A Proposal for Phytosanitary Capacity building strategy in Africa

Technical report

Maghespren Chinappen

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Contents

Acronyms

AUC	African Union Commission
CAADP	Comprehensive Africa Agriculture Development Programme
CABI	Commonwealth Agricultural Bureau
CIBC	Commonwealth Institute of Biological Control
FAO	Food and Agriculture Organisation
FTA	Free Trade Agreement
IAPSC	Inter- African Phytosanitary Council
IPPC	International Plant Protection Convention
IFPRI	International Food Policy Research Institute
IRIA	International Research Institute Africa
LDC	Least Developing Countries
NEPAD	New Partnership for Agriculture Development
NPPO	National Plant Protection Organisation
REC	Regional Economic Communities
RO	Regional Organisation
RPPO	Regional Plant Protection Organisation
SPS	WTO agreement of Sanitary and Phytosanitary measures
USDA	United States Department of Agriculture
WARDA	West Africa Rice Development Association

Executive Summary

1. To be able to benefit from the Multilateral Trading System and to face the challenges of the world food crisis, the Inter African Phytosanitary Council IAPSC has taken the advantage of a Standard Trade Development Facility STDF grant to develop a strategy for phytosanitary capacity building in Africa.
2. The project is divided in 3 phases
3. (1st and 2nd Phases have been completed)

1st Phase - Selected experts (African focus group) from National Plant Protection Organisations NPPOs have discussed the outputs from the International Plant Protection Convention IPPC Open Ended Working group OEWG on Building National Phytosanitary Capacity and have developed the structure for a full proposal.

2nd Phase - 2 participants of the African focus group attended the OEWG meeting, and later reported to the focus group on the OEWG outputs.

3rd Phase (Present report)

Proposal preparation including stakeholder consultations at national level and finally the proposal finalization and promotion.

4. The African Focus group meeting was held from 18 – 20 March 2009 at the Kenya Plant Health Inspectorate services KEPHIS Nairobi, Kenya. The focus group meeting identified the following eight priorities for a Phytosanitary Capacity Building for Africa.

- Awareness, advocacy, resource mobilization - Many stake holders underestimate the importance of effective phytosanitary systems, so resources are inadequate

- Policy, regulations – Strong phytosanitary systems need up-to-date policy, legislation, which are understood and implemented by stake holders.
- Roles and mandates of regional and sub regional organisations – The relative roles of regional economic communities. IAPSC and other organisations need clarifying, and their capacity developed.
- Human resources – capacity development is required in technical, administrative, financial and management skills. National Plant Protection organisations must be adequately staffed to fulfil their role.
- Infrastructure, facilities, equipment: Hard infrastructure *per se* cannot make a phytosanitary system strong, but an effective phytosanitary system needs certain specific facilities.
- Surveillance, emergency response, risk analysis: procedures to analyse and reduce the risk of new pests entering a country are essential. Only if outbreaks are detected and responded to quickly is there any chance of eradication.
- Import and export control systems: close control of imports and exports reduces risks of new pests entering and maintains the confidence of trade partners.
- Standard setting and implementation: African countries need to be actively involved in setting international standards, so that their interests are served. Plus capacity to implement standards often underpins market access.

4**.** In this present report I have examined the recommendations of the Focus group together with 3 items that I consider important (i) Coordination mechanism (ii) Networking and information exchange (iii) Monitoring and evaluation of program. I have suggested a certain number

of actions to be taken for each step forward. A background to each proposal has been given together with the institutions which may be called upon to carry the tasks.

5. It is understood that there are numerous difficulties in the system, however if necessary resources are made available these problems could be overcome. The work to be carried out has to be well coordinated, consistent and sustainable.

6. The collaboration and support of the community are essential to any effort to improve the system. There should be regular consultation with the stakeholders mainly producers/exporters/importers and Businesses in general.

Decision on phytosanitary matters cannot be taken in isolation

7. There is need to improve the communication system, to have adequate and long term investment in infrastructure including Information Technology, appropriate funding for staff. Paper work has to be eliminated and replaced by electronic system

8. Research efforts, to develop new techniques to better manage phytosanitary risk should be encouraged

9. Appropriate Level of Protection ALOP should be developed by each country and should be least trade restrictive

10. I have tried my best to separate Phytosanitary to Crop Protection issues but these 2 subjects are so much related that it I could not avoid overlapping

Recommendations

- That this report and that of the African focus group report be used to support the preparation of the project document regarding the topics identified
- That the IAPSC takes the initiative in collaboration with the REC and IPPC to prepare the project write up
- The project document should indicate the financial requirements needed to implement the projects
- To enlist support from the National Governments, the private sector and Agric businesses to the proposal
- That the AUC calls a donor's meeting in order to rally support to the projects. The donors to include the EU,World Bank, African Development Bank and other financial institutions already working in Africa and others
- To study how costs could be recovered from businesses benefiting from the new strategy for example increase of passengers movement charge and others
- In developing this cost recovery system, the AUC should consult with business groups
- Programs to be implemented at National level should be done through the national budget, as this funding is considered to be community service obligation
- Some projects need to be supported at the continental level by the AUC and by the FAO, for example the awareness and advocacy campaign, the setting of the information technology and business systems, the cost of auditing the national phytosanitary systems, cost of running

regional laboratories and Phytosanitary centre of excellence (to be sustained for example by a cost recovery mechanism).

- What is important in the project write up, is to indicate what part of the strategy needs to be funded by the National Government through its own initiatives, and what needs to be funded by the AUC/IAPSC/REC /FTA/FAO (mainly for phytosanitary action to be taken at level of the continent/region)
- The FAO/IPPC be given the necessary financial support to continue its work at the global level and also to play its role as a standard setting organisation, this in line with the WTO SPS agreement (provision of technical assistance)
- The FAO/IPPC to strengthen its partnership with the IAPSC and the NPPOs and assist fully in the implementation of this strategy for Phytosanitary capacity building in Africa
- It is important that any proposal should be sustained; this should be well reflected in the project write up and taken on board in all discussions.

ACKNOWLEDGMENTS

My gratitude goes to the Director of the Inter-African Phytosanitary Council IAPSC for having entrusted this work to me. I wish also to thank Prof. Jean Baptiste Bahama of IAPSC and Dr Roger Day of CABI, Mr Melvin Spreij and Ms Kenza Le Mentec of the STDF for their assistance and guidance throughout this exercise.

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A STRATEGY FOR PHYTOSANITARY CAPACITY BUILDING IN AFRICA

1. INTRODUCTION

Over one billion people experience the hardship that hunger imposes, a figure which continues to rise. Engulfed within a vortex of population growth, economic instability, and climate change, food security has become an urgent challenge for national and global governance in order to accelerate poverty reduction and improve economic performance of developing countries.

Agriculture is a crucial economic activity for most African countries, providing employment, livelihoods, and well-being of up to 70 percent of the population. Agriculture provides the opportunities to address extreme poverty in Africa, and is not limited to subsistence food crops and livestock production but includes crops grown for sale, such as tobacco, cotton and flowers. Most agricultural households rely to some extent on sale of agricultural products.

Production of vegetables, fruits, and cut flowers in sub-Saharan Africa now exceeds US$2,000 million; this is only 4 percent of the global total. Significant opportunities for expansion, therefore, exist in Africa to boost employment as well as foreign currency earnings.

