitary prohibitions, restrictions and requirements and, on request, make available the rationale for such

measures (FAO, 2006b). As a prerequisite for market access of exported commodities, technical justification for non-compliance to foreign import requirements should be available. Pest information packages that include official pest lists for initiation PRA for market access purposes should be sufficiently documented. A centralised and computerised database of all bilateral and multilateral communication by the NPP CP since its establishment in 2006 was developed. In general NPPOZA documentation and record keeping procedures of technical information and reports are insufficient and results in fragmented databases in the NPPOZA.

Periodic reviews of the NPPOZA reporting system has not yet been done due to human resource capacity constraints. However a need for the development of a NPPOZA helpdesk was identified in order to address inquiries from clients. In doing so technical and NPP CP personnel should be allowed to use their time more effectively in addressing line function issues. Such a helpdesk would specifically also protect PRA officials from undue pressure by clients in an attempt to influence the outcome of a PRA, to request alternative import conditions or attempt to speed up the PRA process.

4.4. Discussion

4.4.1. Logical Framework Analysis and recommendations for strengthening national regulatory phytosanitary capacity

A Logical Framework Analysis was conducted as part of the PCE for South Africa. The results of the analysis is summarised below and the LogFrame matrix is included in Annex 1.

4.4.1.1. Phytosanitary Legislative and Regulatory Framework

Phytosanitary legislation and policies should underpin the South African government's objective of a thriving and growing first and second agricultural economy. By providing a legislative framework and mandate to prevent the introduction and spread of pests and by enforcing international SPS obligations it ensures national food security and agricultural development.

Compliance to international phytosanitary requirements is imperative to ensure that South Africa maintains a competitive advantage. Legislative mandates and systems should be science-based to ensure sustainable development of natural resources. Timeous updating of legislation is necessary to ensure that information exchange requirements in terms of the WTO SPS Agreement and IPPC membership can be met.

It is recommended that the Plant Health policy for South Africa be revised and finalised to facilitate the development and submission of the new Plant health Protection Bill that is being developed. The new Plant Health Protection Bill should consolidate fragmented existing legislation and replace the existing and outdated Agricultural Pests Act, 1983 (Act No 36 of 1983). Specific weaknesses in the current legislation that should be addressed in the new Plant Protection Bill include:

- Designation of a National Plant Protection Organisation for South Africa and provision of necessary administrative and executive powers
- Provision of relevant and specific executive powers relating to export regulatory services such as phytosanitary certification, pest reporting, consignment security after phytosanitary certification and inspection
- Provision of relevant and specific executive powers relating to import regulatory services such as Pest Risk Analysis, pest reporting, disinfestations or disinfection of imported consignments, search and seize non-compliant consignments at points of entry
- Requirement for immediate reporting of potential exotic pests to the NPPO

- Amendment of legislation and subordinate regulations to address name changes or places and areas such as provinces, magisterial districts and ports of entry.

It is also recommended that the new Plant Protection Act of South Africa should be translated into all official languages to ensure that it is understood by all national clients. It is further recommended that it be translated into the five official languages of the IPPC and published on the International Phytosanitary Portal to make it readily available to all international clients. The NPPO of South Africa should launch an awareness programme after enactment of the Plant Protection Bill by Parliament to ensure that its clients are informed and have access to the new plant health legislation.

4.4.1.2. Human Resources and facilities

The level of expertise and knowledge of NPPOZA personnel and their ability to access relevant scientific information affects the quality and potential development of policies, operational procedures and decision-making.

Specific phytosanitary knowledge, skills and expertise is necessary to assess the import conditions of other countries, to understand new international standards and their implementation, or respond to notifications of interceptions from trading partners. It becomes a threat to South African agriculture if the NPPOZA cannot challenge phytosanitary requirements of trading partners as potential non-tariff barriers to trade because the scientific basis thereof cannot be comprehended. Inadequate levels of expertise may also lead to poor interpretation of phytosanitary requirements, inconsistent judgements regarding risk mitigation options, and will ultimately undermine confidence in the regulatory services of the NPPO of South Africa. This may prevent the NPPOZA from effectively participating in international standard setting programmes and which in turn may result in South Africa losing market access opportunities.

To address urgent capacity needs in terms of human resource capacity it is recommended that human resources in the NPPO should be developed and the following aspects should be included:

- Needs analysis and subsequent motivation for additional posts to be established that will ensure effective implementation of NPPO responsibilities in terms of national legislation and international obligations;
- Recruiting and appointment of additional personnel;
- Job evaluation and career development plans for new and existing NPPO personnel;
- Develop and implement a Training programme for NPPO personnel that is based on appropriate knowledge and skills analysis;
- Development of service level agreements specialist training providers;
- Development of appropriate curricula that should include specialised training for inspectors, PRA training for PRA specialists; taxonomic training for diagnostic specialists;
- Monitoring and evaluation of an annual Training Programme to ensure development of knowledge and skills in the NPPO.

NPPOZA personnel capacity should be developed to ensure a dedicated and competent workforce. Qualified taxonomists should be employed to ensure that diagnostic capacity of the NPPOZA is improved and new techniques are developed to ensure timely and accurate identification and verification of regulated pests. Training needs to include relevant technical aspects of phytosanitary responsibilities and services but should also include skills development in professionalism, work etiquette, client service delivery and effective communication.

The establishment of a centralized Knowledge and Information Management System (KIMS) is recommended to ensure that relevant scientific information is readily available to NPPO personnel. Such a centralised system should ensure

traceability and consistency in terms of the provision of phytosanitary regulatory services.

Since the completion of the PCE APIS appointed one hundred additional inspectors and the DPH appointed the following plant health officials:

- Five administrative clerks
- Three housekeeping executives
- Two auxiliary officers
- Six diagnostic professionals
- Three quarantine officials
- Three farm aids at the Quarantine facilities
- One official in the import permit office
- Eight PRA professionals
- Four scientists in the NPP CP and special programmes division
- One surveillance official in the Early Warnings division
- Two plant health officials in the policy and promotions divisions

4.4.1.3. Pest Risk Analysis

The NPPO of South Africa has an established PRA division that bases its risk assessment procedure on the relevant ISPMs of the IPPC. A special EWS division was established to ensure rapid response programmes are developed and implemented based on results from surveillance programmes and risk assessments.

It is recommended that PRA capacity can be strengthened through prioritization of PRA activities and the publication thereof in a PRA Work Programme. Prioritization of PRA activities should be aligned with political, strategic and trade priorities thereby ensuring bio-security whilst improving market access opportunities for South African products. Prioritization of PRA activities should include strategic planning and adequate allocation of financial and human

resources of the PRA division as well as resources of supporting NPPO divisions such as the National Plant Protection Contact Point.

The development and implementation of a sector specific market access prioritization tool in collaboration with industry role-players should assist to determine priority markets and commodities for PRA activities relating to exports. Through the establishment and regular meetings of Market Access Working Groups, that include private and public role-players, further prioritization of export-related PRA activities may be facilitated. Role-players may be identified to assist with the development of relevant Pest Information Packages.

Import-related PRA activities should be analysed and prioritized according to political, strategic and trade priorities of government and the domestic market. The further development of national standards and standard operating procedures should facilitate opportunities for outsourcing PRA under supervision of the NPPO. Partnerships with stakeholders such as other government departments, commercial and subsistence agricultural sectors, the research community and tertiary education institutions will strengthen NPPO PRA capacity and phytosanitary emergency preparedness and relies on shared responsibility and effective coordination within the agricultural sector.

PRA is a scientific tool used to develop phytosanitary measures. According to the WTO SPS Agreement Article 7 on Transparency, phytosanitary measures should be made available to trading partners. It is therefore recommended that a Best Practice Model for WTO SPS notifications should be approved and implemented in accordance with the PRA Work Programme to ensure country compliance with the WTO SPS Agreement Article 7 on Transparency.

4.4.1.4. Institutional aspects

The functional units of the NPPOZA are organised within two directorates of the DOA which provides for specialised and focused approaches to line function activities. However, this arrangement emphasizes the need for national standards and standard operating procedures to ensure consistent decision-making and provision of effective and efficient phytosanitary services. It is recommended that a database containing all NPPO national standards, standard operating procedures and relevant document formats should be developed and published in a manner that would make it accessible to all personnel. Such a database should also assist in the training of newly recruited personnel.

The DOA oversees imports and exports and administers legislation for these functions. Importing and exporting of agricultural products entail that exporters should comply with three basic sets of statutory requirements being :-

- a. Requirements of the importing countries and / or the countries to whom SA export (either by mutual agreements for particular products or country specific requirements for particular products).
- b. Requirements within the SA statutes to enable imports and / or exports for example all plants and plant products need a phytosanitary certificate before it can be exported from South Africa
- c. Inspections, which are a standard procedure undertaken by different bodies based on the plant product, may it be seed, fruits or vegetables. (Example: PPECB, SANSOR or OIC).

