GRANT APPLICATION FORM

1. Project title	**African Centre of Phytosanitary Excellence (ACOPE)**
2. Theme 1 and 2	The project will address Themes 1 and 2 **Relationship to key STDF objectives** In relation to Theme 1 of the STDF objectives, the project addresses especially the subject of support in the understanding and use of risk analysis methodologies. The proposed project directly addresses STDF Theme 2: *Capacity building for public and private organisations, notably with respect to market access.* While the immediate purpose of the Centre is **capacity enhancement**, mainly directed towards staff of NPPOs in the region as well as within the private sector, the longer-term aim of this process will be to increase the ability of the countries concerned to compete effectively in global markets, by enabling them to meet the stringent phytosanitary standards imposed by the developed countries where the most lucrative potential export markets are to be found. **Increased access to international markets**, both within and outside Africa, creates wealth at all levels, from macro-economic growth to **poverty reduction** at both the individual and family level. Several countries in the region (e.g. Zambia, Seychelles, Eritrea and Tanzania) recognising Kenya's advanced capabilities and trading experience, particularly with the EU have already benefited from training and/or trade missions to Kenya.. **Linkages to regional development priorities** One of the core activities of the RPPO for Africa, the Inter-African Phytosanitary Council (IAPSC), as defined in the Maputo Declaration (1954) under which it was established, is *Capacity building among Member states in phytosanitary and plant protection activities*. The proposed project directly addresses this priority. More recently, the Comprehensive African Agricultural Development Programme (CAADP) of the New Partnership for Africa's Development (NEPAD) under the African Union (AU) has defined four 'pillars' for improving Africa's agriculture, and among these, the improvement of trade related capacities for market access is specifically mentioned. These pillars are to be implemented through the Regional Economic Communities- RECS. There are 8 of these RECs; Kenya falls in two of these- the East African Community and COMESA. For more detail on various development activities in Africa and Kenya see Appendix 10
3. Starting date	1st of January 2008
4. Completion date	31st of December 2009
5. Requesting organization(s)	**Kenya Plant Health Inspectorate Service (KEPHIS).**

	KEPHIS is widely considered to be the strongest NPPO in Africa, and has recently moved to new premises that include accommodation, catering and training facilities. **Contact person: Mr Chagema John Kedera, PhD** P.O. Box 49592-00100 Nairobi. Tel: 254-020-884545 | 882308 | 882933 Cell: 0722-516221 / 0723-786779 / 0733-874274 / 0734-874141 Fax: 254-020- 882265 Email: director@kephis.org, kephisinfo@kephis.org
6. Implementing organization(s)	**1. Kenya Plant Health Inspectorate Service (KEPHIS).** **2. University of Nairobi (UoN)** The University has over 34,000 students, of whom about half are self-financing. It has strong Faculties of Agriculture and Science, and offers a full range of courses in the field of plant protection, from certificate to PhD level. **Contact person: Ms Agnes W. Mwang'ombe, PhD** University of Nairobi P.O Box 30197-00100 GPO Nairobi Kenya Telephone: +254 020 318262 **3. International Plant Protection Convention (IPPC)** The IPPC secretariat is hosted by FAO and is responsible for coordinating activities of the convention, including capacity building of contracting parties. The IPPC PCE tool has been used to establish the current state of phytosanitary capacity in the region, and evidence from this exercise is an important element of the rationale for the project. **Contact person: Mr Jeffrey Jones, PhD** International Plant Protection Convention Secretariat (IPPC), AGPP - FAO, Viale delle Terme di Caracalla, 00153 Rome, Italy. Tel: +39-06-5705-4812 Fax: +39-06-5705-4819 E-mail:IPPC@fao.org. **4. CAB International (CABI)** CABI is an intergovernmental not-for-profit organization that has

	been involved in phytosanitary issues throughout its 90 year history. The CABI Africa Regional Centre (CABI Africa) is based in Nairobi. **Contact person: Mr Roger Day, PhD** CABI, Africa P.O. Box 633-00621 Nairobi Kenya
7. Project background and rationale	see Appendix 3 for detailed description
8. Project management	The practical project management and reporting (including financial reporting) shall be the responsibility of CABI Africa under the oversight of a project management committee (PMC). The IPPC, in its role as a PMC member will provide technical supervisory services. (see Appendix 4)
9. Project objectives	**Overall (development) objective:** To build phytosanitary capacity in Africa and to increase market access of African nations through the establishment of an African Phytosanitary Centre of Excellence in Kenya. **Specific objectives:** 1. To set up the legal and institutional framework for a Phytosanitary Centre of Excellence. 2. To set up a training unit to develop training opportunities in phytosanitary policy and practice, appropriate to the needs of the region, including the establishment of an exemplary plant inspection facility and information management system for use as demonstration and training tools. 3. To set up a unit for applied pest risk analysis (PRA) generating PRAs according to relevant international standards and to establish a network of African pest risk analysts. 4. To promote the Centre, and the services it will offer, within the region. The background to the project and the rationale underpinning these objectives is attached as Appendix 3 1.
10. Project outputs	The **specific project outputs**, relating to each of the objectives, will be: 1. *Establishment of a regional Phytosanitary Centre of Excellence.* The principal output of the project will be the formal establishment of a world-class regional training facility or 'Centre of Excellence', for phytosanitary capacity building within the region through South-South collaboration. 2. *Establishment of a training unit.* Training offered will be on academic and technical level. Courses will have a modular structure so that they can be offered in different combinations and at different levels to meet a range of needs including short in-service trainings, certificate and diploma-level courses, and full Master's

	degree courses. The unit will include model plant inspection facilities at Nairobi's international airport and a model information management system. 3. *Establishment of a PRA unit.* The PRA unit will be fully equipped with trained staff and access to scientific and technical literature and offer services to NPPOs, private sector and regional bodies in relation to the generation of PRAs and technical justifications for phytosanitary measures 4. *Promotion of Centre of Excellence.* A range of promotional materials and a regional dissemination workshop will publicise the establishment of the Centre throughout the region.
11. Project activities	The main project activities are listed here and described in more detail in the work plan presented in Annex 2 (attached). Numbering corresponds to the project objectives above. ***Activities related to establishment of Centre of Excellence*** **Activity 1 - Development of an administrative structure:** • *Development of management structure and legal framework* • *Preparation of a business plan* **Activity 2 - Establishment of a training unit:** • *Assessment of training needs in the region* • *Curriculum development* • *Detailed design of course modules* • *Training of "trainers"* • *Upgrading equipment at JKIA* • *Training for staff from JKIA facility* • *Evaluation of information management systems* • *Purchase and installation of selected software* • *Training in use of new system* • *Improvements to documented procedures* **Activity 3 - Establishment of a PRA unit:** • *Assessment of PRA needs and development of PRA process* • *Establishment of an African network of pest risk analysts* • *Access to scientific and technical literature* • *Acquisition of climatic and population modelling programmes and staff training on these programmes* • *Training of PRA staff* **Activity 4 - Promotion of the ACOPE:** • *Preparation of promotional materials & project website* • *Regional dissemination meeting*
12. Timetable	The project will have a duration of 2 years. A detailed timetable is provided in Appendix 6
13. Private/public sector co-operation	The project envisages a strong cooperation between the private and public sector. The project management committee will have representatives from the private sector on a national and regional level.

14. Budget	The total costs anticipated for the project are 870 600 USD of which KEPHIS as the applicant would carry 87 360 USD which is slightly over 10% of the financing required from an OLIE country. A detailed breakdown of costs and budget is provided in Appendix 7. Equipment is mainly seen in relation to the upgrade of the inspection facility at the Nairobi International Airport with laboratory items used for inspection purposes and the purchase of information technology equipment. Both physical capacity building activities are eligible under the STDF operational rules. The list of equipment to be acquired can be found in Appendix 9.
15. Non STDF contributions	Kenya as an OLIE country would have to carry 10% of the project costs. The budget provided in Appendix 7 includes detailed provisions as to which expenses are carried by KEPHIS. The expenses carried by KEPHIS include both physical contributions as well as in-kind contributions.

Appendix 1: Supporting letters

Appendix 2: Endorsement of implementing organizations

Appendix 3: Description of the project background and rationale

Appendix 4: Description of the project management structure

Appendix 5: Work Plan

Appendix 6: Timetable

Appendix 7: Budget

Appendix 8: TORs of key project staff

Appendix 9: Equipment list

Appendix 10: Related technical assistance projects

List of acronyms

ACOPE	African Centre of Phytosanitary Excellence
AU	African Union
CAC	Codex Alimentarius Commission
CAADP	Comprehensive Africa Agriculture Development Programme
COMESA	Common Market for Eastern and Southern Africa
EAC	East African Community
FAO	Food and Agriculture Organization of the United Nations
FPEAK	Fresh Produce Exporters' Association of Kenya
IAPSC	Inter-African Phytosanitary Council
ICIPE	International Centre of Insect Physiology and Ecology
IDA	International Development Association
IGAD	Intergovernmental Authority on Development
IOC	Indian Ocean Commission
IPPC	International Plant Protection Convention
ISPM	International Standards for Phytosanitary Measures
JKIA	Jomo Kenyatta International Airport
KARI	Kenya Agricultural Research Institute
KEPHIS	Kenya Plant Health Inspectorate Service
KFC	Kenya Flower Council
NARS	National Agricultural Research Systems
NEPAD	New Partnership for Africa's Development
NPPO	National plant protection organisation
OIE	World Organisation for Animal Health
PCE	Phytosanitary Capacity Evaluation
PMC	Project Management Committee
RPPO	Regional plant protection organisation
PRA	Pest risk analysis
SPS	Sanitary and phytosanitary
UNCTAD	United Nations Conference on Trade and Development
UoN	University of Nairobi
UoP	University of Pretoria

Appendix 1

REPUBLIC OF KENYA

MINISTRY OF AGRICULTURE
Office of the Permanent Secretary

Telegraphic "MINAG"NAIROBI
Telex: 22766
Telephone: 2718870/9
Fax: 2718318
When replying please quote

KILIMO HOUSE
CATHEDRAL ROAD
P.O. Box 30028
NAIROBI

Ref::MOA/PLANT 10 Vol. IV

7th June, 2007

The Secretary
Standards and Trade Development Facility (STDF)
World Trade Organization
Centre William Rappard
Rue de Lausanne 154
CH-1211 Geneva 21
SWITZERLAND

Tel: +41 (0)22 7395747
Fax: +41(0)227395760
Email: STDFSecrtariat@wto.org

RE: ESTABLISHMENT OF A CENTRE OF EXCELLENCE FOR PLANT HEALTH IN KENYA

The Kenya Plant Health Inspectorate Service (KEPHIS) a state corporation under the Ministry of Agriculture and has proposed the establishment of a Centre of Excellence for Plant Health in Kenya. This is considered novel as it will enable KEPHIS attain its mission of providing an effective and efficient science based regulatory service for assurance on quality of agricultural input. and produce thereby promoting sustainable economic growth and development.

The Ministry of Agriculture through the Strategy for Revitalizing Agriculture is committed to improving productivity and competitiveness of existing enterprises and therefore fully supports the establishment of this Centre of Excellence for Plant Health at KEPHIS.

Your consideration and support in the establishment of this centre will therefore be highly appreciated.

Romano M. Kiome (PhD, CBS)
PERMANENT SECRETARY

cc: Ralf Lopian
Consultant
WTO (STDF)

Commercial Counselor
Royal Netherlands Embassy
Nairobi

Appendix 2

Written Endorsement from Implementing Organizations

KENYA PLANT HEALTH INSPECTORATE SERVICE (KEPHIS)
HEADQUARTERS
Oloolua Ridge, Karen • P.O. Box 49592 Nairobi, Kenya •Tel: 884545/882933/0722 516221/0733874274• Fax: 882265 •
E-mail:director@kephis.org • Website: www.kephis.org

Our Ref: PH/3/68 Date: 11th January 2007

Dr. Roger Day
Director
CABI-Africa
P.O. Box 633-00621
NAIROBI

Dear Dr. Day,

RE: **PROPOSAL TO ESTABLISH AN AFRICAN PHYTOSANITARY CENTRE OF EXCELLENCE**

This is to confirm that the Kenya Plant Health Inspectorate Service (KEPHIS) has been fully involved with the development of the above proposal to be submitted to the Standards and Trade Development Facility. We are ready to collaborate with the International Plant Protection Secretariat, CABI, the University of Nairobi and other stakeholders in its implementation and we hope that STDF will recognize the value of this initiative and provide the support request.