Among the numerous constraints to crop production, the damage caused to crops by plant pests contributes significantly to the reduction of crop yield. Thus, for many, their livelihoods are directly affected by any environmental changes, both sudden and gradual, which impact on agricultural productivity such as an attack by plant pest.

Controlling the introduction, dissemination, establishment, and resurgence of plant pests is becoming of absolute necessity for better crop production.

Phytosanitary control has become more complex and challenging in recent years, mainly due to (1) Globalization, more movement of agricultural goods from one country to another (2) Population spread, growth in tourism, global movement of genetic material (3) Climate change adding to the spread of pests, there are scientific evidence showing that the number of disease outbreaks is increasing, and a wide variety of weeds, insects and pathogens are migrating into new areas. (4) Shortage of highly qualified plant pests professionals, people moving to more attractive career alternatives (5) Physical constraints, difficulties to have proper control at border points particularly in Africa where the inland borders are long and porous (6) Financial constraints on account of low resources put at the disposal of the various phytosanitary services (7) Resistance to Pesticides (8) High cost of phytosanitary control.

Australia, which views entry of exotic pests into its territory with great concern and is putting enormous resources to enforce its Biosecurity system, has on several occasions failed to prevent the entry of exotic pests on its territory. Tables below show the number of incursions detected and the cost of eradication in a country reputed for its Biosecurity measures, this to give an idea of the importance of preventing the entry of exotic pests in countries where biosecurity measures are inadequate.

Table 1 - shows the incursions which occurred from 1971- 1995 * in Australia

Year	Plant pathogen		Insect pest	Weeds/plants naturalized
1971-95	562		45	290

Table 2 - shows the approximate cost of control and eradication of plant pests in Australia between 1977 and 1992.

Program	Approx costs (amounts in $ 000 Aus.)
Giant African snail	6.5
Green snail	476.1
Ware house beetle	991.5
Citrus canker	60.0
Black sigatoka	18.3
Potato cyst nematode	432.3
Moko disease	19.1

2. CROP LOSSES DUE TO PESTS

Knowledge of crop losses in Africa due to pests is limited. A comprehensive study of pest-induced crop losses to date was published by a team of German crop scientists in 1994, (Oerke et al. 1994)*. It does not cover some important food crops, such as cassava, millet, and sorghum grown in Africa, the study found that pests accounted for pre harvest losses of 42 percent of the potential value of output over 1988–90, with 15 percent attributable to insects and 13 percent each to weeds and pathogens. An additional 10 percent of the potential value was lost postharvest.

The breakdown of plant disease losses in monetary terms and percent by region and crop is shown in Tables 3 and 4. Losses due to plant diseases vary from 9.7 in North America to 15.7 percent in Africa.

Table 3—Estimated crop losses due to plant diseases by region, 1988–90

Region	US$ in billion	Percent of potential production
Asia	43.8	14.2
Former Soviet Union	8.2	15.2
North America	7.1	9.7
Latin America	7.1	13.5
Europe	5.8	9.8
Africa	4.1	15.7

Source: Oerke et al. (1994).

Table 4—Estimated crop losses due to plant diseases by crop, 1988–90

Crop	US$ in billion	Percent of potential production
Rice	33.0	15.1
Wheat	14.0	13.6
Potatoes	9.8	16.4
Maize	7.8	10.9

Source: Oerke et al. (1994).

Another example of economic loss to plant disease is that caused by fruit flies.
Based on volume of trade and phytosanitary restrictions the Mediterranean fruit fly is estimated to cause economic loss of more than $ 800 million per year if it becomes established in the United States. It is projected that the economic impact (production as well as trade losses) of the endemic Mediterranean fruit fly and the newly introduced peach fruit fly in Egypt to be $ 100 million per year. A similar exercise carried out in Pakistan on *Bactrocera dorsalis* and *B.zonata* indicated losses approximating the $ 200 million annually.
Lost of trade is also being encountered by many African countries following the imposition by a US Federal Import Quarantine Order (2009) restricting imports of crops e.g. Banana, Mango,Tomato,Bellpepper,Squash susceptible to harbor the fruit fly *Bactrocera invadens.*

BENEFIT/ COST OF PEST ERADICATION PROGRAMS

The benefit accruing from control of fruit flies in terms of value of crop production and the continuation of export is considered significant, a study of the economic feasibility of eradicating the carambola fruit fly in the Caribbean region shows net benefits of between $ 709 million and $938 million (1995 value) over a 12 year period.

A model developed to assess the potential economic impact that could result from the spread of *T. Palmi* from an outbreak site in the UK had an eradication policy been followed has shown that the benefit/cost ratios to be from 4:1 to 19:1 depending upon the rate of spread and whether impacts are low or high, which show that the policy of eradication was justified. (MacLeod et al.2004)*

The two above examples show that the policy of pest eradication is justified and should be supported financially and otherwise.

3. PHYTOSANITARY CONTROL IN AFRICA

HISTORICAL

Most of the African countries have inherited administration put in place before independence, which to certain extent has safeguarded the plant health and plant life of the different countries. There were Departments of Agriculture and Divisions like Plant Pathology, Entomology, Herbology, Agricultural Chemistry, and also Plant Quarantine. After independence with the coming into force of the International Plant Protection Convention IPPC adopted by the Food and Agricultural Organization FAO Conference of 1951, the global approach and harmonization of phytosanitary measures started to take shape, for example the setting up of a common format for Phytosanitary Certificates, securing common action to prevent the spread of pests of plants and plant products, providing guidelines regarding phytosanitary matters and other relevant actions to be taken by National Governments in the implementation of plant quarantine.

The IPPC also promotes cooperation among countries aimed at preventing the movement of serious pests through the activities of international trade. As a result a number of regional plant protection organizations RPPOs covering the various geographical areas of the world were set up. The Inter African Phytosanitary Council IAPSC was thus established under the aegis of the Organization of African Unity (The African Union). The IAPSC provides a forum for African Countries to promote their views on plant health and plant life globally.

The 1995 WTO SPS agreement was set up to remove unnecessary, unjustified, and arbitrary pressure on international trade among others in

plants and plant products. The situation became new to the various stakeholders, e.g. New themes like transparency, scientific justification, notifications, inquiry points, risk analysis, standards are now the guiding principles.

The technical and organizational capacity of the various organizations at national, regional, or international levels is thus facing numerous challenges particularly in implementing the various agreements under the multilateral trading system.

4. STRENGTH OF THE AFRICAN PHYTOSANITARY SYSTEM

There has been a large positive shift in global investment perceptions towards agriculture in Africa, driven by the global race for resources and food. The number of investment projects in the agricultural sector in sub-Saharan Africa is at its highest levels. International buyers are constantly seeking agricultural products in the region; there is nowadays huge demand for agricultural products from all areas of Africa.

The investment would surely be used to protect crops against pest for better crop production. Africa has also a considerable number of capable researchers in the field of crop protection, information technology has reached all the research institutions, and a number of world recognized International Institutions have placed their antenna in the different zones of the continent, the availability of these resources and services are of great help to the development of Agriculture in Africa.

