

# BULLETIN D'INFORMATIONS PHYTOSANITAIRES PHYTOSANITARY NEWS BULLETIN



*Union Africaine*  
**African Union**  
*Uniao Africana*  
الاتحاد الأفريقي



**PHYTOSANITARY INFORMATION  
WORKSHOP**



**TECHNICAL EXPERTS' MEETING  
ON DRAFT PHYTOSANITARY  
STANDARDS**



**TRAINING WORKSHOP ON THE  
RECLASSIFICATION AND IMPROVEMENT  
OF INTEGRATED PESTS MANAGEMENT  
(IPM) FOR FRUIT FLIES CONTROL IN  
EASTERN AND SOUTHERN AFRICA**



**WORKSHOP ON CASSAVA  
PRODUCTION AND PROTECTION**



**ATELIER SUR LA MISE A JOUR DES  
LISTES D'ORGANISMES NUISIBLES**

# BULLETIN D'INFORMATIONS PHYTOSANITAIRES

## PHYTOSANITARY NEWS BULLETIN



### Directeur de

#### Publication/Publisher

Dr Jean Gérard MEZUI M'ELLA

### Coordonnateurs de la rédaction

#### Editing Coordinators

Prof. Jean Baptiste BAHAMA  
Dr Abdel Fattah Mabrouk AMER

### Equipe de rédaction/ Editors

Prof. Jean Baptiste BAHAMA  
Dr Abdel Fattah Mabrouk AMER  
Claude TENKEU  
Nana Sani Flaubert  
Zafack Joseph

### Rédacteur en Chef

#### Editor-in-Chief

Claude TENKEU

### Traduction/Translation

Claude TENKEU

### Adresse/Address

UA/CPI-AU/IAPSC  
B.P/P.O. Box 4170  
Yaoundé-Cameroun  
Tél: 22 21 19 69  
Fax: 22 21 19 67

Email: [au-cpi@au-appo.org](mailto:au-cpi@au-appo.org)

Site web: <http://www.au.appo.org>

## SOMMAIRE/CONTENTS

DESERT LOCUST BRIEFS JULY-DECEMBER 2010 .....	4
REPORT ON THE PHYTOSANITARY INFORMATION WORKSHOP .....	6
REPORT OF THE TECHNICAL EXPERTS' MEETING ON DRAFT PHYTOSANITARY STANDARDS .....	10
REPORT OF THE PAN-AFRICAN NPPOS MEETING FOR THE REVIEW OF DRAFT INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES .....	12
EVALUATION DE LA SITUATION ET ENQUETES SUR LES STRATEGIES NATIONALES DE LUTTE ANTI-AVIAIRE EN REPUBLIQUE D'ANGOLA .....	18
CAMPAGNE DE LUTTE MECANIQUE (DENICHAGE) CONTRE LES OISEAUX GRANIVORES .....	20
CONFERENCE PANAFRICAINNE SUR LA BIODIVERSITE ET LA LUTTE CONTRE LA PAUVRETE EN AFRIQUE: QUELLE OPPORTUNITES POUR L'AFRIQUE ?.....	24
PROJET PARTICIPATION DES NATIONS AFRICAINES AUX REUNIONS DES ORGANISATIONS CHARGEES DE L'ELABORATION DES NORMES SANITAIRES ET PHYTOSANITAIRES .....	26
REPORT OF THE CENTRE OF PHYTOSANITARY EXCELLENCE (COPE) LAUNCH AND THE SIXTH PROJECT MANAGEMENT COMMITTEE (PMC) MEETING .....	27
RAPPORT DE MISSION D'ENQUETES SUR LA SITUATION DES MOUCHES DES FRUITS AU MOZAMBIQUE .....	31
REPORT ON THE TRAINING WORKSHOP ON THE RECLASSIFICATION AND IMPROVEMENT OF INTEGRATED PESTS MANAGEMENT (IPM) FOR FRUIT FLIES CONTROL IN EASTERN AND SOUTHERN AFRICA .....	34
WORKSHOP ON CASSAVA PRODUCTION AND PROTECTION .....	37
ATELIER SUR LA MISE A JOUR DES LISTES D'ORGANISMES NUISIBLES .....	42
EXIGENCES DE LA CONFORMITÉ AUX NORMES PHYTOSANITAIRES (SPS) DANS LES FILIÈRES AGRICOLES: CAS DE LA FLORICULTURE .....	45

“Ensuring food safety and security — people having access to an affordable, nutritionally adequate diet, and African agricultural products accessing international markets— is vital to meet the Millennium Development Goal of poverty alleviation in Africa ”

# EDITORIAL



Dr. Jean Gérard MEZUI M'ELLA

Dans le dernier numéro du bulletin d'informations phytosanitaires du CPI-UA, nous avons fait état des différents programmes techniques pour lesquels le CPI a reçu des financements de la Commission de l'Union Africaine, en vue d'identifier les problèmes phytosanitaires en Afrique et d'esquisser avec l'appui des partenaires la recherche des solutions appropriées.

Le CPI veut par là faire partager son ambition de créer en Afrique une masse critique pouvant conduire les pays africains vers une gouvernance phytosanitaire de qualité et des organisations nationales de protection des végétaux cohérents dans leurs différentes approches dont on peut mesurer le progrès.

En nous basant sur les données du premier semestre 2010, nous pouvons nous réjouir de ce que les pays africains continueront de se conformer aux prescriptions de la Convention Internationale de la Protection des Végétaux dont l'Afrique, à l'instar des autres contrées du globe.

Le présent numéro de votre bulletin se promet de mettre en évidence l'étendue des mesures préconisées par le CPI en vue de tenir compte de l'impact des changements climatiques et d'autres formes de nuisibles du point de vue de leur impact négatif sur des productions végétales et de la sécurité alimentaire.

Sur un plan purement commercial, il est évident qu'il n'y a pas d'échanges commerciaux sans conformité aux standards internationaux. Les normes de la CIPV ne sont pas des instruments contraignants ; mais elles le deviennent dès lors que l'Organisation Mondiale du Commerce (OMC) les adopte dans le cadre des accords sur les normes sanitaires et phytosanitaires (SPS). Dès lors, il devient impérieux aux organisations nationales de protection des végétaux de les adopter et de les implémenter dans les différents pays, pour une production agricole saine et une sécurité alimentaire convenable.

In the last issue of AU-IAPSC's phytosanitary newsbulletin, we reported on the various technical programs for which IAPSC had received funding from the African Union Commission, with the view to identifying pest problems in Africa and working out appropriate solutions with the support of partners.

*AU-IAPSC thus wants to share its ambition to create a critical mass in Africa that can lead African countries towards quality phytosanitary governance and coherent national plant protection organizations in their approaches towards measurable progress.*

*Based on our results of the first half of 2010, we can rejoice that African countries continue to comply with the requirements of the International Plant Protection Convention, including other countries of the globe.*

*This issue of your newsbulletin reveals the extent of the measures advocated by AU-IAPSC to consider the impact of climate change and other forms of harmful pests in terms of their negative impact on food production and security.*

*On a purely commercial note, it is clear that there is no trade without compliance with international standards. IPPC standards are not legally binding instruments, but they become so when the World Trade Organization (WTO) adopts them within the framework of Sanitary and Phytosanitary Standards (SPS). Therefore, it becomes imperative for national plant protection organizations to adopt and implement them in all countries, for a healthy agricultural production and food security.*



## Desert Locust briefs July-December 2010

*Adapted from <http://www.fao.org/ag/locusts/en/archives/archive/index.html>*

### **2 July. Ecological conditions improving in the summer breeding areas**

The Desert Locust situation continues to remain calm in all countries. Ground control operations were undertaken last month against low numbers of locusts in Morocco and Algeria. Consequently, locust numbers have declined in these areas.

Currently, scattered mature adults are present in crops along the Nile in northern Sudan, isolated adults are present in the interior of Egypt, and small-scale breeding is underway in eastern Ethiopia.

Low numbers of solitarious adults are expected to move south from the spring breeding areas in Northwest Africa to the summer breeding areas in the northern Sahel of West Africa. Seasonal rains commenced last month in southern Mauritania, northern Mali and Niger, eastern Chad and in central Sudan. Ecological conditions have become favourable for small-scale breeding to take place during July and August, which will cause locust numbers to increase but they should remain below threatening levels.

Consequently, ground surveys should be carried out on a regular basis during the coming months.

### **3 August. Ecological conditions favourable in the summer breeding areas**

The Desert Locust situation continues to remain calm in all countries. Small infestations of solitarious adults were treated in central Algeria in early July.

During the remainder of the month, only scattered adults were reported in northern Sudan. Widespread good rains fell in the summer breeding areas of the northern Sahel between Mauritania and Eritrea during July. Although surveys have yet to commence in West Africa low numbers of solitarious adults are likely to be already present and perhaps breeding in some areas.

During August, small-scale breeding will occur in the above areas, causing locust numbers to increase slightly but remain below threatening levels.

All efforts should be made to conduct regular surveys during the next few months to monitor the situation.

### **2 September. Small-scale breeding in West Africa and Indo-Pakistan border**

The Desert Locust situation continues to remain calm despite good rainfall in the summer breeding areas of the Sahel in West Africa and Sudan. Small-scale breeding is in progress in southern Mauritania. It is almost certainly underway as well in parts of northern Mali and Niger, southern Algeria, eastern Chad, northern Sudan, western Eritrea. Survey teams are present in most of these areas except for Mali and Niger because of insecurity.

During the forecast period, small-scale breeding will continue in the above areas and locust numbers could increase rapidly. By mid-October, there is a low risk that locusts could concentrate in vegetation that remains green and form small groups, especially in northwest Mauritania.

Efforts should continue in conducting regular surveys in all areas during the next few months to monitor the situation.

### **17 September. Locusts reported along Indo-Pakistan border**

The Desert Locust situation remains calm in Africa and the Near East although there is a low risk that adults could concentrate in areas that remain green, particularly in northwest Mauritania and in northern Mali and Niger, and form small groups that may eventually require control.

### **5 October. Summer rains come to an end in breeding areas between West Africa and India**

The Desert Locust situation currently remains calm in all countries

In the summer breeding areas of the northern Sahel in West Africa and Sudan, seasonal rains declined dramatically in late September. Unless further rainfall occurs, vegetation will start to dry out and the scattered locust populations that are currently present are likely to concentrate in those few areas that remain green. In addition, adults present in southern Mauritania will move towards the west and northwest of the country. Consequently, small groups may form in northwest Mauritania, northern Mali and Niger, and northeast Chad in October. Adults present in the interior of Sudan will

# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

move towards the winter breeding areas along the Sudanese Red Sea coast. Small-scale breeding is likely to occur on the Red Sea coastal plains in areas of recent rainfall.

All efforts should be made to conduct regular surveys to monitor the situation.

## **15 October. Control operations underway along the Indo-Pakistan border**

The situation remains calm in other Desert Locust-affected countries in Africa and the Near East. Seasonal rains have ended in most of the summer breeding areas of the northern Sahel in West Africa and Sudan. As vegetation dries out in these areas, adults in southern Mauritania will move to northwest of the country where they could form small groups, while the adults in Sudan will move to the Red Sea coast. Low to moderate numbers of locusts are likely to remain in parts of northern Mali, Niger and Chad where they could concentrate and form small groups. The latest reports indicate that locusts are appearing in northwest Mauritania where populations are increasing slightly due to small-scale breeding.

## **4 November. Locust activity increases in several countries**

As a result of good rainfall and breeding during the summer, locust numbers have increased in Mauritania, Niger and Sudan. Vegetation is now drying out and the locusts are concentrating, increasing in density and, in some cases, changing from solitarious to gregarious, forming groups of hoppers and adults, hopper bands and a few small swarms. National control teams have been mobilized in Mauritania and Sudan.

The situation is most serious in northern Sudan where several hopper bands and at least one swarm has formed in the remote Baiyuda Desert. Unless controlled, locusts will increase further and move towards the winter breeding areas along both sides of the Red Sea.

In Mauritania, locusts have concentrated in the west where good rains fell and breeding is expected to continue until the end of the year. Consequently, there is a high risk the locusts could increase rapidly and eventually threaten northwest Africa. Treatment of the largest and densest infestations is aimed at reducing this possibility.

In Niger, locusts are concentrating in between the dunes of central Tamesna where vegetation remains green. Here, they are likely to form small dense groups.

All efforts should continue to monitor the situation carefully and take the necessary control measures in a timely and effective manner.

## **2 December. Desert Locust situation remains potentially serious in several countries**

The Desert Locust situation continues to remain a cause for concern in Sudan. Despite control efforts during November, adults formed small groups that moved to northeast Sudan and laid eggs while several other groups crossed the Red Sea to the northern coast of Saudi Arabia. If good rains fall in either country, locust numbers could increase rapidly and threaten the region. Therefore, it is essential that the highest priority be given to deploying additional survey and control teams in the field immediately in both countries. Elsewhere, the current situation is being monitored closely along the Indo-Pakistan border where control operations continued in November against gregarious infestations, in northern Mali and Niger where the situation is not entirely clear but locusts are likely to be present and gregarizing, and in northwest Mauritania where breeding and limited control operations are underway for the second consecutive month.

## **18 December. Desert Locust situation remains serious in Sudan**

The current Desert Locust situation remains worrisome in Sudan. During the first week of December, groups of adults and a few swarms moved from the northern interior to Wadi Diib in the northeast near Egypt and to the central Red Sea coast. Adults were laying eggs in both places. Some of these eggs have already hatched in Wadi Diib. Nearly 4,000 ha were treated by ground and aerial teams during the first half of the month. There is a high risk that locust numbers will increase significantly this month as hatching continues. The risk of additional movement across the Red Sea from Sudan to Saudi Arabia will decline as adults mature.

So far, only low numbers of adults were seen laying eggs in southeast Egypt, adjacent to the infestations in Sudan.

In West Africa, small groups of adults were present and laying eggs in northwest Mauritania where limited concentrations of hoppers were present. Ground teams treated 880 ha during the first decade of December.



## REPORT ON THE PHYTOSANITARY INFORMATION WORKSHOP

*Nairobi, Kenya, June 2010*



© Group Photo of participants

### 1. INTRODUCTION

The African Union's Interafrican Bureau for Animal Resources (AU-IBAR) is currently implementing a project entitled the "Participation of African Nations in Sanitary and Phyto-sanitary Standards-setting Organizations" (PAN-SPSO). The implementing partner for phyto-sanitary issues of this project is the African Union Interafrican Phyto-sanitary Council (AU-IAPSC).

The project mainly focuses on increasing the participation of African countries in standards setting meetings of the World Animal Health Organisation (OIE), the International Plant Protection Council (IPPC) and Codex Alimentarius for matters pertaining to animals, plants and food standards respectively. Besides increasing participation, the project also assists African countries in strengthening their capacity in managing sanitary and phyto-sanitary information. The availability of science-based evidence is critical for African countries to convince their trading partners, whether within Africa or beyond.

On the other hand, AU-IBAR is embarked on revamping its information system, the Animal Resources Information System (ARIS) introduced for the first time in 2002. A project for the design and development of the

2nd version of this application, ARIS 2 Project, started in July 2009. The project is tasked to come up with an improved version of ARIS with Sanitary and Phyto-sanitary information components for AU-IBAR and Member States. While ARIS 2 Project had already carried out the sanitary information needs assessment by engaging senior veterinary experts at AU-IBAR, such exercise has to be conducted for phyto-sanitary information involving phyto-sanitary information managers in Member States. Both ARIS 2 and PAN-SPSO Projects included this activity in their respective work plans and this workshop is in line with planned activities.

### 2. OBJECTIVES

This workshop was jointly organised by AU-IAPSC and AU-IBAR. The purpose of the workshop was to improve the current Phyto-sanitary reporting system and set up a database for SPS standards and issues by upgrading the current ARIS database used at AU-IBAR. It was conducted within the context of the PAN-SPSO project, which is specifically geared towards addressing the issue of low participation of African countries in the activities of International Standards Setting Organizations (ISSOs). The specific objective of the workshop was to analyse the current status of Phyto-

# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

sanitary information management including in-country, regional and international reporting and the use of a database and a website while identifying gaps and suggesting solutions.

## 3. EXPECTED RESULTS

The expected results of the workshop were better understanding and documentation of:

- The list of Phyto-sanitary field data, the frequency of collection, the forms used and the standard operating procedures in each of the participating countries.
- The existence of a database for the storage and analysis of Phyto-sanitary data and the dissemination of information using a website or any other media.
- The methods used by African Union Member States for regional and international reporting as well as the progress made in reporting.
- Gaps in Phyto-sanitary information management, starting from field data, analysis using database, dissemination of information to regional and international reporting explored and solutions proposed.
- Clear guidelines with actions to be taken in improving Phyto-sanitary information management with deliverables and timetable proposed.

## 4. APPROACHES

In order to achieve this objective, the status of Phyto-sanitary information management in selected AU Member States was presented through highlighting the parameters collected and the sources of these data, their management procedure (storage, analysis and dissemination) and reporting procedures. The presentations also included gaps observed and proposed solutions. The experiences of regional offices in Phyto-sanitary and zoosanitary information management were also presented.

Based on the above mentioned presentations and experience exchange, participants identified minimum Phyto-sanitary parameters/data to collect from the field as per national need and requirements for regional and international reporting, and how this can be harmonized. Participants listed the type of information needed and data generating, data sources, the forms used to collect, the frequency of collection and the mode of transfer to central authorities. Participants also discussed on how to store and analyse data collected from the field using databases and the methods used for disseminating information and regional and international reporting.

The workshop ran for two days, from 15th to 16th June 2010, in Nairobi, Kenya. The first day was dedicated to establishing the status of Phyto-sanitary information in AU Member States and the experiences of managing this or similar information at regional level. Hence, it mainly focused on presentations by country representatives and regional offices followed by discussions. The second day was dedicated to the future directions of Phyto-sanitary information

management in AU Member States, mainly the ways of improving the collection of Phyto-sanitary data from the field and reporting as well as the use of databases and information dissemination tools. This session included brainstorming, group work and plenary for discussing findings.

## 5. PARTICIPANTS

It was originally planned to bring together at least 20 participants from selected African Union Member States representing different sub-regions and Regional Economic Communities (RECs). Fifteen countries confirmed their participation but one. The workshop was attended by 25 participants drawn from African Union (AU) Member States, AU-IBAR and AU-IAPSC headquarters; the last two representing technical offices of the African Union Commission in zoosanitary and Phyto-sanitary information management respectively.

## 6. OPENING CEREMONY

The workshop was officially opened by Professor Ahmed El-Sawalhy, Director of AU-IBAR. In his speech, Prof. El-Sawalhy stressed on the importance of sanitary and phyto-sanitary issues and explained how AU-IBAR approached this by developing and implementing the PAN-SPSO project. "For us, both at IBAR and IAPSC, Sanitary and Phyto-sanitary (SPS) information is a critical component of our day-to-day activities. A recent communication by World Trade Organisation (WTO) indicated that among all trade-related concerns recorded between 2005 and 2009, 41% were related to animal health while 27% originated from plant health. This clearly shows the importance of the safety of agricultural products trade to curtail the spread of diseases and pests", Prof. El-Sawalhy said. He also mentioned that AU-IBAR was in the process of revamping the Animal Resources Information System under ARIS 2 project in order to enhance its information and knowledge management capacity and serve as reliable source for animal resources information in Africa. He added that "PAN-SPSO and ARIS 2 projects in collaboration with AU-IAPSC are setting up an SPS information sharing platform that will facilitate contact between trading partners within Africa and beyond".