No centralised system is available for directorates within the departments to administrate and manage these import/export conditions, requirements or related information. The DOA intends to address these shortfalls by designing and implementing a central web based solution that will address all the needs of the various role players involved in the export process.

Acknowledging the need for a central import/ export database that would enhance service delivery and improve communication and information exchange within the DOA, and with its stake-holders a database project was launched.

The broad specifications for the proposed system entail:

- a. Facilitate day-to-day operations associated with the importing and exporting of commodities by providing key information as prescribed by the Legislation Agreement;
- b. Provide on-line operational information on all Agricultural Imports and Exports;
- c. Provide Management and Statistical Information to all interested parties within the Department of Agriculture and the extended Agricultural Sector; and
- d. Enhance and facilitate trade in the agricultural commodities that pertain to this system

In 2008 a tender was appointed and detail specifications for the development of the information management system were defined. It is expected that the design and programming phase of the project will commence during 2009/ 2010 pending the allocation of financial resources.

4.5 Literature cited

DOA (2007). *Strategic Plan for the Department of Agriculture for 2007.* Department of Agriculture (DOA) of South Africa, Pretoria, South Africa

FAO (1996). ISPM No 2 *Guidelines for Pest Risk Analysis.* Food and Agriculture Organisation of the United Nations, Rome, Italy.

FAO (1999). ISPM No 10 *Requirements for the establishment of pest free places of production and pest free production sites.* Food and Agriculture Organisation of the United Nations, Rome, Italy.

FAO (2001). ISPM No 12 *Guidelines for phytosanitary certificates.* Food and Agriculture Organisation of the United Nations, Rome, Italy.

FAO (2002). ISPM No 17 *Pest Reporting.* Food and Agriculture Organisation of the United Nations, Rome, Italy.

FAO (2004a). ISPM No 11 *Pest Risk Analysis for quarantine pests including analysis of environmental risks and living modified organisms.* Food and Agriculture Organisation of the United Nations, Rome, Italy.

FAO (2006a). ISPM No 5 *Glossary of phytosanitary terms.* Food and Agriculture Organisation of the United Nations, Rome, Italy.

FAO (2006b). ISPM No 1 *Phytosanitary principles for the protection of plants and the application of phytosanitary measures in international trade.* Food and Agriculture Organisation of the United Nations, Rome, Italy.

FAO (2007). *FAO Biosecurity Toolkit Part 1.* Food and Agriculture Organisation of the United Nations, Rome, Italy

IPPC (1997). *New Revised Text of the International Plant Protection Convention (IPPC).* Food and Agriculture Organisation of the United Nations, Rome, Italy.

CHAPTER FIVE

Comparison study of national phytosanitary capacities of South Africa and Malawi

In this chapter a comparative study is done to determine the difference in capacity levels of the two countries of which South Africa is a developing country and Malawi is a Least Developed Country. The difference in phytosanitary capacity levels should inform decisions by the respective governments to focus further capacity building initiatives in order to improve compliance with the WTO SPS Agreement.

5.1. Introduction

5.1.1. Research mandate and purpose

Agricultural trade is faced with non-tariff restrictions of which SPS measures may be the most constraining for developing and least developed countries in terms of exploiting trade opportunities. National phytosanitary capacities therefore determine to a greater extent the ability of a country to access new markets and to ensure safe agricultural imports into its territory. Developing and least developed countries with inadequate phytosanitary capacity are increasingly faced with the challenges of protecting plants and the environment, participating and representing their interests and concerns in international standard-setting forums and meeting the requirements of international legal commitments. Because of limited resources and expertise the economic interests and trade of developing countries, such as South Africa and Malawi, are impeded.

5.1.2. Context and institutional environment

5.1.2.1. Economic and Political overview

South Africa has a dual economy which consists of a well-developed commercial agricultural sector and a predominantly subsistence oriented sector in the traditional rural areas. It is mostly self-sufficient for most agricultural crops and in when agricultural production is good it may in some years be a net exporter of food (http://www.sadcreview.com/country_profiles/southafrica/southafrica.htm).

Until 1998 the marketing of most agricultural products in South Africa were regulated by a statute that was characterized by domestic market isolation from world market forces. Most products were then regulated under the 22 different marketing schemes under the Marketing Act of 1937. Some products such as sugar and wine were regulated by its industry's own institutions under separate legislation. According to Dannson et al. (2004) the first phase of deregulation in agriculture in South Africa started two decades ago and comprised of shifts in monetary policies in the 1970s and fiscal policies in the 1980s that undermined the complex structures of protection, price support and cross-subsidies. However, because of the political isolation from world markets this deregulation was mainly aimed at the domestic market at the time.

Until 1994 foreign trade was mostly regulated by managing imports and exports to manipulate domestic prices or through a monopoly of export schemes. Real attempts in opening the agricultural sector to world markets only followed after the Marrakech Agreement of the GATT in 1993. Direct controls over agricultural imports were then replaced by tariffs (Dannson et al., 2004).

The election of the new South African government of national unity in 1994 resulted in a range of new policies throughout the spectrum of government activities, including agriculture. Increased growth in South African agricultural

trade was in response to a rapidly changing economic and policy environment positioned the agricultural sector an important vehicle for job creation and poverty alleviation. Agriculture in South Africa had to quickly adapt from being regulated by protectionist statutory interventions and support to being a deregulated sector as part of a liberalized and open economy.

According to the SADC review that was done on agriculture in Malawi (http://www.sadcreview.com/country_profiles/malawi/malawi.htm) the country ranks among the world's least developed countries with 55% of the population living below the poverty line. The economy shows some improvement in GDP growth which was mainly due to improved performance of the agriculture, manufacturing and distribution sectors. It is suggested that economic prospects depend on a favourable macro-economic environment with low inflation, increased donor inflows and reduced interest rates that may follow drastic reduction in Government domestic borrowing and a stable exchange rate. These prospects improved significantly after the International Monetary Fund (IMF) Board approved Malawi's Poverty Reduction and Growth Facility (PRGF) and approved US\$9.2 million disbursement following the resumption of the IMF Economic Programme in October 2003. The IMF also approved in principle interim assistance under the Highly Indebted Poor Countries (HIPC) Initiative. About US\$20 million worth of donor support was disbursed between October and December 2003 enabling Government to reduce its debt with the Reserve Bank of Malawi (RBM).

5.1.2.2. National agricultural policies

South African agriculture inherited its dual nature from its political past and currently consists of small-scale farmers who mainly focus and supply to local and regional markets and large-scale commercial farmers who supply to local, regional and international markets. Some of the first new agricultural policies developed since 1994 tended to follow the new direction of change and started to

address the issue of inequality in the sector. In 1996 new agricultural policy initiatives included the land reform programme, legislation protecting agricultural workers against eviction and extending their rights, liberalization of international trade and new agricultural marketing and regulatory structures and procedures.

By the late 1990's the South African agro-food economy was fully integrated in international trade and undergone major shifts in its trade patterns. A new rural development policy was also developed and the public service, including national SPS regulatory services, was restructured to better facilitate the government's vision of a united and prosperous agricultural sector. In 2003, South Africa's Agricultural Trade Strategy was approved that aims to address historic dualism in agriculture through three core strategies that aim to enhance equitable access and participation, improve global competitiveness and profitability, and ensure sustainable resources management in the sector (DOA, 2003).

Only approximately 13 percent of South Africa's surface area is suitable for crop production and major crops produced include maize, wheat, sugar cane and sunflower. Major export commodities from South Africa include raw sugar, fresh grapes, citrus, nectarines, wine and deciduous fruit. (http://www.sadcreview.com/country_profiles/southafrica/southafrica.htm). The European Union, Argentina, Australia, Zimbabwe, Thailand, United States, Brazil, Malaysia, Indonesia, India, China, Canada and New Zealand are principal suppliers of agricultural imports to South Africa.

The Department of Agriculture (DOA) of South Africa also adopted a national strategy called Operation Gijima in November 2006 that aims at fast-tracking service delivery of certain departmental programmes including the improvement of surveillance systems for the effective monitoring and management of animal and plant diseases (DOA, 2007).

The government of Malawi embarked on a structural Agricultural Reform policy after an agreement with the World Bank and International Monitoring Fund (IMF) in 1981 (http://www.sadcreview.com/country_profiles/malawi/malawi.htm). The reform aims at liberalizing the economy, facilitate private sector development, setting a basis for economic growth and establishing financial stability in the sector. This was to be mainly achieved through provision of new opportunities for small scale farmers and removing regulations that favoured large commercial estates. The policy also identifies medium and long term measures to promote irrigation activities, livestock production, the use of organic manure and supporting organic production systems and introduced tractor-hire schemes improving smallholder's access to agricultural inputs. It encourages crop diversification particularly niche crops with a potential to export or process and negotiations with commercial farmers to get into contract farming of maize.