5. CHALLENGES (WEAKENESSES) OF THE PHYTOSANITARY SYSTEM IN AFRICA

Phytosanitary capacity evaluation has shown that developing countries suffer intrinsic difficulties in the implementation of the IPPC and associated standards, for lack of public and political awareness, obsolescence of regulatory framework, deficiencies in institutional aspects (authority, obligation, sustainability), deficiencies in management and availability of operational documented procedures, deficiencies in international/regional liaison, insufficiencies in technical skills, deficiencies in infrastructure and equipment.

Many African countries are now embarking on ambitious program of producing crops for export, particularly in the context of scarcity of agricultural land and rising energy cost in the importing countries. The challenges to meet the export market exigencies are numerous; one of them is the WTO Agreement on Sanitary and Phytosanitary measures (SPS). It is essential in order to remain competitive on the international market that African countries ensure that their SPS measures are in line with this agreement.

There are numerous internal and external constraints to overcome in order to meet the requirements of the importing markets among others, inadequate transport and other infrastructure supporting effective competition in export markets, high concentration on a few export commodities as principal export earners, lack of adequate institutional and human capacity to analyze and eliminate barriers to export growth, weak understanding of export market regulations, product standards, and consumer preferences; lack of specific, up-to-date market information.

The external factors are related to trade-related barriers, including tariffs, country and product quotas, trading pacts and preferential accords, weak or variable demand in international markets for the commodity-based export menu offered by most LDCs, strict phytosanitary, health, and quality standards and frameworks in industrialized countries, industrialized country-oriented environmental and labor regulations applied to products from LDC.

6. OPPORTUNITIES

Significant opportunities for expansion in the production of vegetables, fruits, and cut flowers exist in Africa to boost employment as well as foreign currency earnings.

One of the major responses is the Comprehensive Africa Agriculture Development Programme (CAADP), which was endorsed by African governments in late 2002 in the context of the New Partnership for Africa's Development (NEPAD). The CAADP has three immediate "pillars" and one long-term pillar which together can help tackle Africa's agricultural crisis. The mutually reinforcing pillars on which to base the immediate improvement of agriculture, food security, and trade balance are:

- **Extending the area under sustainable land management and reliable water control systems, Improving rural infrastructure and trade-related capacities for market access, Increasing food supply and reducing hunger, Agricultural research, technology dissemination and adoption**

A recent study at IFPRI projects shows that doubling the productivity of food staples in Africa by 2015 has the potential to raise average GDP growth to 5.5 percent per annum, lift over 70 million people out of poverty, and turn Africa from a food-deficit region to a surplus region with 20 to 40 percent lower food prices (Diao, Fan, Headey, Johnson, Nin-Pratt and Yu 2008)*.

The recent food price crisis is a potential opportunity that could promote a supply response in agriculture.

Post-independence regional economic integration and cooperation efforts resulted in a variety of initiatives, due to the fact that the continent is facing a number of major challenges, notably globalization and the changing global economic and political environments, to which enhanced cooperation and integration constitute an appropriate response. With the emergence of the New Partnership for Africa's Development, Africa's regional economic Communities now have a more prominent role to play on the Continent's integration process.

African regional economic communities (RECs) have a significant role to play, as they are the main institutions expected to implement NEPAD's programs... Given the nature of the Continent's economies, regional cooperation and integration are important for facilitating the integration process. The success of the European Union (EU) since the 1950s bears a strong testimony to the potential benefits of regional integration.

It is understood that major activities related to national capacity building will come through the Regional Economic Communities REC or Free Trade Agreements FTA

7. THREATS

Climate change is emerging as a major threat to agriculture development in Africa. The increasingly unpredictable and erratic nature of weather systems on the continent has placed an extra burden on food security and rural livelihoods. Scientific evidence shows that the number of disease outbreaks is increasing, and a wide variety of weeds, insects, and pathogens are migrating to new areas.

Another threat to better crop protection is the impact of AIDS on farming but it is clear that the epidemic is undermining the progress made in the last 40 years of agricultural and rural development with a reduction of labor force. The disease is no longer just a health problem it has become a major development issue.

8. DEVELOPMENT OF A STRATEGY FOR PHYTOSANITARY CAPACITY BUILDING IN AFRICA

To develop such a strategy for phytosanitary capacity building in Africa the IAPSC benefited from a Project Preparation Grant by the STDF to prepare a proposal on phytosanitary capacity building for Africa.

The main steps of the project are

1. An African focus group meeting of selected experts from African NPPO's to discuss outputs from IPPC Open Ended Working group on Building National Phytosanitary capacity OEWG and to develop the structure of the full proposal
2. Participation of 2 participants at the OEWG, who will later attend the African focus group to report on the meeting and outputs.
3. Proposal preparation including stakeholder consultations at national level and finally the proposal finalization and promotion.

Items 1 and 2 have been completed and we are now at step 3.

9. RECOMMENDATION OF AFRICAN FOCUS GROUP MEETING (FIRST STEP)

The Focus group meeting was held from 18 – 20 March 2009 at the Kenya Plant Health Inspectorate services KEPHIS Nairobi, Kenya. The focus group meeting identified the following eight priorities for a Phytosanitary Capacity Building for Africa.

1. Awareness, advocacy, and resource mobilization- Many stake holders underestimate the importance of effective phytosanitary systems, so resources are inadequate
2. Policy, regulations – Strong phytosanitary systems need up-to-date policy, legislation, which are understood and implemented by stake holders.
3. Roles and mandates of regional and sub regional organisations – The relative roles of regional economic communities. IAPSC and other organisations need clarifying, and their capacity developed.
4. Human resources – capacity development is required in technical, administrative, financial and management skills. National Plant Protection organisations must be adequately staffed to fulfil their role.
5. Infrastructure, facilities, equipment: Hard infrastructure *per se* cannot make a phytosanitary system strong, but an effective phytosanitary system needs certain specific facilities.
6. Surveillance, emergency response, risk analysis: procedures to analyse and reduce the risk of new pests entering a country are essential. Only if outbreaks are detected and responded to quickly is there any chance of eradication.

7. Import and export control systems: close control of imports and exports reduces risks of new pests entering and maintains the confidence of trade partners.
8. Standard setting and implementation: African countries need to be actively involved in setting international standards, so that their interests are served. Plus capacity to implement standards often underpins market access.

10. PROPOSAL FOR PHYTOSANITARY CAPACITY BUILDING

A. Awareness, advocacy, resource mobilization

For a phytosanitary system to work effectively people have to understand its objectives. Apart for application of pesticides to control pest, awareness of phytosanitary programs are inadequate in Africa. The community needs to be educated in order to assume its responsibilities, it is important that this education starts at young age, the primary school children should be given information on phytosanitary issues using modern way of communication. The public/ farmer, policy makers, Government officials and the general public should be taught for example on how to be responsible as a traveller, on how to identify major pest (to help in containment/early eradication programs, in Pest Risk Analysis and Certification), on how to establish and maintain Pest Free Areas, on the benefit of adopting Good Agricultural Practices. A successful phytosanitary system should have clear objectives and requires the support of the community. It should be made clear how the system is helping the agricultural economy by contributing to food security and protecting the environment.

It is essential for an organisation running a phytosanitary system to have a good line of communication with policy makers and to have a corporate plan reflecting Government policies Regular reports and annual reports on the activities of the organisations have to be made available.

Diffusing of messages has to be well coordinated, reflecting the National /Regional / Continental strategies. The costs of running such a system being heavy, they have to be shared with producers, exporters, importers and the private stake holders. To gather support to phytosanitary policies and programs a consultative process, involving the public has to be established.