In his remarks, Dr. Abdel Fattah Amer, Senior Scientific Secretary – Entomology reminded the participants of the great importance AU-IAPSC and all African countries attach to Phyto-sanitary information and urged all African countries to share such information amongst themselves in order to save Africa from pests and diseases. Dr. Amer made these remarks on behalf of the Director of African Union Interafrican Phyto-sanitary Council (AU-IAPSC).



# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

## 7. EXPERIENCES OF REGIONAL ORGANISATIONS IN MANAGING SANITARY AND PHYTO-SANITARY INFORMATION

AU-IBAR and AU-IAPSC gave presentations on their experiences in managing sanitary and Phyto-sanitary information. Dr Raphael Coly representing AU-IBAR started by briefly introducing the PAN-SPSO project; its objectives, the expected results and achievements per result to-date. He then contextualized the workshop in the flow of PAN-SPSO activities and highlighted the important expectations from the workshop deliberations. Pr Jean-Baptiste Bahama representing AU-IAPSC gave an account of its information management experience, recognizing the current relatively low level of activities. He emphasized on the need to receive information from AU Member States and the commitment of AU-IAPSC to improve information management services via ICT and other available means. Dr Berhanu Bedane representing AU-IBAR presented the organisations' achievements in sanitary information management before and during the introduction of ARIS I. The presentation highlighted the main improvements required in ARIS II and the need to harmonise formats and data fields in order to ease reporting to other ISSOs.

## 8. THE STATUS OF PHYTO-SANITARY INFORMATION MANAGEMENT IN AU MEMBER STATES

The workshop continued with country presentations highlighting current types of information managed, data sources, the forms used for data collection, the methods of collection, the means of information sharing, the constraints/challenges experienced so far, and the proposed solutions. 14 countries presented their country situations including Algeria, Burundi, Cameroun, Chad, Cote d'Ivoire, Egypt, Gabon, Mali, Nigeria, Senegal, Sudan, Tanzania, Uganda and Zambia. The main challenges identified were financial needs, lack of proper infrastructure and human resources; notwithstanding, a lot is ongoing in entry point surveillance, indigenous pest monitoring and data management. The verification of data, which helps in packaging officially recognized data, also remains a big concern. Lack of expertise in pest identification was highlighted as one of the main constraints which directly impacted the establishment of updated pest lists. The concern regarding institutional separation between quarantine inspection and plant protection was discussed at length as a way to improve coordination in data collation. Most countries share information with IPPC but not within Africa. Currently, a harmonized process to collect and disseminate data among RECs, neighbouring countries or to the AU-IAPSC doesn't exist.

## 9. CHARTING THE FUTURE OF PHYTO-SANITARY INFORMATION MANAGEMENT IN AFRICAN UNION MEMBER STATES

This brainstorming session started with an orientation by Dr Bedane. Participants were then requested to list and



© Participants following a presentation

rank, in order of priority, three (3) main types of information and two (2) inputs they would require to improve the management of phyto-sanitary information in their countries.

### 9.1. List of prioritised phyto-sanitary information

- Phyto-sanitary status of the national territory obtained through surveillance.
- Phyto-sanitary status of neighbouring countries.
- Information on the control of plants, plant products and other materials at entry and exit points.
- Notification of presence, occurrence and spread of potentially dangerous pests.
- Geographical distribution of pests affecting different crops mainly those crops of economic importance.
- Available pest control methods.
- Identification and list of pests (quarantine/regulated and non-quarantine/non-regulated).
- Technical and biological data required for pest risk analysis.
- List of plants.
- List of pesticides.
- Standards on Maximum Residue Levels.
- Legislation and regulation governing Phyto-sanitary activities.

### 9.2. List of inputs required for the improvement of phyto-sanitary information

#### Part I, Training on:

- Surveillance
- Pest identification
- Database management
- Phyto-sanitary data collection and reporting
- Plant risk analysis

#### Part II, Facilitation

- Support of staff working on Phyto-sanitary information
- Transport
- Fund to maintain Internet connection and regular update of Web sites



# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

## Part III, Equipment

- i- Inspection tools at points of entry
- ii- Diagnostic tools

## Part IV, ICT Support

- i- Computers
- ii- Server
- iii- Internet connectivity
- iv- Telephone
- v- Web site
- vi- Database

## Part V, Others

- i- Sensitization of decision makers and politicians
- ii- Networking (not clear whether this refers to computer network or network of data sources and information users or network of different organisations engaged in Phyto-sanitary activities)
- iii- Conducive laws and regulation
- iv- Implementation standards
- v- Harmonisation of reports
- vi- Better organisation of data collection and reporting

## 9.3.Outcome of Group Work

Participants were divided into 3 working groups which held in-depth discussions about the types of prioritised Phyto-sanitary information as well as inputs required for the improvement of the same. On legislation and regulations, participants felt that these were in place in their respective countries though fragmented and not working cohesively. The case in point was the harmonization of plant protection and pesticides legislations, and regulations within RECs. Under surveillance, participants acknowledged the existence of different lists which facilitated their work but in some countries, prohibition of products was dependent on risk analysis. For pesticides and maximum residue levels, there was the need for experts to harmonise legislation as well as support to monitor residue levels. Reinforced capacity in terms of resources was also pointed out for effective pest risk analysis. On information sharing, participants pressed for AU Member States to have a harmonised form to collect information and a continental portal for dissemination of information.

As concerns inputs, there was the general feeling that all groups did not define who would provide the inputs.

## 10.RESOLUTIONS PASSED AT THE END OF THE WORKSHOP

After deliberations on the establishment of the status and future directions of Phyto-sanitary information management in AU Member States, participants passed the following resolutions:

1- Prepare a standardized Phyto-sanitary reporting form and completing guidelines for data collection and their standard operating procedures (i.e. frequency of

collection, deadlines of submission, reporting channels, etc). Responsibility of AU-IAPSC, by 30th September 2010.

2- Circulate the draft reporting form to a taskforce (composed of all 14 participating African Member States (MS)) for comments. Proceed to next stage based on a minimum of 50% comments received. Responsibility of AU-IAPSC, by mid-October 2010.

3- Send the finalized reporting form to all NPPOS in Africa for comments and endorsement. Responsibility of AU-IAPSC, by 31st October 2010.

4- Assess the capacity of African Union MS to collect data and file reports. Assistance provided to the African Union MS which lack reporting capacity. Responsibility of AU-IAPSC, by 30th November 2010.

5- Organize training (i.e. Training of Trainers) for African Union MS on how data should be collected using the finalized reporting form. Responsibility of AU-IAPSC, by 31st December 2010.

6- African Union MS start reporting using the standardized reporting form to AU-IAPSC. Responsibility of African MS, by 31st January 2011.

## 11.CLOSING OF THE WORKSHOP

After two days of successful deliberations, the workshop was closed with remarks from Dr. Abdel Fattah Amer, AU-IAPSC Senior Scientific Secretary for Entomology. In his closing remarks, Dr. Amer thanked the organisers and emphasised the need to work together as a team to achieve agreed tasks. He urged Member States to work together with the AU technical agencies particularly in responding to invitations and reporting submissions.

## 12. CONCLUSIONS

The workshop was well attended and achieved its set objectives. The status of phyto-sanitary information in each of the workshop participating countries became clear from the presentations made. Through individual and group work, participants also identified the key phyto-sanitary information needed for effective planning and decision making as well as inputs required for improving phyto-sanitary information management. The workshop underscored the need for better phyto-sanitary information sharing through reporting and feedback as well as the development of a database. A clear road map for the way forward was articulated in the resolutions passed with implementation time-table and responsibilities. The speedy completion of these activities will enable the ARIS 2 project team to design and develop the phyto-sanitary component of the database.

## REPORT OF THE TECHNICAL EXPERTS' MEETING ON DRAFT PHYTOSANITARY STANDARDS

COMESA Conference Hall, Lusaka, Zambia

August 6-7, 2010



© Group Photo of participants

### 1. INTRODUCTION

The technical experts meeting on draft phytosanitary standards came as a result of African contracting parties to IPPC having difficulties harmonizing their position prior to CPM meetings. The meeting held at the COMESA conference hall on August 6-7, 2010. On the eve of the Africa regional workshop to review the draft International Standards for Phytosanitary Measures and draft specifications for ISPMs, this meeting aimed at preparing continental consultation. It was an occasion to bring together experts to brainstorm on pertinent issues affecting the phytosanitary situation of Africa.

### 2. OPENING CEREMONY

The meeting was opened by Dr. Jean Gerard Mezui M'Ella; AU-IAPSC Director. He highlighted the low level of compliance with ISPMs by member countries of the African Union, the ownership of some of these standards and the non satisfaction of the Regional Plant Protection Organization of the performances of African nations during the CPM meetings at Rome. The meeting was attended by experts from Cameroon, Ivory Coast, Nigeria and Zambia, including some technical staff of AU-IAPSC and AU-IBAR. It was facilitated by Prof. Jean Baptiste Bahama, Senior Scientific Officer Phytopathology at AU-IAPSC.

### 3. OBJECTIVES

The objectives of the meeting were to provide an opportunity to experts and technical staff of both sister technical offices from African countries to brainstorm on the process of standards setting committees and to point out critical steps where common position is needed. Fundraising opportunities for the common position and sharing of experience of both specialized technical offices of AU were also discussed.

### 4. PRESENTATIONS

#### 4.1. IPPC Standards Setting Procedure

Mr. Bakak gave an overview of the IPPC standards setting process. Upon discussion, it was noted that this standards process should be adapted to the time frame flow chart. According to IPPC, regional standards could also be developed on specific topics. SADC was presented as the Regional Economic Community that always consolidates its position on draft CPM meeting agenda before the holding of the meeting. There was a call for strengthening other RECs to consolidate their position on draft agenda of CPM meetings and to effectively master the eight steps in the drafting standards process.

#### 4.2. Critical stages/steps for building common position: Experience of OIE

Dr Coly, PANSPSO project Coordinator at AU-IBAR, outlined the main steps for the harmonization and adoption of common position for Africa. He pointed out that AU-IBAR holds three technical meetings and one continental meeting to be able to harmonize and adopt common position about OIE standards issues.

#### 4.3. Explanation of OIE chart

Dr. Biaou presented the flow chart adopted by AU-IBAR that enables the office to adopt common position on current and future draft standards. The experts group worked on this chart to adapt one for the draft standards on plant health.

#### 4.4. Brainstorming on the process of building common position

Upon brainstorming, the expert group came up with a chart to be completed during the African regional consultation on draft ISPMs. This chart will enable AU-IAPSC to put in place a mechanism that will help, together with partners, to strengthen African countries to consolidate their position regarding phytosanitary during CPM meetings. A concept note will have to be developed to clarify the chart.

#### 4.5. IPPC standard setting work programme

Mr. Sakala took the floor to present the programme as adopted during the CPM5 meeting. This enabled participants to broaden their knowledge and understanding. His explanation may help in the concept note for the plant health designed flow chart.

#### 4.6. Quick review of the 2010 drafts standards

Mrs. O. Olusola Awosusi made a presentation of the five draft ISPMs and draft specifications which were to be reviewed during the consultation meeting. Discussion followed on background, outline requirement, main issues associated with drafting. The identification of key points for NPPOs' discussions was the aim of her presentation.

### 6. CLOSING CEREMONY

Closing remarks were given by Mr. Arundel Sakala of ZARI and the Director of AU-IAPSC. The experts group was thanked for their valuable contributions which will enable African countries to harmonize and adopt common positions during CPM meetings. AU-IAPSC was encouraged to advocate for NPPOs to have institutionalized pests surveillance and Pest Risk Analysis to be able to come up with pests lists. COMESA was congratulated on making available its conference hall. PAN-SPSO project coordination was also congratulated on making available funds to host the meeting. The Director of AU-IAPSC then closed the experts meeting prior to the upcoming consultation meeting on draft ISPMs and draft specifications.



## REPORT OF THE PAN-AFRICAN NPPOS MEETING FOR THE REVIEW OF DRAFT INTERNATIONAL STANDARDS FOR PHYTOSANITARY MEASURES

Lusaka, Zambia - 09 - 13 August, 2010



Group photo © IAPSC

### I. INTRODUCTION

The regional workshop for the review of draft International Standards for Phytosanitary Measures (ISPMs) is an annual activity which contracting parties are called upon to implement. This meeting came up after the publication of the 2010 draft ISPMs by IPPC for comments. It is the second meeting to be organized by the Inter-African Phytosanitary Council of African Union (AU-IAPSC) with the logistical Support of the PAN-SPSO project with the sister organization, the Inter-African Bureau for Animal Resources of African Union (AU-IBAR).

During this meeting, participants from African contracting parties, FAO, AU-IAPSC and other organizations reviewed and provided input to five ISPMs and three draft specifications including a quarantine guide for forestry. Specifications for ISPMs provided the basis for the content of the future ISPM. The specifications provided the drafting group with directions on what to consider when building the ISPM, and also outlined the content and set the scope of the future ISPM. Available Templates of draft ISPMs and draft specifications for submission of comments were properly and carefully filled by each of the two groups upon appropriate discussions and presented in the plenary for adoption by consensus.

The templates containing comments from the participants will be submitted through the IPPC contact point to the Secretariat by e-mail to IPPC@fao.org. The official deadline for comments for all National Plant Protection Organizations and Regional Plant Protection Organizations is 30 September 2010.

### 2. OPENING CEREMONY

The meeting was marked by five speeches :

The welcome address of the Director of AU-IBAR was pronounced by Dr. Biao who thanked participants for accepting the invitation, before emphasizing on the Inter-African Phytosanitary Council (IAPSC) and the Inter-African Bureau for Animal Resources (IBAR) which are both technical offices of the Department of Rural Economy and Agriculture (DREA) of the African Union Commission responsible for sanitary and phytosanitary matters. This justifies why the Participation of African Nations in Sanitary and Phytosanitary Standard-setting Organizations (PAN-SPSO) Project is implemented by the two offices. This project was actually launched in response to the pressing need of enhancing the capacity of AU Member States' participation in Standard Setting Organizations. Within this project, issues related to animal health and food safety are dealt with at AU-IBAR; the part related to plant protection is under the responsibility of AU-IAPSC. He also urged active participation in the discussions and sharing experiences and trusted commitment of participants to help Africa defend its interests where decision making tools are produced. He hoped participants will come up with coordinated and common position of Africa on ISPMs as well as with a sustainable mechanism of coordination of Africa position.

Ms.Clarendon, Plant Protection Officer FAO, Accra thanked participants on behalf of FAO and the IPPC (International Plant Protection Convention) Secretariat. She spoke of the importance of the consultation meeting and the presence of the members of the Standard Committee who are key in facilitating the consultation; they represent Africa and therefore need to be informed

# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

by NPPOs on issues pertaining to the Draft Standards and to inform CPM Bureau on African issues. This workshop was previously organized first by the IPPC Secretariat, then, by FAO RAF; now it has been passed on to AU-IAPSC for hosting and coordination.

This has been so since 2009 and FAO is looking forward to their continued involvement in that role. She also recognized the key input by the PAN SPSO Project (Participation of African Nations in Sanitary and Phytosanitary standards Setting Organizations), facilitating the hosting of the consultation on the Draft ISPMs, development of standards for Africa and the implementation of adopted standards. She encouraged countries to continue to participate fully, make timely contributions.

On behalf of the European Commission, Mr Moustapha Magumu, Advisor to the European Union (EU) delegation to the African Union in Addis Ababa, Ethiopia, thanked Dr Mezui M'ELLA, AU-IAPSC Director, the Zambian authorities, the representatives of Regional Economic Communities, FAO, IPPC, the Organisers and all the experts for inviting EU to this worthwhile PAN-African NPPOs meeting on the review of Drafts International Standards for Phyto-Sanitary Measures. He declared that his presence was a testimony of the great importance the EU and others attach to Phytosanitary issues affecting Africa. He advised on SPS and public health issues as they relate to the continent. He congratulated AU-IBAR and AU-IAPSC on their hard work, which is beginning to show fruitful results in preparing African Delegates to put forward common positions in OIE, Codex and IPPC meetings. The EU is proud to be associated with these positive developments of the PAN-SPSO programme, which of course, EU strongly supports.

Dr. Jean-Gérard MEZUI M'ELLA, AU-IAPSC Director, thanked the Government and people of Zambia for hosting the meeting and the PAN-SPSO project and his institution for preparing the consultation and offering the necessary logistics. In addition, he also spoke about the five draft ISPMs and draft specifications to be reviewed by participants under the guidance of African members of standards committee and provided future directions. He welcome participants, especially the delegations from COMESA, SADC, FAO and EU and the NPPOs. It was noted that this consultation was being organized and held for the second time by AU-IAPSC.

Mr. Moses Mwale, Deputy Director of the Zambia Agricultural Research Institute (ZARI) on behalf of the Permanent Secretary of the Ministry of Agriculture and Cooperatives gave the opening speech. He spoke about the International Plant Protection Convention (IPPC), which is the official organ under FAO that is developing standards for plants and plant products for International use. This ensures safe trade and prevention of the spread and introduction of pests of plants and plant

products, especially into endangered areas, and to promote appropriate measures for their control. The high level of participation testified the importance attached to topics discussed at the workshop. He advised participants to review the five draft ISPMs and draft specifications, discuss and formulate recommendations that would be vital in the development of the national comments for the draft ISPMs in question. Being aware that some African countries have not yet signed the convention, he then urged them to consider doing so for the benefit of all. It was a time to start thinking of how future pan African meetings will be sustained. He finally thanked the organizers, facilitators and sponsors of the workshop. He welcome foreign delegates, to Zambia and declared the workshop officially open.