Yours sincerely,

Chagema Kedera (Dr)
MANAGING DIRECTOR

UNIVERSITY OF NAIROBI
Office of the Vice-Chancellor
Prof. G.A.O. Magoha IOM, MBS, MBBS, FIBA, MISC, MKNAS, FICS, FCS(ECSA), FWACS, FMCS (Urol)

Telegram: Varsity
Telex: 22095 Varsity KE
Fax: 212604/216030
E-mail: vc@uonbi.ac.ke
website: www.uonbi.ac.ke

Telephone: 0254-020-318262
P.O. Box 30197-00100 GPO
Nairobi
Kenya

19 December 2006

Economic Affairs Officer
Agriculture and Commodities Division
World Trade Organization
Centre William Rappard
Rue de Lausanne 154
CH 1211 Geneva 21

RE: LETTER OF SUPPORT TO COLLABORATE IN GRANT APPLICATION FOR SETTING UP AFRICAN PHYTOSANITARY CENTRE OF EXCELLENCE

I have noted that the International Plant Protection Convention (IPPC) and CAB International (CABI) Africa Regional Centre, Nairobi, are applying for a grant from STDF Working Group of the World Trade Organization to set up an African Phytosanitary Centre of Excellence in Kenya. I have also noted that the project will deliver phytosanitary capacity building in Africa through the proposed phytosanitary centre of excellence.

The University of Nairobi supports the initiative and will be ready to develop the required curriculum and to offer training to agricultural/horticultural stakeholders. It is envisaged that the establishment of proposed phytosanitary centre of excellence will reduce reliance on foreign expertise for phytosanitary capacity building.

The University will also be ready to collaborate with other stakeholders such Kenya Plant Health Inspectorate Services (KEPHIS) and Kenya Agricultural Research Institute (KARI) in this initiative.

Yours sincerely,

GEORGE A. O. MAGOHA. IOM, MBS
PROFESSOR OF SURGERY
&
VICE-CHANCELLOR

Appendix 3

PROJECT DESCRIPTION

1. Background

1.1 The trade dimension

International trade can stimulate economic growth, and in Africa export of agricultural products is acknowledged as crucial to the continent's development. Around 40% of Africa's foreign exchange is earned through agriculture, which provides 60% of all employment, and is the basis for two thirds of manufacturing value addition.

In many African countries, exports of agricultural commodities to lucrative export markets, such as Europe, North America and the Far East, have been identified as an important component to increase foreign exchange revenues, to attract foreign investors, to create demand for labour and to improve the agricultural infrastructure. Especially the export of high-value and labour intensive horticultural commodities, such as fruits, vegetables and ornamentals has been considered to play a key role in foreign exchange earnings. The advantages of such horticultural production in Africa must be seen in the predominantly low labour costs and the low energy input required. Disadvantages lie in relatively high transport costs and an increased pest occurrence which subsequently requires relatively sophisticated production systems and a functioning regulatory framework.

An increasingly important factor in boosting the economies of African countries is the development of a vigorous intra-regional trade, especially in agricultural commodities. It has been argued that for the development of African countries the prevalence of a strong intra-regional trade is more important than that of intercontinental trade. Arguably, increasing intra-regional trade may contribute to the easier distribution of goods and commodities leading to poverty alleviation and decreasing hunger. Consequently, several initiatives have been created with the aim of establishing a harmonized system for intra-regional trade. Especially the Common Market for Eastern and Southern Africa (COMESA) and the East African Community (EAC) have undertaken major efforts to establish a harmonized trading environment in their respective geographical areas which also extends to sanitary and phytosanitary (SPS) measures .

1.2 The phytosanitary dimension

International trade is expanding both within Africa and with other regions, including in particular Europe, Asia and North America. One prerequisite, however, for African nations to fully benefit from these trade opportunities is the compliance with international phytosanitary standards and the import requirements of the importing countries. Due to a well documented lack of capacity in the phytosanitary field access of African countries to lucrative export markets may not reach its full potential.

An important factor in creating trade opportunities for African countries is the ability to conduct reliable and acceptable "pest risk analysis" (PRA). Market access of especially high value commodities is usually difficult because of stringent phytosanitary import requirements in the main importing countries. The access of a "new" (never traded before) commodity to a market is mostly dependent on the conduct of a PRA by the importing country. Regrettably, the conduct of such a PRA may take considerable time. This has triggered developments in which exporting countries provide preliminary PRAs to facilitate the PRA process in the importing country and to shorten the time period until an import decision is made.

Not only is the ability to generate PRAs an important factor for countries to participate in international trade of agricultural and horticultural commodities, but also, exporting countries are under the obligation to provide necessary information on pest occurrence and status to the importing country. Depending on the capacity of the exporting country to carry out surveys and monitoring for pests this provision of information on pest occurrence and status may be difficult and time consuming. Additionally, the detailed knowledge of

the pest situation in a country also helps the phytosanitary authorities of that country to determine the level of protection it deems necessary to protect its own production against the introduction of new pests.

The protection of African agricultural and horticultural production against the introduction of pests should in the long-term be as important as creating short-term export opportunities for African countries. Sustainable export opportunities can only be maintained if the pest situation in African countries is kept stable, e.g. the introduction of new pests is avoided or limited to a minimum. Agricultural and horticultural production in Africa is especially vulnerable to the negative effects of pest introductions due to climatic, infrastructural and ecological conditions.

The prevention of the introduction and spread of new pests is especially important considering that a closer harmonization of trade in Africa is envisaged. Africa, a continent of almost 50 countries whose borders were mainly determined on colonial drawing boards and did not evolve on the basis of political and cultural similarities, offers little resistance to the natural spread of pests. Long "green" borders with considerable cross-border movement of people make it difficult to protect against the introduction and spread of pests with traditional phytosanitary tools, such as border controls. Instead, the most efficient action may be to prevent the introduction of pests into Africa through the harmonization of phytosanitary measures and the cooperation of African phytosanitary authorities. Such a harmonization and cooperation is, however, only effective if the phytosanitary capacity of African countries is relatively equal.

Another aspect that has repercussions on the phytosanitary and trade-related situation in African countries is their input into the proceedings of international organizations dealing with phytosanitary matters. Compared to other regions of the world, and considering their economical importance and technical capacity, Africa has failed to introduce effectively its expertise and opinions into the deliberations of the International Plant Protection Convention (IPPC) and the Agreement on Sanitary and Phytosanitary Measures (SPS Agreement) of the WTO. This lack of influence can mainly be attributed to the lack of cooperation between African countries, especially on a technical level. It must also be considered that the participation in the proceedings of international organizations provides natural training for phytosanitary experts in the application of international standards and trade rules. Unfortunately, the relatively low participation of African phytosanitary experts in the standard setting process of the IPPC and the almost non-existing African cooperation in international phytosanitary matters has caused a precious shortage of African experts knowledgeable in the application of international phytosanitary standards.

1.3 The political perspective

The New Partnership for Africa's Development (NEPAD) emphasizes that agriculture is central to the continent's economic advancement, and has developed a Comprehensive Africa Agriculture Development Programme (CAADP) providing the framework for investment to achieve rapid impact. The CAADP vision for agriculture in the continent is that by 2015 there should be (*inter alia)*:

- Dynamic agricultural markets between nations and regions
- Integration of farmers into the market economy with better access to markets
- Net export of agricultural products.

The second of the three 'pillars' of CAADP concerns improving trade related capacities and infrastructure for market access. A major challenge identified in CAADP is meeting the obligations under the WTO Uruguay round agreements, particularly the SPS Agreement and the Agreement on Technical Barriers to Trade (TBT). It is emphasized that Africa needs to strengthen its participation in the standard setting fora, as well as its capacity to implement the international standards that underpin market access. Standards under the SPS Agreement concern plant health, animal health and food safety, addressed respectively by the International Plant Protection Convention (IPPC), the World Organisation for Animal Health (OIE) and the Codex Alimentarius Commission (CAC). The WTO Doha Development Agenda, the SPS Agreement itself and the CAADP clearly acknowledge the need for capacity building in developing countries to enable them to participate effectively in standard setting and implementation as this is the entry ticket to international trade in a global economy.

The first steps to implement the CAADP vision on SPS related matters are underway. COMESA has especially taken the initiative to strengthen the harmonization and cooperation on SPS related matters in the Eastern and southern Africa. The COMESA Secretariat has identified SPS matters as a major field of activity and is planning to establish an SPS office at the COMESA Secretariat. Furthermore, COMESA currently plans to establish reference laboratories for the region for veterinary, food safety and phytosanitary matters. The Secretariat is currently working on an SPS protocol which could be adopted at the COMESA Council of Ministers meeting in December 2007. This protocol may include:

- Division of competences for SPS matters at regional and national levels
- *Modus operandi* for reference laboratories
- Establishment of a COMESA internal SPS certificate the "green-pass" (comparable to the plant passport used in the EC)

Furthermore, COMESA is planning to:

- establish a network of SPS focal points in its Member States
- establish an electronic discussion forum on SPS matters
- prepare and co-ordinate international meetings (such as the SPS Committee) to strengthen the African position in international organizations.

These activities show that the trend in Africa goes towards harmonization and cooperation in SPS related matters. It also shows that SPS matters are considered extremely important and that they are regarded as crucial to the political and economical development and integration of the continent.

1.4 The development perspective

The current lack of phytosanitary capacity in many African countries is well documented and has already been the subject of various technical assistance initiatives, including those summarised in Annex 3. However there is still an urgent need for further capacity building. The Phytosanitary Capacity Evaluation (PCE), a tool developed under the auspices of the IPPC to assist countries to identify gaps and needs in their phytosanitary capacity, has been used by more than 15 African national plant protection organisations (NPPOs). The results have shown, amongst others, a strong need for training African phytosanitary experts in the application of international phytosanitary standards and the conductance of PRA.

The need for training is also reflected in the importance given to it by the Inter-African Phytosanitary Council (IAPSC). Following a recommendation by its Executive Council in 2003, IAPSC has identified universities and research institutions to take the lead in phytosanitary research and training activities within each African sub-region (North, West, Central, East and Southern Africa). KEPHIS is the organisation selected by IAPSC for this role in East Africa. In addition, training should not focus exclusively on phytosanitary experts, but also farmers should be trained, especially on surveillance for pests. This recommendation was made by the 22nd General Assembly of the IAPSC in 2006.

A relatively new trend is the aim of the countries to channel and focus the relatively scarce phytosanitary resources of the continent. A high profile, therefore, has been given to the establishment of "Centres of Phytosanitary Excellence" (COPE). The IAPSC recommended in its 22nd General Assembly in 2006 that such centres should be established in Africa and countries should mobilize resources for the operation of such centres. It was also stressed that COPEs must use the science of PRAs in their decision making. Also the African Union (AU) has made clear recommendations for the creation of centres of excellence and even attempted to lay down some basic guidelines and criteria as to what such centres should do and how they should be operated.

This trend towards the cooperation of African nations to channel and focus phytosanitary resources is an important step in the phytosanitary development of the region. It reflects the realities that technical assistance from donors will never be sufficient to create an adequate phytosanitary infrastructure in each and every African country. It also reflects the reality that the development of African phytosanitary systems depends

primarily on the cooperation of African nations and the necessity to find their own solutions and to learn from each other. For the same reasons this trend may also be of advantage to donors of technical assistance.

2. The Project

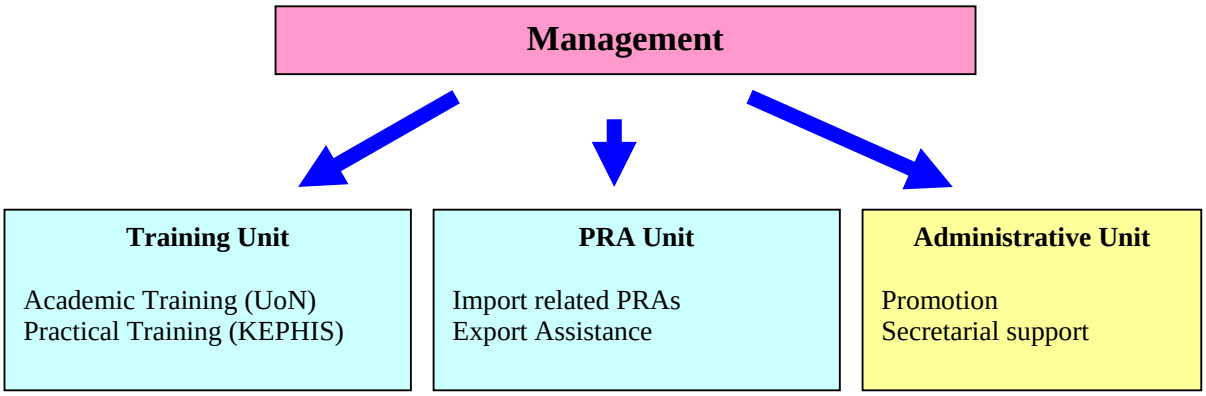
Given the increasing importance of agricultural trade and SPS issues, the need to build capacity in Africa in these areas has never been more urgent. The activities described in Annex 3 have begun to develop expertise in the continent, and it is now proposed that the next phase of capacity building should be led from within Africa.