The agricultural sector of Malawi is considered key to the economic development agenda of the country and dominates local and export production (MEPD, 2005). Agriculture in Malawi contributes to about 40 percent of the country's GDP and directly supports approximately 85 percent of the population.

The sector mainly comprises of estate and smallholder farms where estate farms mainly produce tobacco, tea, sugar, coffee, rubber and macadamia nuts. Smallholder farms mainly produce cotton, rice, groundnuts and tobacco (USAID, 2002). Major exports comprise tobacco, tea, sugar, coffee and cotton in that order of importance and account for 98,1percent of major exports. Other export commodities include cut flowers, paprika, garlic, macadamia and cashew nuts (USAID, 2002).

The government established, with assistance from donors, crop authorities for tea, coffee, sugar and tree nuts to promote smallholder production of these cash crops. Parastatal organisations such as the Malawi Investment Promotion Agency (MIPA), Agricultural Development and Marketing Corporation (ADMARC)

and the Malawi Export Promotion Council (MEPC), promotes horticultural production but the agricultural sector still focuses mainly on tobacco and maize production (http://www.sadcreview.com/country_profiles/malawi/malawi.htm).

The Southern African development Community (SADC), the United States of America, and some Asian markets are Malawi's most important export markets. Trade with SADC countries concentrates mainly on primary products such as tobacco, sugar and tea. South Africa is a major trading partner for Malawi (USAID, 2002).

5.1.2.3. Membership of international organisations and regional trade obligations

Malawi and the Republic of South Africa are signatory *Members* both the World Trade Organisation Agreement on the Application of Sanitary and Phytosanitary Measures (WTO SPS Agreement) and the International Plant Protection Convention (IPPC). Amongst other things, these multinational organisations acknowledge the sovereign right of member governments to protect plant health and life within their territories (WTO, 1994). Even so, the *Members* are obliged to ensure that the phytosanitary measures they implement to achieve their appropriate level of protection are technically justified, risk-based, non-discriminatory and least restrictive to trade.

The WTO-SPS Agreement recognizes the IPPC as the international organisation to draft and adopt International Standards for Phytosanitary Measures (ISPMs) with the objective to harmonize the regulatory and risk management procedures and actions applied by trading partners regarding the international movement of plants and plant products (WTO, 1994). Both countries are also members of the Codex Alimentarius Commission, the World Organisation for Animal Health (OIE), Food and Agriculture Organisation (FAO) and Convention on Biological Diversity (CBD).

The mandate for the development of the New Partnership for Africa's Development (NEPAD) as a strategic framework for the renewal of Africa, was given to the five initiating Heads of State (Algeria, Egypt, Nigeria, Senegal, South Africa) by the Organisation of African Unity (OAU). The strategic framework document was adopted at the 37th Summit of the OAU in July 2001. Its primary objectives are; to eradicate poverty; to place African countries, both individually and collectively, on a path of sustainable growth and development; to halt the marginalisation of Africa in the globalisation process and enhance its full and beneficial integration into the global economy; and to accelerate the empowerment of women. One of its key priority action areas is to facilitate the implementation of the food security and agricultural development program in all sub-regions (NEPAD, 2001).

Sanitary and phytosanitary (SPS) measures are qualitative and meant to provide an appropriate level of protection based on scientific risk assessments and no preferential concessions for relaxed import conditions can be granted to free trade agreement (FTA) partners (Rudloff & Simons., 2004). The emphasis of SPS provisions in FTA's is therefore on cooperation to facilitate the application of WTO SPS Agreement provisions amongst FTA partners. Member countries are expected to harmonize their agricultural policies and systems on imports of genetically modified organisms (GMO), animals, plants and agricultural inputs in anticipation of the establishment of a SADC FTA in 2008. The SADC FTA was signed in August 2008 and requires SADC members, including South Africa and Malawi, to adhere to the requirements of its chapter on SPS. This poses a challenge for SPS regulatory systems as the respective capacities of National Plant Protection Organisations (NPPOs) in the region differ in their levels of development and the region has various major plant pests which can be introduced across international borders because some of the products imported in one country can easily be illegally introduced into another country. Regional goals set by FTA development and initiatives such as NEPAD further accentuates a need for phytosanitary systems in the region to adapt and accommodate increased regional trade demands.

According to South Africa's Agricultural Trade Strategy, the South African agricultural import pattern offers trade opportunities for African suppliers and it is within this context that the DOA aims to provide leadership and capacity in the regional harmonisation of SPS standards and equivalence of SPS measures in the SADC (DOA, 2003). Southern African Customs Union (SACU) members are all *Members* of the World Trade Organisation (WTO) but only South Africa and Swaziland have ratified the IPPC.

The Commission for Phytosanitary Matters (CPM) of the International Convention for Phytosanitary Measures (IPPC) recognises the Inter-African Phytosanitary Council (IAPSC) as the Regional Plant Protection Organisation (RPPO) for Africa. IAPSC is an intergovernmental regional organisation with 53 member countries operating under the umbrella of African Union (AU). The IAPSC ensures the coordination of plant protection procedures on a regional level in line with the principles and objectives of the IPPC by participating in activities to achieve the objectives of the IPPC. These activities include information dissemination, and cooperation with the CPM and IPPC Secretariat. South Africa and Malawi are members of the IAPSC through their membership of the AU.

5.1.2.4. Legal Frameworks

The regulatory activities of the NPPO of South Africa (NPPOZA) are mandated by the Agricultural Pests Act, 1983 (Act No 36 of 1983) and its relevant regulations. The aim of the existing phytosanitary legislation is to provide for measures to prevent and control the importation of plant pests, and to provide measures for their national control. Its scope covers plants, plant products and their pathogens, including biological control agents, insects and exotic animals as defined in the Act, as well as growth media, honey, beeswax and used apiary equipment.

In South Africa other legislation may be relevant, and necessary links are established and importers are advised of additional authorizations that are necessary prior to import. Other phytosanitary relevant legislation in South Africa include:

- Genetically Modified Organisms Act, 1997 (Act No 15 of 1997)
- Plant Improvement Act, 1976 (Act No 53 of 1976)
- Plant Breeders' Rights Act, 1976 (Act No 15 of 1976)
- Section 81 of Nature Conservation Ordinance, 1983 (Ordinance 12 of 1983)
- National Environmental Management Act, 1998 (Act No 107 of 1998)
- National Environmental Management Biodiversity Act, 2004 (Act No 10 of 2004)
- Fertilizers, Farm feeds, Agricultural remedies and Stock remedies Act, 1947 (Act No 36 of 1947)

The importation of specific plants that may be toxic to cattle may be prohibited upon request of the DOA Directorate Animal Health and specific plants with narcotic properties are prohibited upon request by the South African Police Service (SAPS).

The NPPOZA must facilitate access to relevant phytosanitary information while protecting confidentiality rights of individual role-players in accordance with the WTO SPS Agreement and IPPC principle of transparency, and the Promotion of Access to Information Act, 2000 (Act No 2 of 2000). In accordance with the promotion of Administrative Justice Act, 2000 (Act No 3 of 2000), the NPPOZA must also ensure effective consultation with role-players and effective management of phytosanitary information.

The Agricultural Pests Act, 1983 (Act No 36 of 1983) of South Africa is currently under revision to align it with the IPPC and its phytosanitary standards as well as

with relevant technical developments and a national Plant Health Policy, drafted by the NPPOZA, is pending Parliamentary approval.

The regulatory activities of the NPPO of Malawi are mandated by the Plant Protection Act 1969, the Pesticides Act 2000 and the Seed Act 1988 (USAID, 2002). Malawi's plant health legislation meets the international requirements of the IPPC. The executive officer of the Plant Protection Act is the Minister of Agriculture and Food Security. The Act controls the importation of plants, plant products and other living organisms and aims to prevent the introduction of foreign pests and diseases. This is extremely important because tobacco, sugar and tea production are key exports for Malawi.