## 3. PURPOSE OF THE WORKSHOP

Prof. Bahama, IAPSC's Senior Scientific Officer Phytopathology outlined the main purpose of the workshop: provide participants from African countries with a regional forum to discuss the draft International Standards for Phytosanitary Measures (ISPMs). These discussions would help participants gain a better understanding of the national and regional impact of the proposed standards and provide a basis for the development and submission of national comments. This workshop covered the following draft ISPMs and draft specifications:

### 3.1. Draft ISPMs

- Systems approaches for pest risk management of fruit flies;
- Submission of new treatments for inclusion in ISPM No.15;
- Integrated measures approach for managing pest risks associated with International trade of plants for planting;
- Irradiation treatment for *Ceratitidis Capitata* (Annex to ISPM 28) and
- Diagnostic protocol for Plum pox virus;

### 3.2. Draft Specifications

- Minimize pest movement by air containers and aircraft;
- Systems for authorizing phytosanitary activities;
- Safe handling and disposal of waste with potential pest risk generated during international voyages
- Guide to implement phytosanitary standards for forestry

## 4. OVERVIEW OF THE IPPC

Dr. Khaled ALROUECHDI briefed participants on an overview of IPPC, ISPMs, SPS Agreement, IPPC administrative framework, and the Standards setting process. He emphasized on opportunities for member



# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

participation and member consultation process, implementation and exchange of information and finally on Technical Assistance. He revealed that the IPPC was adopted in 1951 and revised in 1979 and 1997 respectively; it currently has 173 members and aims at protecting the world plants against pests. The presenter developed the relationship between IPPC and WTO-SPS, the IPPC key principles, obligations of contracting parties, its administrative framework (CPM, NPPO, RPPO and secretariat). He also discussed the Standards Committee (SC), the Expert working groups, the Technical panels (TPs), subsidiary body on dispute settlement, the status of NEPPO, the ISPM and standards setting programme as well as steps in the standards setting process. New topics added to the five draft ISPMs to be reviewed were highlighted. He finally threw more light on information exchange before opening the floor for discussion. It was noted that this meeting was held to assist countries in the preparation of their comments on draft ISPMs. Official comments should be submitted to the IPPC Secretariat by the national IPPC contact point before the deadline of 30 September 2010. During this presentation additional information were given by the African members of the IPPC bodies: Bureau (Mr. Arundel Sakala, Zambia), Standards Committee (SC), (Mr. Mike Holtzhausen, South Africa), subsidiary body on Dispute settlement (Mr. Lucien Kouame, Côte d'Ivoire), two NPPOs, (Sudan and Côte d'Ivoire), and RPPO (Dr. J.G. MEZUI M'ELLA), IAPSC Director.

## 5. ORGANIZATION OF WORKING GROUPS AND ELECTION OF BUREAUX

Participants were grouped into two; English and French speaking.

The meeting elected Dr. Nagat Mubarak El Tayeb and Dr. Lucien Kouame as chairpersons, and Mr. Randy Stravens and Mrs. Seraphine Minko as Rapporteurs for the first and second group respectively.

## 6. REVIEW OF DOCUMENTS AND DISCUSSION OF DRAFT ISPMs AND DRAFT SPECIFICATIONS

The following five draft ISPMs and draft specifications were reviewed and comments were recorded. Participants were grouped into English and French speaking groups. In each group a chair and rapporteur were elected. Drafts were reviewed and adopted by consensus one after another by each group before presentation at the plenary session. In each group a power point presentation of each draft was done by an appointed participant to the entire group, followed by explanations by the members of the Standards Committee. Each group at the end of reviewing individual draft and draft specification took time to re-examine the entire comments of draft templates before taking them to the plenary session. Each participant could also note down comments which will be used at

national consultation level prior to submission to the IPPC secretariat. During the plenary session, both rapporteurs of the groups read their respective reports and they were adopted by consensus by participants. The following sections capture the main discussion points for each of the draft ISPMs and draft specification reviewed.

### 7.1. Draft International Standards for Phytosanitary Measures:

#### 7.1.1. Systems approaches for pest risk management of fruit flies

An appointed participant in the group read the presentation of the draft ISPM. Substantive comments were effected on reference paragraph numbers 10 and 20; background 30 and section 1.2 paragraph no 46, 60 and 93

#### 7.1.2. Submission of new treatments for inclusion in ISPM No.15

After presentation, the general comments were reviewed. Substantive comments were made on introduction paragraph no 6 and 7; section 2 paragraphs no 22 and 23. Editorial comments were done on paragraph 7, 22 and 33.

#### 7.1.3. Integrated measures approach for managing pest risks associated with International trade of plants

Upon reading the presentation of this draft, substantive comments were made on paragraphs no 18,31,44,57,61,63,74,78,98,92,95,108,114,119 and 121. Editorial comments were effected on paragraphs no 3,17,18,32,41,52,81,82,85,87,98,100,106 and 110.

#### 7.1.4. Irradiation treatment for *Ceratitidis Capitata* (Annex to ISPM 28)

The presentation was clear and no substantive issue was raised during the review of the document.

#### 7.1.5. Diagnostic protocol for Plum pox virus

Upon reading the presentation, the draft was so technical and required specialists to explain. The general comment was reviewed. Substantive comments were made on paragraphs 6, 10 and 11. There was a need to insert into the text example of optional hosts which may be found in Africa. Collaboration of NPPOs with agricultural research institutes and universities was considered necessary. There was also the need to enhance the capacity of African countries on this draft.

### 7.2. Draft specifications

# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

Three draft specifications were reviewed in addition to the guide on forestry.

## **7.2.1. Minimizing pest movement by air containers and aircraft**

The reading of the presentation was clear. No comment was made on the text.

## **7.2.2. Systems for authorizing phytosanitary activities**

The reading of the presentation was clear. No comment was made on the text.

## **7.2.3. Safe handling and disposal of waste with potential pest risk generated during international voyages**

The presentation upon reading was clear to participants. The general comment was reviewed. Substantives comments were made on the scope and purpose section

## **7. ORGANIZATION OF FUTURE REGIONAL WORKSHOPS ON DRAFT ISPMs**

Participants agreed that it was time to start thinking of how future pan African meetings will be sustained, since the Project Participation of African Nations in Sanitary and Phytosanitary Standard-setting Organizations (PAN-SPSO) is ending in 2011. This project has helped organize past and current consultation meeting on draft standards. They recommended that AU-IAPSC should start exploring other financial sources, so that the holding of the continental consultation meeting on draft ISPMs should be sustained.

### **8.1. Funding strategy and action plan**

AU-IAPSC together with the existing African Regional Economic Communities were charged to deal with decreased resources and consider alternative sources of funding consultation meetings on draft ISPMs. National Plant Protection Organizations (NPPOs) with IAPSC will strongly lobby for funding resources for workshops. A request shall also be tabled by AU-IAPSC and/ or NPPO to IPPC secretariat for assistance in holding future consultation meetings. The Director of AU-IAPSC was requested to seek the support of the African Union Commission (AUC) in order to sustainably fund activities of the proposed Secretariat for phytosanitary measures and the common process for better position of Africa in standards setting. These activities should be included in the annual Agenda of AU-IAPSC in accordance with its continental mandate. NPPOs should always think along with research organizations, universities and ministries.

### **8.2. Topics for consideration at future workshops**

There were no specific topics for consideration for future workshops agenda. However since there is a weak and / or absence of collaboration between forestry and Phytosanitary experts, effort will be made to set up guides binding the plant quarantine and forestry services. Consultations shall continue at national level to come up with specific topics for proposition to the IPPC secretariat. Limitation of the propagation of pests by water and Minimization of the risks related to the dissemination of pests through transport of waste by the sea and railway could be proposed as new topics for consideration.

## **9. PROGRESS REPORTS BY PARTICIPANTS ON THE IMPLEMENTATION OF ADOPTED ISPMs**

Participants pointed out that the adoption of ISPMs is faster than their implantations. There is a need to reflect on this issue and strengthen the capacity of African countries on standards compliance.

### **9.1. Presentation of outline comment system for draft ISPMs**

The IPPC Secretariat gave a brief presentation on the development of the online draft ISPM comment system and requested volunteers to participate in its testing in summer 2010. Substantives and editorial comments were made on draft ISPMs. Participants were invited to take note of comments collected at this workshop and utilize them as they felt appropriate in their preparation of national comments. National comments should be submitted through the NPPO contact point to the IPPC secretariat not later than 30 September 2010.

### **9.2. Request for diagnostic protocol translation into FAO languages**

The IPPC Secretariat presented the details of this mechanism, insisting that contracting parties who are unable to review the draft ISPMs (including diagnostic protocol) in English, may submit a request to the IPPC Secretariat to be translated into one of FAO's languages. This request should be submitted within two weeks from the date of posting the list of ISPMs approved for member consultation. Requests will be accepted only from the NPPO Contact Point and should be submitted to [IPPC@fao.org](mailto:IPPC@fao.org).

However, based on the difficulties identified during the development of the Diagnostic protocol for Plum pox virus, which were presented during the meeting only in English, the African French speaking countries did not approve the adopted mechanism and wished IPPC to keep in mind the need to translate these ISPMs automatically into French.



# ACTIVITES DU CPI/UA/IPSC/UA'S ACTIVITIES

## 9.3. Guides for Foresters

The IPPC Secretariat briefly presented information on the Guide to implementation of Phytosanitary Standards in Forestry. It was mentioned that the guide will be published in 2011 in all FAO languages.

## 9.4. IPPC website

Issues regarding browsing the new IPPC website were presented and discussed, in collaboration with representatives of Cameroon and Burkina Faso. The limited time didn't permit to give more details related to several points. However a long discussion on this subject took place separately outside of the meeting sessions.

## 9.5. Participants survey

A link to the online participant survey for the workshop was provided in English and French languages and it was shown how to complete the survey online. The participants were encouraged to submit it during the meeting.

### English version

[https://www.ippc.int/index.php?id=workshops\\_on\\_draft\\_is\\_pm\\_eval&no\\_cache=1&L=0](https://www.ippc.int/index.php?id=workshops_on_draft_is_pm_eval&no_cache=1&L=0)

### French version

[https://www.ippc.int/index.php?id=workshops\\_on\\_draft\\_is\\_pm\\_eval&no\\_cache=1&L=2&tx\\_simplesurvey\\_pi1\[showU id\]=13&cHash=424588c82c](https://www.ippc.int/index.php?id=workshops_on_draft_is_pm_eval&no_cache=1&L=2&tx_simplesurvey_pi1[showU id]=13&cHash=424588c82c)

## 9.6. Update on PAN-SPSO activities

PAN SPSO is a project which covers 47 African ACP countries with an implementation period ranging from May 2008 to December 2011. It aims at facilitating effective participation of African countries in the activities of the OIE, IPPC and Codex Alimentarius Commission (CAC) during the formulation of international standards on animal (terrestrial and aquatic) and plant health, and food safety. Upon completion the expected results are:

1. African countries strengthened to empower SPS offices for effective participation in SPS standard setting activities.
2. Common position of African nations in SPS standards at continental and REC levels strengthened.
3. Technical capacity of African countries to draft standards and to develop arguments strengthened.
4. Relevant SPS-related data and information acquired and disseminated to African countries through established accessible information sharing platform Studies and applied research.

In each of the above cited results, Dr .Biaou pointed out some achievements so far obtained before projecting on

activities in the pipeline.

## 9.7. Report of the technical meeting

The secretariat chart drawn by experts during the technical meeting was presented to participants for comments.

## 9.8. Mechanism for building common position

A tentative TOR for the IPPC's secretariat for phytosanitary measures, its missions and functioning mechanism were presented to participants for comments. They agreed to further look into the issues at national levels.

## 9.9. Online system for compiling member comments

The purpose of online system which is, achieving standard setting work programme goals with limited secretariat staff resources and streamlined comment system for members was discussed. Emphasis was put on the time line, system workflow scheme and mechanism for the requests for diagnostic protocol translation.

## 9.10. The potential training areas to be targeted during Phase II of the Better Training for Safer Food(BTSF) Africa Programme

Mr. Moustapha Magumu, EU Delegate to the AU presented Better Training for Safer Food (BTSF) activities and the background of DG SANCO which provides training in the areas of Food and feed law, animal health rules, animal welfares rules, and plant health rules. He emphasized on the second phase of BTSF (2011-2013) which will concern phytosanitary issues that include implementation of the referential, rapid alert, traceability and border inspection controls and regional / pan-African food safety authorities and inspectorate bodies.

## 9.11. The Comprehensive Africa Agriculture Development Programme (CAADP)

Ms. Clarendon of FAO Accra presented the four pillars of CAADP which involve extending the area under sustainable land management, improving rural infrastructure and trade-related capacities for market access, increasing food supply and reducing hunger and agricultural research, technology dissemination and adoption. However the crop protection situation analysis issues of the continent should be taken into account in this important programme.

## 9.12. Capacity Building Strategic Plan

Mr. Sakala pointed out that the development of ISPMs is faster than their implementation. The ability of individual country to effectively implement the 34 existing ISPMs is very weak. Therefore the aspiration of NPPOs should



# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

reflect the national policy. The experts working group came up with 6 areas or obligations that National phytosanitary planning in turn should achieve in the next 3-5 years. These include standards setting and implementation, information and communication, resources mobilizations and management, advocacy and monetary sustainability.

## 10. ADOPTION OF THE REPORT

The two groups (English and French speaking) presented in the plenary the results of their consultations, regarding the review of five draft ISPMs and draft specifications which were approved by consensus. The main task was left to NPPO official focal points of IPPC to coordinate national consultation prior to submission to the secretariat.

## 11. DATE AND VENUE OF THE NEXT SESSION

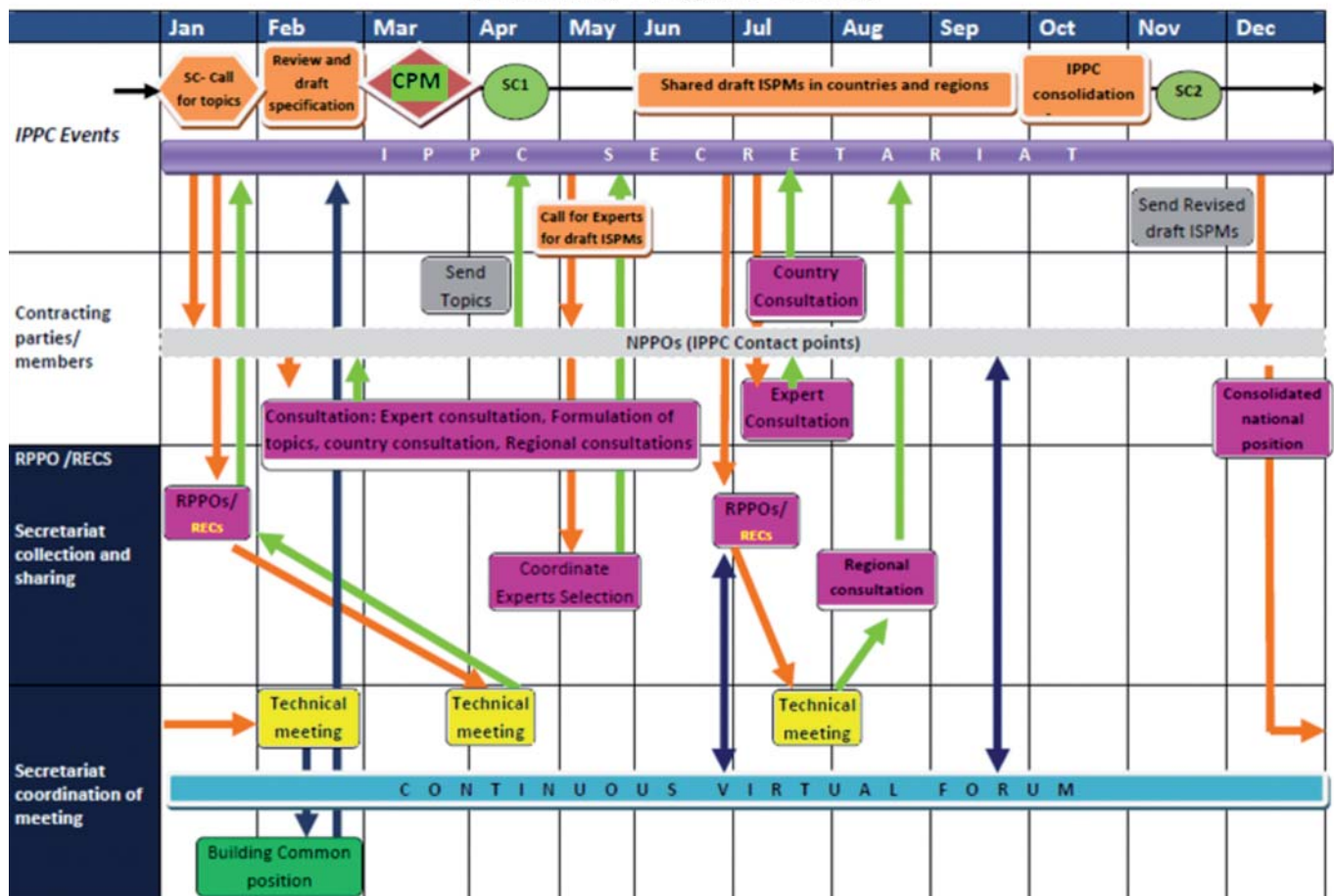
Participants agreed that the next year's meeting should be held in Libreville – Gabon during the last week of July 2011. The Inter African Phytosanitary Council of African

Union (AU-IAPSC) was requested to organize the meeting.

## 12. CLOSING CEREMONY

Closing remarks were made respectively by Ms. Annah Clarendon, FAO Accra, Dr. Cyprien Biao AU-IBAR, Dr. Jean Gerard Mezui M'ella, AU-IAPSC Director and Mr. Arundel Sakala of ZARI. They thanked participants for their valuable contributions and encouraged them to coordinate the submission of national country comments to the IPPC Secretariat. AU-IAPSC was also thanked for their special contribution, as were the PAN –SPSO Project Coordinator and AU-IBAR who helped make the workshop possible by providing logistics. Finally it was noted that experience and continuity were achieved by having the same persons participate each year and the group benefited from the expertise of many different disciplines and experiences.

## Adopted Africa's Phytosanitary Measures Secretariat structure (Lusaka, August 2010)



## Maîtrise du Phénomène des ravageurs Transfrontaliers en Afrique :

### LE CAS DES OISEAUX GRANIVORES (QUELEA-QUELEA) PHASE 2

#### EVALUATION DE LA SITUATION ET ENQUETES SUR LES STRATEGIES NATIONALES DE LUTTE ANTI-AVIAIRE EN REPUBLIQUE D'ANGOLA

19-21 Août 2010

#### I- INTRODUCTION

Dans le cadre de l'exécution des activités inscrites au projet de maîtrise du phénomène des ravageurs transfrontaliers en Afrique : cas des oiseaux granivores (Quelea-quelea) phase 2 ; une mission d'enquête pilote du CPI, représentée par Mr ZAFACK Joseph s'est rendue en Angola du 19 au 21 août 2010.

Les activités essentielles de cette mission étaient axées sur les points suivants :

- Evaluation de la situation aviaire dans le pays ;
- Evaluation de la stratégie nationale de lutte contre les oiseaux granivores (Quelea-quelea) ;
- Identification des différentes méthodes traditionnelles de lutte contre les oiseaux quelea.

#### II- OBJECTIF DE LA MISSION

L'objectif de la mission était d'identifier les forces et les faiblesses nationales de lutte contre les oiseaux quelea. Cette identification est d'autant plus importante qu'elle est nécessaire à l'élaboration des termes de références des participants et experts conviés à l'atelier de formation programmé pour octobre 2010.

#### III- DÉROULEMENT DE LA MISSION

Une séance de travail s'est tenue le 18 août 2010 à la Direction Nationale de l'Agriculture, des Pêches et des Forêts (DNAPF) en présence du Directeur National, Mr Domigos Nazare Da Crug Veloso, accompagné du Chef du Département de l'Agriculture et des Forêts, Mr Sidonio Mateus.