It is proposed to establish an "African Centre of Phytosanitary Excellence" (ACOPE) in Kenya. The project will develop a PRA and training and demonstration facility, the ACOPE, building upon existing strengths within Kenya. It will thus move beyond the traditional reliance on expertise in developed countries, to develop a capacity building capability within Africa, and for Africa. The ACOPE is expected to provide PRA services and training of phytosanitary inspectors and farmers to countries in Africa. Although the project will be initially led by Kenya, it is proposed that it will gradually be transformed into a multilaterally operated unit.

The ACOPE will have two major functions:

- training of phytosanitary experts, farmers and other individuals on phytosanitary matters on a practical and academic level
- providing PRAs to African countries for the import and export of agricultural commodities to secure the phytosanitary situation and to assist in the access to new export markets.

Fig. 1: Anticipated structure of the African Centre of Phytosanitary Excellence



It is expected that the first major function of the ACOPE, training, to be carried out on a practical and academic level. The academic training to be conducted at the University of Nairobi (UoN) will incorporate mainly certificate, diploma-level and Masters degree courses. It is specifically aimed at students wishing to deepen their phytosanitary knowledge and strengthening the overall knowledge of students on phytosanitary matters, their correlation to trade and environmental concerns as well as to trigger stronger scientific activity on phytosanitary subjects. The practical training, to be undertaken at the ACOPE facility at the Kenya Plant Health Inspectorate Service (KEPHIS) aims at providing short in-service training courses on the application of international phytosanitary standards, and internship for MSc research students. The certificate and diploma level training opportunities will mainly be tailored for phytosanitary officials and the private sector.

The other major objective of the ACOPE will be the generation of PRAs. To base phytosanitary measures on PRAs is an essential obligation of countries according to the IPPC and the SPS Agreement. Regrettably, resources in the African countries to carry out this task are extremely limited. The ACOPE would function as a service provider in which any country in Africa, the private sector as well as some major importing countries could contract the ACOPE to carry out a specific PRA for a certain commodity. The PRA unit of the ACOPE would, in association with a network of PRA experts throughout Africa, conduct the PRA. A verifying procedure, such as peer-review, would have to be developed and used to verify PRAs undertaken by the ACOPE.

2.1 Project Partners

Although the ACOPE is planned to be a regionally operating centre, it is necessary to initiate the project on a national level as a prototype. To have the ACOPE first be politically negotiated on a regional level could cause considerable loss of time. The most efficient and straightforward strategy appears to be that one country takes the lead and establishes the centre and subsequently develops in cooperation with other countries of the region a structure and decision making process fitting the characteristics of a multilateral centre. Other countries could then join in the operation of the ACOPE. Kenya is one of the leading countries in Africa in the phytosanitary field and because of the existing phytosanitary infrastructure and know-how, it could be considered the most economical and ideal choice for the establishment of the ACOPE.

2.1.1 Lead agency

The requesting government agency for the project is KEPHIS, which has established itself as one of the strongest NPPOs in sub-Saharan Africa. For instance, a recent (July 2006) World Bank/USAID assessment of SPS management in Zambia specifically recommended that KEPHIS should be used as a model of best practice when planning improvements in Zambian phytosanitary systems. KEPHIS has also recently (September 2006) been recognised by the EU as a competent inspection authority for horticulture exports, and its pesticide residue analysis laboratory has already been accredited.

In addition, many countries are already benefiting from the expertise and experience at KEPHIS and its collaborators. KEPHIS has hosted, trained and/or advised a range of African countries and organisations on trade-related phytosanitary issues, including the Zambia Exporters' Association, Seychelles, Eritrea, the Gambia and Tanzania. Phytosanitary personnel from KEPHIS are actively involved with the IPPC and FAO in the delivery of technical assistance projects to developing countries, particularly in Africa. Furthermore, new premises at KEPHIS contain already training and accommodation facilities and could be conveniently used by the ACOPE.

KEPHIS would be responsible for the national implementation of the project, undertake practical activities, such as meeting arrangements, and provide initial staff and facilities to the ACOPE when it is established. KEPHIS has a long successful history of implementing technical cooperation projects and is neither under investigation nor charged for financial improbity.

2.1.2 Collaborating agencies

On a national level the main collaborating agency is the University of Nairobi. The University has over 34,000 students, of whom about half are self-financing. It has strong Faculties of Agriculture and Science, and offers a full range of courses in the field of plant protection from certificate to PhD level. The UoN would be responsible for developing and implementing activities related to the establishment of academic curricula. It should be noted that KEPHIS and the UoN have a functional and strong collaboration which would be of benefit to the project.

CAB International (CABI) is an intergovernmental not-for-profit organization that has been involved in phytosanitary issues throughout its 90 year history. In order to stress the regional character of the project and to ensure a broad participation of other non-Kenyan stakeholders and authorities CABI has been designated

as the agency responsible for the practical management of the project. The CABI Africa Regional Centre (CABI Africa) is based in Nairobi and therefore ideally situated to undertake the project management.

The International Plant Protection Convention (IPPC) is the international treaty on the prevention of the introduction and spread of pests. The IPPC secretariat is hosted by FAO and is responsible for coordinating activities of the convention, including capacity building of contracting parties. In order to attribute an additional international character to the project and to include an impartial component, the IPPC will have the responsibility to provide technical supervisory services to the project.

2.1.3 Other stakeholders

There will be a range of other stakeholders, comprising three main types:

- National, sub-regional and regional bodies with an interest in the goal of the initiative. These include, *inter alia*, the African Union, and within this the Inter African Phytosanitary Council (IAPSC), which is the RPPO for Africa; Kenya Agricultural Research Institute (KARI), as well as national agricultural research systems (NARS) outside Kenya; and trade blocs such as COMESA. The East African Community (EAC) and IAPSC have already indicated their support for the proposal. Another important potential stakeholder, especially in relation to the development of training modules might be the International Centre of Insect Physiology and Ecology (ICIPE), which is a non-governmental organisation based in Kenya and undertaking studies on insect life in tropical countries, in particular how it affects human health and food security.There are also important stakeholders within the private sector.
- African NPPOs and other entities, particularly the private sector agricultural and horticultural exporters and their associated trade associations (e.g. Kenya Flower Council (KFC), Fresh Producers Export Association of Kenya (FPEAK), African Horticultural Council), who will comprise the principal clientele of the Centre.
- Institutions and individuals representing the best expertise in the continent. This group will constitute an informal network, from which experts will be drawn for training and capacity building activities, but who will also benefit from participation in the initiative.

2.2 Project activities

The activities required to implement the project can be separated into two components:

- project management
- establishment of the ACOPE

2.2.1 Project management

As already indicated in chapter 2.1.2 practical management will be the responsibility of CABI Africa.

A *project management committee* (PMC) will be set up at the beginning of the project, which will have the overall monitoring responsibility of the project, to oversee progress and to ensure timely intervention in the event of any problem. This PMC should not only have members from the partner organizations, but also have members from other countries in the region to ensure that regional considerations and particularities are reflected in the project management. This will ultimately increase the acceptance of the ACOPE beyond the borders of Kenya and will also function as an additional promotional tool. Additionally, it should be considered to offer a seat in the PMC to the donor agency financing the project. A closer cooperation between project management and donor may help to secure the donors expertise in the realization of the project and may strengthen the donor's identification with the project.

It is, therefore, proposed, that one committee member will be nominated by each of the partner organisations (IPPC, CABI Africa, KEPHIS and UoN). In addition further representatives should represent the Kenyan

private sector (e.g. KFC or FPEAK), a regional body with activities in phytosanitary matters (e.g. COMESA, EAC, AU or IAPSC) and a regional private sector organization (e.g. African Horticultural Council) and an NPPO from the region. As indicated above the participation of a donor representative maybe advisable. The IPPC and CABI, as international organizations, should propose potential members of the PMC, on which a final selection should be undertaken by the four partners (KEPHIS, UoN, CABI, IPPC) of the project. To keep the deliberations of the PMC manageable and to aid consensus based decision-making the PMC should ideally not have more than 10 members.

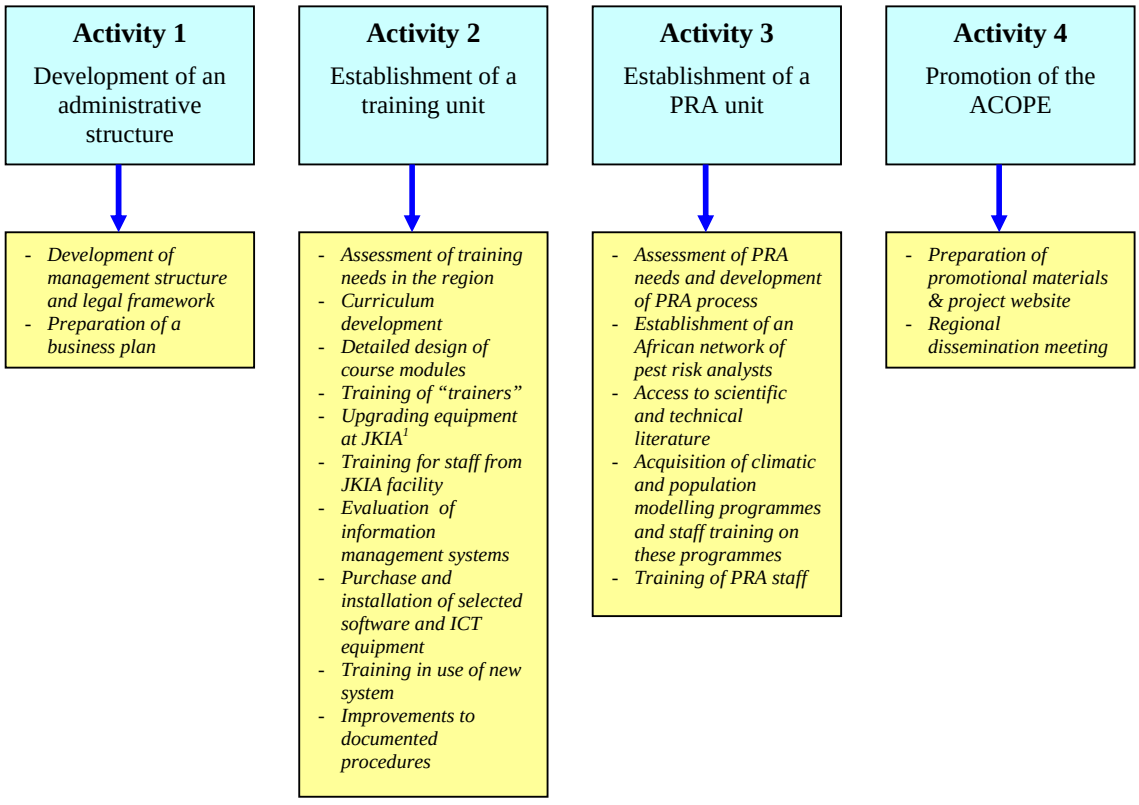
The PMC will meet in Nairobi six times during the duration of the project (months 1, 4, 8, 13, 18 and 24). It should be considered that the regional representation in the PMC will necessitate considerable resources for travel allowances, which will constitute a great part of the overall management costs. The PMC should be assisted by a local legal consultant in its deliberations.

2.2.2 Activities related to the establishment of the ACOPE

The activities related to the establishment of the ACOPE can be separated into four components which are related to:

- administrative and legal matters
- training
- the establishment of a PRA unit:
- dissemination & promotion:

Fig. 2: Detailed actvities for the establishment of the ACOPE



[1] Jomo Kenyatta International Airport, Nairobi

2.2.2.1 Activity 1 - Development of an administrative structure

Development of a management structure and legal framework

The focus of this activity will be the development of a management structure which will reflect the regional character of the ACOPE. Beside the day to day management of the centre an oversight system, such as a board of trustees, will have to be decided. This activity is of importance because it will also give direction on the ownership of the ACOPE. Ideally a wide regional involvement should be envisaged. In addition to the management structure the question of the legal status of the centre must be clarified. This is especially in relation to whether the centre shall be a legally independent entity or as a semi-independent body function under the umbrella of one of the partners. This question must be addressed especially in the context of regional ownership of the ACOPE. Basically, it should be considered that the stronger the regional ownership the more independent the ACOPE should be.