Other legislation that may be relevant, include:

- Fertilisers, Farm Feeds and Remedies Act (No. 12 of 1970)
- Forestry Act (No. 4 of 1997).
- The Environment Management Act (1996)
- The Bio-safety Act (2002)
- The Noxious Weed Act

5.1.2.5. Institutional Frameworks for phytosanitary regulatory services

The NPPOZA evolved into its current structure that exists of the directorates Plant Health (as the national plant protection contact point and responsible for legislation and policy development and maintenance) and Agricultural Product Inspection Services (APIS) (responsible for inspection services and audits related to phytosanitary matters). This structure is in accordance with the prescribed roles and responsibilities of an NPPO as stated in the New Revised Text (NRT) of the IPPC (IPPC, 1997). A National Plant Protection Contact Point (NPP CP) in the NPPOZA facilitates country participation in international phytosanitary standard setting processes. An updated version of the structure of

the NPPOZA is available on the International Phytosanitary Portal (IPP) at <http://www.ippc.int>

The NPPO of Malawi is arranged under the National Research Coordinator for Plant Protection in the Ministry of Agriculture and Food Security. The NPPO consists of three Plant Protection Offices which manages plant inspectors and divisional crops officers in three functional regions i.e. central region, southern region and the other regions. Inspectors are located at international airports and border posts and report to their respective Plant Protection offices. An updated version of the structure of the NPPO of Malawi is available on the IPP at <http://www.ippc.int>

5.1.2.6. Phytosanitary capacity building projects

The only Technical Assistance from donor countries or organisations that South Africa has received to date to improve its phytosanitary capacity, include:

- PRA training provided by the USDA through the Cochran fellowship programme
- Regional and sub-regional capacity building of official phytosanitary information under the (New Revised Text) of the IPPC by the FAO

According to official reports on the IPP at <http://www.ippc.int> current phytosanitary capacity building projects in Malawi include:

- Training in pest diagnosis and pest risk analysis by the FAO
- Sub-regional Workshop on technical cooperation network for Plant Quarantine in Southern Africa by FAO
- Strengthening of national capabilities for armyworm monitoring, forecasting and control by FAO
- Regional and sub-regional capacity building of official phytosanitary information under the NRT of the IPPC by the FAO

5.2. Material and methods

This study follows a comparative approach and uses the Phytosanitary Capacity Evaluation (PCE) tool of the IPPC to evaluate the national phytosanitary capacity levels of South Africa and Malawi. In South Africa the tool was used to collect data during electronic and personal interviews with relevant NPPO personnel and private stakeholders. In Malawi the tool was first used during a field visit to Department of Agriculture employees to gather preliminary information. This visit was followed-up with a workshop in 2008 during which officials from the NPPO of Malawi were interviewed.

5.3. Results

The PCE tool puts a strong emphasis on international obligations and requirements of the IPPC. Instead of approaching the capacity evaluations purely as a tool for evaluating implicit technical criteria this study also aims to include to some degree the opportunities for looking at capacity building options derived as means for achieving social and economic goals. The PCE studies that were conducted for South Africa and Malawi indicate that both countries have certain phytosanitary capacity development needs but that those of South Africa are less serious. Although no budgets or timeframes were included, the priority areas of concern are highlighted and presented in the LogFrame analysis matrixes that are included as Annex 1 for South Africa, and Annex 2 for Malawi, respectively.

5.3.1. Country Background

Malawi has a huge untapped agricultural potential for further development into production for export markets. Local producers must however be informed of the requirements for international trade. Poor awareness and lack of information on the market chain, international agricultural opportunities, world market prices and SPS requirements are some of the challenges that prospective exporters face.

Middlemen often take such large commissions that production for export markets becomes unprofitable. However, for the traditional markets some colonial and historical links can present established markets. It is generally difficult for small scale farmers to access finance. Access to incentives and available loans are also complicated by excessive administration. Improved access to export incentives and finance will give small scale farmers a better chance of producing for export markets. An urgent need for the establishment of a Scheme by the Departments of Trade and Industry and Agriculture to assist small scale farmers to access finance for export purposes was identified. Such a Scheme should provide opportunity for Non-governmental Organisations such as NASFAM to provide much needed collateral for small-scale farmers in Malawi.

The improvement of agricultural production and exports in Malawi are dependant on the transport networks available. Lack of efficient road, rail, air transport networks and infrastructure creates major obstacles for the future growth of the sector. Cold stores and refrigerated transport should be developed. The government's plan to rehabilitate and upgrade roads in Malawi should positively impact and contribute to the movement of agricultural goods in the country and may also provide further opportunities to access new markets through effective and fast transport.

South Africa has a well developed commercial agricultural sector that is constantly diversifying and expanding. The small scale and subsistence oriented farmers are supported by government through various land settlement and agrarian reform programmes and the commercial sector plays an important role to assist in the development of the informal sector. Commercial agriculture has a strong research component comprising of 4000 people in the Agricultural Research Council (ARC) and some 1000 scientists working in the field (http://www.sadcreview.com/country_profiles/southafrica/southafrica.htm).

5.3.2. Phytosanitary Legislative and Regulatory Framework

Both countries, Malawi and South Africa, identified specific areas of concern in their plant health legislation and subsequently started a process of stake-holder consultation and revision. These areas of concern were identified by evaluating the ability of current legislation to comply with the core requirements of the IPPC to ensure that NPPOs have appropriate mandates to implement phytosanitary regulatory services in accordance with the NRT of the IPPC.

The Department of Agriculture in Malawi needs to improve on its procedures to track the progress of amended legislation in order to ensure timely submissions to Cabinet and ultimate enactment of the draft Bill. Malawi may also use this legislative revision process to ensure that related and relevant regulations are updated and aligned with the latest regulatory requirements.

The DOA in South Africa needs to finalise and submit its National Plant Health policy to Parliament in order to further facilitate approval processes for the new Plant Protection Bill that is envisaged. Unclear departmental and governmental approval processes have caused serious delays in the approval process of the new Bill. The NPPOZA should consult with relevant role-players to clarify national processes and procedures in order to improve planning and implementation of legislative amendments.

5.3.3. Human resources and facilities

Relevant role-players in the agricultural sector in Malawi need training regarding SPS measures and related requirements to improve the export readiness of the agricultural sector. A national SPS Training Programme is proposed and relevant national departments should ensure that their clients and personnel needs are incorporated into the national SPS Curriculum. A well-planned programme and Curriculum should assist the government of Malawi to seek

appropriate donor-funding and service providers. Training should be made available through a selection process that will ensure appropriate and representative learners are included.

Although such a training programme should also support general awareness for SPS issues in Malawi a specific need exist to also develop specific awareness and skills in the marketing and export of agricultural trade. A national awareness programme for SPS market access requirements is envisaged that should incorporate private and public information needs. A second programme is envisaged that should address marketing and business information requirements for farmers, exporters and decision-makers to increase market access share of Malawi exports. The development and implementation of both these awareness and information programmes are dependant on the relevant departments' ability to access donor funding.

A key priority that should improve phytosanitary capacity in Malawi is the development of human resources for official SPS laboratories. The Department of Agriculture should complete a training needs analysis to identify specific training needs for SPS laboratory staff. The needs analysis should then inform a training programme that covers specialist training in the areas of nematology, zoology, entomology, mycology, bacteriology, virology and the development and implementation of phytosanitary measures. The Malawi government is displaying an increased willingness to second staff for specialised training to competent academic training institutions in Malawi and neighbouring countries, including South Africa. Retirement of trained personnel, effects of AIDS, malaria and TB on trained staff increases the needs for continuous training in SPS related matters.

Another key priority that should improve phytosanitary capacity in Malawi is the upgrade and development of facilities for official SPS laboratories. Existing laboratory structures are available in both public and private sectors and some of

the laboratories have state-of-the-art equipment e.g. NDA analyser, gas chromatograph etc. But in most laboratories the equipment are outdated and unserviceable. Certain specialised equipment such as HPLC is not available in any of the laboratories. Also, none of the SPS laboratories are accredited to international standards. Equipment is not calibrated and due to high costs equipment and consumables are not regularly replaced. Regular interruptions to power-supply affect the use of equipment. The provision of relevant equipment should improve SPS regulatory services and thereby promote access to high-value international markets. The Department of Agriculture should complete an inventory of conditions of SPS laboratories and include outdated and unserviceable equipment. Based on the needs identified from the inventory a Refurbishment and Renovation Programme should be developed and implemented. Donor funding will be necessary to purchase and install new equipment. The Refurbishment and Renovation Programme should take into consideration the maintenance and upkeep of procured equipment. The Department of Agriculture should plan and allocate resources to maintain and service procured equipment.

The NPPOZA has a stronger human resource capacity and the processes of risk assessment and surveillance are further strengthened by stake-holder and research sector support. Inspection and certification capacities were strengthened considerably since 2005 and further strengthening is envisaged. The Directorate Plant Health (DPH) embarked on a human resource capacity evaluation in 2008 and additional posts for key policy development units are envisaged. DOA human resource policies prescribe the filling of vacant posts to be advertised and NPPOZA officials should apply for promotion into higher ranks which results in a high turnover of recruitment and puts much pressure on already strained human resource capacity. A shortage of relevant phytosanitary skills and expertise in South Africa, coupled with uncompetitive salary scales further hampers recruitment of experienced and qualified personnel. It is recommended that competency levels of current and existing personnel are

evaluated according to the government's Job Evaluation System to ensure that NPPO personnel are appropriately appointed and remunerated. This should contribute to finding a solution for high staff turn-over due to higher paid positions in the private sector. High staff turnover put much pressure on training and lead to organisational knowledge and skills drain.