Après les présentations d'usage, le contexte, l'objectif, les points essentiels et les attentes de la mission ont été présentés par le représentant du CPI. A la suite de cette présentation, le Directeur National a pris la parole pour

féliciter l'initiative du CPI. Il a annoncé que la mission du CPI l'oblige à reconsidérer la place de la lutte antiaviaire dans l'organigramme de la Direction en cours d'élaboration. Les dégâts d'oiseaux granivores sont de plus en plus signalés dans toutes les zones de culture du riz, mil et sorgho en général et celle frontalière de la Zambie en particulier. Le DNAPF fait savoir qu'un plan national d'extension de la culture du riz est en vue. Mais la grande inquiétude que présente ce projet est celle de la maîtrise du fléau aviaire. Il précise ensuite que la formation en perspective au CPI est bien accueillie par l'ONPV angolaise puisque son véritable problème est celui du manque de personnel qualifié en matière de lutte antiaviaire. Il reconnaît que le manque de matériels n'est pas moins crucial.

Il propose enfin le Chef du Département de l'Agriculture et des Forêts (Mr Sidonio Mateus) comme principal interlocuteur et guide de la mission du CPI. Le Directeur National recommande enfin que toutes les dispositions soient prises pour que la visite du CPI ait du succès. La visite de la zone d'infestation a effectivement eu lieu à Luena située à 1300 kilomètres de Luanda. Le déplacement du représentant du CPI et celui du guide a été entièrement pris en charge par le gouvernement Angolais qui a pourvu deux billets d'avion (Luanda-Luena-Luanda).

#### IV- RÉSULTATS DE LA MISSION

##### 1) Evaluation de la situation aviaire dans le pays

La situation des oiseaux granivores devient plus préoccupante d'une année à l'autre dans toutes les zones de culture céréalière du pays. Ces manifestations sont beaucoup plus accentuées dans la région de Luena limitrophe à la Zambie. Ces ravageurs s'attaquent plus particulièrement aux riz, mil et sorgho



De gauche à droite : le Directeur National de l'Agriculture, des Pêches et des Forêts, le représentant du CPI et le Chef du Département de l'Agriculture et des Forêts.

de contre saison. Les paysans, sans protection appropriée, usent de moyens les plus rudimentaires pour limiter les dégâts. Dans certaines familles, la scolarité des enfants est suspendue dès l'apparition des premiers épis pour qu'ils s'adonnent au gardiennage des champs.

## 2) Evaluation des stratégies nationales de lutte contre les oiseaux granivores (*Quelea-quelea*)

### 2.1) Stratégies institutionnelles

Un cadre institutionnel de lutte contre les ravageurs transfrontaliers est en cours d'élaboration. Il concerne plus particulièrement les acridiens, les oiseaux granivores et les chenilles. Nous leur avons proposé d'intégrer les mouches des fruits sur cette liste.

L'organigramme du ministère en charge de la protection des végétaux prévoit les postes suivants :

- Ministère de l'Agriculture, du Développement Rural et de la Pêches ;
- La Direction Nationale de l'Agriculture des Pêches et des Forêts.
- Le Département de l'Agriculture et des Forêts.
- La Division de la Santé Végétale.
- Les Sections de la Quarantaine, des Interventions et de l'homologation des pesticides.
- Des Postes de Police Phytosanitaire (Port, aéroport et grands axes routiers).
- Brigade Régionale Phytosanitaire (BRP) dans chacune des six régions.

Les BRP sont domiciliées dans les services du Représentant Régional du Ministre. Ces Brigades fournissent des informations sur les ravageurs des plantes.

### 2.2) Stratégies techniques

Aucune stratégie de lutte n'est mise en place par le Ministère pour la lutte antiaviaire. Toutefois, les responsables du Ministère estiment que la première étape à franchir est la formation des cadres de l'ONPV. Au niveau paysan, les familles s'organisent pour garder leurs champs.

## 3) Identification des différentes méthodes traditionnelles de lutte contre les oiseaux quelea

Quelques moyens rudimentaires sont développés par les paysans en vue de réduire l'ampleur des dégâts. Il s'agit principalement des techniques de répulsion telles que les bruits, les épouvantails, le cordage.

Deux techniques de capture de très faible importance ont été découvertes dans la région visitée. Il s'agit de :

- la technique « CHIFICA ». Elle permet de capturer au maximum 100 oiseaux en une journée de chasse.
- la technique « MUYETO ». Elle permet de capturer au maximum 10 oiseaux en une journée de chasse.

### Autre résultat de la mission

Raffermisssement des relations entre l'ONPV-Angola et le CPI pour des échanges d'informations phytosanitaires.



REPUBLIQUE ISLAMIQUE DE MAURITANIE  
MINISTERE DU DEVELOPPEMENT RURAL  
DIRECTION DE L'AGRICULTURE  
SERVICE DE LA PROTECTION DES VEGETAUX

Honneur-Fraternité-Justice

## RAPPORT

### CAMPAGNE DE LUTTE MECANIQUE (DENICHAGE) CONTRE LES OISEAUX GRANIVORES

Du 1<sup>er</sup> septembre au 15 octobre 2010  
(Trarza, Brakna, Gorgol et Guidimakha )



Préparé par : Sow Moussa Mamadou, CSPV

DA/Novembre 2010

Contact : tél 00 222 646 39 39 Mail : [sowmoussa635@yahoo.fr](mailto:sowmoussa635@yahoo.fr)

## Introduction

Le secteur agricole est l'un des principaux moteurs de l'économie de la Mauritanie, en particulier dans le cadre de la nouvelle politique du Gouvernement. Ce secteur contribue, dans une large mesure, à l'autosuffisance alimentaire et à la lutte contre la pauvreté.

Toutefois, plusieurs ravageurs et maladies des cultures, locaux ou transfrontalier, affectent sérieusement d'une manière quantitative et qualitative, la production agricole du pays.

Les oiseaux granivores ont constitué durant toute cette dernière décennie un fléau majeur pour les cultures céréalières, mettant ainsi en péril les programmes de sécurité alimentaire mis en oeuvre par le Gouvernement.

L'ampleur de ce phénomène et ses conséquences au plan national sur la lutte contre la pauvreté en milieu rural et l'autosuffisance alimentaire conduisent les pouvoirs publics à organiser chaque année des campagnes nationales de lutte anti-aviaire pour lesquelles des ressources substantielles sont souvent mobilisées.

La protection des végétaux est un élément essentiel dans la stratégie de la sécurité alimentaire.

Pour maintenir les populations d'organismes nuisibles à un niveau où ils ne causent pas de dommages économiques, plusieurs méthodes de lutte sont mises en oeuvre en donnant la priorité aux méthodes alternatives et ne faire recours à la lutte chimique que lorsque la situation l'impose.

Pour ce faire, et dans le cadre de la lutte alternative, en plus des filets de capture et des détonateurs sonores, la Direction de l'Agriculture en collaboration avec le Projet de Développement Intégré de l'Agriculture Irriguée de Mauritanie (PDIAIM) a organisé une campagne de lutte mécanique (dénichage) contre les oiseaux granivores.

La zone d'intervention retenue pour cette spéciale opération était les 4 wilayas de la vallée du fleuve. La campagne a duré 45 jours par un déploiement de 12 équipes de techniciens et encadreurs, une équipe de coordination centrale et des populations locales qui ont exécuté l'opération.

## I. Moyens et matériels mis en oeuvre

- 12 prospecteurs ;
- 12 superviseurs ;
- 13 chauffeurs ;
- 2 cadres de la DA pour la supervision ;
- Le Responsable chargé du aspect environnemental au PDIAIM ;
- 13 véhicules tout terrain ;
- Carburant de fonctionnement des équipes et de la coordination ;
- Prise en charge des frais de déplacement des cadres, techniciens et chauffeurs ;
- Encouragement des populations locales (1000 UM/jour/ personne)
- Frais généraux et boites de pharmacie ;
- Une quantité importante de tiges (sèches) de bambou d'une longueur de 3 à 5 m avec crochets en fer servant de matériel de dénichage.

## II. Financement du Programme

- La Direction de l'Agriculture a pris en charge les frais d'encouragement des populations locales, les frais généraux et les bois de bambou (matériel de dénichage).
- Le PDIAIM a pris en charge les frais de déplacement des techniciens et cadres, le carburant et la location de 3 véhicules 4x4 pour une durée d'un mois. Dans le même programme (lutte alternative) le PDIAIM a livré 2000 mètres de filet de capture des oiseaux et 400 détonateurs sonores.

## III. Méthodologie

- L'exécution physique de l'opération du dénichage est faite par les populations locales sur place qui sont encouragée par un montant de 1000 UM par personne et par jour de travail. Pour chaque site, une liste des volontaires (hommes et femmes) est dressée quotidiennement avec les références de leur pièce d'identité. Pour une bonne transparence et afin de faciliter le control financier, une copie de l'état de paiement est laissée avec les villageois à la fin de l'opération.

- Le Choix de la zone d'intervention : les 4 wilayas de la vallée du fleuve Sénégal (Trarza, Brakna, Gorgol et Guidimakha) ont été choisies car les cultures céréalières (sorgho, souna et riz) qui sont attirées par les oiseaux granivores sont quasiment présentes dans ces régions durant toutes les périodes de l'année (pluviale, bas fond, barrages, décrue et irrigué).



# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

- La Sensibilisation (messages, lettres, radio et missions) : Les populations et des autorités locales ainsi que des ONG ont été sensibilisées sur l'importance et la pertinence du dénichage dans la réduction des populations aviaires et sur les méfaits de l'utilisation des pesticides ;
- Le Déploiement des équipes de prospection et de sensibilisation effectué 10 jours avant le démarrage de l'opération ;
- Le Déploiement de 12 équipes de prospection, de lutte et d'encadrement des populations (3 équipes par wilaya).
- La Mise en place d'une unité de coordination pilotée par le chef de service de la protection des végétaux et les cadres centraux du service.
- Durée de l'opération : Compte tenu du cycle entre la confection des nids et la sortie des oisillons pour l'apprentissage de vol qui ne dépasse pas 30 jours pour toutes les espèces visées, la campagne a été initialement programmée pour une durée d'un mois.

Suite au décalage de ponte constaté chez plusieurs colonies, l'action a été prolongée de deux semaines.

## IV. Bases de suivi et d'évaluation

Pour chaque site de nidification localisé, les renseignements ci-dessous sont à fournir obligatoirement par l'équipe de prospection par message adressé au Service de la Protection des Végétaux/Direction de l'Agriculture, il s'agit de :

- Wilaya (Région) ;
- Moughata (Département) ;
- Village ;
- Site (nom local) ;
- Coordonnées géographiques ;
- Nom du technicien /superviseur ;
- Date de localisation du site.

## Données techniques

- Superficie infestée (ha) ;
- Espèces végétales sur lesquels les nids sont confectionnés ;
- Espèces aviaires présentes (%) ;
- Existence de graminées sauvages, espèces ;
- Nombre moyen d'arbres par hectare ;
- Nombre moyen de nids par arbre ;
- Nombre moyen d'œufs par nid ;
- Nombre moyen d'oisillons par nid ;
- Stade de développement dominant (œufs ou oisillons) ;
- Estimation du nombre de jours restant avant que les oisillons quittent les nids ;
- Accessibilité du site ;
- Distance entre le site de nidification et le village le plus proche ;
- Disponibilité des populations locales pour l'opération ;
- Nombre de jours estimatifs pour dénicher le site avec le nombre de personnes nécessaires.

Pour le suivi de l'opération de dénichage d'un site, il suffit simplement de faire parvenir quotidiennement par message au Service de la Protection des Végétaux à Nouakchott, le nombre d'arbres complétement dénichés et le nombre de personnes employées.

Le nombre d'individus tués est calculé en fonction du cumul d'arbres touchés dans les sites, par rapport aux informations données sur la fiche (nombre d'arbres complétement dénichés x nombre moyen de nids par arbre x nombre moyens d'œufs ou d'oisillons par nid).

## V. Résultats de la campagne

Il est important de noter que la participation des femmes à cette opération était de 47,6 %

Le tableau ci-dessous fait la synthèse des résultats obtenus pour ce programme :

Wilayas	Nombre de sites dénichés	Superficies dénichées/ha	Total Homme/jour	Nombre d'individus tués (œufs + oisillons)	Coût de la prise en charge des populations locales en UM
Trarza	07	109	662	2 167 040	662.000
Brakna	09	138,05	1 885	9 225 013	1 885.000
Gorgol	04	152	779	8 429 220	779.000
*Guidimakha	11	1944,5	951	448 889	951.000
<b>Totaux</b>	<b>31</b>	<b>234,55</b>	<b>4 277</b>	<b>20 270 162</b>	<b>4.277.000</b>

# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

\* Au Guidimakha, l'espèce dominante était le *Passer luteus* (moineau doré) qui se reproduit dans des zones (généralement sur les Balanites) à faible densité d'arbres et le nombre de nids par arbre est généralement très bas.

## Commentaires sur le résultat

Sur la base des considérations suivantes : la durée moyenne de vie (3 ans) de ces espèces ciblées, le taux de croissance de ces oiseaux ( $\times 1,5$ ), la consommation journalière d'un individu (10 g/ jour) et en supposant qu'un oiseau peut vivre exclusivement pendant trois mois par an dans champs de céréales, nous pouvons déduire que cette population d'oiseaux tués pouvait atteindre 101 350 810 d'individus au bout de 3 ans et pouvait occasionner un cumul de perte de 155 065 tonnes de céréales, soit environ une valeur de 12,4 milliards d'ouguiyas à raison de 80 UM/kg.

La pression aviaire sur les cultures dans les zones où le dénichage a été effectué a été faible à moyenne par rapport à la situation de la précédente campagne.

## VI. Contraintes/limites

- Quelques sites de nidification sont difficiles à accéder car ils se trouvent dans l'eau ;
- Quelques sites de nidification sont très loin des habitations (8 à 12 km). Dans ce cas il faut assurer le transport des travailleurs ;
- Quelques sites de nidification se trouvent dans des zones habitées par des éleveurs qui ne sont pas motivés pour cette opération car ces oiseaux ne constituent aucune menace pour eux ;
- Certains nids renferment des serpents (risques) ;
- il n'était pas facile de mobiliser une grande masse pour le dénichage à cause du chevauchement des activités pour les population durant cette période ;
- Les stades de développement des espèce (*Quelea quelea*, *Passer luteus* et *Ploceus sp*) n'était pas le même au niveau des colonies, nous avons rencontré en même temps des nids en cours de confection, des pontes en cours, des éclosions récentes et des petits en apprentissage de vol ;
- L'opération a eu lieu pendant qu'il continuait encore de pleuvoir, le mouvement des véhicules était limité et des arrêts de travail causés par des embourbements ont été observés ;
- Le montant prévu pour la prise en charge des populations n'était pas disponible au cours de l'opération (quelques craintes pour les populations) ;
- Contrainte majeur : manque d'actions coordonnées et concertées avec les pays voisins.

## VII. Recommandations

- Compte tenu du fait que les stades de développement des colonies aviaires visées sont assez variés en une même période donnée (confection des nids, nidification,

éclosion et apprentissage de vol), l'opération de dénichage doit couvrir au moins deux mois afin de toucher un plus grand nombre .

- Renforcer le dispositif du dénichage et étendre l'opération dans d'autres zones où sévit le fléau aviaire.
- Le montant alloué à la prise en charge des populations locales qui exécutent le dénichage doit être mis à disposition au début de l'opération pour inciter d'avantage ces travailleurs. Il est cependant nécessaire de changer cette stratégie pour qu'à moyen terme les populations initient et organisent eux même le dénichage sans appui obligatoire des partenaires.
- Les administrations locales (Walis, Hakems, maires, les chefs traditionnels) doivent être largement sensibilisés afin de contribuer à la mobilisation pour une participation et une implication actives des populations dans l'opération de dénichage.
- La lutte chimique peut être recourue dans des sites de nidification où les oisillons risquent de voler avant l'opération de dénichage, si les conditions écobio-écologiques le permettent (absence des points d'eau, pas fréquentés par des animaux, faible densité des arbres, loin des populations ...)
- Une collaboration étroite avec les pays voisins est une nécessité grande pour réussir l'opération et avoir un impact durable.
- Financement pour l'organisation d'un atelier régional ou sous régional pour le développement et la sensibilisation des méthodes de lutte alternatives contre les ennemis des cultures en général et contre les oiseaux granivores en particulier.
- Financement d'un voyage d'études pour trois cadres (1 PDIAIM et 2 SPV/DA) sur la confection locale des filets plus adaptés et performants pour la lutte contre les oiseaux granivores.

## Conclusions

La campagne de lutte mécanique contre les oiseaux granivores (dénichage) organisée pour la première fois par le MDR en partenariat avec le PDIAIM, prouve la détermination du Gouvernement et les partenaires à mettre en oeuvre la stratégie nationale de la protection des végétaux qui s'appuie sur les principes de la lutte intégrée dans le but de limiter l'utilisation des pesticides et leurs effets néfastes sur l'environnement et sur la santé des populations, à atteindre l'autosuffisance alimentaire et à lutter contre la pauvreté.

L'opération a touché 31 sites dans 4 wilayas et a permis de tuer 20.270.162 individus (oeufs et oisillons) sur les 2343,55 hectares dénichés par 4.277 Homme/Jour dans une campagne de 45 jours. Le cumul des pertes que pouvait occasionner cette population tuée durant sa longueur de vie, peut être estimé à 12,4 milliards d'ouguiyas. La participation des femmes dans l'opération a été notable, elles ont constitué 47,6 % de l'effectif total des personnes qui ont effectué l'opération.

## CONFERENCE PANAFRICAINNE SUR LA BIODIVERSITE ET LA LUTTE CONTRE LA PAUVRETE EN AFRIQUE: QUELLE OPPORTUNITES POUR L'AFRIQUE ?

Libreville GABON

16 au 20 septembre 2010,

### RAPPORT DE MISSION

Par Dr. Jean Gérard MEZUI M'ELLA, Directeur du Conseil Phytosanitaire Inter Africain

#### I- INTRODUCTION

Le Codex Alimentarius est un programme commun de l'Organisation des Nations Unies pour l'Alimentation et l'Agriculture (FAO) et de l'Organisation Mondiale de la Santé (O.M.S.) consistant en un recueil de normes, codes d'usages, directives et autres recommandations relatifs à la production et à la transformation agro-alimentaires qui ont pour objet la sécurité sanitaire des aliments, soit la protection des consommateurs et des travailleurs des filières alimentaires, et la préservation de l'environnement.

Le Comité du Codex sur l'étiquetage des denrées alimentaires a tenu sa trente-huitième session à Québec (Canada) du 03 au 07 mai 2010 à l'aimable invitation du gouvernement du Canada. La session a été présidée par M. Paul Mayers, Vice Président associé, Programmes, Direction générale des politiques et programmes, Agence canadienne d'inspection des aliments. Etaient présents 251 délégués représentant 61 Etats membres, une organisation membre et 25 organisations internationales.