Preparation of a business plan

Another important task in the development of an administrative structure is the development of a business plan. The business plan is essential to lay down the medium-term policy and the promotion of the centre. Important factors in the business plan will be a strategy on the ownership of the ACOPE, its financial sustainability and how the regional acceptance of the centre can be achieved over time.

2.2.2.2 Activity 2 - Establishment of a training unit

The activities in relation to the establishment of training courses and facilities are the most extensive in the project. They can be roughly separated into three broad categories:

- development of practical and academic courses and associated materials
- establishment of exemplary inspection facilities and management systems for training purposes
- training of staff

Assessment of training needs in the region

The assessment of the training needs in the region will be one of the key factors in the establishment of the training unit. Only through the careful identification and analysis of where the knowledge gaps are can any course development be designed to fit the explicit needs of the countries in the region. The assessment will be carried out through a workshop, which will ideally have a very wide regional representation. Besides the training needs the assessment shall also determine the structure and lengths of the courses needed. One other important factor is that all the courses may not necessarily be held at the primary locations in Kenya, but that certain practical courses may be held at different locations in the region. This may increase the regional ownership of the ACOPE.

Curriculum development

Based on the training needs assessed in the workshop and through a questionnaire curricula will be developed with the participation of an advisory course development team consisting of experts from the region and selected by the IPPC. Curricula for courses would fall into two categories:

- courses leading towards an academic degree
- stand-alone courses, study tours and training attachments of experts

Curricula development should be an ongoing activity after the establishment of the ACOPE. The identification of research needs should be incorporated in the ongoing curriculum development to further strengthen cooperation between NPPOs and research and academic institutions in Africa

Detailed design of course modules

After developing the curricula of the courses and other learning opportunities to be offered by the Centre, the content of each module will be designed and written, primarily by KEPHIS and UoN staff but also drawing on external expertise where necessary. A number of workshops will be held to guide the development process, provide additional technical input where required, and monitor progress.

The development of courses is an important step and should be maintained as an ongoing activity in the ACOPE after the establishment of the centre. Constant up-dating of courses is necessary to keep the training activities current.

Training of "trainers"

The establishment of a training unit at the ACOPE warrants that its staff is capable of carrying out this training not only on a professional level, but also with adequate pedagogic and didactic skills. This may apply especially to staff seconded to the ACOPE from KEPHIS to carry out short-time, stand-alone courses. It is envisaged that two persons from KEPHIS, which will be seconded to the ACOPE, will receive academic training to prepare them for their tasks as trainers at the ACOPE. The training can be conducted at the UoN, but also distant-learning opportunities, such as the phytosanitary course modules at the University of Michigan, should be considered.

Upgrading equipment at JKIA

The upgrading of the equipment at the Jomo Kenyatta International Airport, Nairobi (JKIA) is one of the activities in the project addressing physical capacity building. For the purpose of training inspectors on import inspection practises that are up-to-date and which employ state-of-the-art equipment the demonstration facilities must be of a high standard. Although the phytosanitary facilities at JKIA are among the best in Africa, there are aspects which still require improvement to bring them up to the exemplary standard required for demonstration purposes in the context of the Centre of Excellence. The upgrades envisaged at the phytosanitary premises at JKIA concern mainly the improvement of inspection and diagnostic services, such as microscopes, illuminated magnifiers, and improved inspection tables with appropriate surfaces, and thus satisfy the STDF criteria for eligible laboratory equipment.

Training for staff at JKIA facility

Connected to the activity of upgrading the inspection facilities at JKIA is the training of staff. This training will ensure that staff is capable of using the new equipment appropriately and be able to provide professional demonstrations at training courses.

Evaluation of information management systems

Over recent years more and more NPPOs have developed or employ information management systems which combine aspects of the day-to-day operations of a plant protection service. These specialised phytosanitary software packages have been developed to improve the efficiency with which phytosanitary data is managed, to generate import and export documentation electronically, and to link data on different aspects of phytosanitary management such as inspection, interception and the issuing of permits and phytosanitary certificates. Especially, the use of electronic certification has been promoted internationally by the IPPC in order to facilitate exports and imports from a financial and logistical perspective. The application of information management systems including electronic certification is a development which will, in the near future, determine the operations and performance of NPPOs. It is essential that during its training activities, the ACOPE is capable of demonstrating how such systems are applied in the activities of an NPPO. The evaluation of the different information management systems will primarily focus on the applicability of the different systems to African conditions.

Purchase and installation of selected software and ICT equipment

Based on the evaluation of the information management systems an appropriate system is purchased and installed. The purchase and installation concerns physical capacity building. Since it is in relation to information technology it satisfies the STDF criteria for eligible equipment.

Training in use of new system

Connected to the activity related to the information management system is the training of staff. This training will ensure that staff is capable of using the new system appropriately and be able to demonstrate it professionally during training courses.

Improvements to documented procedures

Important to the applicability of the information management system is the task of adapting operational procedures to the requirements of the system and to IPPC standards. This is especially important in relation to documented procedures for inspection and export certification.

2.2.2.3 Activity 3 - Establishment of a PRA unit

Assessment of PRA needs and development of PRA process

The assessment of the PRA needs in the region and the structures and procedures applied in the generation of the PRAs is one of the key factors in the establishment of the PRA unit. The acceptability of the ACOPE within the region will depend considerably on the perception that the PRAs generated in the ACOPE are unbiased and developed in a transparent way. To this end special care must be given in the development of the structures and procedures which lead to the generation of PRAs.

Another important consideration is that the development of the PRA process is carried out with a strong participation of regional experts. A workshop with the participation of PRA experts from all countries in the African region should be the primary forum for the development of structures and procedures for the PRA unit. The workshop should address also the question on how the PRAs developed in the ACOPE should be verified outside the centre.

This verification process is perhaps the most important factor in the development of a PRA system. A verification system, such as a peer-review system, not only provides for a quality assurance system, but also involves experts from outside the ACOPE. This in turn contributes considerably to the international acceptance of the PRAs generated in or under the auspices of the ACOPE.

Establishment of an African network of pest risk analysts

The development of an African network of PRA experts is a tool for the PRA unit of the ACOPE which allows it to identify competent PRA experts in the region. PRA experts are not abundant on the African continent and an inventory may help to select competent experts for specific tasks. These tasks may lie in the provision of peer-reviews or the outsourcing of PRA activities. From the beginnings of the PRA activities in the ACOPE, consideration should be given that not all PRAs may be undertaken by the ACOPE itself, but are commissioned to various experts in Africa. These outsourced PRAs would be undertaken according to the procedures of the ACOPE. A network of African PRA experts would considerably help to undertake these activities.

Assessment of scientific and technical literature needed for the PRA process

For each PRA unit it is absolutely necessary to have broad access to scientific and technical literature. This access can be in the form of libraries or through the internet. Especially in Africa, access to literature can at times be difficult. In order to provide the PRA unit with sufficient access to scientific and technical literature an assessment must be undertaken, to analyse the availability of and accessibility to literature at the UoN, KEPHIS and research institutions. Based on this analysis the need for the purchase of literature and online journal subscription will be determined.

Acquisition of climatic and population modelling programmes and staff training on these programmes

An important factor in the development of scientific PRA is the capacity to base risk predictions on computer modelling programmes which compare climatic data with population dynamics of specific pests. A number of such programmes are fairly widely used in developed countries (e.g. CLIMEX programme). In order to provide the PRA unit with state-of-the-art modelling expertise such climatic and population modelling programmes must be purchased and staff trained on their application.

Training of PRA staff

The training of the staff of the PRA unit will be an important component in the overall success of the service provided. Although, IPPC standards give clear guidelines on the theoretical ways to conduct a PRA, the practise of carrying out a PRA differ from country to country. Considering that one of tasks of the PRA unit is to provide export assistance, it would be of value if the staff of the centre is familiar with the PRA practise in different countries. This familiarity can only be achieved by having PRA staff trained at PRA units in different countries.

2.2.2.4 Activity 4 - Promotion of the ACOPE

The activities designed to promote the ACOPE will have the purpose to inform about the centre and to attract potential clients to its services. Promotion activities will focus on the scientific excellence of the ACOPE and its regional character. The main activities will include the design of promotional material and a web-site for the ACOPE. Good promotional work will also contribute to a wider acceptance of the centre in the region. Within this context there should also be considerations for a publication policy for ACOPE staff.

2.3 Private/public sector co-operation

The beneficiaries of the centre and its clientele can be broadly categorized into three groups:

- public sector bodies, primarily in the form of NPPOs and extension services
- private sector entities (e.g. producer organizations, producers, trade associations)
- regional and international bodies (e.g. IAPSC, COMESA, IPPC)

African NPPOs are the main target for the services offered by the ACOPE. Many of the training opportunities offered will be specifically designed for capacity building of NPPOs and their staff in Africa. The private sector, however, will also benefit substantially from the services of the ACOPE. Training opportunities of company internal inspectors or small farmers on pest monitoring or surveillance for example will not only increase their efficacy, but will lead to better export opportunities through fewer interceptions of exported commodities. Regional bodies may in the long-term benefit significantly from the activities of the ACOPE. COMESA, which is planning to increase the harmonization of agricultural trade in its region, may utilize the professional expertise of ACOPE in PRA to underpin its trade rules with the scientific justification provided by the ACOPE. Finally, international bodies, such as the IPPC, may use the ACOPE as a training hub for its capacity building activities in central, eastern and southern Africa.

In order to make the ACOPE attractive to all these potential beneficiaries it is crucial that they are involved in its development. To this effect it is planned to have representatives of these main groups in the project management committee as well as in the different underlying working committees. Considering the relatively scarce resources in Africa it is imperative to cooperate as efficiently as possible in the creation and operation of the centre. A close operation must, therefore, also be reflected in the administrative structure of the ACOPE.

2.4 Timetable

The project is planned to commence in January 2008 and to end in December 2009. A detailed chart providing details on the timing of the activities can be found in Appendix 6.

2.5 Project costs

The total costs anticipated for the project are 872 513 USD of which KEPHIS as the applicant would carry 87 150 USD which is the 10% financing required from an OLIE country. A detailed breakdown of costs and budget is provided in Appendix 7.

3. Rationale And Other Considerations

The participation of the African countries in world trade and in particular the trade of agricultural and horticultural commodities is generally accepted as one of the keys to the development of the continent. Phytosanitary import restrictions are one of the major factors that limit the potential of African countries to partake in this trade. Due to their lack of phytosanitary capacity potential export markets are kept closed. Over recent years increased efforts have been undertaken by donors to address this lack in phytosanitary capacity by providing technical assistance in the field of SPS measures. These technical assistance projects mainly concentrated on the provision of capacity to strengthen national structures in specified countries. The proposal for an African Centre of Phytosanitary Excellence leaves the traditional aims and objectives of technical assistance projects by proposing the creation of a mechanism which will lead to capacity building in Africa - through Africans and through African cooperation.

The Food and Agriculture Organization of the United Nations (FAO) has more and more practised the concept of providing expertise to developing countries through experts coming themselves from such countries. The advantages are evident – experts from developing countries can more appreciate and understand the difficulties of their "clients" and may, therefore, be more effective in their work. The same concept applies to the proposed project, although on a larger scale. Through the project, an institution will be created, which provides capacity building in Africa in a sustainable way, largely self-financing and based on the principle of South-South collaboration.

3.1 Project impacts

It is anticipated that the project will have a number of positive impacts on agricultural and horticultural production and trade in Africa. The main objective of the ACOPE to increase the capacity of African public and private bodies in phytosanitary matters constitutes the main benefit of the project. Raising the capacity of African countries in phytosanitary matters will have a multitude of secondary positive repercussions.

Increased market access of African countries

The ACOPE will have direct impact on the ability of African countries to gain market access for their agricultural and horticultural products. This market access will mainly be realized through two factors:

- increased capability to comply with international phytosanitary standards
- assistance in the PRA process

Exports of commodities are in many cases dependent on the application of international standards in the exporting country. Through the training opportunities provided by the centre, plant health officials and producers will receive up-to-date information and best practise on how to implement international standards. The application of these standards will also lead to the effect that pest interceptions on their commodities will be reduced, which in turn may lead to lower inspection frequencies of their products in the importing countries. Positive effects like easier market access negotiations or lower inspection frequencies may reduce costs associated with the exports and translate into lower prices for export commodities that may provide another competitive advantage.

The proposed PRA unit of the ACOPE may have direct impact on market access negotiations of African countries with the main importing countries. Especially in relation to high value horticultural products

market access can be difficult and extremely time consuming. Producers, producer organizations and authorities may request the assistance of the PRA unit of the ACOPE in form of a scientifically based PRA or scientific analysis. These could considerably ease the market access negotiations. By having scientific evidence present in these market access negotiations African countries or exporters could accelerate the negotiations considerably and use international trade rules to their full potential.