According to the NRT of the IPPC (IPPC, 1997) it is the responsibility of NPPOs to ensure that NPPO staff is competent and trained to provide the phytosanitary services in accordance with international requirements. On the job training are currently provided to NPPO personnel in the DPH an annual training programme facilitated by a special training unit exists in the Agricultural Product Inspection Services (APIS).

An urgent need was identified for an annual training programme to be developed and implemented for the DPH to ensure that staff competency levels are compliant with international requirements. It is suggested that NPPO staff are trained in respective technical fields but that they should also be conversant in the international instruments guiding national phytosanitary services as well as relevant national legislation. The NPPO of South Africa may make use of various tertiary and research institutes in the country to assist with a development of a Plant Health Curriculum as well as providing specialist training services.

A major priority for the NPPO of South Africa should be to improve its Knowledge and Information Management System for the NPPO and the services its renders. This is also in support of the transparency principles contained in the WTO SPS Agreement and the NRT of the IPPC. A national agricultural import export system that should provide relevant information to the NPPO and its clients is envisaged. The specifications for such a system should be finalised in 2008 and it will include DPH and APIS. Thorough needs analysis should determine the effectiveness of the final system.

The Director Plant Health is the official NPP CP for South Africa and the Division International Standards was established to facilitate the responsibilities of the NPP CP according to the prescriptions of the NRT of the IPPC (IPPC, 1997). The effective functioning of the NPP CP contributes to the ability of South Africa to comply with transparency requirements of both the WTO SPS Agreement and the NRT of the IPPC. The NPPOZA contact point details were submitted to the IPPC Secretariat and are available on the International Phytosanitary Portal at <http://www.ippc.int> for easy reference of trading partners. Only information communicated to the IPPC, IAPSC, other Regional Plant Protection Organisations (RPPOs) and NPPOs by the NPP CP will be deemed official.

5.3.4. Pest Risk Analysis

Pest risk analysis recently gained some importance in Malawi and some human resources are available to conduct PRAs. However, there are no documented procedures for conducting PRAs and no specialised PRA groups to assist. Limited access to PRA that are conducted by other countries exists. Without the essential PRA capacity the country is vulnerable to unexpected outbreaks of regulated pests and agricultural production for national and export markets may be jeopardised. An urgent need therefore exist to develop a PRA system for Malawi that would comprise of national standards and standard operating procedures, PRA post establishment and a PRA training programme. The development of a PRA system should inevitably also create opportunities to adopt a regional approach by accessing PRAs via SADC and attending PRA courses provided by services providers in the region. It should also allow Malawi to harmonise its national standards, standard operating procedures and phytosanitary measures with those of their international and regional trading partners. Donor funding is necessary to develop an effective PRA system for Malawi but return on investment is expected through increased credibility of its phytosanitary system and greater bargaining power for market access.

The NPPO of South Africa (NPPOZA) follows a Pest Risk Analysis (PRA) based approach, in accordance with ISPM No 2 Guidelines for Pest Risk Analysis (FAO, 1996) and ISPM No 11 Pest Risk Analysis for quarantine pests including analysis of environmental risks and living modified organisms (FAO, 2004a), when determining import conditions and the execution of the relevant risk management options is done within the framework of plant health regulations. For the import of bio-control agents the NPPOZA works in close collaboration with the Agricultural Research Council (ARC), Department of Environmental Affairs and Tourism (DEAT) and other relevant research institutions. The NPPOZA does not do any scientific research relating to quarantine pests or mitigation options but relies on scientific data made available by international and national research and tertiary institutes, especially the ARC.

Coupled with the challenge of adjusting to international phytosanitary obligations imports of agricultural products into South Africa are steadily increasing and subsequently also increases demands on the phytosanitary import system, especially the PRA function. It is therefore important that capacity should be increased but also that existing capacities are used optimally. Regular meetings with the sector through respective market access working groups and the development of a market access prioritization tool is required to help prioritise PRA work related to exports. Implementation of the Best Practice mechanism that is developed in this study should further link and assist in PRA work prioritization and publication.

5.3.5. Inspections and surveillance

A major constraint for surveillance activities in Malawi is a lack of official transport. In crisis situations transport is made available for surveillance at the expense of other departmental programmes. Lack of adequate means of transport inhibits the ability of plant protection officers to fulfil surveillance related duties. The Department of Agriculture should complete a needs analysis for

specific transport requirements for surveillance purposes only and appropriate funding for the acquisition and repair of departmental vehicles should be approved. Surveillance training for personnel is also required on a regular basis.

Official points of entry and exit in Malawi are accepted by neighbouring countries but SPS inspection systems at these points lack the necessary facilities and equipment to accommodate border personnel and the SPS services they need to render. The Department of Agriculture should develop a construction and renovation programme to provide suitable buildings and offices at all points of entry and exit for SPS regulatory services. Specific equipment such as incinerators and pesticide applicators are needed for the effective and rapid treatment or destruction of non-complaint consignments or pests. Information and communication equipment is needed to facilitate accurate recording and pest reporting. These capacity improvements are needed to ensure efficient control of the movement of agricultural produce through points of entry and exit. Unrestricted movement of plants and plant products may cause the introduction and spread of pests into Malawi. Enhanced export certification training and awareness should further enhance regulatory services at points of entry and exit.

In South Africa APIS implements phytosanitary regulatory controls and capacities at designated ports of entry to facilitate the safe importation of intended imports and also to regulate unintended imports. Without this regulatory control at the port of entry the risk of pests and diseases entering, establishing and spreading in South Africa and opportunities for illegal smuggling and bioterrorism are increased. Improvements of APIS offices and national inspection facilities and at various commercial ports of entry, are done to facilitate inspection services and certification systems for import and export of plants and plant products

Although restructuring enabled a more focused approach to managing the different functional units in the NPPOZA, it has divided policy units and inspection services into two different directorates. The challenge in this structure is to maintain appropriate and effective communication channels as well as

transparency between the two directorates. Information exchange should be improved through regular meetings, information sessions, and special forums and shared databases. A Deputy Directors' forum exists where important operational issues and concerns are discussed.

5.4. Discussion

It would be simplistic to say that phytosanitary regulatory systems of South Africa and Malawi are not capable to meet international SPS requirements. Some controls are maintained at various levels of effectiveness for immediate and most important phytosanitary risks for example the national exotic fruit fly surveillance programme in South Africa.

The NPPO of Malawi exists in a more rudimentary form and some basic IPPC requirements such as conducting Pest Risk Analysis are not yet in place. Human resource capacity is little and not specialised. Inspection services at some points of entry and exit exist but there is a general need to strengthen human and facility resources at all points of entry and exit. Some specialist knowledge and expertise exist in Malawi but may not be adequate or accessible to the NPPO when required.

South Africa has a more integrated approach to phytosanitary matters and it has a fully functional official NPPO that was established in accordance with the specific functional requirements of the NRT of the IPPC. This NPPO has good capacity in terms of quarantine and diagnostic services, inspections and phytosanitary certification services, surveillance and Pest Risk Analysis. Although further human resource capacity is envisaged to cope with growing demands from trade, the basic services can be supplied and various options for partnerships with private and parastatal entities exist. Increased capacity requires specialized and benchmark training and opportunities exist for educational institutions to partner with the DOA to address these needs. However,

improved communication and information management urgently needed for South Africa to meet its phytosanitary obligations, especially in areas such as risks assessments that form the basis of imposing SPS measures. It should be an integrated information management system to ensure phytosanitary data integrity but at the same time provide stakeholders to participate in its development.

The major challenge for developing and least developed countries relates to capacity constraints to effectively manage and deal with their WTO SPS rights and obligations. Policies should be developed that would address specific capacity needs and public private partnerships and technical assistance initiatives can play a major role to alleviate some capacity constraints. Focused phytosanitary capacity improvement projects should be developed to strengthen and improve national phytosanitary regulatory systems.

5.6. Literature cited

Dannson, A., Ezendinma, C., Wambua, T., Bashasha, B., Kisten, J. & Satorius, K. (2004). *Strengthening farm agri-business linkages in Africa*. Agricultural Management, Marketing and Finance Service (AGSF), Agricultural Support Systems Division, Food and Agriculture Organisation of the United Nations. Rome, Italy

DOA (2003). *South Africa's Agricultural Trade Strategy*. Department of Agriculture (DOA) of South Africa, Pretoria, South Africa.