#### II- INTERET POUR LE CPI

Ce qui entre en droite ligne du mandat et des missions officielles du CPI qui, faut-il le rappeler sont:

- coordonner les procédures de protection des végétaux en Afrique ;
- favoriser l'échange et la synthèse de l'information et faciliter la collaboration entre les 53 Organisations Nationales de Protection des Végétaux (ONPV) du continent:

\*justifier sur le plan technique les mesures phytosanitaires, pratiques durables et efficaces de protection des végétaux et harmonisation basée sur des méthodes et procédures scientifiques ;

\*Respect du Code International de Conduite FAO pour la Distribution et l'Utilisation des Pesticides.

La participation du CPI à cette importante rencontre permettra de relever les nombreux défis auxquels il doit faire face au quotidien en matière de production de produits agricoles sains, à savoir :

- Elaborer des systèmes de production des végétaux qui résistent aux attaques d'organismes nuisibles;
- Réduire les pertes économiques dues à la détérioration des produits;
- Amener les pays à se conformer aux normes et autres règlements commerciaux;
- Disposer des données sur l'analyse des risques, le diagnostic et la surveillance des organismes nuisibles.

Cette participation a permis au CPI de prendre position par rapport aux sujets discutés. Par exemple, le CPI a émis de sérieuses réserves sur les normes des produits de pêche et d'agriculture (problèmes environnementaux) et les mauvaises herbes ; ensuite, sur l'étiquetage, que le vocable *sel* soit porté sur l'étiquette et non le *sodium*, moins connu par les populations ; enfin, le CPI a souhaité que les producteurs des aliments détaillent le contenu sur les étiquettes.

Le Comité a convenu de débattre sur les sujets suivant de nouveaux travaux au point 12 de l'ordre du jour :

- Ajout du spinosad, du bicarbonate de potassium et de loctanoate de cuivre à l'Annexe II, Tableau, Tableau 2 des Directives concernant la production, la transformation,



# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

l'étiquetage et la commercialisation des aliments issus de l'agriculture biologique proposé par la communauté européenne dans CX/FL 10/38/17 (point 12 (a)).

-proposition de nouveau travail sur l'aquaculture biologique  
proposition de nouveau travail sur l'emploi du terme « naturel » faite par AIDGUM dans CX/FL 10/38/19 (point 12 (c)).

4) Le Comité a pris note du fait que le document CX/FL 10/38/16 (point 11 de l'ordre du jour-

Noms trompeurs des boissons énergisantes) n'avait pas été reçu et s'est dit en accord avec la proposition du Nigeria de supprimer ce point à l'ordre du jour de la session. Le Comité a observé que le sujet pourrait être remis à l'ordre du jour d'une session subséquente si le Nigeria, qui avait proposé de préparer un document de discussion avec l'aide de l'IACFO à la 37<sup>e</sup> session, présentait un document de travail.

5) Le Comité a décidé de grouper les points concernant les Directives concernant la production, la transformation, l'étiquetage et la commercialisation des aliments issus de l'agriculture biologique et a donc déplacé les points 10, 12 (a) et 12 (b) après le point (b).

6) Le Comité a adopté l'ordre du jour provisoire en tant qu'ordre du jour de la session avec les modifications indiquées ci-dessus.

### III. QUESTIONS SOUMISES PAR LA COMMISSION DU CODEX ALIMENTARIUS ET D'AUTRES COMITES DU CODEX

Le Comité a pris note de l'information présentée dans le document CX/FL 10/38/2 dont il serait tenu compte sous les points indiqués de l'ordre du jour et a en outre fait les observations ou les commentaires suivants ou pris les décisions suivantes :

- Examen critique par le CCEXEC 62/63;
- Questions soumises par le Comité Codex sur la nutrition et les aliments diététiques ou de régime (CCNFDU);
- Questions soulevées par la FAO et l'OMS;
- Dispositions relatives à l'étiquetage figurant dans les projets de normes codex;
- Mise en œuvre de la stratégie mondiale OMS pour l'alimentation, l'exercice physique et la santé;
- Etat d'avancement de l'avant-projet de révision des Directives sur l'étiquetage nutritionnel (CAC/GL 2-1985)

au regard de la liste des éléments nutritifs qui sont déclarés dans tous les cas, de façon soit obligatoire soit volontaire;

- Discussions sur les questions liées à l'étiquetage nutritionnel obligatoire;
- Avant-projet de critères et principes de lisibilité et appréciation de lecture des étiquettes nutritionnelles;
- Discussions sur les dispositions afférentes à l'étiquetage des ingrédients alimentaires mentionnés dans la stratégie mondiale pour l'alimentation, l'exercice physique et la santé;
- Directives concernant la production, la transformation, l'étiquetage et la commercialisation des aliments issus de l'agriculture biologique;
- Etiquetage des aliments et ingrédients obtenus à l'aide de certaines techniques de modification génétique/génie génétique (projet d'amendement à la norme générale pour l'étiquetage des denrées alimentaires préemballées : définitions (à l'étape 7);
- Avant-projet de directives concernant l'étiquetage des aliments et ingrédients obtenus à l'aide de certaines techniques de modification génétique/génie génétique : dispositions d'étiquetage (à l'étape 4);
- Harmonisation de la norme générale pour l'étiquetage des denrées alimentaires préemballées (Codex Stan 1-1985) avec le système international de rémunération du Codex dans CAC/GL 36-1989;
- Discussion concernant le besoin d'amender la norme générale pour l'étiquetage des denrées alimentaires préemballées (Codex stan 1-1985) en harmonie avec les recommandations de l'OIML concernant la déclaration de la quantité du produit contenu dans les préemballages;
- Modification des noms communs standardisés;
- Discussions sur le partage d'information entre les autorités compétentes en cas de soupçon de fraude concernant les produits biologiques;
- Autres questions, travaux futurs et date et lieu de la prochaine session;

La prochaine session du Codex se tiendra provisoirement à Québec, Canada, du 09 au 13 mai 2011.

*Le Codex Alimentarius est un programme commun de l'Organisation des Nations Unies pour l'Alimentation et l'Agriculture (FAO) et de l'Organisation Mondiale de la Santé (O.M.S.) consistant en un recueil de normes, codes d'usages, directives et autres recommandations relatifs à la production et à la transformation agro-alimentaires qui ont pour objet la sécurité sanitaire des aliments, soit la protection des consommateurs et des travailleurs des filières alimentaires, et la préservation de l'environnement.*

## PROJET PARTICIPATION DES NATIONS AFRICAINES AUX REUNIONS DES ORGANISATIONS CHARGEES DE L'ELABORATION DES NORMES SANITAIRES ET PHYTOSANITAIRES

Cape Town, Afrique du Sud - 15 et 16 octobre 2010,

### RAPPORT DE MISSION

Par Dr. Jean Gérard MEZUI M'ELLA, Directeur du Conseil Phytosanitaire Inter Africain

#### INTRODUCTION

La quatrième réunion du Comité de Pilotage du projet PAN-SPSO s'est tenue les 15 et 16 octobre 2010 à Cape Town, en Afrique du Sud, sous la coprésidence des directeurs du Bureau Interafricain des Ressources Animales (UA-BIRA) et du Conseil Phytosanitaire Interafricain (UA-CPI), tous deux représentants de la Commissaire de l'Economie Rurale et de l'Agriculture. Les participants venaient des Communautés Economiques Régionales (CERs), du BIRA, du CPI et du STDF, avec comme observateurs, l'Union Européenne, l'Organisation Mondiale de la Santé Animale, OIE, la FAO-CIPV et le CAC.

L'ordre du jour portait sur les points suivants :

1. Note de bienvenue du Directeur du UA-CPI
2. Allocution du représentant de l'Union Européenne
3. Allocution du représentant du Secrétariat des pays ACP
4. Adoption du rapport du 3<sup>e</sup> Comité de Pilotage du PAN-SPSO
5. Présentation des rapports d'activités des CERs
6. Présentation du programme d'activités pour le prochain semestre
7. Divers

Après examen de l'ordre du jour, le procès-verbal du 3<sup>e</sup> Comité de Pilotage a été adopté. Toutefois, le Directeur du CPI a souhaité y figurer l'évènement parallèle qui avait été organisé à Douala et qui avait débattu du problème de renforcement des capacités du personnel du CPI par le PAN-SPSO en termes de recrutement ; mais aussi le problème de soumission par le CPI des projets/programmes d'activités à financer par le PAN-SPSO dans le cadre du Devis-programme juin 2010 juin 2011.

Ensuite, les Devis-programmes I et II ont été présentés et les amendements apportés par les partenaires en vue de tenir compte des décaissements selon les procédures en vigueur à l'Union Européenne et aux ACP.

Le CPI a par la suite présenté le mécanisme de position commune dans le domaine phytosanitaire entre les Etats membres. Un mécanisme qui enjoint les CERs et les membres à adopter une position commune dans l'élaboration des projets de normes phytosanitaires, l'appropriation par les CERs des mécanismes et programmes de préparation et de discussion des projets de normes phytosanitaires, l'évolution de leur statut comme observateur de la CIPV, et enfin l'adoption d'une position commune à la réunion de Commission des Mesures Phytosanitaires de la FAO qui est l'instance suprême.

La coordination du PAN-SPSO a présenté d'une part, les devis-programme I et II qui ont été acceptés et les exemplaires de formulaires d'accession aux financements au PAN-SPSO.

Après discussions, quelques amendements ont été faits, d'une part pour redéployer le budget non utilisé du PAN6SPSO aux activités spécifiques de AU-BIRA et de AU-CPI, pour demander au AU-CPI de rédiger les Termes de Référence d'un personnel technique selon les critères de l'Union Européenne, de prévoir des fonds pour un meilleur suivi des activités du CPI et de BIRA, enfin, pour recommander que le CPI identifie une période de sensibilisation des pays africains et des CERs à une meilleure participation aux réunions du CPM.

La réunion du Comité de Pilotage a été suivie le lendemain par la réunion du Comité Technique au cours de laquelle le plan de travail a été adopté.

Pour terminer, l'UA-BIRA a présenté le projet de gouvernance vétérinaire dont les activités ont été élaborées en même temps que le PAN-SPSO. Par rapport à cette gouvernance, et pour tenir compte du parallélisme des formes, il a été décidé que lors des réunions du Comité de Pilotage, toutes les CERs seront associées à la recherche des Termes de Référence pour l'élaboration d'une gouvernance phytosanitaire à mettre en œuvre par le CPI.

La prochaine réunion du Comité de Pilotage aura lieu à Libreville au Gabon en avril 2011.



# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

- Having agreed on the above, the rest of the meeting was considered to be COPE's first Board meeting.
- It was agreed that the next board meeting would be held in early 2011 and would be called by the COPE secretariat in consultation with the COPE Board Chairperson.

## 3.4. COPE business plan

Ms. Florence Chege reported that the COPE business plan was finalized and distributed during the launch. Members were provided with extra hard copies for their use and also given an electronic version.

Ms. Rachel Ntoyai (KEPHIS) and Dr. James Muthomi (UoN) presented COPE's 2011 targets which are:

- 7 Short in-service courses (at least 66 trainees)
- Certificate courses (at least 15 students enrolled)
- Diploma courses (at least 10 students enrolled)
- Postgraduate diploma (at least 8 students enrolled)
- International attachments (at least 3 people, 2 months)
- Local attachments (at least 5 people, 2 months)
- Technical assistance at regional level (14 days)
- Technical assistance at national level (14 days)
- Members recommended that the COPE secretariat produces one programme showing the sequence of COPE activities in 2011.

## 3.5. Curriculum development

Dr. James Muthomi informed members that the university courses were approved by senate and were now legal documents of the University of Nairobi. The university intends to start registration for these courses in July 2011. He acknowledged that Dr. Jones had spent time with him refining the topics as agreed during the last PMC meeting – which lead to changing one whole unit. What is remaining to be done is the development of training materials.

- It was agreed that there is need to train core staff at various regional universities to prepare them in the delivery of these courses – James to draft a proposal and send to Hannah for follow-up.
- UoN to pursue engagement and collaboration with other universities, e.g., through the Regional Universities Forum for Capacity Building in Agriculture (RUFORUM) a consortium of 25 universities from eastern and southern Africa
- It was recommended that COPE explores means of getting support and collaboration with other universities across Africa and Europe
- Phytosanitary training at university level does not exist in most parts of the world, including Europe, so this initiative by COPE was a good opportunity to build capacity in the region and draw lessons that can be useful internationally.

- There is need to focus on middle level managers & taxonomy – a skill that is quickly fading across the globe; as well as molecular techniques
- Training needs to address practical work, and in particular pay attention to the needs of the private sector who with time may be carrying out inspections
- COPE should aim to reach French speaking countries in the long term

## 3.6. Training of “Trainers”

Ms. Rachel Ntoyai (Kenya) and Mr. Chiluba Mwape (Zambia) presented progress made in their Masters studies which will be completed in August 2011.

## 3.7. ICT soft & hardware; staff training

KEPHIS staff presented the bespoke information system developed by Flex consultants. The “on-line phytosanitary import requirement database” software will be installed at KEPHIS and will also be availed for installation at relevant institutions in participating countries. Work to be completed by end of November includes uploading of the ‘plant import order book’.

It was also reported that KEPHIS staff were trained on how to use and administer the database.

- Members recommended that KEPHIS finds a way of linking this database with the East Africa Pest Information Management System (PIMs) as appropriate
- It was reiterated that COPE should find a way of getting clients to pay for this on-line information service as part of COPE's sustainability measures

## 3.8. Improvements to documented procedures

Four Standard Operating Procedures (SOPS) were compiled as reported in earlier PMC meetings. These are:

- Sampling of consignments;
- Phytosanitary inspections for imports;
- Diagnostic protocols for regulated pests;
- Phytosanitary Certification for Export.

Feedback on the recommendations made at the 5th PMC meeting, listed below, was not done and hence there is need for COPE Secretariat to follow-up:

- The procedures be shared with inspection sections in participating countries for adoption;
- The SOPs need to be endorsed by senior staff of NPPOs to enable implementation;
- COPE could facilitate harmonization of the procedures across countries in the region – this could be commissioned work for example under a REC such as COMESA;

# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

- Dr. Kimani to liaise with Dr. Peralta for further technical input into the SOPs, especially to pin point the areas that could be harmonized at regional level
- Work instructions are critical for each country

## 3.9. PRA Unit

Mr. Chiluba Mwape, the incumbent Coordinator of the Regional PRA Analysts Working Group took members through the following:

- List of national coordinators –
- The network's coordination framework,
- Constraints & requirements for effective network operation,
- The regional PRA approach, which has the following steps:

- Commodity, Pest or Policy initiated
- NPPOs provide commodities pest lists – the group needs to do some national PRA work to generate these and also link with those recorded on the PIMs database
- Convene a meeting for a working group to: compile categorized union pest list, conduct risk analysis; compile draft regional PRA report and circulate for country comments;
- Disseminate results
- Member States adopt the report and domesticate

• Way forward for the regional PRA work (short and long term):

- Establish PRA units within each NPPO – follow-up to be done in the short-term by COPE Board and Secretariat: Send letters to heads of NPPOs
- Staff PRA Units – long term by NPPOs
- Share knowledge on approaches and experiences – part of 2011 targeted training
- Acquire PRA resources including information sources – some already being procured through project funding, but Secretariat to seek more
- Conduct PRA for ≥ 1 priority crop – to be done for Maize and Beans during the project phase - but will require negotiation with Donor as not possible to complete within remaining project timeframe
- Undertake PRA modeling using the CLIMEX software –initial training was done under the project, this next step is to generate maps using the data gathered from the proposed pioneer regional PRA on Maize and Beans
- Formalize participation of staff in the network - prepare commitment letters for Network members to be signed by their institutions – followup by the Secretariat in the short term.

• Board members were very supportive of the PRA analysts network and raised the following observations and recommendations:

- COPE should assist in catalyzing the implementation of the IPPC convention, including sharing pest lists

- COPE should support NPPOs to appreciate their obligations including undertaking PRAs and preventing the introduction of new pests. It was noted that most African countries do not have a PRA unit in place. COPE could help by demonstrating to countries the impact that pests have on national food security and the opportunity cost incurred on international trade and hence the lost of foreign exchange
- COPE should urge NPPOs to disclose information on their capacity as generated from the PCE in order to garner support for capacity development
- Another area is to assist countries streamline their phytosanitary operations

## 3.10 CLIMEX Training

It was not possible at the meeting to establish whether countries are making use of the CLIMEX software and training provided by the project earlier this year – the PRA network should aim to enhance the use of CLIMEX starting with data collected through the regional PRA work for maize and beans.

## 3.11 PRA information needs and sources

Ms. Florence Chege informed the meeting that procurement of resource listed below, which were approved during the 5th PMC meeting was in progress:

- 6, 3 year on-line licences to the Crop Protection Compendium (CPC)
- 20 CDs of CPC (2007 version)
- 12 different Compendia by the American Phytopathological Society (APS)
- Various books and manuals
- 3 year access to the CABI pests distribution maps for 6 users
- 3 year access to the CABI disease distribution maps for 6 users

## 3.12. COPE Website

The COPE website was presented by KEPHIS staff. The site needs regular updating which will be done by the secretariat.

It was recommended that a slot be created for uploading relevant publications.

## 3.13. Activity implementation & budget utilization

Ms. Chege informed members that most project activities had been completed and the main activity pending was PRA work. There was concern that the desired PRA work could not be done to its conclusion during the remaining one month of project implementation.



# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

It was therefore agreed that CABI liaises with the donor on possibility of completing the work between the project end date and when final reporting was expected.

Members asked that after CABI establishes the project budget balances following the launch, it should make recommendations/proposals to the donor on savings that could be utilized to enhance COPE's sustainability and regional reach.

Another consideration for utilization of unspent funds would be to fund the 2nd Board meeting.

## 3.14. Other COPE related activities

Prof. Bahama of IAPSC briefed members on the ongoing STDF funded project that is developing 'a strategy for phytosanitary capacity development in Africa' – the work is expected to be completed by December 2010. He mentioned that completion was delayed by poor feedback from targeted countries noting that only Kenya had provided feedback – this is further demonstration of low capacities in targeted institutions.

Dr. Jos Van Meggelen, Senior Advisor International Co-operation for the Dutch new Food Safety Authority informed the meeting that NPPS was doing some early warning work in Ethiopia; and is implementing a bilateral programme in Morocco and considering expanding that to other countries in Africa. In Kenya, NPPS is supporting the use of CLIENT software.

Hannah Clarendon updated members that FAO is developing a strategic framework for crop protection that underpins CAADP. It will seek to build synergy with the broader IAPSC strategy reported by Prof. Bahama.