Enhance regional harmonization on phytosanitary matters in Africa

The existence of an African operated Centre of Phytosanitary Excellence would lead to closer harmonization of phytosanitary matters in Africa. Through training offered by the ACOPE, many phytosanitary officials from different countries would undergo the same standardized training leading to more homogeneous understanding of phytosanitary matters and a harmonized implementation of international phytosanitary standards. Officials on a technical level participating at training occasions would have the opportunity to interact and exchange ideas and experience. This interaction on a professional level leads to a better understanding of challenges and how to find solutions.

Enhanced intra-regional trade

The trend in Africa towards integration and harmonization may prove to be the motor for the future development of the continent. Regional trade in agricultural and horticultural commodities may play a skey role in the regions future development strategy. The pre-requisite for such an intra-regional trade is the relatively harmonized phytosanitary structure in the countries partaking in this integration process. The ACOPE through its training opportunities can play an important role in this development. Additionally, it could be expected that through the PRA service, harmonized phytosanitary trade rule could be scientifically justified. ACOPE will contribute towards the equalization of phytosanitary capacity in African countries which may be a cornerstone pillar to the enhancement of intra-regional trade.

Improved phytosanitary protection of African countries

The prevention of the introduction and spread of pests is the main objective of NPPOs around the world. In Africa, NPPOs face special challenges in their efforts to prevent the spread of pests. Large areas with comparable climatic conditions, the movement of people over “green” borders and the lack of capacity of NPPOs to effectively survey and monitor huge and partially very remote areas make it difficult to establish effective counter measures against pest spread. Therefore, the most efficient way to prevent the introduction and spread of pests is in the ports of entry in African countries. A pest which is not introduced cannot spread.

For that reason the ACOPE can assist, through its activities on PRA, African countries to establish lists of quarantine pests and lead to a better protection of agriculture and horticulture in the region. Additionally, the training opportunities especially in such crucial activities as pest surveillance and monitoring help to create a more effective network in which the pest status in Africa is recorded and the identification of appropriate management options.

Increased phytosanitary awareness of producers and other stakeholders

In any agricultural and horticultural system producers play a key role in maintaining the plant health status of the production and the country. Producers are the first to see the effects of pests and they are the first to suffer from them. A good organized phytosanitary system depends to a large degree on the producers to report new occurrences of pests and to apply effective control measures to eradicate or contain them. For this reason a strong linkage between phytosanitary authorities and producers is essential. This linkage, however, will only be effective and beneficial if the producers are aware of the objectives of the phytosanitary policy and are trained to apply certain inspection and monitoring activities.

The design of the project to establish the ACOPE is also specifically addressing training of producers. Through this training, producers will have the capability to detect and control new pests in their production, with the subsequent need for less input into the production in the form of plant protection products. In addition, the yield of production may rise.

Increased phytosanitary visibility of African countries in international organizations

The participation of African countries dealing with phytosanitary matters, such as the SPS Agreement and the IPPC, has increased over recent years. The influence of African countries within these organizations has, however, been disappointingly low. Within the IPPC for example, there have been no major proposals by African countries within the governing body of the organization. In fact, Africa is the FAO region with the lowest profile in IPPC activities. Reasons for this situation are speculative at best, but it can be assumed that the lack of capacity in African countries prevents them from fully participating in the partly very technical discussions of the IPPC. Another reason is certainly the lack of coordination and collaboration among African countries to prepare jointly relevant meetings of the IPPC and possibly the SPS Committee.

The ACOPE could certainly have some benefits to the effect that African phytosanitary experts can better understand the activities of international organizations in their field. Exchange of views on standards and phytosanitary policy would be possible on a much more technical level. The increased capacity of countries would ultimately lead to a stronger participation and an increased influence in the activities of international organizations to the benefit of African nations.

Development of the agricultural sector in Africa - Reducing poverty and hunger

Many of the positive impacts described above will have direct influence on the development of agriculture in Africa. It can be estimated that agricultural and horticultural production and export will benefit from an increased phytosanitary capacity of African nations and that this will have direct influence on the UN Millennium Development Goal to reduce extreme poverty and hunger.

3.2 Ownership

A key question which will determine the acceptability of the ACOPE and its sustainability in the long-term is the ownership and how it is shared among partners and countries in the region. Although the IAPSC and COMESA have already voiced their support for such a centre, careful considerations should be given on how regional bodies and other countries will be involved in the decision making of the ACOPE.

Currently, the project is a purely a Kenyan led initiative with the requesting agency KEPHIS in the fore-front and the University of Nairobi as a collaborating partner. The IPPC and CAB International are also collaborating partners in the project. This is an ideal situation for the purpose of starting the project. However, for future operations of the ACOPE a regional ownership formula must be developed.

It has been described that during activity 1 (*Administrative Structure*) a project management committee will be created to develop a management structure and legal framework for the ACOPE. This work should be undertaken with a strong participation of representatives from other countries in the region as well as regional bodies. Their participation will set the track of the management structure towards a regional institution. Subsequently, all working groups, committees and other bodies carrying out activities in the project implementation should have a regional outlook.

Another important aspect is the strong involvement of the private sector in the ACOPE. In many cases private sector interests are the trigger for development, especially in relation to exports of commodities. Private sector involvement will help the ACOPE to address subjects which are of importance to the economy and may secure expertise for the ACOPE. The private sector will also be involved in the PMC.

Although the management structure of the ACOPE will be decided by the PMC it is envisaged that the long-term objective for the legal status of the ACOPE should be in the form of an independent organization supported and administered by NPPOs, the private sector and regional bodies in Africa. This, however, entails negotiations and acceptance on a political level which may be time consuming. For the interim period, until a true regional ownership is defined and organized, KEPHIS may be in the best position to lead the ACOPE. This is especially important in relation to the financing of the ACOPE.

3.3 Economic and financial sustainability

The determination of the ownership of the ACOPE has important repercussions on its sustainability. If a regional ownership is achieved as envisaged the operating costs of the ACOPE should be borne by the partners involved in the centre. For the immediate future the operating costs of the ACOPE will be carried by the partners in Kenya KEPHIS and UoN until a financial instrument for the regional ownership is developed.

To qualify the economic and financial sustainability of the ACOPE one has to consider that the services provided by the centre have direct positive effects on the economy of the countries involved. Skills acquired will be used to train others so that there will be savings for the general economy in terms of skills acquired by trainees, which will further ensure that better and more economical services are given or products produced.

To analyse the direct economic and financial sustainability of the ACOPE one has to consider the following:

- operating costs of the ACOPE
- income generated through services
- cross-sectoral synergy

Provided that a strong regional ownership is ensured for the medium future of the ACOPE, the economic and financial sustainability of the centre should be realized.

3.3.1 Costs

KEPHIS and the UoN are providing the facilities for the ACOPE so that no new investments in facilities have to be envisaged for the medium future. The operating costs, however, have to be covered once the ACOPE is established. They could be estimated to fall roughly into four categories:

- staff costs
- maintenance of facilities, such as new equipment etc.
- general overhead costs
- maintenance of professional standards

In relation to staff costs, it is estimated that they will constitute the lions share in the operating costs of the centre. It is planned that once the ACOPE is established, staff would be seconded from KEPHIS to make the centre operational. This would especially apply to secretarial support, the PRA unit and the practical training opportunities. The UoN would also second the staff necessary to carry out the academic training on phytosanitary matters.

Maintenance costs would appear especially in relation to the regular up-dating of inspection equipment, the purchase of literature and the regular up-date in the information technology sector. In regard to the costs associated with the maintenance of the facilities, these would have to be covered by the income generated through the different activities and services. General overhead costs would also have to be covered through this fashion.

Perhaps one of the most important positions related to the costs of the ACOPE is the maintenance of the professional standards in the centre. Trainers and PRA analysts must continuously be trained on the newest developments in the phytosanitary field. They also should be strongly involved in the proceedings of the IPPC to be aware of future developments and their possible implications for Africa. The costs associated with this training activity can only be assessed with difficulty. It could be envisaged that the participation of ACOPE experts at the IPPC proceedings are financed to a certain degree through the IPPC trust fund for technical assistance while the general training of the staff would be at the beginning the responsibility of the organizations seconding the staff, KEPHIS and the UoN.

In relation to the staff training, one additional threat to the consistent operation of the ACOPE that must be considered is the fluctuation of staff members. It is a reccurring problem, especially in developing countries, that highly educated and trained members of the staff of institutions frequently change their jobs in the public

service to the better-paying jobs in the private sector or international organizations. In order to avoid situations where competent and highly trained members of the ACOPE have to be replaced and trained again, staff policy of the ACOPE should ensure competitive benefits to its staff members.

3.3.2 Income

The operation of the ACOPE after its establishment will to a large degree depend on the financial assistance of KEPHIS until a regional agreement of the centre is found. Not all costs, however, have to be covered by KEPHIS. The ACOPE has a considerable potential to generate income. This may be achieved through:

- costs recovering fees for PRA services
- tuition and training fees
- other service fees

As already described, the PRA unit of the ACOPE would provide a service to a number of stakeholders. The private sector, for example, could be one of the key beneficiaries of the PRA activity of the ACOPE since it provides a service which may result in an easier and faster market access of specific products. Also some importing countries with backlogs in their Import Risk Analysis system may outsource a preliminary PRA to the ACOPE. Other countries in the region as well as regional bodies may wish to utilize the ACOPE to develop phytosanitary measures or to facilitate exports. The ACOPE will have to calculate the costs associated with the production of a specific PRA and charge it to the client. These costs should include the staff time and all overheads so that a full cost recovery is achieved.

Training provided at the UoN and at KEPHIS would also generate income. At the UoN, phytosanitary courses would fall into the normal academic activity of the University and standard tuition fees would be charged to participants according to university practise. This should cover most expenses related to the academic training. At KEPHIS, the short-term practical training courses would require that participants pay certain fees for the training. In addition, at the facilities of KEPHIS in Nairobi, 51 rooms are available to trainees and cartering can be provided through the KEPHIS cafeteria. This possibility makes the training quite inexpensive and would also provide an additional income for the ACOPE.

3.3.4 Cross-sectoral synergy

The financial and economic sustainability of the ACOPE also depends on its capacity utilization. A low acceptance of the services provided by the ACOPE would certainly entail lower income generation. This potential difficulty can partly be mitigated through a wider regional ownership, which would induce the expectation that services of the ACOPE would be accepted throughout the region.

Another consideration in this respect is the potential that other technical assistance projects in the region would utilize the services of the ACOPE for their capacity building. Other projects, such as the future HORTICAP project or the Pesticide Initiative Programme of the EU could conduct their training activities at the ACOPE. In addition, more phytosanitary meetings of the IPPC or the IAPSC could be held at the ACOPE, thus improving the capacity utilization of the centre while providing professional training to officials and producers.

3.4 Final considerations

3.4.1 Regional coverage

Although the centre is named an “African Centre of Phytosanitary Excellence” one should not assume that this centre should be the only centre to this effect in Africa. In fact, the huge lack of capacity, the different climatic and ecologic conditions as well as the language barriers between mostly English and French speaking countries suggest that the need in Africa for similar centres is immense. It could be assumed that three or four centres of phytosanitary excellence are need and could co-exist beside each other in Africa.

3.4.2 Replication potential

The proposal to create an African Centre of Phytosanitary Excellence may be of interest to the development activities of international donor agencies and countries because of its replicability. Similar centres could be established in different parts of Africa, Asia, the South-west Pacific and the Caribbean. Centres of Phytosanitary Excellence could become the tool in the future to provide good training, adequate PRA capabilities as well as diagnostic expertise to many countries in the developing world at a relatively low cost. The project proposed, through its innovative character, could function as a model for other capacity building programmes around the world.

Appendix 4

PROJECT MANAGEMENT STRUCTURE

A *project management committee* (PMC) will be set up at the beginning of the project, to oversee progress and to ensure timely intervention in the event of any problem. The PMC will have the overall oversight over the project implementation and will also have the responsibility to develop a management structure and a legal basis for the ACOPE, including a financial mechanism for its future activities. In addition it will have the responsibility to develop a business plan.

The PMC will be composed of one representative from each of the following stakeholders:

- KEPHIS
- University of Nairobi
- CABI
- IPPC
- Kenyan private sector organization
- a regional private sector organization
- a regional organization
- a non-Kenyan NPPO
- a representative of the donor country/organization if so wished

A legal consultant, as specified under Activity 1, shall provide legal assistance to the PMC, but shall not serve as a member.