DOA (2007). *Strategic Plan for the Department of Agriculture for 2007*. Department of Agriculture (DOA) of South Africa, Pretoria, South Africa

FAO (2004a). ISPM No 11 *Pest Risk Analysis for quarantine pests including analysis of environmental risks and living modified organisms*. Food and Agriculture Organisation of the United Nations, Rome, Italy.

IPPC (1997). *New Revised Text of the International Plant Protection Convention (IPPC)*. Food and Agriculture Organisation of the United Nations, Rome, Italy.

MEPD (2005). *Development projects in Malawi: Progress assessment*. Ministry of Economic Planning and Development, Lilongwe, Malawi.

NEPAD (2001). New Partnership for Africa's Development. [Online] Available: [<http://www.nepad.org> – January 2008]

Rudloff, B. & Simons, J. (2004). *Comparing EU free trade agreements: Sanitary and Phytosanitary Standards*. ECDPM InBrief 6B, ECDPM with CTA. Institute of Agricultural Policy, University of Bonn.

SADC Review for Malawi September 2008

(http://www.sadcreview.com/country_profiles/malawi/mal_agriculture.htm).

SADC Review for South Africa September 2008

(http://www.sadcreview.com/country_profiles/southafrica/southafrica.htm).

USAID (2002). Inventory of harmonisation of Sanitary and Phytosanitary Measures in SADC Member States: Draft Report Republic of Malawi. USAID, Gaborone, Botswana

WTO (1994). WTO Agreement on the Application of Sanitary and Phytosanitary Measures. World Trade Organisation, Geneva, Switzerland.

Development of a South African Best Practices Model for WTO Sanitary and Phytosanitary compliance for Plant Health

By
Marianna Theyse

Promoter: Prof. Lise Korsten
Department: Microbiology and Plant Pathology
Faculty: Natural and Agricultural Sciences
Degree: MInst Agrar (Plant Quarantine)

ABSTRACT

The World Trade Organisation Agreement on the Application of Sanitary and Phytosanitary Measures (WTO SPS) provide the rights and obligations for members to take phytosanitary measures to protect animal, plant and human life or health. Using the guidelines of the WTO SPS Agreement Article 7 this study evaluated the current SPS transparency capacity of the South African regulatory system. Based on the outcome of the evaluation a Best Practice Model for WTO SPS notification and information management was develop to improve WTO SPS compliance for South Africa

Phytosanitary capacities of regulatory systems are challenged with increased global agricultural trade and a proliferation of international and regional phytosanitary standards. International Standards for Phytosanitary measures (ISPMs) are developed by the International Plant Protection Convention (IPPC). The concept of phytosanitary capacity was analysed and the International Plant Protection Convention (IPPC) Phytosanitary Capacity Evaluation (PCE) tool evaluated in terms of its scope, purpose and usefulness.

South Africa has attempted to address some of its phytosanitary capacity challenges system and organisational challenges by restructuring and strengthening the capacity of its National Plant Protection Organisation (NPPO) in order to meet the demands of international phytosanitary obligations and commitments. This study evaluates the phytosanitary capacity of South Africa and uses the IPPC Phytosanitary Capacity Evaluation (PCE) tool to identify and assess the current constraints impacting on the capacity. Based on the outcome of the PCE recommendations to address information management and capacity constraints are made.

The study the used the IPPC Phytosanitary Capacity Evaluation (PCE) tool to evaluate phytosanitary regulatory capacity constraints impacting on the phytosanitary capacity of Malawi. The results from the PCE for Malawi was compared with the results obtained from the PCE for South Africa. The results highlighted the different levels of phytosanitary capacity between a developing country such as South Africa and a Least Developed Country such as Malawi and made recommendations to address the country specific constraints.

PHYTOSANITARY CAPACITY EVALUATION
LOGFRAME MATRIX – SOUTH AFRICA

ANNEX 1

COMPONENT 2 – PHYTOSANITARY LEGISLATION			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/ RISKS
Develop national Plant Health Policy	New Plant Health Policy	Approval by Parliament	Outdated plant health policy
OUTPUTS			
Technical review and stakeholder consultation	E-mails, letters, meetings, workshop	Evidence of e-mails, letters and meeting minutes	Delays in stakeholder responses Documents misplaced or pending
Amend and draft of Plant Health white paper	Director Plant Health sign off on document	Plant Health Policy white paper	Documents misplaced Document pending
White paper submitted to DG and DG Cluster	DG Cluster consultation and approval DG Cluster approve white paper	Plant health Policy: White paper	Document amended and returned Document not approved
White paper submitted to Cabinet for approval and submission to Parliament	Cabinet approved White paper	Plant Policy: White paper document	Document amended and returned Document not approved
White paper submitted to Parliament for approval	Parliament approved White paper	Plant Health policy: Green paper document	Document amended and returned Document not approved
COMPONENT 2 – PHYTOSANITARY LEGISLATION			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/ RISKS
Amended legislation (Bill and regulations) approved and	New Plant Protection Act and supporting regulations	Enactment by Parliament	Outdated legislation

implemented			
OUTPUTS			
Technical review and stakeholder consultation	E-mails, letters, meetings	Evidence of e-mails, letters and meeting minutes	Delays in stakeholder responses Documents misplaced or pending
Amend and draft of Plant Protection Bill	Memorandum to Director Plant health requesting approval of Draft Plant Protection Bill	Draft Bill ready for submission to Cabinet	Documents misplaced Document pending
Submission of draft Bill to Cabinet for approval	Submission to Cabinet	Responsible person in NPPO to track process of submission	Delays in submission process
Cabinet forward to Parliament for enactment		Responsible person in NPPO to track process of submission	Rejection of Bill Returned for amendment
Parliament tabling of Bill		Responsible person in NPPO to track process of submission	Time delays in tabling processes
Parliament enact Act		Responsible person in NPPO to track process of submission	Rejection of Bill Returned for amendment
Publication of Act and regulations in Government Gazette	Legislation published	Government Gazette publication	
Develop and implement national NPPO awareness programme to promote new legislation	Awareness project plan and its implementation	Awareness materials, information sessions with stakeholders	Missed target audiences, ineffective awareness materials or communication media , language barriers,
Develop and implement a project for translation of new	Translation project plan, translated documents, publications of	Translated legislation available to clients and role-players	Time delays in translation, budgetary constraints

legislation into all SA official languages	new legislation		
COMPONENT 3 – HUMAN RESOURCES, FACILITIES			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/ RISKS
Develop a centralized Knowledge and Information Management System (KIMS) for phytosanitary regulatory services	KIMS development project	A centralized phytosanitary Knowledge and Information Management System	No project No KIMS
OUTPUTS			
KIMS needs analysis for plant health divisions	List of KIMS needs	Needs analysis report	Needs analysis not conducted or poorly performed
KIMS needs forwarded for inclusion in Department of Agriculture Import Export KIMS project	Departmental KIMS meetings and reports, meetings with service provider	Plant Health KIMS report Plant Health KIMS needs included in Departmental Import Export KIMS	Poor attendance of meetings Lack of follow-up and support for Plant Health KIMS needs
Implementation and training on Departmental Import Export KIMS	Plant Health KIMS training sessions, data entry forms and procedures,	Centralised Plant Health KIMS Plant Health KIMS training programme	Lack of training leads to lack of implementation of KIMS
COMPONENT 3 – HUMAN RESOURCES, FACILITIES			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/ RISKS
Directorate Plant Health to develop and strengthen human resources in the Directorate Plant Health	Additional posts establishment and recruitment Annual NPPO Training Programme	Post establishment document Additional personnel appointed Training Programme plan and results/ reports	No HR development strategy
OUTPUTS			
Needs analysis for	List of personnel	Needs analysis	Needs analysis



additional staff	needs	report	not conducted or poorly performed
Approval and funding for additional personnel needs	Post establishment reports and submission for approval	Approval of additional posts	Additional posts not approved
Job evaluations of additional posts to motivate higher post levels	Job evaluation questionnaires and reports	HR Work study	Job evaluation of posts on lower levels that required
Recruiting and appointment of additional posts	Short-listing, interviews, appointments and Vetting of personnel	Additional posts filled	Delays in recruiting and appointment procedures
Complete a training and skills needs analysis for Directorate Plant Health personnel	List of training needs	Needs analysis report	Needs analysis not conducted or poorly performed
Develop and implement training programme for existing and new personnel	Approval of training programme by Director Plant Health Training programme developed	Plant Health Training programme	Failure to approve training programme Failure to develop training programme
Identify potential service providers for specialised training needs	Service providers identified	Service level agreements with Department of Agriculture	Failure to identify suitable service providers
Development and approval of specialised curriculum by service provider	Curriculum development Curriculum approval NQF integration	Plant Health Specialised Training Course by service provider	Failure to develop curriculum Curriculum inadequate
Directorate Plant Health to implement Training programme	Classes begin Examinations	Completion of training programme	Failure to complete training programme
Monitoring and evaluation of training	Monitor and evaluate	Evaluation report at end of first training cycle	Unsatisfactory evaluation Personnel loss of