Taking decision in isolation on phytosanitary matters will not serve the purpose.

<u>Action proposed</u>

Setting up of an awareness campaign to be developed by a Professional Public Relations Agency, using the following

- Television advertising,
- Internet, brochures, pamphlets, posters,
- IAPSC bulletins,
- Education of school children - preparation of an educational kit on phytosanitary matters,
- Regular appraisal campaign through meetings with farmers, exporters, importers, Government officials, Policy makers, Shipping agents, Tour operators other stake holders,

- A process of regular consultation with the community should be established, so that the public is made aware of major issues and participate in developing strategies to deal with these issues.

- Businesses to be brought closely to decision making

- The communication program should be well coordinated and consistent

- The SPS Notification authorities and the SPS inquiry points have to be given the necessary tools, so that they can inform the public on issues pertaining to international trade. They should be able to bring all stake holders together to discuss decisions taken at international level, this would keep the people in the trade to be always on the alert
- Creation of Reference Centers in all countries to diffuse SPS matters
- Creation of additional Centers of excellence like COPE to offer training course on phytosanitary matters, these centers should be sustained
- Activities to be ongoing and reviewed every three years.

Agency responsible IAPSC
Collaborators IPPC, R.O (Regional Organization), REC, NPPO, IRIA (International Research Institution in Africa)

B. Advocacy

To function properly any system needs financial and physical support; in this context it is of utmost importance to lobby and convince Head of States, Finance /Agricultural Ministers and Donors on the importance of having a phytosanitary system that is reliable, contributing to the economy and meeting the country's international obligation

Action proposed

An active campaign (with assistance of a Professional Public Relations Agency), targeting Head of states, Ministers of Finance and Agriculture, Agribusiness leaders and the community at large. For example the following could be done

- That an exhibition be laid down on the role of Pest in agricultural productivity, on the importance of appropriate phytosanitary measures needed for the improvement of food production particularly in the context of food crisis. The exhibition could be held at African Union Heads meetings/summit.
- Those NPPOs organize a Phytosanitary day/week in line with FAO World Food Day, under the patronage of the highest office of the country. The event should be given wide publicity. This Phytosanitary day/week should be kept as a national annual event.
- The adoption of a continental symbol for phytosanitary matters
- The various stakeholders benefiting from a reliable phytosanitary system should be encouraged to show to the community how they are contributing to the growth of the economy by adopting the right measures or standards. The exhibition should also show the costs resulting from phytosanitary breaches and the benefit if things are done properly.

Agency responsible AUC

Collaborators RECs, IPPC, IRIA

C. Resource mobilization

It is becoming more and more evident that resources put at the disposal of the phytosanitary sector by National Governments are declining due to lack of resources. The situation is alarming considering that pathways for pest introduction and spread, such as traveling passengers, volume of agricultural commodities being transported from one country to another have substantially gone up in the recent years. Climate change is another factor which is contributing to pest aggressiveness.

Expenditure by National Governments on phytosanitary system is insignificant to the value of the resources it protects.

Financial and other support have to be put at the disposal of the phytosanitary sector so that it can meet the present and future challenges.

Action proposed

- **A Study/ Audit of resources be carried out taking into consideration the specificities of the African countries, to review the whole phytosanitary system and set out resource priorities, for example it is unconceivable that resources are being given to inland border control when the frontiers are permeable. These resources could be put at disposal of other crucial sectors for example in building teams to do Pest Risk Analysis PRA.**
- **This study to include identification of other sources of funding also, for example through :**

- A cost recovery system - that is, those who need the system should contribute to the cost e.g. the importers and exporters. The importers subjecting the services to the risk of importing exotic pests through agricultural commodities, and the exporters to ensure that goods exported are in line with international obligations
- a tax being imposed on travelling passengers, taking into consideration the work load associated with the increased number of passengers and volume of agricultural commodities passing through the port of entries
- An increase in National Government contribution as a service provider and on how to seek commitments by Governments to budgetary funding of phytosanitary activities.

Agency responsible AUC

Collaborators RO, REC, NPPO

D. Policy, Legislation, Regulation

African countries are all members of the IAPSC owing to their adherence to the African Union; The Convention defines the phytosanitary norms in line with the IPPC, and offers clear guidelines for implementation of phytosanitary measures.

Policy, Legislation, Regulations are responsibilities of National Governments and they differ from country to country, some countries have inherited the English system others have French system and one or 2 countries like Mozambique and Angola have a Portuguese system.

Recently with the coming up of groupings like the SADC, COMESA and other Economic Communities like the EAC, attempts are being made to harmonize through protocols the legislation of the countries of same groups in order to improve intra and extra trade.

Action proposed

That the legal section of the FAO be requested to take the lead to review and make recommendations in order to

- Harmonize the present legislation of the different countries so that the international obligations of countries as member of the IPPC and the WTO are reflected.
- improve coordination and consistency mechanisms at the continental level; situate responsibilities of the countries in relation to the IAPSC, on how the IPPC, IAPSC could strengthen their capacity as per their charters in order to determine policy as regards to issues pertaining phytosanitary matters. On how the IAPSC could be reorganized and supported to make it more active in coordinating phytosanitary activities of the continent for example on issues related to Risk Assessment and Risk Management, Import policies.
- Evaluate performance of the legislation every 10 years

Agency responsible AUC / IAPSC

Collaborators FAO, IPPC, NPPO

E. (1) Roles and mandates of regional and sub regional organisations .The relative roles of regional economic communities, IAPSC and other organisations need clarifying, and their capacity developed.

THE ROLE OF THE FAO/IPPC

The International Plant Protection Convention IPPC was adopted by the FAO Conference of 1951, its main objectives is to secure common effective action to prevent the spread and introduction of pests and diseases of plant and to promote the measures for their control.
The IPPC describes the principles of plant quarantine and the relevant action to be taken by national governments in the implementation of plant quarantine. The IPPC promotes the cooperation among countries aimed at preventing the movement of serious pest that could spread through the activities of International trade. The IPPC provides the rules for harmonisation of trade in plants and their products. International standards recognised by the WTO are developed and agreed upon by member countries through consultations with member countries and the Regional Plant Protection Organisations.

It is recognised that the FAO will continue to play a crucial role regarding implementation of its mandate, among others to

1. Assume its leadership role in the promotion of safe exchange of agricultural goods at the Global level and to protect the global economy against unwanted pests

2. Provide for technical and scientific expertise in the phytosanitary field to its members
3. Support infrastructure improvement
4. Provide for legal advice
5. Mobilse resources for funding of agricultural projects through e.g. creation of trust funds
6. Set standards on phytosanitary measures through the process of consultation.
7. Act as a dispute settlement body
8. Help the RPPOs in their activities by providing for resources and technical knowhow
9. Assist in case of invasion by pest
10. Provide for assistance in the use Phytosanitary Capacity Evaluation tools
11. Help in training technical and scientific staff of the phytosanitary sector
12. Provide risk analysis materials to member countries
in the fields of Risk analysis, Risk management and Risk communication.
13.Collect and diffuse phytosanitary and related information
14. Provide for a forum to discuss global phytosanitary issues

IAPSC

The Convention binding African countries members of the African Union followed RESOLUTION CM/RES. 119 (IX) AMENDED BY AFRICAN UNION COUNCIL OF MINISTERS at its Ninth Ordinary Session held in Kinshasa – September 1967.Under this Convention members of the African Union have among others the responsibility to follow policy and guidelines offered by this Convention, for this purpose the InterAfrican Phytosanitary Council IAPSC was created. The IAPSC is the only recognised body in Africa responsible for collecting information on the phytosanitary activities of its members; it has also the responsibility to formulate and recommend any activity likely to lead to the implementation of the objectives of the convention. The IAPSC is the RPPO with the largest number of countries - fifty three.