Dr. Otieno informed members that EAPIC members were in the process of updating their pest lists onto the PIMs

## 3.15. Way forward

The way forward was defined as follows:

### Financial sustainability

- As recommended at the last PMC meeting, COPE needs to reach out and align itself with strategic partners and regional initiatives (FAO, IPPC, CAADP PROGRAMME, USAID NPPOs, AU et al);

- Submit an 'Aid for Trade Case Story' to STDF;
- COPE to come up with lists of possible consortia that can do a variety of SPS related consultancies/activities. This is important in order to respond to various calls that arise on an ongoing basis in the area of food security,

emergency plant pests, trade in safer foods, etc. Hannah mentioned FAO is keen to build a critical mass of consultants

- Advertise COPE courses and services
- Hold national launches in Tanzania, Uganda and Zambia
- There is donor fatigue on activities branded as 'training', so COPE needs to engage strategically with NPPOs
- KEPHIS to liaise with COMESA concerning development of its reference lab; and define how COPE should make use of the lab at regional level
- Regional PRA
- Undertake the pioneer regional PRA and draw lessons that can be used to advice COPE activities and enrich the 'Aid for Trade Case Story'
- Catalyze formation of national PRA units and national working groups
- Firm up collaboration with EAPIC

### Next Board Meeting

- The next meeting will be called by COPE secretariat in consultation with the Board Chairperson;
- Members agreed that two Board meetings be held in 2011, one in May and another in September 2011.

### Winding up the project phase

- CABI to liaise with the donor concerning pending regional PRA work and propose possible ways to utilize any balance of funds.
- CABI to liaise with KEPHIS and the University of Nairobi in project wrap up and firm up action points to ensure COPE is up and running after the project comes to an end.

## 3.16. Closing remarks

Mr. Arundel Sakala the incumbent COPE Board Chairperson thanked all for their participation in the Launch and the 6th PMC /1st Board Meeting.

*The Centre of Phytosanitary Excellence (COPE) was established to address African phytosanitary capacity development so as to increase the ability of countries to protect their agriculture and plant resources, as well as compete effectively in global markets.*

## MAÎTRISE DU PHÉNOMÈNE DES RAVAGEURS TRANSFRONTALIERS EN AFRIQUE :

### Lutte contre les mouches des fruits en Afrique Australe et de l'Est

ZAFACK Joseph, Chargé du suivi des activités des Ravageurs migrants

## RAPPORT DE MISSION D'ENQUÊTES SUR LA SITUATION DES MOUCHES DES FRUITS AU MOZAMBIQUE Novembre 2010

### I. INTRODUCTION

Conduite par Monsieur Joseph ZAFACK, Assistant au Secrétaire Scientifique Principal-Entomologie au Conseil Phytosanitaire Interafricain de l'Union Africaine (UA-CPI), une étude de l'état des lieux de la situation des mouches des fruits et du potentiel d'intervention contre l'introduction et la dissémination du ravageur a été menée du 1<sup>er</sup> au 3 Novembre 2010 en République du Mozambique. Cette opération rentre dans le cadre de la mise en œuvre des activités du projet de la maîtrise du phénomène des ravageurs transfrontaliers en Afrique ; le cas des Mouches des fruits.

### II. OBJECTIF DE LA MISSION

La mission avait pour objectif de collecter les données nécessaires à l'établissement des Termes de Références pour les Participants et les Experts qui devront prendre part à l'Atelier de formation sur la reclassification et la promotion de l'approche intégrée de lutte contre les mouches des fruits en Afrique Australe et de l'Est. L'objectif spécifique étant d'établir une adéquation entre l'atelier en perspective et les besoins réels des pays de la sous région.

### III. DÉROULEMENT DE LA MISSION

#### JOURNÉE DU 01<sup>er</sup> NOVEMBRE 2010

Au cours de cette journée, une réunion a été organisée entre le représentant du CPI et Madame SERAFINA Mangana, Chef de Département de la Protection des Végétaux et Point de Contact Officiel de la CIPV au Mozambique, entourée de trois de ses plus proches collaborateurs.

Après une brève présentation de son Institution, le représentant du CPI a développé le contexte dans lequel se situe sa mission, ses objectifs, ses attentes

avant de proposer la révision du programme de travail préalablement soumis à l'appréciation de l'ONPV locale.

Prenant la parole, le Chef de Département a tout d'abord félicité le CPI pour avoir trouvé un intérêt dans la lutte contre les mouches des fruits. Son insertion dans les programmes majeurs du CPI intervient au moment où tous les pays de la sous région ont chacun à son rythme, entamé le développement des stratégies de contrôle du ravageur. Elle a ensuite remercié le CPI d'avoir choisi le Mozambique comme l'un des pays pilotes de cette initiative avant de développer les points suivants :

- La situation des mouches des fruits au Mozambique;
- Les stratégies de contrôle de l'introduction et de la dissémination des mouches des fruits dans le pays;
- Le potentiel national de lutte contre les mouches des fruits.

#### 3.1 La situation des mouches des fruits au Mozambique

De la présentation de Madame SERAFINA, il ressort que la situation des mouches des fruits est caractérisée par la présence de nombreuses espèces dont *Bactrocera invadens* sont les plus redoutables, avec un impact économique incommensurable. *Bactrocera invadens* infeste aujourd'hui les 4/5 de la superficie totale du pays. Seules les 1/5, représentant la partie sud sont déclarées indemnes.

Annoncées pour la première fois en 2007 au Nord du pays à Cuamba dans la province Niassa, à Cabo Delgado et Nampula en 2008 dans la même province, elles ont été ensuite signalées à Manica dans la province du Centre en 2008. *B. invadens* est rentrée dans la liste des ravageurs de quarantaine au Mozambique.

Le pays paie un lourd tribut depuis son apparition puisque la République Sud Africaine a interdit en





# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

-Un coordonateur National technique de lutte contre les Mouches des Fruits.

La coordination technique quant à elle est assurée par la faculté agronomique de l'université Eduardo Mondlane de Maputo

-Des inspecteurs phytosanitaires à tous les points d'entrée et sur les axes routiers

-Sur les thèmes Taxonomie, détection et gestion des mouches des fruits, et l'élevage des parasitoïdes des mouches des fruits, cinq techniciens ont été formés à ICIPE en juin 2009 et Avril-mai 2010 à Nairobi.

-Un entomologiste participe à ce moment à une formation internationale en Belgique sur la taxonomie et la systématique des mouches des fruits africains.

-Cinquante techniciens venus des 10 provinces du pays ont bénéficié en Janvier-février 2010 d'une formation en contrôle, gestion et identification des mouches des fruits. Ils assurent actuellement la vulgarisation des pièges.

-Etablissement d'un groupe de travail constitué d'experts nationaux et internationaux.

## IV- PERSPECTIVES

-Continuer l'enquête en zones ciblées des provinces du Nord et du Centre;

-Conduire des études sur les attaques de la banane verte par *B. invadens*;

-Continuer le programme de lutte contre les mouches des fruits dans les provinces nord de Cabo Delgado et Nampula;

-Maintenir le dispositif de quarantaine nationale et continuer avec les avertissements.

## V- DOLÉANCES

### A l'UA-CPI

-L'ONPV demande de rechercher les voies et moyens pour continuer les activités jusqu'ici soutenues par le programme qui arrivera à son terme en Décembre 2011;

-D'introduire la lutte biologique dans leur système de contrôle des mouches des fruits;

-Développer l'approche intégrée de lutte dans le pays et dans la sous région;

-Introduire la méthode par irradiation des mâles.

## VII- VISITES DES STRUCTURES NATIONALES DE LUTTE CONTRE LES MOUCHES DES FRUITS

### a) Visite du laboratoire d'identification

Ce laboratoire est logé dans les locaux du DPV. C'est le second point d'identification après la première identification effectuée par les inspecteurs phytosanitaire au niveau provincial.

### b) Visite de la faculté d'agronomie

La faculté d'agronomie est logée à l'université Eduardo Mondlane à Maputo. C'est le troisième point d'identification avant l'envoi des échantillons en République Sud Africaine ou en Belgique pour la confirmation. Elle dispose d'un insectarium.

### c) Visite de la bananeraie Rio Verde

Située à 32 km de Maputo, dans le district Boane, elle enregistre des pertes d'environ 1,5 millions de dollars par semaine depuis la suspension de ses exportations vers l'Afrique du Sud et le Zimbabwe.



### d) Visite de la bananeraie Libombomaca

Située A 68 km, elle dispose d'une série de pièges



### e) Visite du verger de mangues Quinta Tropical

Situé A 21 km de Maputo

# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

## Report on the Training Workshop on the Reclassification and Improvement of Integrated Pests Management (IPM) for Fruit Flies Control in Eastern and Southern Africa

Arusha-Tanzania - 29th November-1st December, 2010



### I. INTRODUCTION

Until recently, damage caused by fruit fly species on fruit and vegetable crops were little known. The introduction of *Bactrocera spp* in 2003 in Africa, probably from Asia, became a major concern because of its invasive nature, its wide hosts range and socio-economic impact. It rapidly became quarantine pests in almost all fruit producing countries. The International Plant Protection Convention of the FAO has elaborated standards on this pest. The insufficient knowledge and / or lack of appropriate fruit flies control measures jeopardized countries fruit production and trade, especially those from Africa. Strengthening the capacity of African countries therefore became imperative. As a result, the Inter- African Phytosanitary Council of African Union (AU-IAPSC) initiated a series of training workshops on the reclassification and improvement of Integrated Pest Management (IPM) for fruit flies control. The first training was conducted for the northern and central African countries in 2009 and currently the Eastern and southern regions are the focus.

The Tanzanian workshop which took place at Arusha from 29th November to 1st December, 2010 saw the participation of six countries. It was facilitated by three experts from ICIPE- Kenya , Agricultural Research Centre and Atomic Energy-Egypt.

### II. OPENING CEREMONY

This session was marked by four speeches:

#### -AU-IAPSC Director's welcome remarks:

After welcoming participants, the Director of AU-IAPSC, Dr. Jean Gérard Mezui M'Ella, seized the opportunity to point out the proliferation of fruit flies in the continent, that cause huge damage on fruits quality and quantity. He further remarked that the objectives of the workshop were to strengthen the capacity of National Plant Protection Organizations (NPPOs) in fruit flies diagnosis, identification and control. He urged participants to make good use of the knowledge acquired during this important workshop by organizing restitution meetings upon their return in their various countries.

#### -Opening remarks by the Director of Plant Health Services-Tanzania representative:

This was presented by Mr. Gaspar A. Mallya on behalf of Dr. Francisca Katagira Director, Plant Health Services, Tanzania. After thanking AU-IAPSC for having chosen Tanzania to host the meeting, he gave a brief background on the problem of fruit flies in his country and announced measures initiated by the Government to develop Integrated Pest Management (IPM) packages for *Bactrocera*. However, the implementation of country strategies to manage fruit fly problems are facing a number of challenges such as budgetary constraints which have contributed to a delay in its effective take off.

# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES



-The representative of the East African Community, Dr. Timothy Wesonga, in the same line of action urged AU-IAPSC for further cooperation with Regional Economic Communities. Furthermore, he encouraged countries of the sub-region to appropriately apply the knowledge acquired during the workshop.

## -The Chairperson's opening speech:

She thanked the organizers and pointed out that *Bactrocera* spp has become a major threat to several horticultural crops. Their impact on the livelihood of African people has become a major concern. The government of Tanzania and other countries of the sub-region are making effort to mitigate fruit fly problems so as to improve fruit production and trade. However, this effort is yet to yield the desired results. She hoped and trusted that the current workshop will come up with practicable strategies for disseminating and implementing the IPM packages developed to be shared among each other and the end users. Upon wishing the participants fruitful presentations and discussions, she declared the workshop officially open.

## III. PRESENTATIONS

The presentations were preceded by the review and adoption of the agenda by participants (annex1).

### 3.1. Experts' presentations.

#### 3.1.1. Fruit flies biology, ecology and distribution (prof. Dr / Talal S. El-Abbassi)

The importance of the above topic was due to the fact that, understanding the biology and ecology of any insect pest is considered the corner stone to establish effective control measures that might enable us to win the battle against such pest. The speaker confirmed fruit flies being of the Family of Tephritidae. They are considered the most important insect pests that cause enormous damage for a wide range of horticulture crops all over the world. More than 950 species are of economic significance in Africa. Some of them are accidentally introduced from other regions, in particular from Asia. He emphasized on the major species of economic fruit flies and their origins; fruit flies of major importance in Africa (indigenous species and invasive species); insect life cycles (gradual metamorphosis, incomplete metamorphosis, complete metamorphosis); ecological studies of fruit flies and distribution.

#### 3.1.2. Genetic treatment ( Dr. Ahmed Shoman)

Dr. Shoman used the Mediterranean fruit flies to illustrate the application of the genetic treatment. He recalled that the sterile insect technique (SIT) has become an important and successful technology in controlling or eradicating this pest in many countries. The key determinant of success using SIT is the transfer of irradiated sperm, carrying dominant lethal mutation from released males to wild females. He further developed the topic by focusing on the mechanism of sterility, genetic basis of sterility, genetic consequences of irradiation, construction of genetic sexing strain (G.S.S., VIENNA-7), sperm marking and sex determination systems.

#### 3.1.3. Fruit Fly IPM (Dr. Samira A. Mohammed)

Dr. Samira began her presentation by highlighting the technical, socio-economic background and trade impact of pest. She also presented the fruit fly complex on mango, the current distribution and impact of *Bactrocera invadens* before providing details of her institution programme operational blocks which include: Bio-ecological studies, monitoring and detection, IPM technologies (bait sprays, bio-pesticides, sanitation etc), biological control (classical & predatory ant), Post harvest treatment (cold & heat treatment) and trainings & technology transfer (sensitization, hands-on etc). Lessons and challenges marked the end of her presentation.



#### 3.1.4. International standards and fruit flies (prof. J.B. Bahama)

Upon developing this topic Prof. Bahama threw more light on pests effects and impacts, new pests introduction and spread in Africa, pests pathways before focusing on the two ISPMs on fruit flies (ISPM No. 26: Establishment of pest free areas for fruit flies (Tephritidae)) and ISPM No.30: Establishment of areas of low pest prevalence for fruit flies); IAPSC and filling gaps. He further highlighted the International Standards for Phytosanitary measures on the establishment of areas of low pest prevalence for fruit flies (Tephritidae). There is an urgent need to delineate specific technical guidelines for application of a systems approach to mitigate the risk for the introduction of fruit flies of quarantine significance posed by the exportation of fruit



# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

fly host material between Africa and the rest of the world. In conclusion, he recommended that countries in Africa need strong phytosanitary systems and services to support their economic development. Strong phytosanitary systems require partnership among all stakeholders (public and private sectors, regional and international institutions)



## 3.1.5 Country presentations

All representatives of different countries` National Plant Protection Organization (NPPO) and National Agricultural Research Organizations gave a brief summary of the situation of fruit flies and control methods. From their presentations, it was observed that the East African countries were still to efficiently carry out fruit flies survey in their respective countries to effectively diagnose fruit flies species existing in this part of the continent. It was rewarding to know that countries of these sub-regions recognized the harmful nature of fruit flies and consequently have developed some management strategies to mitigate the plague. However there are still challenges being faced by them in managing fruit flies among which are the shortage of technical capacity.

## IV. CONSTRAINTS AND RECOMMENDATIONS

From the presentations of experts and countries` representatives a number of problems and constraints were identified among which were:

### Constraint1.

**Each country has different level of knowledge of fruit flies and their management.**

#### **Recommendations:**

- IAPSC and other regional/international bodies to enhance capacity building in the areas of human, infrastructure and financial resources;
- Increase public awareness on the danger of the fruit flies and their management through different media means (radio, TV, pamphlets, posters, brochures etc);
- Immediate dissemination of information regarding detection of a new species among neighbouring countries;
- Strengthen collaboration among member countries in fruit flies management, identification and information sharing;
- Member countries to come up with a joint action plan on fruit flies;

•Exchange expertise among neighbouring countries in the field of applying various control procedures.

### Constraint2.

**Weak phytosanitary systems among member countries**

#### **Recommendations:**

- Restricting entry and spread of new species and containing spread of species which are not widely spread;
- Enforcement of early warning systems through the deployment of fruit fly monitoring at key entry points (Air ports, sea ports, country borders) using a restrict quarantine programme enforced by law.
- To achieve this goal, phytosanitary staff should be well trained and updated regularly;
- Establishment of contingency team to deal with emergency of detection of new invasive fruit flies species at country and regional levels;
- Joint surveillance programs for new exotic species coming into the region and mapping distribution of the species already present
- Review/Strengthen application of phytosanitary regulations including quarantine measures

### Constraint 3.

**Inadequate management of fruit flies.**

#### **Recommendations:**

- Adapt IPM protocols to suit the peculiar farming systems in a particular area
- Create awareness of stakeholders on IPM packages;
- Establish of a central laboratory to provide taxonomical services for each African region. Well trained and qualified taxonomists, especially in fruit flies have to be hired.
- Speed up registration of new IPM products being introduced in a given member country e.g. various food baits, pheromones and exotic natural enemies;
- Take into consideration the fragmented nature of the orchards in sub-saharan Africa, a system approach for fruit flies management is the ideal option (bait spray, MAT, Biological control, post harvest treatments, etc);
- Invite private sectors to participate in enhancing fruit exportation through implementation of post harvest treatment;
- Create a regional team for follow-up regarding management of fruit flies

### Constraints 4.:

**Inadequate resources, financial plans and proper legislative backing**

#### **Recommendations**

Mobilization of financial resources through regional political bodies such as RECs; SADC, ECOWAS, COMESA etc to facilitate training and purchasing of necessary materials for fruit fly management.

Constraints.5.: Capacity building

#### Recommendations

- Training of trainers ;
- training of farmers through arranging field visits and /or field training through mobile fruit fly school.

## WORKSHOP ON CASSAVA PRODUCTION AND PROTECTION

**ARUSHA - TANZANIA**  
*2nd – 3rd December, 2010*



### 1. INTRODUCTION

After the first workshop held in Burundi last year on cassava production and protection, the Inter-African Phytosanitary Council of African Union (AU-IAPSC) organized a similar workshop for different groups of countries in Arusha - Tanzania on the 2nd and 3rd December, 2010. Countries invited at this meeting were previously surveyed with the aim of assessing cassava germplasm and planting material exchange; cassava crop diseases monitoring and diagnostics, stakeholders' linkages and Sanitary and Phytosanitary Capacity Evaluation using structure questionnaires and secondary data. The purpose of this training workshop was to strengthen the capacity of some National Plant Protection Organization officers in cassava production techniques, and to improve their knowledge in diseases identification, diagnostics and control. Another focus was to set up networks for cassava pest reporting and information sharing. A total of twenty participants (20) from Benin, Gabon, Ghana, Malawi, D.R. Congo, Sierra Leone, Tanzania, Togo, IITA – Nigeria and IAPSC took part in the workshop.