programme			interest in training provided
COMPONENT 4 – PEST RISK ANALYSIS			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/ RISKS
Prioritise and publish PRA activities to align it with departmental and industry priorities for improved market access of SA exports	Develop and implement a market access prioritization tool Meetings of sector specific Market Access Working Groups Develop annual PRA working programme Develop and implement SPS notification system to support PRA work programme	Market access prioritization tool Market access working groups PRA priority lists SPS notification system	Failure to prioritize and publish PRA work programme
OUTPUTS			
Meet and collaborate with role-players to identify market access prioritization criteria	Meetings, reports, analysis and approval of market access priority criteria	Market access prioritization criteria report	Failure to develop criteria
Develop market access prioritization tool	Draft tool consultations, meetings, reports	Market access prioritization tool	Failure to develop tool Documents pending
Identify sectors and public and private role-players to establish Market Access Working Groups	Needs analysis of agricultural sectors and role-players	Needs analysis report	Failure to identify sectors Failure to identify representative role-players
Establish and implement sector specific Market Access Working Groups	Terms of Reference, Invitations to meetings, Secretariat	Sector specific Market Access Working Group meetings	Lack of buy-in from role-players Failure to establish market access working

	services		groups
PRA work programme analysis	Export application list analysis Import application list analysis	Analysis report	Analysis not conducted or poorly performed
Develop an annual PRA work Programme	Prioritize PRA import and export applications	PRA work Programme	Failure to implement market access prioritization tool Failure to consider departmental or trade priorities Failure to develop PRA work programme
Develop a Best Practice Model for implementation of SPS compliance Article 7 on Transparency	Develop and implement SPS notification system for Plant Health	Best Practice Model for implementation of SPS compliance Article 7 on Transparency	Failure to develop or capacitate Model
WTO SPS publications of the SA PRA work programme and new phytosanitary measures	Integrate Best Practice Model for implementation of SPS compliance Article 7 on Transparency and PRA Work Programme	WTO SPS notifications	Failure to integrate PRA work programme into WTO SPS Best Practice Model for SA
COMPONENT 11 – INSTITUTIONAL ASPECTS			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/ RISKS
Harmonise operational procedures amongst functional divisions of the NPPO of South Africa	Develop a national shared database for standards, standard operating procedures (SOPs) , document formats and policies Provide training in implementation of national standards	Documents containing national standards, SOPs and document formats. Centralised Knowledge and Information management System NPPO meetings	Failure to harmonise operational procedures lead to inconsistency and lack of effective regulatory services

	and SOPs Regular reporting and accurate recording	and reports	
OUTPUTS			
Needs analysis for NPPO of SA	List of standards and SOPs	Needs analysis report	Needs analysis not conducted or poorly performed
Develop and implement a work programme for drafting national standards, SOPs document formats	Director Plant Health approve work programme document Implementation of work programme Development of documents	National standards, SOPs and documentation formats database Progress reports	Failure to implement work programme Documents misplaced or pending Lack of central database Inadequate recording
Evaluate work programme and update standards, SOPs and documentation formats	Evaluate and monitor work programme Amend documents as appropriate	Evaluation reports Updated and relevant national standards, SOPs and documentation formats	Failure to evaluate work programme Failure to update and amend documents as needed

PHYTOSANITARY CAPACITY EVALUATION
LOGFRAME MATRIX - MALAWI

ANNEX 2

COMPONENT : 1 COUNTRY BACKGROUND			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISKS
Develop a scheme that will make it easier for small scale farmers to access finance for export purposes	Departments Trade & Industry and Agriculture discuss need and feasibility of scheme	Announcement of scheme in media	Departments Trade & Industry and Agriculture do not support scheme
OUTPUTS			
1.1 Meeting of stakeholders to discuss scope and extend of scheme.	Stakeholders agree to meet	Minutes of stakeholder meeting	Stakeholders refuse to meet Failure of role-players to commit to proposed scheme
1.2 Meeting of key role-players to discuss details and conditions of scheme	Role-players agree to meet	Minutes of role-player meeting	Role-players refuse to meet Failure of role-players to commit to proposed scheme
1.3 Internal meetings of role-player institutions/ organisations to determine details of their involvement	Role-players agree to discuss issue in-house	Minutes of role-player meetings	Role-players refuse to meet Failure of role-players to commit to proposed scheme
1.4 Second meeting of role-players to consolidate and coordinate actions	Role-players agree to meet	Minutes of second role-player meeting	Role-players refuse to meet Failure of role-players to commit to proposed scheme



1.5 Announcement of scheme	Scheme advertised in media	Announcement of scheme in media	Scheme not announced or poorly publicized Sufficient funds not available Defaulting farmers
COMPONENT : 1 COUNTRY BACKGROUND			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISKS
Establish a SPS Training programme for Malawi	1. Lead department appointed 2. Curriculum developed 3. Donor/ service provider contracted 4. Implementation and evaluation of Training	Reports	SPS programme not supported SPS programme poorly implemented Withdrawal of funding or training personnel
OUTPUTS			
1.1.Meeting between Departments Trade & Industry, Health and Agriculture to discuss the establishment of a Training programme, potential donor funding and lead department	Support for SPS programme and identification of lead department	Minutes of meeting between Departments Trade & Industry, Health and Agriculture	SPS programme not supported Difficulty to appoint lead department
1.2 Curriculum of SPS programme to be finalised and approved	Curriculum finalised and approved	Curriculum content finalised and approved	Lack of agreement on content of Curriculum Curriculum not approved
1.3. Identification of	Donors/ service providers	Report by lead department	Failure to identify suitable donors and/or



potential donors and/ or service providers	identified		service providers
1.4. Lead department to contact potential service providers for proposals to provide SPS training, if required	Receipt of proposals from potential donors/ service providers	Training proposals	None or poor proposals received
1.5. Selection and approval of appropriate donor and/ or service provider	Contracts with relevant donor/ service provider	Contracts	Failure to conclude contract
1.7. Training programme advertised and initiated	Publication of training programme	Published training programme	Poor advertisement of programme
1.8 Selection of potential candidates/ students	Invitation to candidates/ students	Candidates/ students elected	Failure to attract sufficient students
1.9 Implementation of training programme	Classes begin Examinations	Completion of training programme by students	Students fail to complete programme
1.10 Monitoring and evaluation of training programme	Lead department to monitor and evaluate	Evaluation report at end of first training cycle	Unsatisfactory evaluation Loss of interest by role-players Withdrawal of funding or training personnel
COMPONENT : 3.1 HUMAN RESOURCES AND FACILITIES			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISKS
Department of Agriculture to	1. Human resource	1. Strategy document	No strategy



upgrade and develop facilities and human resources for official SPS laboratories	development strategy for increasing the level of competence for laboratory staff 2. Renovation and/ or upgrading of laboratory infrastructure and equipment	2. Refurbishment and renovation programme	No programme
OUTPUTS			
1.1 Department of Agriculture to complete a training needs analysis for laboratory staff	List of training needs	Needs analysis report	Needs analysis not conducted or poorly performed
1.2. Department of Agriculture to approve and develop the training programme	Approval for training programme Training programme developed	Training programme	Failure to approve training programme Failure to develop training programme
1.3. Identify potential donors to fund training programme	Donors identified	Commitment by donor	Failure to identify suitable donors
1.4 Department of Agriculture to implement training programme	Classes begin Examinations	Completion of training programme by laboratory staff	Failure to complete training programme
1.5. Monitoring and evaluation of training programme	Monitor and evaluate	Evaluation report at end of first training cycle	Unsatisfactory evaluation Loss of interest by laboratory staff
2.1 Department of Agriculture to complete a	Evaluation of current facilities and equipment	Inventory list	Failure to complete an inventory list Inventory list