To perform its function effectively and sustainably in order to protect plant and plant products from pests and to facilitate trade the IAPSC is strongly linked to the IPPC, and collaborate in all IPPC activities for example in the setting of Phytosanitary capacity building strategy in Africa identified by the (OEWG-BNPC, Dec 2009) that is in National phytosanitary planning, Standard setting and implementation, Coordination and communication Resource mobilization and management, Advocacy, Sustainability, monitoring and evaluation of capacity building.

With 53 countries to look after, it is difficult for the IAPSC to function effectively. There is also the financial problem associated with running such a big organisation.

REC/FTA

The Regional, Sub Regional and other Regional Economic Communities REC/FTA of Africa group countries aim at: increasing intra trade, creation of Customs union, collaboration in the advancement of science, removal of unnecessary non tariff barriers such as unjustified SPS measures.

A number of these organisations have or are going to set up SPS protocol, to help in the proper implementation of the WTO SPS agreement.

Regional cooperation and integration are the driving force for Africa's integration into the world economy, over the coming years, Africa will need to face challenges requiring a common position on trade- related issues; for instance, African countries will be involved in two major multilateral (WTO, ACP-EU) negotiations that will have significant implication for future development. Individual African countries rarely have the expertise and negotiating capacity to protect their interests in these crucial negotiations, greater integration will be needed to provide a platform for the effective participation of the continent in these negotiations.

There is need to strengthen these RECs as they have a significant role to play as the main institutions expected to implement NEPAD'S programs particularly in capacity building processes.

IRIA (CABI, USDA, CIBC, WARDA etc.)

There is also other collaborative work being undertaken on the continent by reputed international organisations like CABI, USDA, and CGIARs. This collaboration provides an opportunity for African countries to obtain

expert advice and services for example in the quick identification of pests, in biological control research and related subject. African researchers get at the same time the opportunity to work alongside foreign experts.

Many of these institutions have their own source of funding and need little support from the National Governments, but their contribution to the development of African Agriculture is significant. Their participation and integration to the African effort have to be encouraged.

The challenge now is how to increase the effectiveness of the IAPSC, the REC's and other Regional Bodies and to reconcile their numerous initiatives in order to avoid duplication of work and maximize use of valuable resources.

Action proposed

- That the FAO/IPPC continues to play its role as per its mandate
- That the FAO/IPPC assumes fully its leadership role in collaboration with member countries and the RPPOs
- This collaboration to be strengthen as regards to providing technical assistance to its members
- Necessary funds have to be given to the FAO/IPPC for this purpose
- The charter of the IAPSC is amended to define / include the role of the Regional, Sub regional and Regional Economic Communities in relation to Phytosanitary matters.

- The REC should be fully involved in proposing new standards for its members, collect views on new standards being proposed by the IPPC, participate in discussions on standards
- The REC/IAPSC to work with the individual member country on the Appropriate Level of Protection ALOP; to ensure that countries set their ALOP taking into account the full range of national interest into consideration and those countries act consistently and adopt risk mitigation measures that are least trade restrictive.
- That the RECs diffuse technical information, collect information for its member for transmission to IAPSC and redistribution to other countries of the continent.
- That the RECs monitor and evaluate phytosanitary projects of their members,
  Establish surveillance and monitoring programs and communicate results to the IAPSC
  Offer training to their members and conduct workshops of phytosanitary matters of importance
- The IAPSC should however remain the official correspondent to the IPPC
- The IAPSC starts discussing with the REC and establishes a work program.
- The IAPSC to strengthen its list of reputed scientist particularly in Risk Analysis, Risk Management and Risk Communication.
- The IAPSC/REC need to however be consolidated in terms of equipment and staff.

Agency responsible AUC, IAPSC

Collaborators IPPC, RO, REC, IRIA

F. Human resources – capacity development is required in technical, administrative, financial and management skills. National Plant Protection organisations must be adequately staffed to fulfil their role

It is understood that many NPPOs lack well trained staff and in many instances no appropriate training is being given to the phytosanitary personnel. There are less and less people being trained in Entemolology, forest pathology and related sciences, few practicing taxonomists are available.

The challenges facing the phytosanitary staff are numerous follow the dismantling of trade barriers. Staff are called upon to be well versed in information technology, be able to develop Appropriate Level of Protection ALOP (to take decisions that are less restrictive to trade), Carry out Pest Risk Analysis, be able to justify all their actions scientifically, recognise equivalent of phytosanitary measures, participate in dispute settlement, in standard setting organisations, determine and manage Pest Free areas, act in emergency actions and manage risk among others.

To maintain a high level of effectiveness it is essential that NPPOs of Africa be properly staffed and be given the proper resources and tools to perform their work.

Action proposed

1. A sucession,training and resourcing plan be developed and agreed upon by the National Government and the industry

2. To encourage staff to specialise in such fields as diagnostics, taxonomy, epidemiology, entomology and plant pathology
3. To ensure access of staff to up-to-date information
4. To support research in improving phytosanitary techniques e.g. how to handle dangerous material
5. To provide for appropriate funding for staff and training and to support and sustain training given by Centre for Phytosanitary Excellence COPE, administrative, financial and management skills to be provide to trainees
6. Phytosanitary procedures to be well developed for the implementation by staff

Agency responsible **IAPSC**

Collaborators **NPPO**

G. Infrastructure, facilities, equipment: Hard infrastructure *per se* cannot make a phytosanitary system strong, but an effective phytosanitary system needs certain specific facilities

Most of the African countries have inherited the infrastructure put in place prior to independence. Due to lack of financial support these infrastructures have not been upgraded resulting in poor laboratory space, outdated equipments and facilities. Where modern facilities have been put in place through Govt funding or donation, budget for maintenance and sustainability is not adequate.

This situation is leading to poor diagnosis and eventually wrong phytosanitary control system. Meaning import and export certification are thus not reliable, often with interception in importing countries. Productivity is also affected by use of improper tools.

Action proposed

- The setting up of regional reference laboratories for expensive analytical tests
- The establishment of regional centres for repair of laboratory equipment
- Modernization of national laboratories.
- The laboratories should aim at accreditation.
- Upgrading of services at ports and airports
- Provision of latest treatment / fumigation facilities at port of entries

- Provision for x ray scanners and detector dogs at the port of entries in all countries
- Development of data bases and electronic system
- Border activities are subjected to regular audits in order to increase efficiency.

Agency responsible AUC

Collaborators FAO, IPPC, RO, REC, NPPO

H. Surveillance, emergency response, risk analysis: procedures to analyse and reduce the risk of new pests entering a country are essential. Only if outbreaks are detected and responded to quickly is there any chance of eradication.

Monitoring and surveillance are important to determine a country plant health status; with preparedness and response they help to reduce pest introduction and spread. They provide information on plant pests which occur in the country and in other countries. They provide also for early detection of incursions and eradication. Results of monitoring and surveillance are the basis of risk analysis and are essential to meet countries international obligation e.g. towards the IPPC and WTO.