The PMC shall strive to reach all decisions by consensus. The PMC will meet in Nairobi six times during the duration of the project (months 1, 4, 8, 13, 18 and 24).

Practical management of the project will be carried out by CABI Africa.

Regular reporting, including financial reporting, of the project progress to the STDF shall be carried out by CABI

The IPPC, in its role as a PMC member, will provide technical supervisory services.

Appendix 5

PROJECT ACTIVITIES: WORK PLAN (INCLUDING DISSEMINATION) ACTIVITIES, AND PROJECT EVALUATION

I Work & Dissemination Plan

1. Activity 1 - Development of an administrative structure

1.1 Development of management structure and institutional framework.

DESCRIPTION:	It is envisage that one partner will coordinate the Centre, supported and advised by the PMC. The process of designing the management structure of the Centre, and the *institutional* framework within which it will operate will be carried out by the PMC. The practical organization of the meetings will be conducted by KEPHIS. The future role of each partner will be developed and defined during the course of the project. This activity includes initiation of the formal process of registering the Centre as a legal entity. The plan to set-up the ACOPE as a regional operating body will require local legal knowledge which will be purchased through a legal consultant. This consultant should also assist in the business plan development as specified under 1.2.

PARTNER RESPONSIBLE: KEPHIS
TO BE COMPLETED BY: MONTH 18

COSTS (IN USD):

Action	*Cost Specification*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
Legal assistance	Local legal consultant	KEPHIS	20 000	
4 meetings of the PMC	Meeting organization	KEPHIS		12 000
	Travel and subsistence for participants	Participants	24 400	

1.2 Preparation of a business plan

DESCRIPTION:	Once the management structure and legal framework are in place, the PMC will be responsible for preparing a business plan for the Centre of Excellence. This will include: • plans for creating the legal entity (Activity 1.1.); • an agreement about how ownership will be shared amongst the partners; • proposed services (summary of courses and other learning opportunities to be offered); • analysis of the target market; • marketing strategy; • financial strategy, with a focus on sustainability. Additional meetings for the PMC will be convened to monitor the implementation of the project. These are budgeted under the management item in the budget (Appendix 7).

PARTNER RESPONSIBLE: CABI AFRICA
TO BE COMPLETED BY: MONTH 23

COSTS (IN USD):

Action	*Cost Specification*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
	Coordination of BP preparation	CABI	21 000	

2. Activity 2 - Establishment of a training unit

2.1 Assessment of training needs in the region

DESCRIPTION:	Representatives of up to 25 African NPPOs, plus selected agricultural/horticultural companies, will be invited to a needs assessment workshop in Nairobi, to assess their training needs and preferences with respect to (a) level; (b) duration; (c) qualification offered; (d) location (Kenya or own country); and (e) method (e.g. conventional courses, electronic distance learning, paper-based (correspondence) courses). The assessment workshop should be planned and designed in cooperation with the UoN.

PARTNER RESPONSIBLE: KEPHIS.
TO BE COMPLETED BY: MONTH 3.

COSTS (IN USD):

Action	*Cost Specification*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
one workshop for 30 participants and 3 days	Meeting organization Travel and subsistence for participants	KEPHIS Participants	 40 500	5 000

2.2 Curriculum development

DESCRIPTION:	The partners will develop curricula for courses designed to meet the preferences identified in 2.1. and using, as far as possible, a modular structure to allow the greatest possible range of options. It is anticipated that UoN will focus on modules leading towards a post-graduate diploma and degree, whilst KEPHIS will develop a range of shorter-term options including stand-alone courses, study tours and attachments. The process of curriculum development, and subsequently the elaboration of course modules (Activity 2.3.), will be informed not only by the questionnaire but also by an advisory *course development team*, comprising 8-10 phytosanitary specialists from other countries in the region. The composition of the team will be finalised at the beginning of the project, with input to the selection process from IPPC. The first of three *course development workshops* will be held in month 4, attended by the advisory team as well as the project partners, to initiate the curriculum development process.

PARTNER RESPONSIBLE: UON
TO BE COMPLETED BY: MONTH 6

COSTS (IN USD):

Action	*Cost Specification*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
Curriculum workshop - 10 participants for 5 days	Meeting organization	UoN	3 000	
	Travel and subsistence for participants	Participants	11 375	
	Local consultancy support	UoN	7 500	

2.3 Detailed design of individual course modules

DESCRIPTION:	After developing the structure of the courses and other learning opportunities to be offered by the Centre (Activity 2.2.), the content of each module will be designed and written, primarily by KEPHIS and UoN staff but also drawing on external expertise where necessary. There will be two course development workshops, in months 10 and 15, to guide the development process, provide additional technical input where required, and monitor progress. The content of the courses will reflect the preferences expressed by end-users (see 1.1.), but the following gives an indication of topics likely to be included in a post-graduate diploma course: *Introduction to agricultural trade (Globalisation and its implications for agriculture)* World agricultural trade; African agricultural trade; regional trading blocks; fresh produce exporters' associations; the WTO and agriculture; USAID TRADE; market access: requirements, negotiations; technical trade barriers; phytosanitary considerations in agricultural trade. *Mechanisms governing application of sanitary and phytosanitary measures* International plant protection convention (IPPC) and its committees; Codex Alimentarius Commission; WTO SPS Committee; Convention on Biological Diversity (CBD); Cartegena Protocol on Biosafety; National Plant Protection Organisations (NPPOs): NPPO facilities, equipment and personnel; Regional Plant Protection Organisations (RPPOs): mandate, structure, governance and responsibilities; phytosanitary capacity evaluation (PCE). *Phytosanitary legislation, regulations and standards* WTO SPS agreement; International Standards for Phytosanitary Measures (ISPMs); Codex standards; harmonised regional standards; regional standards; industry standards (EurepGap etc); principles of plant quarantine: import and export certification system, regulated non-quarantine pests, guidelines for phytosanitary certificates, code of conduct for import and release of exotic biological control agents, national legislation and regulations; certification; glossary of phytosanitary terms. *Phytosanitary hazards and pathways* Plant diseases and their causes: morphology and characteristics of fungi, bacteria, viruses, and nematodes; arthropods and other animals: general morphology of insects and mites, major insect pest orders and their life histories; weeds: classification, noxious weeds; reproduction and spread; seed diseases; pests and diseases of phytosanitary significance; pathways: soil, plant debris, wood packaging materials. *Monitoring, detection and diagnosis* Field monitoring methods, surveillance, pest free areas and areas of production, areas of low pest prevalence, inspection, sampling commodity shipments; disease diagnosis: isolation, identification methods, seed health testing; pest identification: examination and identification techniques *Phytosanitary measures during production* Control methods: field and green house sanitation, greenhouse growth media preparation, water source; chemical control: types of pesticides, pesticide application and equipment; IPM: IPM concept; safe use of pesticides: approved agricultural chemicals, worker safety precautions, disposal of pesticides, pesticide storage

	Phytosanitary measures post-harvest and during transport Grading and inspection; requirements of treatment: modified environment, irradiation, fumigation, temperature treatment, pesticides; packaging, storage, shipping methods; dry seed handling; systems approach; pest eradication and containment. *Pest risk analysis* Pest lists; PRA initiation: risk assessment, risk management, communication and documentation; information sources, risk assessment tools, ISPMs on risk analysis, ISPMs on risk analysis, risk analysis and CBD, Cartagena protocol. *Agriculture production and environment* Analysis of environmental risks, agricultural waste disposal, disposal of pesticides, pesticide storage, workers living conditions and sanitation, genetically modified organisms. *Principles of agricultural marketing* Policy and legislative frameworks; market intelligence; the market chain: farm-market linkages; contract farming; group marketing; value addition; impact of supermarkets; niche export markets (e.g. fair-trade, organic).

PARTNER RESPONSIBLE: UON
TO BE COMPLETED BY: MONTH 18

COSTS (IN USD):

Action	***Cost Specification***	***Responsible Partner***	***STDF Budget***	***KEPHIS Budget***
Two course workshops - 10 participants for 5 days	Meeting organization	UoN	6 000	
	Travel and subsistence for participants	Participants	22 750	
	Local consultancy support	UoN	15 000	

2.4 Training of "trainers"

DESCRIPTION:	The establishment of a training unit at the ACOPE warrants that its staff is capable of carrying out this training not only on a professional level, but also with adequate pedagogic and didactic skills. This may apply especially to staff seconded from KEPHIS to the ACOPE to carry out short-time, stand-alone courses. Two persons from KEPHIS, which will be seconded to the ACOPE, will receive academic training to prepare them for their tasks as trainers at the ACOPE. The training can be conducted at the UoN. Additionally, also distant-learning opportunities, such as the phytosanitary course modules at the University of Michigan, should be considered.

PARTNER RESPONSIBLE: KEPHIS
TO BE COMPLETED BY: MONTH 23

COSTS (IN USD):

Action	***Cost Specification***	***Responsible Partner***	***STDF Budget***	***KEPHIS Budget***
Academic training (UoN; University of Michigan) of two persons from KEPHIS	Tuition fees	KEPHIS	25 000	5 000

2.5 Upgrading equipment at JKIA[1] inspection facility

DESCRIPTION:	Although the phytosanitary facilities at JKIA are among the best in Africa, there are aspects which still require improvement to bring them up to the exemplary standard required for demonstration purposes in the context of the ACOPE. With regard to equipment, a range of items are needed to enhance the capacity of the inspection facilities: these include microscopes, illuminated magnifiers, and improved inspection tables with appropriate surfaces.

PARTNER RESPONSIBLE: KEPHIS
TO BE COMPLETED BY: MONTH 12

COSTS (IN USD):

Action	*Cost Specification*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
Purchase of equipment	laboratory equipment (microscopes, illuminated magnifiers etc.)	KEPHIS	50 000	

2.6 Training for staff from JKIA inspection facility

DESCRIPTION:	As with physical capacity (see 2.5), human capacity-building may also be needed to bring the JKIA facility up to the standard required for a demonstration and training facility. Training will also be needed in the use of the new equipment supplied by the project. The training will be carried out by an international consultant familiar with the equipment.

PARTNER RESPONSIBLE: KEPHIS
TO BE COMPLETED BY: MONTH 18

COSTS (IN USD):

Action	*Cost Specification*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
Hands-on training	International consultant	KEPHIS	20 000	5 000

2.7 Evaluation of information management systems

DESCRIPTION:	Specialised phytosanitary software packages have been developed to improve the efficiency with which phytosanitary data are managed, to generate import and export documentation electronically, and to link data on different aspects of phytosanitary management such as inspection, interception and the issuing of permits and phytosanitary certificates. Some programs have been developed by a single NPPO, and are usually specifically tailored to that country's needs. Others are more generic in their design and scope. The range of available options, and associated costs, will be evaluated at the start of the project to allow an informed choice of the most appropriate system. The selected system must be robust and adaptable to allow it to be subsequently easily adopted by other countries in the region. The electronic phytosanitary management system will provide a direct link between inspection and export certification, and play an important role in enhancing quality assurance.

PARTNER RESPONSIBLE: KEPHIS

[1] Jomo Kenyatta International Airport, Nairobi

TO BE COMPLETED BY: MONTH 6

COSTS (IN USD): NONE

2.8 Purchase and installation of selected software and ICT equipment

DESCRIPTION:	Customisation and installation of the selected system will be done by the company providing the software, or by consultants associated with it. However KEPHIS will also be closely involved in the process to ensure that its requirements are fully met. Computing equipment to run the information management system properly will be purchased.

PARTNER RESPONSIBLE: KEPHIS
TO BE COMPLETED BY: MONTH 12

COSTS (IN USD):

Action	***Cost Specification***	***Responsible Partner***	***STDF Budget***	***KEPHIS Budget***
Purchase of equipment	2 servers, 10 PCs & necessary accesories	KEPHIS	20 000	20 000
Installation of equipment & information management system	International consultant	KEPHIS	40 000	10 000

2.9 Training in use of new system

DESCRIPTION:	A training-of-trainers approach will be used to facilitate the training of port-of-entry staff at different levels. The training will be delivered by the software provider (or consultants associated with it).

PARTNER RESPONSIBLE: KEPHIS
TO BE COMPLETED BY: MONTH 23

COSTS (IN USD):

Action	***Cost Specification***	***Responsible Partner***	***STDF Budget***	***KEPHIS Budget***
Training sessions	International consultant	KEPHIS	40 000	10 000

2.10 Improvements to documented procedures

DESCRIPTION:	A workshop will be held, with input from IPPC, to improve and update existing documented procedures with respect to areas such as inspection and export certification, to ensure compliance with the relevant ISPMs. The updated documented procedures will be used as a model for training and demonstration.