### 2. OPENING CEREMONY

The opening ceremony was marked by a welcome speech of the Director of the Inter-African Phytosanitary Council of African Union (AU-IAPSC) and the opening remarks of the Tanzania Government Representative. IAPSC's Director in his key note address emphasized on the coordination role that IAPSC plays in the area of crop protection, standards and SPS issues in Africa. He thanked all participants for their massive turn out and urged them to seize the opportunity to present the specific situation of cassava production and protection in their specific countries, while preparing to learn more from various invited resource persons. He further underlined that ensuring food security in the continent is one of the office's concerns and the project was effectively designed to address the issue in Sub-Sahara Africa by putting emphasis on pests and diseases identification, diagnostic and control. This workshop was an opportunity for all participants to deeply reflect on the impact of these diseases on rural households.

The United Republic of Tanzania Government representative in her opening remarks welcomed participants and pointed out the importance that cassava plays in the livelihood of the population.

# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

However, cassava, like other crops, has been infested by a number of pests and diseases which were accidentally introduced into the continent and unfortunately spread to the majority of the growing regions. There is minimum knowledge on selection, handling and storage of cassava planting material, she said. Consequently, there is a great need to train farmers on pests and diseases identification, selection of quality planting materials, germplasm / stakes maintenance techniques. She wished that the workshop will bring regional synergies to strengthen the capacity of all stakeholders involved in cassava production and protection. Upon these remarks she officially declared the workshop open.

## 3. PRESENTATIONS

The training workshop comprised four modules among which were:

- cassava importance and the presentation of the survey results;
- cassava production constraints;
- cassava germplasm and planting material exchange;
- Cassava pests' diagnostics and control methods.

### 3.1.Cassava importance and the presentation of the surveys' results

#### 3.1.1. Importance of cassava in Africa (Prof. Bahama, IAPSC),

Cassava (*Manihot esculenta*) is an important and popular staple food in Africa. It is cultivated in the tropics mainly for its carbohydrate roots. The largest cultivation occurs in Africa with an estimated annual production of 102, 6 million tons in the continent. Apart from the roots,

the leaves are eaten as vegetables. The roots are very rich in starch, calcium, phosphorous and vitamins. It is also a great source of dietary fiber. The leaves are rich in proteins and vitamin C.

Cassava's combined abilities to produce high yields under poor conditions and store its harvestable portion underground until needed, make it a classic "food security crop". In recent years, this has proven to be of critical importance to many people in Africa caught up in civil conflicts and unable to cultivate the normal range of annual crops. Cassava is a vegetative-propagated crop; such plantings can also serve as a ready supply of planting material during rehabilitation following conflict or drought. This fact, coupled with asexual propagation of the crop, has played a major role for crop improvement – not only are there a few other alternatives to building in the performance traits needed by farmers, but, once done, there is a very good chance the crop will stably show those traits. The biggest biological constraints to cassava production and productivity in Africa are the pressure of pests and diseases which need to be addressed.

#### 3.1.2. Results of the survey for strengthening continental wide - cassava protection initiatives against major diseases (Nana, IAPSC)

To invest in people and in tools that enable local communities, national governments and Regional Economic Communities (RECs) to ensure adequate access to sufficient, nutritious food for their people, IAPSC continues to design and implement programmes that reduce the effect of pests on crops and ensure its sustainable production in the continent. Within this framework a study was conducted in Benin,



# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

Ghana, Malawi, Sierra Leone, Tanzania and Togo. Mr. Nana highlighted on the objectives of the study which were to understand cassava germplasm spread and planting material multiplication and distribution as well as linkages in Africa; to establish a list of main pests affecting cassava production, stakes and germplasm transfer; to do the inventory and assessment of laboratories involved in cassava diseases diagnostics; to evaluate the effectiveness and value of Phytosanitary Capacity Evaluation (PCE), and propose strategic options and activities required to improve the situation. Activities carried out during this survey were numerous. Besides gathering secondary data, a survey to specific countries enabled the team not only to sensitize member countries producing cassava on the risk involved in germplasm and planting material exchange; enhance cassava diseases monitoring and diagnostics; examine stakeholders linkages in cassava production diseases control in Africa, but more importantly sought to improve the capacity of laboratories for cassava diseases diagnostics and carry out the Phytosanitary Capacity Evaluation of countries visited.

As results for Cassava germplasm, in all countries visited, cassava land races from different regions and countries were collected to select the ones with better performance, higher quality and better yield in each production region. However, only IITA, based in Ibadan-Nigeria had invitro and in-the-field cassava germplasm banks. National germplasm bank with the selection and improvement of local cassava cultivars through a national program of cassava improvement exist in a few countries like Tanzania. Also, cassava breeding programs, identification of high yield cultivars shopping resistance to pests and diseases, and a good adaptation to different regions with specific environmental conditions was found in IITA-Nigeria.

Concerning the planting material multiplication and distribution for cassava growers, there were Primary (Agencies), Secondary (Growers), Tertiary (farmer groups) that develop a multiplication and distribution system for improved root and tuber planting materials in order to increase their availability to smallholder farmers, Standards Operational Procedures (SOP): site selection, healthy & mature plant (8-10 months), select stakes from middle to bottom, 20-30 cm length, 2cm/d, 5-7nods. The three planting material systems of production, notably traditional system, semi-traditional system and complete seed system were investigated. The latest seed system was absent in all countries visited while the traditional seed system was more practiced. Regarding cassava diseases monitoring and diagnostics, a list of diseases was established and their severity and incidence described. The main diseases affecting cassava production and productivities in countries surveyed included African

*Cassava Mosaic Virus, Cassava Brown Streak Disease, Cassava Bacterial Blight, Cassava Green Mite, and Anthracnose, Fusarium, white flies and grasshoppers.* Controls of these diseases require the Integrated Pest and Disease Management approach which unfortunately was not being appropriately done. Focusing on the stakeholders linkages in cassava production and diseases control, the speaker pointed out the insufficient implementation mechanism(s) for effective linkage / integration into commodity chain (researchers-universities-extension staff-farmers, traders-consumers), the development mechanisms for "backward" linkages, and the insufficient support to producers, and advocated to restore confidence of farmers in cassava production, and the institutionalisation of inspections.

The SPS Capacity Evaluation of specific African countries with regard to pest diagnostic capacity, pest risk analysis, pests surveillance, exotic pest response, inspection system and pest reporting, and export certification was identified to be poor and needed to be addressed. The workshop helped AU member countries to adopt proper management strategies to address legal, political and technical constraints of crop production and protection so as to increase trade and reduce poverty in the continent.

## Session 4: CASSAVA PRODUCTION CONSTRAINTS

### 4.1. Countries` presentations

Participants in their presentations put more emphasis on: the Cassava production and uses in their respective countries, Cassava germplasm maintenance and diversification, cassava planting material multiplication and distribution, monitoring and diagnostics of diseases and pests affecting the production, stakeholder linkages and on-going training and main constraints and prospects of cassava production. The crop is now extensively cultivated throughout Sub-Saharan Africa; contributing tremendously to the increase of the various countries agricultural GDP. For the field conservation of cassava, many accessions and landraces are maintained at National Research Institutes and Universities. Concerning planting material; effort is being made to adopt the multiplication based on Three (3) tier multiplication system: i.e. Primary producers (Breeder planting material); Secondary producers (Foundation planting material); Tertiary producers (certified planting material). Control measures used by countries against some pests and diseases include quarantine measure, crop rotation, and use of disease free planting material and resistant varieties. The training of farmer groups on GAPs through Farmer Field Fora and workshops on disease identification and management for farmers are scarcely done.



Consequently constraints still persist like: inefficient distribution system for improved planting materials, poor packaging of products, limited utilization in non-traditional products (composite flour, starch and starch derivatives), low adoption of improved varieties, high transport cost and inappropriate handling systems, bulkiness and highly perishable new pest and diseases and weather fluctuations that need to be addressed. This confirmed the results of the survey in those countries visited. Establishment of the national cassava coordination platform is important. Cassava being presently grown throughout Sub-Saharan Africa, increasing and improving cassava production can certainly accelerate the achievement of food security and enhance the alleviation of poverty in Africa. However major constraints of cassava production is the use of low yield varieties of planting material, pests and diseases and poor methods of utilization.

## Session 5: CASSAVA BREEDING AND AGRONOMY

### 5.1. Cassava germplasm conservation, improvement and safe movement in Africa (L. Kumar PULLIKANTI, IITA)

The outline of Dr. Lava's presentation was developed on cassava conservation, risks with germplasm movement, cassava pests & diseases, diseases control, training & capacity development and on IAPSC – IITA technical cooperation.

The research specialties of IITA are based on: agronomy, breeding, biological control, biotechnology, biometrics / bioinformatics, communication, diagnostics, entomology, extension service, genetic resources, germplasm health unit, natural resources management, pathology, nematology, socio-economics, soil sciences and virology.

For cassava conservation, the presenter threw more light on conserved landraces and wild relatives for current and future use, germplasm characterization and identification of useful traits; prevention of genetic erosion (loss of varieties due to pests and pathogens, drought, fire); Ex situ conservation: conservation in gene banks and In situ conservation: conservation in field banks.

Regarding risks associated with germplasm movement; pests and pathogens spread through planting material (Seed: Viruses, bacteria, fungi and insects Vegetative propagules (stems, tubers, suckers, bulbs etc): viruses, and all other pests and pathogens), the monitoring of cassava germplasm requires knowledge on pathogens, diagnostic tools and distributions guidelines and capacity like human skills and infrastructure. He developed critical elements for pest-free germplasm and safe distribution that included: knowledge on distribution

and diversity of pests, methods for accurate diagnoses of pathogens, methods to clean plant material free of pathogens (viruses), identification of pest-free germplasm, and low-risk sites for mass multiplication and knowledge on distribution targets.

### 5.2. Cassava cropping systems and productivity in Africa (Nana, IAPSC)

Mr. Nana in his presentation attempted to provide an overview of recent developments in the area of cassava agronomy since Cassava agronomy and soil management research have been major concern for many years. It should be recalled that cassava (*Manihot esculenta Crantz*) is the most important root crop in Africa in terms of source of food and cash income to small farmers; it is produced under diverse ecological conditions and production systems for leaves, stems and roots. Cassava is produced mainly by small farmers in multiple purpose and complex production systems. This complexity at farm level increases the risk of generalization since agronomic practices tend to be site specific. He pointed out some major cassava production constraints that include: shortening fallow period and declining soil fertility, insufficient and poor quality planting material, lack of well adapted varieties, Plant pests and diseases, low yield and natural status of soil, topography and cultural practices before developing a brief overview of the most important cassava based cropping systems in different ecological areas; together with relevant recent research results that could lead to improvements in cassava production. He highlighted good research results on cassava cropping systems; components of improved technology; (site selection, land preparation, stakes and planting, mono-cropping, intercropping, weed control, fertilization, plant protection) and soil properties after different management. Mr. Nana advised that a way forward is the wide spread adoption by farmers of new high-yield varieties and improved agronomic practices.

### 5.3. Cassava Leaves Production and use as Vegetable in Sierra Leone (Dr. Shamie)

Upon presenting the composition of a cassava leaf (Edible portion 80%, Water 80% /g, Protein 6%/g, Starch 0%/g, Iron 7.6%/mg, Vit A 500/ug and Vit C 7310/mg) he emphasized on considerations in cassava leaves varietal selection which include taste, colour of leaf stalks and number of petals. The harvesting of cassava leaves and their preparation, using different ingredients were another focus.



# ACTIVITES DU CPI/UA/IAPSC/UA'S ACTIVITIES

## Session 6: CASSAVA PESTS' DIAGNOSTICS AND CONTROL TECHNIQUES / METHODS

### 6.1. Cassava diseases and pests diagnostics ( L . Kumar PULLIKANTI, IITA)

Dr. Kumar briefed participants on Cassava pests and diseases; cassava pests already in Africa and the quarantine pests of cassava in Africa. The indigenous pests discussed were *African cassava mosaic virus*, *East African cassava mosaic virus complex*, *South African cassava mosaic virus*, *whiteflies*, *fungal diseases and root scales*. The pests of regional importance are *Cassava Brown Streak virus* and *East African cassava mosaic virus* – Uganda (EACMV-UG). The exotic pests are; Green spider mite (*Mononychellus tanajoa*), Cassava Mealy Bug, (*Phenacoccus manihoti*), Cassava Bacterial Blight (*Xanthomonas axonopodis*) and Indian cassava mosaic virus. Quarantine pests of cassava in Africa; .i.e. pests not present in the continent are Cassava common mosaic virus ; Cassava green mosaic virus; Cassava vein virus; Cassava X virus ; Frog Skin Disease ; Cassava antholysis ; Cassava witches broom and Super Elongation (*Sphaceloma manihoticola*). The control of above mentioned pests are cultivation of resistant varieties (CMD, CBB, Anthracnose, and CBD), Control of insect pests using biological approaches (e.g. Green Mite) and chemical sprays (expensive not feasible in Africa) Production and cultivation of 'clean' planting material.

### 6.2. Integrated Pest Management (Prof. Bahama, IAPSC)

After defining Integrated Pest Management (IPM) as an effective and environmentally sensitive approach to pest management that relies on a combination of common-sense practices, Prof. Bahama reaffirmed that IPM programs use current, comprehensive information on the life cycles of pests and their interaction with the environment. This information, in combination with available pest control methods, is used to manage pest damage by the most economical means, and with the least possible hazard to people, property, and the environment. Controlling cassava pest will require setting action thresholds, monitoring and identification of pests; prevention control. He developed an IPM system which is designed around six basic components: acceptable levels, preventive cultural practices, monitoring, mechanical controls, biological control and chemical control. He finally focused his presentation on the general concepts in integrated pest and disease management, organized in sections. Diseases infection, resurgence and replacement, plant disease epidemiology and effect of climate change on the

environment made up the first part of his presentation.

Part two concerned the control methods used after the development of diseases which are the suppression or limitation of inoculums, eradication of hosts, the use of resistant and /or tolerant cultivars, the application of phytosanitary inspection, and quarantine activities, the use of cultural practices, chemical control. He illustrated these principles by the IPM measures utilized to control the most important diseases of cassava.

## 7. RECOMMENDATIONS

At the end of the different presentations and discussions participants to this important workshop arrived at a declaration that; the emerging cassava pests pose grave threat to food security and local economy in Sub-Saharan Africa and recommended continent wide collective actions which include:

1. Regional Economic Communities in Africa should harmonize policies on plant health services specifically SPS measures and release of bio-control agents;
2. AU member countries should strengthen their capacities of NPPOs and ensure effective quarantine stations capable of pest diagnosis, surveillance & reporting;
3. Strictly enforce phytosanitary procedures, create awareness on quarantine policies and cassava pests among various stakeholders;
4. Establish technical partnership with national & international organizations and strengthen collaboration and information sharing among all stakeholders in the cassava value chain;
5. Establish foundation stocks of useful cassava germplasm and develop clean cassava planting material production, certification and distribution systems;
6. Research into adaptation of varieties taking into account climate change and exchange of database on germplasm among member countries.

## 8. CLOSING CEREMONY

On behalf of the Government of the United Republic of Tanzania, the representative of the Director of plant protection believed in the formulated recommendations which will be relevant and essential to do proper job now and in the future. She finally thanked workshop organizers, participants, IAPSC for their good initiative of having this workshop held in Tanzania and especially in Arusha; and all who made the workshop successful and then declared the official sessions of the workshop closed.



Manioc and tapioca flour



Manioc root, cut pieces



Peeled and Chopped Yuca



Boiled Yuca on a Plate with a Fork



## ATELIER SUR LA MISE A JOUR DES LISTES D'ORGANISMES NUISIBLES

Bamako, Mali

20-21 Décembre 2010



### 1. INTRODUCTION

Les listes des organismes nuisibles sont un outil indispensable pour la surveillance des maladies et ravageurs sur un territoire. Elles sont également exigées par les partenaires commerciaux pour des fins d'inspection à l'importation. C'est ainsi que la Convention Internationale de la Protection des Végétaux (CIPV), pour faciliter la prise de mesures phytosanitaires par les pays, a élaboré des normes relatives à l'établissement et à la mise à jour de ces listes. Il s'avère cependant que bien que la majorité des pays Africains soient signataires de la CIPV, ils éprouvent des difficultés à se conformer à ces normes. Le Conseil Phytosanitaire Inter-africain qui est l'une des régions de la CIPV en charge de la coordination de la protection des végétaux en Afrique a donc un rôle à jouer pour aider les pays à se conformer à la CIPV et à ses normes. C'est pour cette raison que depuis deux ans, le CPI a inscrit parmi ses priorités la mise à jour des listes pour les pays Africains.

L'atelier de Bamako sur la mise à jour des listes d'organismes nuisibles s'inscrit donc dans ce cadre. Un atelier similaire avait regroupé en février 2010 les

représentants de la protection des végétaux des pays d'Afrique de l'Est et d'Afrique du Nord à Addis Abéba. A Bamako, les pays de l'Union Economique et Monétaire de l'Ouest de l'Afrique francophones à savoir le Bénin, le Burkina Faso, la Côte d'Ivoire, le Mali, le Niger et le Togo étaient représentés.

En organisant ces ateliers par sous-région, le CPI voudrait initier la coopération entre pays dans la surveillance, la mise à jour des listes de quarantaine et dans le contrôle des organismes nuisibles transfrontaliers.

### 2. CÉRÉMONIE D'OUVERTURE

Elle a été présidée par le représentant du Ministre de l'Agriculture du Mali. Elle a été marquée par trois discours à savoir:

- le mot de bienvenue aux participants prononcé par le Directeur Général Adjoint de l'Office de Protection des Végétaux du Mali, Représentant du Directeur Général de cette institution;
- l'allocution du Directeur du CPI ;
- le discours d'ouverture du Représentant de Monsieur le Ministre de l'Agriculture du Mali.

Les trois intervenants ont insisté sur l'importance des listes d'organismes nuisibles pour la protection des végétaux et la surveillance aux frontières. Ils ont également mis l'accent sur l'échange des données et la coopération.

## 3. DÉROULEMENT DES TRAVAUX

Après l'adoption du programme d'activité de l'atelier, un présidium composé de deux personnes a été mis en place et présidé par le Mali. Ensuite, une modératrice et un rapporteur ont été désignés, respectivement Madame TOURE Fanta DIALLO et Monsieur Yves DAKONO. Les travaux ont débuté par trois (3) thèmes exposés par le Professeur Jean Baptiste BAHAMA, Secrétaire scientifique principal en charge de la Phytopathologie au CPI. Il s'agit:

- Du contexte de la mise à jour des listes d'organismes nuisibles;
- Des principales voies d'introduction des organismes nuisibles ;
- Des bases d'élaboration des listes d'organismes nuisibles.

### 2.1. Du contexte de la mise à jour des listes d'organismes nuisibles

L'exposé a été axé sur la justification de la mise à jour des listes d'organismes nuisibles ; les dispositions de la norme 19 de la CIPV et l'utilité de ces listes.

Concernant la justification, il a été rappelé que l'établissement et la mise à jour des listes sont faits pour:

- Se conformer à la CIPV et autres accords internationaux relatifs aux végétaux et produits végétaux tels que l'Accord SPS de l'OMC;
- Effectuer l'analyse du risque phytosanitaire associé à l'importation d'un produit;
- Formuler les exigences pour l'importation de l'un ou l'autre produit;
- Déclarer les zones exemptes d'un organisme nuisible donné.