Monitoring and surveillance for plant pests in African countries are often considered as an expensive exercise, and is often done passively without any statically valid sampling procedures, resulting in late detection of exotic pests.

Risk assessment, risk management are very important in the application of phytosanitary measures in international trade. Risk communication is also essential in the transparency process which obliges countries to notify their phytosanitary measures.

Action proposed

- Setting up of surveillance and monitoring system for threatening exotic plant pests on a permanent basis throughout Africa.
- That a cost benefit analysis be carried out before initiation of such a system
- Information generated from the program must be updated and place on the national and continental (IAPSC) data bases and information systems
- The data base and information system to be used as management tool in risk analysis
- There is need to have clear cut policies on preparedness and response to incursions, on an agreed decision making process and emergency arrangements, this to safeguard areas of Good Agricultural practices.
- There is need to involve the public and businesses in the whole process
- Creation of key centres for risk analysis
- Creation of risk analysis panels at continental level
- Vector monitoring around ports and airports to be harmonised, using same sampling procedures
- That the IAPSC takes strong leadership in monitoring surveillance programs, ensures coordination for necessary phytosanitary action

- That countries work in close collaboration with international research organisation like CABI for their monitoring and surveillance program
- That a complete review be carried out on the field, and diagnostic capacity of each country
- Introduction of a traceability scheme for high risk plant material, so that any phytosanitary problem can be tracked down

Agency responsible AUC

Collaborators NPPO, R0, REC, IRIA

I. Import and export control systems: Close control of imports and exports reduces risks of new pests entering and maintains the confidence of trade partners.

Although the concept of zero risk is considered mythical, there is however need to minimize risk by establishing a reliable import/ export system. The kind of import and export control systems adopted by a country plays a great role in minimizing entry into a country of exotic pests.

Most of the African countries are slowly adopting guidelines provided by the IPPC, there are however difficulties in implementing these guidelines. The problems are numerous but are mainly due to lack (1) of resources (2) of trained personnel.

There is need to have a system adaptable to the present trade environment.

Action proposed

- Standardization and harmonisation of phytosanitary control at point of entries
- Establishment import Risk Analysis, Risk Management and Risk Communication procedures, through consultative processes.
- Training of personnel in pest detection (using centre of Excellence)
- Improvement of diagnostic capabilities, introduction of modern tools at port of entries
- Introduction of modern technologies such as X ray scanner, detector dogs at sea port and airports.
- Pre clearance of high risk commodities
- Maintenance of electronic information system for import and export conditions and for quick clearance of cargo
- All Customs Union being set up under REC/FTA to take good care of phytosanitary matters and follow on their adaptation to the multilateral trading systems

- IAPSC in collaboration with IPPC to work and diffuse to member countries a list of quarantine threats in countries neighbouring the continent which might cause risk through imports (like an exotic fruit fly species from Asia) That the IAPSC advises on importation of high risk seeds, plant germplasm, to ensure that the continent be protected from exotic pests. In this matter, no African countries can act in isolation. We have seen in many cases how a pest entering one country of Africa could be transported to other countries so easily, the white fly *Bemissia* spp is an example. Another example is the newly described species of *Tephritidae, Bactocera invadens* appears to have invaded Africa from Sri Lanka. In Africa it has been detected

in Kenya and Tanzania in 2003 and it had spread to more than 10 countries in Central Africa where is reported as pest of economic importance, considering its similarities with *Bactrocera dorsalis*. Major issues of concern are the increase in trade and tourism, as this increases also the risk of infested fruit to be carried across South African borders. It is an offence to import plant and plant material without authorisation into South Africa. Luggage are frequently scanned or sniffed by sniffer dogs to detect fruit and plant products.

- Preparation of the review of a hand book on standardised procedures for import and export systems for all African countries, IAPSC in collaboration with IPPC

- Revival and updating the handbook for Quarantine inspectors

Agency responsible IAPSC

Collaborators NPPO's, RO, REC, IPPC

J. Standard setting and implementation: African countries need to be actively involved in setting international standards, so that their interests are served. Plus capacity to implement standards often underpins market access.

The obligation of WTO members to use International standards in their technical regulations also calls on them to actively participate in the work of the International Standard setting organisations. The inability of African countries to participate effectively in the development of standards poses a serious threat to the trade of these countries and eventually African countries would not be able to market their products in countries demanding respect of International standards.

When participation is achieved it is noted that this is not supported by solid background research and analysis much needed to ensure that technical specifications of the products they produce and the processes used in their manufacture of such products are adequately taken into consideration in developing international standards.

It is noted also that though considerable effort are being made by International Organisations to facilitate the participation of African countries in all aspects of their work, however most of the African countries do not have the capacity to influence the outcome of discussions at technical level in the standard setting bodies because they do not have in most cases capacities to develop analytical research data that is required for supporting their points of view.

Action proposed

- Development of a coordination mechanism to (1) propose new standards (2) collect views on new standards (3) select expertise needed to participate in standard setting bodies at the technical and other committees
- Development at national and continental level of the required infrastructure and institutional frame work necessary for the development of activities relating to standardisation and conformity assessment
- Building up of technical expertise required to participate in work of standard setting organisations mostly for product and technical regulations of interest
- To seek the assistance of industry and interested business firms in carrying out background research and analytical work in order to facilitate work of those participating in the standard setting processes.
- To study how the industries can bear cost of research and drafting of standards

Agency responsible AUC

Collaborators IAPSC, IPPC, NPPO, REC, RO, IRIA

K. Networking and information exchange

It is of utmost importance that plant health decisions be based on current knowledge, using appropriate scientifically sound methods. Informed decision, risk analysis and policy development have to be consistent with countries international obligations.

All depends on adequate, accurate, current and readily accessible information. It is thus important to maintain databases on endemic pests, Quarantine and Regulated non Quarantine Pests.

The data base should also contain any other matters related to plant health for example results of surveillance and monitoring programs, treatment procedures, disease free areas, areas of low pest prevalence, phytosanitary import conditions, on risk assessments .

Action proposed

- That the IAPSC be given the task to prepare that data base and information system
- IAPSC be given the necessary resources to undertake this work, hiring of IT professionals.
- That the IAPSC explores the possibility to use the PAN AFRICAN e – network project or other projects in the pipeline, to connect electronically all countries of Africa
- That IAPSC seeks the collaboration with national and international research organisations in Africa or outside to build up this data base

Agency responsible IAPSC

Collaborators NPPOs, IIPC, RO, REC, IRIA

L. Coordination mechanism.

As it is now the surveillance and monitoring and reporting system of plant pests in African countries including diagnostic services are carried out under the national legislation. There is no such mechanism presently at the continental level.

It is becoming more and more important for the IAPSC as RPPO to act as a catalyst to ensure that programs are being coordinated, gaps identified and addressed at the continental level. It is essential that IAPSC takes the coordination responsibility for ensuring that monitoring and surveillance programs are in place where necessary.

An effective coordination at continental of the monitoring and surveillance program will help build confidence in the application of manageable risk to border activities

In addition to monitoring and surveillance it is important that preparedness and response to exotic pest detection or proliferation form part of the coordination mechanism supported by a contingency plan for major exotic pests.