inventory of conditions of laboratories and outdated and unserviceable equipment			incomplete/ inaccurate
2.2. Develop Refurbishment and renovation programme	Refurbishment and renovation programme	Refurbishment and renovation report	Failure to develop Refurbishment and renovation programme
2.3 Identify potential donors to fund purchase of new equipment	Donors identified	Commitment by donor	Failure to identify suitable donors
2.4. Purchase and installation of new equipment	New equipment purchased	New equipment installed	
COMPONENT : 3.1 HUMAN RESOURCES AND FACILITIES			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISKS
Create awareness and develop skills in marketing and export of agricultural produce	1. Awareness campaign for SPS and other requirements for market access 2. Marketing and Business programme for farmers, exporters and decision makers to increase market access	National Awareness campaign Marketing and Business Programme	
OUTPUTS			
1.1 Identify lead department for awareness campaign	Identification of lead department	Lead department identified	Failure to identify lead department
1.2. Meeting	Support for	Minutes of	Campaign not



between stakeholder departments and role-players in the private sector to discuss need and content of campaign	campaign	meeting	supported
1.3 Development of campaign programme and identification of funding source(s)	Campaign programme finalised Identification of funding source	Draft campaign programme Funding source identified	Failure to develop campaign programme or identify funding source
1.4 Approval and implementation of campaign programme	Draft campaign programme approved and implemented	Campaign programme implemented	Failure to approve campaign Failure to implement campaign
1.5. Monitoring and evaluation of campaign	Campaign monitored and evaluated	Evaluation report	Unsatisfactory evaluation Loss of interest by role-players
2.1 Identify lead department for marketing and business programme	Identification of lead department	Lead department identified	Failure to identify lead department
2.2. Meeting between stakeholder departments and role-players in the private sector to discuss need and content of programme	Support for programme	Minutes of meeting	Programme not supported
2.3.	Marketing and	Marketing and	Lack of agreement on

Development of marketing and business programme	Business programme finalised	Business programme content	content of Marketing and Business programme
2.4. Identification of potential donors and/ or service providers	Donors/ service providers identified	Report by lead department	Failure to identify suitable donors and/or service providers
2.5. Selection and approval of appropriate donor and/ or service provider	Contracts with relevant donor/ service provider	Contracts	Failure to conclude contract
2.6. Selection of target groups	Invitation to target groups	Invitation accepted by target groups	Failure to select appropriate target groups Lack of interest from target groups
2.7. Presentation of marketing and business programme to target groups	Presentation(s) delivered to target group	Target group attends presentation	Poor attendance of presentation by target group
COMPONENT : 3.1 HUMAN RESOURCES AND FACILITIES			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISKS
Department of Agriculture - Training for specialists in fields related to SPS services	To train SPS specialists in the fields of entomology, nematology and plant pathology	Trained specialists	Failure to train specialists in fields related to SPS services
OUTPUTS			
1.1 Department of Agriculture to complete a needs analysis for SPS specialists and	List of posts and training required	Needs analysis report	Needs analysis not conducted or poorly performed



training			
1.2. Department of Agriculture approve posts and training required	Approval of posts and training	Amended post structure Training requirements approved	Failure to approve post structure Failure to approve training required Lack of funds to create post structure or training
1.3. Identify potential donors to funding of PRA training programme	Donors identified	Commitment by donor	Failure to identify suitable donors
1.4. Advertise posts available	Advertising of available posts in media	Advertisements in media	Failure to advertise
1.5 Applications received and processed	Applications received Applicants interviewed	Applications Interviews	Poor response to adverts Failure to identify suitable applicants
1.6. Appointment of suitable applicants	Applicants appointed	Post filled	Failure to fill posts
1.7. Identify appropriate training centre and potential staff members for training	Training centers identified Staff members identified	Trained SPS specialists	Failure to identify suitable training centers Failure of staff to complete training
1.8. Monitoring and evaluation of training programme	Monitor and evaluate	Evaluation report	Resignation of trained staff
COMPONENT : 4 PEST RISK ANALYSIS			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISKS
Develop a pest risk analysis (PRA) system for	1. Develop standards and standard		



Malawi	<p>operating procedures for PRA</p> <p>2. To create posts for PRA specialists</p> <p>3. To train PRA specialists</p>		
OUTPUTS			
1.1 Develop standards and standard operating procedures for PRA based on ISPM's and available regional standards for phytosanitary measures	<p>Analysis of ISPM's and available regional standards for phytosanitary measures</p> <p>Develop national standards and standard operating procedures for phytosanitary measures</p>	National standards and standard operating procedures	Failure to develop national standards and standard operating procedures
2.1.Needs analysis of posts required for PRA	Evaluation of current posts and future needs	List of posts required	Failure to do needs analysis
2.2.Department approves establishment of new post structure	Amendment of current post structure	New post structure	Failure of department to approve new post structure
2.3. Recruitment of appropriately qualified staff	Selection and recruitment	Newly appointed staff	Failure to recruit appropriate staff
3.1 Department of Agriculture to complete a training needs	List of training needs	Needs analysis report	Needs analysis not conducted or poorly performed

analysis for PRA staff			
1.2. Department of Agriculture to approve and develop the training programme for PRA staff	Approval of training programme Training programme developed	Training programme	Failure to approve training programme Failure to develop training programme
1.3. Identify potential donors to funding of PRA training programme	Donors identified	Commitment by donor	Failure to identify suitable donors
1.4 Department of Agriculture to implement training programme	Classes begin Examinations	Completion of training programme by PRA staff	Failure to complete PRA training programme
1.5. Monitoring and evaluation of PRA training programme	Monitor and evaluate	Evaluation report at end of first training cycle Trained PRA specialists	Unsatisfactory evaluation Loss of interest by laboratory staff
COMPONENT : PHYTOSANITARY LEGISLATION			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISKS
Amended legislation (Bill and regulations) approved and implemented	Amended Plant Protection Act and supporting regulations	PS Agriculture to PS Justice	Outdated legislation
OUTPUTS			
1. Develop a status report of the document's status	Status report	Assess evidence of document report and responsible person	Documents misplaced Document pending
1.1 Head of	Email and letter	Evidence of	



NPPO request Director Agricultural Research Services to petition PS from Ministry of Agriculture should petition the PS of Justice to find out if it is still under technical review		email and letter	
1.2 PS Agriculture requests PS Justice to expedite submission of Bill to Cabinet for approval	Letter	NPPO – Director – PS Ministry Agriculture follow up progress (track process)	
1.3 Cabinet forward to Parliament for enactment		NPPO – Director – PS Ministry Agriculture follow up progress (track process)	Rejection of Bill Returned for amendment
1.4 Parliament Tabling Bill		NPPO – Director – PS Ministry Agriculture follow up progress (track process)	Delays in tabling
1.5 Parliament enact Act		NPPO – Director – PS Ministry Agriculture follow up progress (track process)	Rejection Returned for amendment
1.5 Publication of Act and regulations in Government			



Gazette			
COMPONENT : INSPECTION SYSTEMS AT POINTS OF ENTRY AND EXIT			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISKS
Department of Agriculture to develop a construction/ renovation programme to provide suitable buildings/ offices at all points of entry and exit for SPS activities	Funding approved for construction programme	Improved accommodation for SPS activities	Lack of funding
OUTPUTS			
1.1 Department of Agriculture to complete a needs analysis for buildings/ offices at all points of entry and exit and prioritise	Evaluate current status of buildings/ offices at all points of entry and exit Draw up priority list	Needs analysis report	Needs analysis not conducted or poorly performed
1.2. Department of Agriculture obtain funding for construction/ renovation programme	Funding requested	Funding obtained	Lack of funding
1.3. Develop an implementation plan according to determined priorities	Action plans according to priorities and budget	Implementation plan	Failure to draft implementation plan
1.4 Implementation of construction/ renovation	Implementing action plans	Completion of action plans	Failure to implement



programme			
1.5. Monitor and evaluate progress of construction/ renovation programme	Monitor and evaluate progress	Evaluation report	Withdrawal or re-allocation of funding Shortage or unavailability of building materials Poor road infrastructure
COMPONENT : 5 SURVEILLANCE			
OBJECTIVE	KEY INDICATORS	MEANS OF VERIFICATION	ASSUMPTIONS/RISKS
Department of Agriculture to increase the availability of transport for surveillance purposes	Funding approved for acquisition / repair of vehicles Purchase and/ or repair of vehicles	Increased transport resources	Lack of funding Failure to purchase and/ or repair vehicles Inappropriate allocation of vehicles Vehicles assigned to other duties
OUTPUTS			
1.1 Department of Agriculture to complete a needs analysis for transport requirements for surveillance	Evaluate current status of available transport	Needs analysis report	Needs analysis not conducted or poorly performed
1.2. Department of Agriculture approve additional funding to purchase and / or repair vehicles	Approval of funding	Funds available for purchase and repair of vehicles	Lack of funding
1.3. Purchase and allocate transport	Purchase vehicles Allocate vehicles	Additional vehicles available for surveillance	Insufficient vehicles purchased Purchase of vehicles delayed Inappropriate allocation of vehicles Vehicles assigned to other duties