PARTNER RESPONSIBLE: KEPHIS
TO BE COMPLETED BY: MONTH 18

COSTS (IN USD):

Action	*Cost Specification*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
one workshop for 10 participants and 5 days	Meeting organization Allowances for participants	KEPHIS Participants	 5 000	3 000

3. Activity 3 - Establishment of a PRA unit

3.1 Assessment of PRA needs and structures in the region

DESCRIPTION:	Experts of PRA, NPPO representatives and selected agricultural/horticultural companies from different African countries, will be invited to a needs assessment workshop in Nairobi, to assess their PRA needs and preferences. A second workshop will focus on the development of a PRA process and structure within the ACOPE and will establish a verification procedure for PRAs (e.g. perr-review process).

PARTNER RESPONSIBLE: KEPHIS
TO BE COMPLETED BY: MONTH 15.

COSTS (IN USD):

Action	*Cost Specification*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
two workshops for 30 participants and 3 days	Meeting organization Travel and subsistence for participants	KEPHIS Participants	 81 000	10 000

3.2 Establishment of an African network of pest risk analysts

DESCRIPTION:	The development of an African network of PRA experts is a tool for the PRA unit of the ACOPE which allows it to identify competent PRA experts in the region in order to outsource PRA activities to them or to request their input in the peer-review system. No special action has to be undertaken since the establishment of the network can be carried out under the workshops specified under 3.1.

PARTNER RESPONSIBLE: KEPHIS
TO BE COMPLETED BY: MONTH 18.

COSTS (IN USD): **NONE**

3.3 Access to scientific and technical literature needed for the PRA process

DESCRIPTION:	The PRA unit will require access to a range of information resources. The information needs of the unit will be established at the workshop of PRA experts, through the network of experts, and through contact with PRA units outside the region. The literature and databases in the main libraries in Nairobi will be reviewed (KEPHIS, KARI, KEFRI, University of Nairobi, ICRAF, ICIPE) and a list made of the main resources available, and items that are unavailable but required. A budget will be prepared for acquisition of the additional literature required. On-line or other digital sources of key data will be also listed and one-off and/or regular subscription fees listed..

PARTNER RESPONSIBLE: CABI

TO BE COMPLETED BY: MONTH 23

COSTS (IN USD):

Action	*Cost Specification*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
Assessment of literature availability	CABI analysis	CABI	7 000	
	Acquisition of literature	KEPHIS	8 000	2 000

3.4 Acquisition of climatic and population modelling programmes and staff training on these programmes

DESCRIPTION:	An important factor in the development of scientific PRA is the capacity to base risk predictions on computer modelling programmes which compare climatic data with population dynamics of specific pests. A number of such programmes are fairly widely used in developed countries (e.g. CLIMEX programme). KEPHIS will evaluate the available programmes on their applicability for African conditions and purchase the ones fitting the activities of ACOPE. PRA staff will be trained on the use of these programmes.

PARTNER RESPONSIBLE: KEPHIS
TO BE COMPLETED BY: MONTH 23

COSTS (IN USD):

Action	*Cost Specification*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
Purchase of modelling software	Software	KEPHIS	10 000	
Training of staff	By correspondence	KEPHIS	5 000	

3.5 Training of PRA staff

DESCRIPTION:	The training of the staff of the PRA unit will be an important component in the overall success of the service provided. Although, IPPC standards give clear guidelines on the theoretical ways to conduct a PRA, the practise of carrying out a PRA differs from country to country. Considering that one of tasks of the PRA unit is to provide export assistance, it would be of value if the staff of the centre is familiar with the practise of conducting PRAs in different countries. This familiarity with practises can only be achieved by having PRA staff trained at PRA units in different countries. At least five risk analysts are trained at different PRA units around the world for a period of at least four weeks.

PARTNER RESPONSIBLE: KEPHIS
TO BE COMPLETED BY: MONTH 12

COSTS (IN USD):

Action	*Cost Specification*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
Training of 5 staff members four weeks	Travel and subsistence	KEPHIS	55 000	

4. Activity 4 - Promotion of the ACOPE

4.1 Development & maintenance of project website and promotional material

DESCRIPTION:	As soon as the project starts, a project website will be set up. This could be hosted by the KEPHIS website, and will include reciprocated links to other partner and stakeholder websites. The website will be maintained and regularly updated to provide public access to information about the project's activities and progress. Once the structure of the various courses and other learning opportunities has been finalised (month 5; activity 2.2.), we shall commission the design and production of promotional materials such as posters, brochures and leaflets. These will be distributed as widely as possible in the region, via NPPOs, RPPOs, private sector agricultural and horticultural enterprises, trade associations etc

PARTNER RESPONSIBLE: KEPHIS
TO BE COMPLETED BY: MONTH 3 (development); MONTH 24 (maintenance, promotional material)

COSTS (IN USD):

Action	*Cost Specification*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
Set-up of a web-site	Local consultant	KEPHIS		2 000
Production of PR material	Design & production	CABI	10 000	
	Distribution costs	CABI	1 000	

4.2 Regional dissemination meeting

DESCRIPTION:	Near the end of the project, representatives of up to 25 NPPOs in the region will be invited to a meeting to raise awareness of the training and demonstration facilities offered by the Centre.

PARTNER RESPONSIBLE: CABI
TO BE COMPLETED BY: MONTH 24

COSTS (IN USD):

Action	*Cost Specification*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
Workshop for 25 persons for 5 days	Meeting organization	CABI	5 000	
	Travel and subsistence	Participants	36 875	

II Project Reporting & Evaluation

1. Project Reporting

The reporting on the progress of the project, including financial reporting, to the STDF and to partners will be carried out by CABI during the months 1, 8, 13 and 24, after respective meetings of the PMC.

2. Internal monitoring & evaluation

The project management committee will be responsible for the overall monitoring of the project progress and implementation. The IPPC, in its role as a PMC member, will provide technical supervisory services. In addition, each project partner will follow normal internal monitoring procedures. Within CABI Africa, the project manager will report directly to the Centre Director.

A major function of the first meeting of the PMC will be to develop a detailed work plan, against which progress will be monitored. The PMC will also ensure that components of the project (e.g. information management system) do not overlap with other technical assistance projects (HORTICAP).

3. External evaluation

An external evaluation will be conducted at the end of the project by an independent evaluator to be appointed by the STDF Secretariat. The independent evaluator should also audit possible overlap with other projects. The cost of this evaluation is estimated at USD 15,000, which has been included in the project budget.

Appendix 6

Timing of project activities: project duration 24 months

	DETAILED ACTIVITY	Q1	Q2	Q3	Q4	Q5	Q6	Q7	Q8
Activity 1	*1.1 Development of management structure and institutional framework.*								
	1.2 Preparation of a business plan								
Activity 2	*2.1 Assessment of training needs in the region*								
	2.2 Curriculum development								
	2.3 Detailed design of individual course modules								
	2.4 Training of "trainers"								
	2.5 Upgrading equipment at JKIA[2] inspection facility								
	2.6 Training for staff from JKIA inspection facility								
	2.7 Evaluation of information management systems								
	2.8 Purchase and installation of selected software and ICT equipment								
	2.9 Training in use of new system								
	2.10 Improvements to documented procedures								
Activity 3	*3.1 Assessment of PRA needs and structures in the region*								
	3.2 Establishment of an African network of pest risk analysts								
	3.3 Access to scientific and technical literature needed for the PRA process								
	3.4 Acquisition of climatic and population modelling programmes & staff training								
	3.5 Training of PRA staff								
Activity 4	*4.1 Development & maintenance of project website and promotional material*								
	4.2 Regional dissemination meeting								

[2] Jomo Kenyatta International Airport, Nairobi

Appendix 7

Budget

For the project implementation KEPHIS will provide four fulltime staff equivalents during the course of the initial implementation in the first 18 months to ensure it is up and running. After that the staff requirements from KEPHIS will be reviewed. The figures provided in the budget are in US Dollars (USD).

Activity	*Action*	*Specified Costs*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
Activity 1 - Development of an administrative structure					
1.1 Development of management structure & institutional framework	4 meetings of the PMC (9 participants/3 days) Legal assistance	Meeting organization Travel and subsistence for participants Local legal consultant	KEPHIS(I) Participants(III) KEPHIS	 24 400 20 000	12 000
1.2 Preparation of a business plan		Coordination of BP preparation	CABI	21 000	
Activity 2 - Establishment of a training unit					
2.1 Assessment of training needs in the region	one workshop for 30 participants and 3 days	Meeting organization Travel and subsistence for participants	KEPHIS(II) Participants(IV)	 40 500	5 000
2.2 Curriculum development	Curriculum workshop - 10 part. for 5 days	Meeting organization Travel and subsistence for participants Local consultancy support	UoN(I) Participants(V) UoN	3 000 11 375 7 500	
2.3 Detailed design of individual course modules	Two course workshops - 10 part. for 5 days	Meeting organization Travel and subsistence for participants Local consultancy support	UoN(I) Participants(V) UoN	6 000 22 750 15 000	
2.4 Training of "trainers"	Academic training of two persons	Tuition fees	KEPHIS	25 000	5 000
2.5 Upgrading equipment at JKIA inspection facility	Purchase of equipment	laboratory equipment	KEPHIS	50 000	
2.6 Training for staff from JKIA inspection facility	Hands-on training	International consultant	KEPHIS	20 000	5 000
2.7 Evaluation of information management systems					
2.8 Purchase and installation of selected software and ICT equipment	Purchase of equipment Installation of equipment & information management system	2 servers, 10 PCs & necessary acc. International consultant	KEPHIS KEPHIS	20 000 40 000	20 000 10 000
2.9 Training in use of new system	Training sessions	International consultant	KEPHIS	40 000	10 000
2.10 Improvements to documented procedures	one workshop for 10 participants and 5 days (mostly KEPHIS staff)	Meeting organization Allowances for participants	KEPHIS(I) Participants	 5 000	3 000
Activity 3 - Establishment of a PRA unit					
3.1 Assessment of PRA needs and structures in the region	two workshops for 30 participants and 3 days	Meeting organization Travel and subsistence for participants	KEPHIS(II) Participants(IV)	 81 000	10 000
3.2 Establishment of an African network of pest risk analysts					
3.3 Access to scientific & technical literature needed for the PRA process	Assessment of literature availability	CABI analysis Acquisition of literature	CABI KEPHIS	7 000 8 000	2 000
3.4 Acquisition of climatic & population modelling programmes & staff training	Purchase of modelling software Taining of staff	Software By correspondence	KEPHIS KEPHIS	10 000 5 000	
3.5 Training of PRA staff	Training of 5 staff members four weeks	Travel and subsistence	KEPHIS(VII)	55 000	

Activity	*Action*	*Specified Costs*	*Responsible Partner*	*STDF Budget*	*KEPHIS Budget*
Activity 4 - Promotion of the ACOPE					
4.1 Development & maintenance of project website and promotional material	Set-up of a web-site Production of PR material	Local consultant Design & production Distribution costs	KEPHIS CABI CABI	 10 000 1 000	2000
4.2 Regional dissemination meeting	Workshop for 25 persons for 5 days	Meeting organization Travel and subsistence	CABI(II) Participants(VI)	5 000 36 875	
Project management, monitoring & evaluation					
		Project management (3 days/month)	CABI	67 650	
	Two PMC meetings	Meeting organization Travel and subsistence for participants	CABI(II) Participants(III)	10 000 16 200	
	Technical Supervisory Services (FAO/IPPC)	six missions/1 person for 1,5 month staff time	IPPC(VIII)	53 865	0
	External evaluation		STDF	15 000	
SUBTOTAL				**753 115**	**84 000**
	Contingencies (4% of project value)			**30 125**	**3 360**
TOTAL				**783 240**	**87 360**

(I) The calculation of the costs for one meeting organization is based on:

Secretarial support	1 person month	Tasks include registration, communication with participants, practical arrangements etc.	600,- USD
Professional support	1,5 person month	Tasks include preparation of papers, rapporteur, participation at meeting etc.	1 800,- USD
Meeting room		Rent	400,- USD
Other overheads		Postage, telephone, coffee breaks, copying etc.	200,- USD

(II) The calculation of the costs for one meeting organization is based on:

Secretarial support	2 person month	Tasks include registration, communication with participants, practical arrangements etc.	1 200,- USD
Professional support	2,5 person month	Tasks include preparation of papers, rapporteur, participation at meeting etc.	3 000,- USD
Meeting room		Rent	500,- USD
Other overheads		Postage, telephone, coffee breaks, copying etc.	300,- USD

(III) The calculation of the costs for participants at one meeting is based on:

Travel	3 persons non-Kenyan	estimated costs for air-fare (economy class) 1200,- USD per person	3 600,- USD
	4 persons Kenyan	estimated costs for local transport 75,- USD per person	300,- USD
DSA	7 persons	UN rate for Nairobi = 200,- USD per day	4 200,- USD
	The IPPC member of the PMC is calculated separately (see budget line on IPPC), donor representative on own cost)		

(IV) The calculation of the costs for participants at one meeting is based on:

Travel	20 persons non-Kenyan	estimated costs for air-fare (economy class) 1200,- USD per person	24 000,- USD
	10 persons Kenyan	estimated costs for local transport 75,- USD per person	7 500,- USD
DSA	30 persons	reduced UN rate for Nairobi (provision of full board) = 100,- USD per day per person	9 000,- USD

(V) The calculation of the costs for participants at one meeting is based on:

Travel	5 persons non-Kenyan	estimated costs for air-fare (economy class) 1200,- USD per person	6 000,- USD
	5 persons Kenyan	estimated costs for local transport 75,- USD per person	375,- USD
DSA	10 persons	reduced UN rate for Nairobi (provision of full board) = 100,- USD per day per person	5 000,- USD

(VI) The calculation of the costs for participants at one meeting is based on:

Travel	20 persons non-Kenyan	estimated costs for air-fare (economy class) 1200,- USD per person	24 000,- USD
	5 persons Kenyan	estimated costs for local transport 75,- USD per person	375,- USD
DSA	25 persons	reduced UN rate for Nairobi (provision of full board) = 100,- USD per day per person	12 500,- USD

(VII) The calculation of the costs for trainees is based on:

Travel	5 persons	estimated costs for air-fare (economy class) 2 000,- USD per person	10 000,- USD
DSA	5 persons/30 days	approximate UN rate for developed country = 300,- USD per day per person	45 000,- USD

(VIII) In accordance with Article XIV (Payment of Supervisory Services (PSS)) the direct costs incurred by FAO in relation to the supervisory services (staff time, travel, DSA) + 12 % PSS shall be calculated and incorporated in the main project budget. The same information should also be reflected in the Supervisory Assignment to be concluded between WTO and STDF and will be on the basis that FAO will receive payments from WTO on the basis of the principle of 100% recovery.

Budget in relation to Activities

Activity	STDF Budget (USD)	KEPHIS Budget (USD)	Total Costs (USD)
Activity 1	65 400	12 000	77 400
Activity 2	306 125	58 000	364 125
Activity 3	166 000	12 000	178 000
Activity 4	52 875	2 000	54 875
Project Management	162 715	-	162 715
SUBTOTAL	**753 115**	**84 000**	**837 115**
Contingencies (4% of project value)	30 125	3 360	33 485
TOTAL	**783 240**	**87 360**	**870 600**

Appendix 8

TOR OF KEY PROJECT STAFF

Terms of reference for setting up of an information technology system related to the phytosanitary centre of excellence in KEPHIS HQ in Nairobi, Kenya.

1. BACKGROUND

Many countries in Africa lack the necessary infrastructure and capacity to demonstrate compliance with international standards which effectively excludes them from the major exports markets. This lack of capacity also increases the risk of the introduction and spread of invasive species and plant pests on the continent. The project aims to address this problem by increasing the potential for phytosanitary capacity building in Africa through the establishment of an African Phytosanitary Centre of Excellence in Nairobi (Kenya) for both the public and private sector. This will be done through a series of steps which include the setting up of an improved phytosanitary information management system; setting up the legal and institutional framework for a phytosanitary centre of excellence; develop an exemplary plant inspection facility for use as a demonstration and training tool; promote the centre and services it will offer within the region.

The lead agencies in the implementation of this project will be KEPHIS, the NPPO in Kenya and University of Nairobi, the largest university training facility in Kenya. They will be assisted by CABI and IPPC.

2. DESCRIPTION OF THE ASSIGNMENT

OVERALL OBJECTIVES OF THE PROJECT

To deliver phytosanitary capacity building in Africa through the establishment of an African Phytosanitary Centre of Excellence in Kenya.

SPECIFIC OBJECTIVE RELATED TO THE ASSIGNMENT

To set up an improved phytosanitary information management system, that is compliant with international standards.

REQUIRED OUTPUTS

The project will provide for an improved phytosanitary information management system that will serve as a model for other countries in the region. The system will allow for an integrated management of phytosanitary data in Kenya. These will include all aspects of data relating to inspection, interception and documentation (e.g. import permits, phytosanitary certificate), pest lists and PRAs, will be linked within the database. Another related output will be updated documented procedures in a model format for training and demonstration.

The specific outputs are:

1. Evaluation and identification of the appropriate software for phytosanitary information and management for the ACOPE.
2. Installation of selected phytosanitary system.
3. Training in the use of new phytosanitary system.

REQUESTED SERVICES

The requested services are the installation of the phytosanitary information management system and training in the use of the system valued at US $ 100,000.

3. EXPERTS PROFILE

The successful candidate will have a university degree in computer science, information technology or any related field. The following competencies and qualities will be taken into consideration when selecting the preferred candidate:

- Professional experience in the of field information technology. Those with knowledge in agricultural information technology systems with a bias towards phytosanitary issues will have a definite advantage.
- Proven track record in implementation and project management of information technology structures and procedures is required.
- English is the working language. The Expert shall be fluent in written and spoken English.
- Knowledge of Kenya and/or Kenya agricultural Sector will be an asset but will not be a necessity.

4. LOCATION

The location of the assignment will be in Kenya.

5. REPORTING

The consultant will report to the project management committee in Kenya, KEPHIS and CABI.

Appendix 9

EQUIPMENT LIST

Equipment to be purchased under Activity 2.8:

- 2 Servers
- 10 PCs
- neccessary accessories

Equipment to be purchased under Activity 2.5:

No	Item	Quantity	Price (KShs.)	Total cost (KShs.)	Total cost ($ US)
1.	Compound microscopes	2	700,000	1,400,000	20,000
2.	Stereo/dissecting microscope	4	300,000	1,200,000	17,100
3.	Illuminating magnifiers	15	25,000	375,000	5,400
4.	Lighted Inspection table	2	35,000	70,000	1,000
5.	Digital cameras – general	8	30,000	240,000	3,000
6.	Digital cameras – high resolution	3	80,000	240,000	3,500
				Total	**50,000**

Appendix 10

RELATED TECHNICAL ASSISTANCE PROJECTS

There have been a number of multilateral and bilateral programmes to strengthen phytosanitary capability in sub-Saharan Africa. These include:

- *FAO technical cooperation projects (TCPs):* Capacity building in NPPOs is an important element of FAO's mandate with regard to SPS issues. The IPPC Secretariat has managed the delivery of a series of FAO-funded TC projects in Africa with this aim, providing an important basis for further strengthening of national capacity. In the last five years, TCPs focusing on the general phytosanitary capacity building have been implemented in Sudan, Mauritania, Tunisia, Kenya, Nigeria, Eritrea, Seychelles, Zambia, Gabon, Uganda, Swaziland, the Gambia, Mozambique and Tanzania. A TCP in Namibia (TCP/NAM/3002) has focused on a review of SPS legislation, and one in Mauritius (TCP/MAR/0165) has strengthened capacity relating to seed and plant certification schemes. TCPs have also funded the application of the PCE in a number of African countries.
- *IPPC:* The IPPC has run several capacity building regional workshops on the international standards for phytosanitary measures (ISPM), skills training in pest risk analysis (PRA), and phytosanitary systems evaluation, to develop a core of professionals who can assist in the coordinated development of phytosanitary systems in Africa.
- *USAID/USDA Foreign Agricultural service (FAS) Trade Capacity Building Project:* One of the two primary areas in which this initiative works is defined as: *Helping developing countries meet their World Trade Organization (WTO) obligations and strengthening policy and regulatory frameworks, especially on sanitary and phytosanitary (SPS) measures, and avoiding or eliminating unjustified technical trade barriers.* FAS provides technical assistance, scientific training, and research opportunities to developing country decision makers, researchers, and scientists so they become familiar with the SPS standard-setting organisations (including IPPC) and their regulations. The project holds regional workshops for SADC, COMESA, and WAEMU involving policy officials, technical specialists, and private sector representatives from 37 sub-Saharan countries. There are also regional projects focusing on more specific SPS issues, such as the APHIS Pest Risk Assessment Project in southern Africa, which provides training in the development of pest risk lists and assessments, as the first step in the process of applying for export of agricultural commodities to the United States and other international markets.

  The USAID TRADE (Trade for African Development and Enterprise) initiative has established three 'hubs' in Gaborone, Nairobi and Accra. Each hub will have a representative from the US Department of Agriculture's Animal and Plant Health Inspection Service (USDA-APHIS) to assist the sub-regions to meet agricultural export standards, particularly in relation to US requirements. Linked to the East Africa hub is the RATES (Regional Agricultural Trade Expansion Support) programme, designed to promote agricultural trade within the region and to the rest of the world. Some training on SPS issues is provided under these programmes.

  - *EC Regional Integration Support Programme (RISP):* This programme aims to develop the capacity of regional trade organisations (COMESA, EAC, IGAD and IOC) and their member states in issues relating to regional integration and trade policy. It includes a component of capacity building to develop standards and meet international SPS requirements. This programme operates in 19 sub-Saharan countries (Angola, Burundi, Comoros, DRC, Djibouti, Eritrea, Ethiopia, Kenya, Madagascar, Malawi, Mauritius, Uganda, Rwanda, Seychelles, Sudan, Swaziland, Zimbabwe, Zambia).
- *COMESA Agricultural Marketing Promotion and Regional Integration Project (AMPRIP):* This project, funded by the African Development Bank, includes the following activities to promote inter and intra regional trade:

- ♦ Financial assistance to member states to update their legislation, regulations, PRA and information management
- ♦ Stakeholder consultation
- ♦ Accreditation and maintenance of laboratories
- ♦ Support to regional SPS committees

During 2006, COMESA commissioned CABI Africa to run a series of six two-week courses for SPS focal points and laboratory experts, to facilitate networking and the establishment of a base line for phytosanitary capacity building.

- *World Bank:* An IDA credit was approved in 2006 for the Rural Capacity Building Project in Ethiopia, which includes a component to strengthen SPS capability. Also in 2006, a joint World Bank/USAID assessment team evaluated SPS management in Zambia and made recommendations for improvements (in which KEPHIS was mentioned as a model to which to aspire).
- *UNCTAD*: In collaboration with WTO, UNDP, International Trade Centre and others, UNCTAD is involved in a range of trade-related technical assistance activities in Africa (e.g. INT0T4AF: Selected Commodity Issues In The Context Of Trade And Development). Several of these concern trade negotiations and the Doha work programme but none is specifically focused on the SPS Agreement. Nevertheless, the UNCTAD (2003) report on Economic Development in Africa points out the difficulties the continent has in meeting market exigencies such as SPS requirements.
- *World Bank:* An IDA credit was approved for Kenya for a "Kenya Agricultural Productivity Project (KAPP), which aims at revitalizing Kenyan agriculture by:

  (i) facilitating empowerment o f farmers to access and apply profitable and sustainable technologies;
  (ii) laying the groundwork for a pluralistic agricultural extension and learning system;
  (iii) integrating and rationalizing the national agricultural research system; and
  (iv) supporting analytical work to inform policy and institutional reform
- *USAID:* A project called the Kenya Horticultural Development Programme aims at increasing especially small holders capabilities to sustain sales and incomes especially in relation to horticulture and the participation in private standards (EurepGAP)
- *European Union:* A project called the "Pesticides Initiative Programme" (PIP) has mainly been established to enable ACP companies to comply with European food safety and traceability requirements; and to consolidate the position of small-scale producers in the ACP horticultural export sector.

Projects planned for the near future

- *University of Pretoria:* a project is underway to establish a "Eco-economic Decision Support System and Service" to enable biosecure international trade. The UoP project aims at establishing an internet portal and communal database which will pool biological and ecological information. An application to the STDF for partial funding of the project has been made.
- *European Union:* A project called the "Horticultural Produce Phytosanitary Certification & Quality Assurance (HORTICAP)" has been negotiated and is in the process of being accepted and basically aims at upgrading the capacity of KEPHIS. This project offers considerable possibilities for synergy with the proposed ACOPE project.
- *Norway:* BIOFORSK in Norway has proposed to the Norwegian authorities responsible for technical assistance a project on capacity building in Africa. The planned project foresees a number of phytosanitary seminars, on PRA. The workshops will focus on PRAs for specific crops and will be run over a period of four years in association with the African Union and the IAPSC.