Action proposed

- Coordination at Central level
- Establishment of reporting lines electronically by national authorities
- Preparation of preparedness and response to incursions, involvement of the community
- Preparation of Contingency plan for exotic pests
- Publication of initiatives and results regularly on website

- Provide for a forum for decision making
- Funding mechanism in emergencies

Responsible Agency - IAPSC

Collaborators - NPPO, IPPC, RO, REC, IRIA

M. Monitoring and evaluation of programs

It has become necessary due to shortage of resources to maximize on available ones, in this context it is important that evaluation of any program be carried out regularly. This ensures compliance with objectives, policies, procedures, and international obligations of the program.

In phytosanitary matters, integrity of services is very important as it ensures the acceptability of a country agricultural product and provides public assurance to the system.

The monitoring and evaluation programs are normally carried out by external subject specialists, like in the Europe this is done by the Food and Veterinary Office, in the United States by specialists of the Office of the Inspector General for the department of Agriculture.

It is important that the National systems be subject to monitoring to ensure that the community is benefitting from all programs, for

example that import and export inspection and certification programs are in compliance with IPPC standards, that all border activities are being carried out according to established standards, that crop production and post harvest activities are in line with international standards and products are getting safe access to other countries.

A set of indicators are being prepared by the STDF and could be used in future monitoring and evaluation programs.

Action proposed

- That each country establishes an audit system for the application of its phytosanitary actions.
- That the AUC/IAPSC monitors, evaluates phytosanitary programs at regular intervals. The AUC to keep a list of specialists for this purpose
- The AUC/IAPSC to work in close collaboration with specialists from International research organisations on that matter.
- The European and United States systems to be studied and adapted to the African context.

Agency responsible AUC / IAPSC

Collaborators NPPO, IRIA, IPPC

References

1. Oerke, E.-C., Dehne, H.-W., Schonbeck, F., Weber, A., 1994.

Crop Production and Crop Protection—Estimated Losses in

Major Food and Cash Crops. Elsevier Science, Amsterdam 808 pp

2. IFPRI Discussion Paper 00825 November 2008 Accelerating Africa's Food Production in Response to Rising Food Prices Impacts and Requisite Actions Xinshen Diao Shenggen Fan Derek Headey Michael Johnson Alejandro Nin Pratt Bingxin Yu

3. A.Macleod 2006 – The benefits and costs of specific phytosanitary campaigns in the UK- Central science lab Sutton publication

ANNEX 1 AWARENESS

Action	ST	MT	LT	N/R/C
Setting up of an awareness campaign to be developed by a professional public relations agency, using the following				
• Television advertising • Internet, brochures, pamphlets, posters • IAPSC bulletin		MT		C/AU/IAPSC
• Education of school children preparation of an educational kit on phytosanitary matters ----------		MT		C/AU/IAPSC
• Regular appraisal through meetings with farmers, exporters, importers, Government officials, policy makers, shipping agents, Tour operators (on need to protect the environment against unwanted pests) and other stake holders ----------		MT		C/AU/IAPSC
• A process of regular consultation with the community should be established, so that the public is made aware of major issues and participate in developing strategy to deal with these issues. No phytosanitary decision should be made in isolation ----------		MT	LT	C/AU/IAPSC
• The SPS Notification authorities and the SPS inquiry point have to be given the necessary tools, so that they can inform the public on issues pertaining to international trade. They should be able to bring all stake holders together to discuss decisions taken at international level, this will keep the people in the trade always on the alert • Creation of reference centers in all countries to diffuse SPS matters should be encouraged. ----------				
• Creation of additional Centers of excellence like COPE to offer training courses on phytosanitary, management and administrative matters • ----------				

ST - Short term, MT – Medium term, LT – Long term

N- National, R – Regional, C- Continental

Annex 2 - Advocacy

Action	ST	MT	LT	N/R/C
An active campaign targeting Head of states, Ministers of Finance and Agriculture, Agribusiness leaders and the community at large. • That an exhibition be laid down on the role of pest in agricultural productivity, on the importance of appropriate phytosanitary measures in the improvement of food production particularly in the context of food crisis. The exhibition to be held at African Union Head of meeting summit. The exhibition could be brought to the capitals. • That NPPOs organize a Phytosanitary day/week in line with FAO World Food Day, in order to raise the awareness of the community, under the patronage of the highest office of the country. The event should be given wide publicity. • The adoption of a continental symbol for phytosanitary matters • The various stakeholders benefiting from a reliable phytosanitary system should be encouraged to show to the community how they are contributing to the growth of the economy by adopting the right measures or standards.		MT		C AUC

ST - Short term, MT – Medium term, LT – Long term

N- National, R – Regional, C- Continental

ANNEX 3 – Resource mobilisation

Action	ST	MT	LT	N/R/C
A Study/ Audit of resources be carried out taking into consideration the specificities of the African countries, to review the whole phytosanitary system and set out resources priorities, for example it is unconceivable that resources are being given to inland border control when the frontier is permeable. These resources could be put at disposal of other crucial sectors. The study has to look at other source of funding for example : • Cost recovery that is those who needs the system should contribute to the cost e.g. the importers and exporters. The importers subjecting the services to the risk of importing exotic pests through agricultural commodities, and the exporters to ensure that goods exported are in line with international obligations. • On a tax being imposed on travelling passengers, taking into consideration the increase of work load associated with the increased number of passengers at the port of entries. • On how to increase National Govt. contribution as a service provider and seek commitments by Governments to budgetary funding of phytosanitary activities		MT		C AUC

ST - Short term, MT – Medium term, LT – Long term

N- National, R – Regional, C- Continental

Annex 4 – Policy, Legislation Regulation

Action	ST	MT	LT	N/R/C
• **The legal section of the FAO to be consulted on the matter.** • Review of the present legislation of the different countries and in view of harmonizing their policy, legislation and regulations to reflect the international obligation of countries as member of the IPPC and the WTO. • The performance of the legislation to be reviewed every 10 years • Review coordination and consistency mechanism at the continental level; situate responsibilities of the countries in relation to the IAPSC to make them clearer. On how the IPPC, IAPSC could strengthen their capacity as per their charters in order to determine policy as regards to issues pertaining phytosanitary matters. On how the IAPSC could be reorganized and supported to make it more active in coordinating phytosanitary activities of the continent for example on issues related to risk assessment and risk management, import policy e.g. for GMO, effect of climate change on pests, contingency palnning to prevent spread of pests. • Advise on the importance or not of regional SPS protocols		MT		C AUC

ST - Short term, MT – Medium term, LT – Long term

N- National, R – Regional, C- Continental

Annex 5 – Role and mandate of regional and sub regional organizations

Action	ST	MT	LT	N/R/C
• The charter of the IAPSC be amended to define / include in its charter the role of the regional, sub regional and regional economic communities in relation to Phytosanitary matters.		MT		R/C AUC REC IAPSC
• The REC should consolidate in terms of equipment and staff their section dealing with phytosanirary matters				
• The REC should be fully involved in proposing new standards for its members, collect views on new standards being proposed by the IPPC, participate in discussions on standards				
• The REC should diffuse technical information, collect information for its member for transmission to IAPSC and redistribution to other countries of the continent.				
• The REC should monitor and evaluate phytosanitary projects of its members				
• Establish survelliance and monitoring programs and communicate results to the IAPSC				
• Offer training to its members and conduct workshops of phytosanitary matters of importance				
• The IAPSC should however remain the official correspondent to the IPPC				
• The IAPSC should start discussing with the REC and establish a work program in that direction				