Les listes sont également utilisées pour:

- empêcher l'introduction et/ou la dissémination d'organismes nuisibles importants;
- faciliter l'application des mesures phytosanitaires telles que les analyses, les inspections ou autres procédures spécifiques y compris la certification phytosanitaire;
- servir à l'harmonisation des mesures phytosanitaires.

L'exposé a en outre mis en exergue l'insuffisance des ressources humaines qualifiées (entomologistes, phytopathologistes, taxonomistes, etc.), du matériel de travail dans les différents pays. Pour faire face à cette insuffisance, les différents pays doivent collaborer entre eux.

### 2.2. Des voies d'introduction des organismes nuisibles

Les activités de surveillance et d'inspection phytosanitaires sont mieux assurées lorsqu'elles se concentrent sur les principales voies d'entrée les plus importantes. C'est pour faire un rappel sur les voies d'entrée que ce thème a été abordé. Les voies d'introduction des organismes nuisibles sont en effet nombreuses. Il s'agit notamment des végétaux ou produits végétaux, des animaux contaminés, des voyageurs, des cargaisons / envois en transit, des matériaux d'emballage. Parmi celles-ci, celles à haut risque sont les semences, les plants, les emballages en bois, les végétaux et produits végétaux frais (fleurs-fruits-légumes, etc.).

Le thème a en outre fait ressortir que suite à l'augmentation du trafic et des échanges, beaucoup de points sont à prospecter, mais compte tenu de l'insuffisance des ressources humaines par rapport à l'étendue des inspections, les prospections sont souvent peu concluantes. La conclusion de ce 2ème exposé appelle encore une fois les pays à la collaboration régionale afin de prévenir l'entrée des organismes nuisibles sur une large zone géographique.

### 2.3. Bases d'élaboration des listes d'organismes nuisibles

Il est de la responsabilité de l'ONPV d'établir et de mettre à jour les listes d'organismes nuisibles. Il s'avère que la plupart des pays continuent à utiliser les listes établies lors de l'époque coloniale. Or, les données changent régulièrement et la mise à jour devrait être régulièrement faite. L'établissement et la mise à jour recourent à plusieurs sources principalement : les rapports d'Institutions de recherche, des universités, des organisations scientifiques spécialement la base de données du CABI (le Compendium de la Protection des Cultures).

Depuis quelques temps, la détermination des organismes nuisibles aux végétaux et de la sévérité des mesures à prendre à leur égard se fait sur base des résultats de l'analyse du risque phytosanitaire (ARP) qui se résume en trois étapes (l'initiation, l'évaluation du risque et la gestion du risque).

Les commentaires et discussions qui ont suivi les exposés ont fait apparaître la nécessité d'appuis en renforcement des capacités. Les sources possibles de ces appuis ont été discutées.



## 2.4. Situation des listes au sein des pays

Après les débats sur les trois exposés, les pays ont procédé à la présentation de la situation des listes des organismes nuisibles de leur pays.

Ces présentations ont fait apparaître que les listes dont disposent les pays sont dépassées ou incomplètes. Il est en outre apparu que dans la plupart des cas les listes ne comportent pas les organismes nuisibles pour la foresterie et les cultures fourragères. Il a été convenu qu'un format harmonisé allait être utilisé et que dans la mesure du possible, les listes pour la foresterie et les cultures fourragères seront incluses.

## 2.5. Surveillance des organismes nuisibles: coopération entre pays

Au cours de la deuxième journée, un thème sur la coopération entre pays pour la surveillance a été développé par le Prof. J.B. Bahama. Celui-ci a fait remarquer qu'avec la mondialisation, le risque d'introduction des organismes nuisibles s'accroît. Pour y faire face, les ONPV devraient avoir un système performant pour la détection précoce; c'est-à-dire un système de surveillance au niveau national et régional permettant de détecter et de prendre des mesures rapides de gestion des risques.

La norme 6 de la CIPV décrit les éléments des systèmes de prospection et de suivi permettant de confirmer la présence ou l'absence d'organismes nuisibles. Les données obtenues dans ce cadre sont utilisées pour les déclarations de l'ONPV de zones indemnes; pour le signalement rapide de l'apparition de nouveaux organismes nuisibles ainsi que pour la préparation de listes d'organismes nuisibles à un hôte, d'organismes nuisibles d'une marchandise ou de répartition géographique d'organismes nuisibles.

Le travail de surveillance exige des moyens humains et matériels importants. Pour cela, il est important d'établir des priorités aussi bien pour les organismes que pour les cultures à surveiller. Ainsi, les critères majeurs de sélection des organismes à surveiller sont :

- Voies d'entrée: fréquence d'interception, difficultés de détection, facilité de transport;
- Biologie des organismes nuisibles: potentiel d'établissement (survie, mouvement rapide, spectres d'hôtes);
- Potentiel de dissémination (multiplication);
- Impact : économique; environnemental

Pour le choix des principales cultures, on tiendra compte de leur fréquence dans les pays et du nombre d'organismes nuisibles associés économiquement importants.

Les discussions qui ont suivi ont fait apparaître que la surveillance exige une coopération entre pays pour:

- L'ARP pour les listes des organismes nuisibles de quarantaine des principales cultures;
- L'Inspection aux principaux points d'entrée;
- La détection précoce et la réponse rapide ;
- Le diagnostic;
- La gestion des ravageurs transfrontaliers;
- La communication entre structures de surveillance
- La constitution d'une base de données phytosanitaires régionale

C'est également sur base d'éléments fournis dans ce thème que les participants ont formulé les recommandations qui sont présentées dans le paragraphe ci-dessous.

## 3. RECOMMANDATIONS

### 3.1. Aux pays

- Formaliser les programmes de coopération entre les pays à travers un mécanisme de gestion de l'information phytosanitaire à l'instar de l'EAPIC (East African Phytosanitary Information Committee) en Afrique de l'Est;
- Mener des actions communes et privilégier les échanges d'expériences à travers les universités, les institutions de recherches, les associations des consommateurs, les ONG;
- Développer une stratégie de communication et d'actions concertées sur la gestion des ravageurs transfrontaliers;
- Finaliser et valider la liste des organismes nuisibles;
- Restituer au niveau national des ateliers organisés par l'UA-CPI

### 3.2. A l'UA-CPI

- Renforcer les capacités des pays concernés en moyens logistiques, matériels de traitement, de prospection;
- Mettre sur pied un programme de renforcement institutionnel qui prenne en charge l'ensemble des problèmes posés par les ravageurs transfrontaliers;
- Création de Centre d'Excellence pour la gestion des problèmes d'ARP dans la sous région;
- Etablir une synergie entre l'Afrique de l'Ouest et les autres sous régions en matière d'ARP, de taxonomie et de diagnostic.
- Exhorter la forte implication des Communautés Economiques Régionales (CER) aux réunions de discussions des normes de la CIPV en vue d'une meilleure participation des pays membres à la Commission des Mesures Phytosanitaires;
- Exhorter les CER à participer aux réunions du Comité de Pilotage de l'UA-CPI convoquées chaque année.

## Exigences de la conformité aux Normes Phytosanitaires (SPS) dans les filières agricoles: cas de la floriculture

Par Prof. Jean-Baptiste BAHAMA, Secrétaire Scientifique Principal, Phytopathologie

### 1. Introduction

Le commerce international des produits agricoles s'est accru depuis la création de l'Organisation Mondiale du Commerce. Cependant, il apparaît que les pays africains n'en profitent pas autant que les pays développés. Cette situation est en partie liée à l'incapacité des économies en développement à se conformer aux normes sanitaires et phytosanitaires exigées par le marché, en particulier le marché européen.

En effet, la faible compréhension des normes et le manque de compétence nécessaire à leur application constituent le problème majeur de la plupart des pays Africains. Par conséquent, le renforcement de la capacité à se conformer aux Normes Internationales des Mesures Phytosanitaires faciliterait l'accès au marché de leurs produits agricoles. Ceci requiert une maîtrise des procédures appliquées dans la surveillance et le contrôle phytosanitaire.

Certaines filières agro-industrielles parviennent cependant à accéder au marché par une stricte application des procédures requises. Elles pourraient ainsi servir de modèles pour les autres produits agricoles. C'est pour cela que dans le cadre de ses programmes techniques 2010, le Conseil Phytosanitaire Interafricain de l'Union Africaine (CPI-UA) a voulu approfondir les connaissances sur l'application des normes dans les filières agro-industrielles avec pour but ultime d'appliquer leurs bonnes pratiques aux autres productions.

Il est ressorti des visites et analyses faites que la gestion intégrée des organismes nuisibles est l'un des piliers de ces productions. Les commentaires et observations présentés ci-dessous concernent la gestion intégrée des maladies et ravageurs en floriculture et se base principalement sur les visites faites en Ouganda et au Kenya.

### 2. Etapes critiques de la culture des fleurs et problèmes associés

#### Choix du site de production

Le site qui convient doit tenir compte des facteurs suivants:

- Accessibilité et proximité du marché: pour le cas des pays Africains dont la production est essentiellement destinée à l'exportation, la proximité du point de sortie (port/aéroport) est primordial.
- Accessibilité de l'eau qui est essentielle pour la croissance des fleurs surtout aux jeunes stades. Pour le cas de l'Ouganda, la plupart des sites de production sont situés aux bordures du lac Victoria.
- Faible pente pour permettre le drainage.

Des facteurs climatiques sont également pris en compte en fonction du type de fleur qu'on veut produire. Il importe de signaler que ces conditions prennent également en considération la dynamique des populations des organismes nuisibles à la fleur que l'on désire produire.

#### Préparation du sol

En floriculture, une bonne sélection du sol assure une bonne production. Un bon sol pour la production des fleurs devrait être bien aéré, facile à drainer, légèrement acide, avoir une bonne teneur en matières organiques et une forte capacité de rétention d'eau.

Outre ces qualités physico-chimiques, le sol doit être exempt d'organismes nuisibles telluriques notamment les nématodes et les agents de fonte de semis (*Fusarium*, *Phytophthora*, *Rhizoctonia*, etc).

Pour cela, la stérilisation du sol est essentielle. Anciennement, la stérilisation était faite par fumigation au bromure de méthyle. Celui-ci était très efficace mais actuellement, il est prohibé à cause de son action destructrice de la couche d'ozone.

Actuellement, certains producteurs procèdent par traitement du sol à la vapeur qui est cependant trop coûteux.



La désinfection chimique est également pratiquée par certains producteurs.

### 3. Les organismes nuisibles les plus fréquents et les méthodes de lutte appliquées

Les fleurs sont susceptibles à plusieurs organismes nuisibles. Les plus communément rencontrés sont :

**1. Pucerons:** ces insectes suceurs affaiblissent les plantes en suçant leur sève. On les contrôle par la pulvérisation d'insecticides non sélectifs et en maintenant la plantation propre.

**2. Chenilles:** ces insectes broyeur défolient les plantes et on les traite à l'insecticide.

**3. Acariens:** ils sont souvent attachés à la face inférieure des feuilles et sont difficiles à voir à l'œil nu.

On les remarque par les points de piqûres qui sont caractéristiques. On les traite aux acaricides et depuis récemment on privilégie la lutte biologique.

4. Une gamme variée d'autres insectes d'importance mineure comme les punaises, les cochenilles, les thrips sont contrôlés par les traitements insecticides régulièrement appliqués en préventif en floriculture.

5. Les maladies infectieuses: les mildious, les rouilles, les flétrissements, les pourritures à Botrytis qui sont contrôlées par traitements chimiques.

Il convient de signaler que dans toutes les fermes visitées, les traitements préventifs sont conduits à une fréquence régulière. D'autres mesures préventives non chimiques sont prises pour limiter au strict minimum les interventions chimiques. On citerait notamment la bonne circulation de l'air, la désinfection des outils et la sanitation autour des abris et serres.

Un système rigoureux de surveillance des plantations permet de faire des traitements chimiques localisés.

### 4. Les questions environnementales et de sécurité des employés

Deux problèmes importants sont à tenir en compte à savoir :

- l'application et la manipulation des fertilisants et des produits chimiques et des pesticides;
- la santé et la sécurité des employés.

Gestion des fertilisants, produits chimiques et pesticides : l'utilisation des produits agro-chimiques est impérative pour assurer une nutrition équilibrée aux plantes et les protéger contre les organismes nuisibles. Ces produits représentent parfois des dangers soit pour

l'environnement, soit pour la santé humaine. Ainsi, le bromure de méthyl qui était souvent utilisé pour la fumigation du sol détruit la couche d'ozone. Même si actuellement les produits utilisés sont moins dangereux et appliqués de façon ciblée autant que se faire se peut, il reste que ces produits présentent toujours un risque et que leur utilisation doit respecter des règles strictes. Il en est de même de la destruction de leurs emballages.

En définitive, les questions suivantes se posent d'une manière générale:

- La gestion des produits prohibés : les fermes membres des associations d'exportateurs de fleurs reçoivent régulièrement les listes des produits dont l'homologation a été retirée ainsi que les nouveaux produits homologués. Les producteurs se plaignent que le rythme d'homologation est inférieur au retrait et que parfois ils ne trouvent pas le produit adéquat pour résoudre leurs problèmes.

- L'utilisation appropriée des produits chimiques: les produits agrochimiques utilisés en production de fleurs sont indispensables mais présentent des effets négatifs sur l'environnement plus spécialement sur le sol et la nappe souterraine.

Leur utilisation raisonnée permet cependant d'en réduire l'impact. Les pratiques permettant de réduire l'emploi des pesticides sont par exemple, le choix du produit à utiliser en tenant compte du ravageur cible et du mode d'action requis. La préférence est donnée à un produit de faible toxicité et peu persistant. Il est également important de respecter les doses et la fréquence de traitement.

Il en est de même de l'application des fertilisants qui doit respecter les prescriptions en termes de doses afin d'éviter l'accumulation de l'excès de sels dans le sol. Il importe de noter que toutes les fermes visitées possèdent un équipement adéquat pour un dosage automatisé des fertilisants. Elles possèdent en outre un système de recyclage des solutions fertilisantes qui permettent une utilisation plus ou moins complète des éléments fertilisants.

Un système de rétention des excédents de solutions est installé entre le site et le cours d'eau en aval et est testé régulièrement pour détecter d'éventuelles contaminations. Les excédents de produits sont par ailleurs limités par une bonne programmation et gestion des stocks et dans la majorité des cas, le fournisseur récupère lui-même les emballages et les excédents pour leurs élimination.

Santé et sécurité des employés: les fermes sont conscientes de l'importance de la santé et de la sécurité des employés et prennent une série de mesures à cet effet afin d'éviter les accidents:

- utilisation d'équipement et habits de protection appropriés,
- instructions sur l'utilisation des équipements de traitement: la lecture des modes d'emploi des produits achetés (étiquettes, notices), mise en garde contre les dangers émanant des produits et les précautions d'emploi; le contrôle du matériel de pulvérisation pour s'assurer de l'absence de fuites et du bon fonctionnement;
- stockage adéquat des produits;
- douches appropriées,
- kit d'urgence,
- contrôles médicaux réguliers des opérateurs et l'assurance des employés.

Enfin, l'application de la lutte intégrée notamment par usage accru de la lutte biologique permet de réduire l'utilisation des pesticides.

## 5. Lutte intégrée dans la production des fleurs

Comme déjà mentionné plus haut, les fermes productrices de fleurs doivent faire recours aux pesticides pour lutter contre les maladies qui en déprécient la qualité. Cependant cette utilisation doit être limitée pour réduire les divers effets négatifs et répondre aussi aux normes exigées par les acheteurs. C'est pour cela que la lutte intégrée est privilégiée et combine la gestion de l'environnement, la surveillance des plantations pour suivre les niveaux et l'évolution des populations et ainsi limiter le nombre de traitements et la lutte biologique.

Le programme de lutte intégrée suit les étapes suivantes :

1. Collecte du maximum d'information sur les organismes nuisibles et la dynamique de leurs populations;
2. Suivi régulier des organismes nuisibles majeurs en fonction du type de production ;
3. Etablissement des seuils de tolérance servant de base à la décision de traitement ;
4. Recours à la lutte biologique chaque fois que cela est possible. Cette dernière est appliquée dans la plupart des fermes visitées en Ouganda contre les acariens.

## 6. Inspection et Certificat Phytosanitaire par l'Organisation de la Protection des Végétaux

Les fermes organisent elles-mêmes le contrôle de la qualité phytosanitaire lors de la production, de la récolte et de l'emballage. Elles disposent en outre des infrastructures appropriées pour réduire le développement des organismes nuisibles lors du conditionnement et du transport. Cependant, l'Organisation de la Protection des Végétaux (ONPV) doit également jouer son rôle notamment par les

inspections dans les fermes et à la sortie avant de délivrer le Certificat Phytosanitaire.

Elle doit en effet s'assurer que l'envoi répond aux exigences phytosanitaires spécifiées par le pays importateur. Il est apparu que la collaboration entre les producteurs/exportateurs et l'ONPV est cruciale pour obtenir la qualité exigée

## 7. Conclusions

La production des fleurs d'une qualité acceptable sur le marché international est une activité très exigeante en termes de fertilisants et de traitement contre les organismes nuisibles pour lesquels souvent, la tolérance zéro est adoptée par les acheteurs. Pour cela, les risques que cette production fait courir à l'environnement et à l'homme sont élevés. Pour les réduire, les producteurs mettent en œuvre plusieurs dispositifs et des équipements souvent très coûteux. Cependant, le maximum d'impact est obtenu par l'application de la lutte intégrée qui se base principalement sur la surveillance et l'inspection des champs et de la production.

Cependant, l'application des produits phytopharmaceutiques engendre de nouveaux problèmes au niveau du manipulateur des produits (toxicité, accumulation dans la chaîne alimentaire, l'accumulation des résidus dans les produits alimentaires) et au niveau de l'environnement (contamination de l'air, contamination du sol, contamination de l'eau, destruction des ennemis naturels des ravageurs). Il est donc important que l'usage des pesticides soit réduit au strict nécessaire. Pour cela, les stratégies de lutte faisant appel à d'autres moyens que les pesticides sont possibles et pour toutes les cultures.

Il est donc possible d'améliorer la conformité aux normes phytosanitaires pour les autres productions agricoles en adoptant une rigueur dans l'inspection des champs aux points les plus critiques et en adoptant la lutte intégrée au niveau des producteurs.

Cela suppose aussi une intervention de l'Etat à travers l'ONPV en matière de législation en ce qui concerne la quarantaine, la surveillance, l'inspection et la gestion des pesticides.







**AFRICAN UNION UNION AFRICAINE**

**African Union Common Repository**

**<http://archives.au.int>**

---

Department of Rural Economy and Agriculture (DREA)

Inter-African Phytosanitary Council (IAPSC) Collection

---

2010

# Bulletin d`informations phytosanitaires=phytosanitary news bulletin

CPI-UA

CPI-UA

---

<http://archives.au.int/handle/123456789/1871>

*Downloaded from African Union Common Repository*