ST - Short term, MT – Medium term, LT – Long term

N- National, R – Regional, C- Continental

Annex 6 – Human resources

Action	ST	MT	LT	**N/R/C**
• A succession, training and resourcing plan be developed and agreed upon by the National Government and the industry • To encourage staff to specialise in such fields as diagnostics, taxonomy, epidemiology, entomology and plant pathology • To ensure access of staff to up-to-date information • To support research in improving phytosanitary techniques e.g how to handle dangerous material • To provide for appropriate funding for staff and training and to support and sustain training given by Centre for Phytosanitary Excellence COPE, administrative, financial and management skills to be provide to trainees • Phytosanitary procedures to be well developed for the implementation by staff		MT		R/N IAPSC/NPPO

ST - Short term, MT – Medium term, LT – Long term

N- National, R – Regional, C- Continental

Annex 7 – Infrastructure, facilities, equipment

Action	ST	MT	LT	N/R/C
• The setting up of regional reference laboratories for expensive analytical tests				
• The establishment of regional centres for repair of laboratory equipment		MT		N/R/C
• Modernization of national laboratories.				AUC/REC/NPPO
• The laboratories should aim at accreditation.				
• Upgrading of services at ports and airports				
• Provision of latest treatment / fumigation facilities at port of entries				
• Provision for x ray scanners and detector dogs at the port of entries in all countries				
• Development of data bases and electronic system				
• Border activities be subjected to regular audits in order to increase efficiency.				

ST - Short term, MT – Medium term, LT – Long term

N- National, R – Regional, C- Continental

Annex 8 – Surveillance, Emergency response, Risk analysis

Action	ST	MT	LT	**N/R/C**
• Setting up of surveillance and monitoring system for threatening exotic plant pests on a permanent basis throughout Africa. • That a cost benefit analysis be carried out before initiation of any such system • Information generated from the program must be updated and place on the national and continental (IAPSC) data bases and information systems • The data base and information system to be used as management tool in risk analysis • There is need to have clear cut policies on preparedness and response to incursions, on an agreed decision making process and emergency arrangements • There is need to involve the public and businesses in the whole process • Creation of key centres for risk analysis • Creation of risk analysis panels at continental level • Vector monitoring around ports and airports to be harmonised, using same sampling procedures • That the IAPSC takes strong leadership in monitoring surveillance programs, ensures coordination for necessary phytosanitary action • That countries work in close collaboration with international research organisation like CABI for their monitoring and surveillance program • That a complete review be carried out on the field, and diagnostic capacity of each country • Introduction of a traceability scheme for high risk plant material, so that any phytosanitary problem can be tracked down		MT		N/R/C IAPSC

ST - Short term, MT – Medium term, LT – Long term

N- National, R – Regional, C- Continental

Annex 9 – Import and export control systems

Action	ST	MT	LT	**N/R/C**
• Standardization and harmonisation of phytosanitary control at point of entries • Identification of important path ways for pests, availability of information to all stakeholders. • Establishment import risk analysis, risk management and risk communication procedures, through a consultative process, involving all key players • Training of personnel in pest detection (using centre of Excellence) • Improvement of diagnostic capabilities, introduction of modern tools at port of entries • Introduction of modern technologies such as X ray scanner, detector dogs at sea port and airports. • Pre clearance of high risk commodities • Maintenance of electronic information system for import and export conditions and for quick clearance of cargo • All customs Union being set up under REC/FTA should take good care of phytosanitary matters and follow on their adaptation to the multilateral trading systems • IAPSC should work out and diffuse to member countries a list of quarantine threats in countries neighbouring the continent which might cause risk through import (like an exotic fruit fly species from Asia) That the IAPSC advises on importation of high risk seeds, plant germplasm, to ensure that the continent be protected from exotic pests. In this matter, no African countries can act in isolation. We have seen in many cases how a pest entering one country of Africa could be transported to other countries so easily, the white fly *Bemissia* spp is an example. Another example is the newly described species of *Tephritidae, Bactocera invadens* appears to have invaded Africa from Sri Lanka. In Africa it has been detected in Kenya and Tanzania in 2003 and it had spread to more than 10 countries in Central Africa where is reported as pest of economic importance, considering its similarities with *Bactrocera dorsalis*. Major issues of concern are the increase in tarde and tourism, as this increseases also the risk of infested fruit to be carried across South African borders.It is an offence to import palnt and plant material without authorisation into South Africa. Luggage are frequently scanned or sniffed by sniffer dogs to detect fruit and plant products. Preparation of the review of a hand book on standardised procedures for import and export systems for all African countries, IAPSC in collaboration with IPPC • Review and updating the handbook for Quarantine inspectors		MT		C IAPSC

ST - Short term, MT – Medium term, LT – Long term

N- National, R – Regional, C- Continental

Annex 10 – Standard setting and implementation

Action	ST	MT	LT	N/R/C
• Development of a coordination mechanism to (1) to propose new standards (2) Collect views on new standards (3) Select expertise needed to participate in standard setting bodies at the technical and other committees				
• Development at national and continental level of the required infrastructure and institutional frame work necessary for the development of activities relating to standardisation and conformity assessment	ST			N/R/C IAPSC
• Building up of expertise required to participate to work at technical level, mostly for product and technical regulations of interest				
• To seek the assistance of industry and interested business firms in carrying out background research and analytical work in order to facilitate work of those participating in the standard setting process mainly for product or technical regulations of interest. To study how the industries can bear cost of research and drafting of standards				

ST - Short term, MT – Medium term, LT – Long term

N- National, R – Regional, C- Continental

Annex 11 – Networking and Information exchange

Action	ST	MT	LT	N/R/C
• That the IAPSC be given the task to prepare that data base and information system • IAPSC be given the necessary resources to undertake this work, hiring of IT professionals. • That the IAPSC explores the possibility to use the PAN AFRICAN e – network project or other projects in the pipeline, to connect electronically all countries of Africa • That IAPSC seeks the collaboration with national and international research organisations in Africa or outside to build up this data base		MT		C AUC

ST - Short term, MT – Medium term, LT – Long term

N- National, R – Regional, C- Continental

Annex 12 – Coordination mechanism

Action	ST	MT	LT	N/R/C
• Coordination at Central level • Establishment of reporting lines electronically by national authorities • Preparation of preparedness and response to incursions, involvement of the community • Preparation of Contingency plan for exotic pests • Publication of initiatives and results regularly on website • Provide for a forum for decision making • Funding mechanism in case of emergencies		MT		C IAPSC

ST - Short term, MT – Medium term, LT – Long term

N- National, R – Regional, C- Continental

Annex 13 – Monitoring and evaluation of programs

Action	ST	MT	LT	N/R/C
• That each country establishes an audit system for the application of its phytosanitary actions. • That the AUC/IAPSC monitors, evaluates phytosanitary programs at regular intervals. The AUC should keep a list of specialists for this purpose • The AUC/IAPSC should work in close collaboration with specialists from International research organisations on that matter. • The European and United States systems to be studied and adapted to the African context.			LT	C AUC

ST - Short term, MT – Medium term, LT – Long term

N- National, R – Regional, C- Continental