



# **Strengthening the Phytosanitary Capacity of the Floriculture Sector in Uganda**

**(Project STDF 335)**

**Evaluation report, (activity 2.3)**

**Period: 9 – 13 March 2015**

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## Acronyms

DCP	Department of Crop Protection
FAO	Food and Agriculture Organisation
IAPSC	Inter African Phyto Sanitary Council
IPPC	International Plant Protection organization
MAAIF	Ministry of Agriculture Animal Industry and Fisheries
NARO	National Agriculture Research Organisation-Uganda
NPPO	National Plant Protection Organisation
NPPS	Netherlands Plant Protection Service, is part of the Dutch Food and Consumer Product Safety Authority (NVWA)
QMS	Quality Management Systems
SOPs	Standard operating procedures
SPS	Sanitary and Phyto Sanitary
STDF	Standards and Trade Development Facility
PRA	Pest Risk Analysis
UFEA	Uganda Flower Export Association

## **1. Executive summary**

The STDF 335 project titled "Strengthening the Phytosanitary Capacity of the Floriculture Sector in Uganda" was implemented in the period from October 2012 till March 2015.

The project consists of three major elements aiming at strengthening the Department of Crop Protection (DCP) and its phytosanitary inspection Service;. Capacity building at inspection and flower sector level, development of a surveillance program and improved awareness created at inspection and sector level on the relevant phytosanitary issues.

During the project period, the cut flower sector suffered a set-back by an increase of notifications of interceptions of a moth (*Spodoptera littoralis*) in 2013, which is listed on the EU Quarantine list. The EU reduced check system evaluated the situation as critical and 100% of the consignments are inspected on arrival in the EU.

This made the project perspective different than during the project formulation period. The identified project subjects became more relevant and demanded a more critical and focused approach in the developed project activities.

Both DCP and the flower sector have been very much involved in the project activities and this resulted in a closer collaboration.

At DCP many proposals and procedures have been formulated to improve the structural organisation. The follow-up in terms of investment and adjustment of the organisation still needs to be evaluated on its possibilities at ministerial level.

The inspectors of DCP have been trained together with personnel of the cut flower sector on subjects as; survey and monitoring and identification of the relevant moths. These training sessions made it possible to develop the participating inspectors into the trainers of the many scouts of the cut flowers and cuttings producing companies.

The response of the cut flower sector on the survey and monitoring program reached a very reactive and responsive level. Much effort and investment was deployed in order to catch the moths and appoint specialised scouting teams in the early detection of the moths. The development of a surveillance data base at DCP fed with the findings at the cut flower production sites need further progress.

Other observations include the following; No information has been transferred to IPPC or IAPSC in relation to an adjustment of the pest status based on surveillance data.

The recent adoption of the Plant Protection and Health Act 2015; has not been communicated to the IPPC-secretariat.

In general much technical and important information has been transferred to both DCP and the members of UFEA. The awareness on the relevant phytosanitary issues in relation to the export to the EU has increased significantly.

The export of cut flower dropped a little bit to 6.600 tons in 2014 in comparison with 2013 (7.600 tons), but is still above the level of 6.400 tons in 2012. However the costs have increased because of the higher EU inspection intensity, therefore giving a lower margin.

It is expected that the situation will further improve in terms of a reduction of the notifications of interceptions on the *Spodoptera littoralis*-moth. This will possibly contribute to a lower percentage EU-decision of import inspection in the Ugandan cut flowers in the EU in 2015.

There is an emerging concern of the increased number of findings of the false codling moth (*Thaumatotibia leucotreta*) in hot pepper. There is currently an EU debate to regulate this moth for the cut flowers as well, as some interceptions have been registered from other countries. Both DCP and UFEA are aware of this new harmful organism and it received attention during the workshops on scouting and monitoring.

Much has been achieved in this project and has resulted in a strengthening of the phytosanitary guarantee at the production level supported by the cut flower sector and DCP, in spite of the little means DCP has. More investment is needed at DCP-level in order to make it a National Plant Protection Organisation (NPPO) in line with the IPPC and article 4 of this convention.

## **1. Introduction**

This report is an evaluation of the achievements of the STDF 335 project titled “Strengthening the Phytosanitary Capacity of the Floriculture Sector in Uganda”.

The project set-up realised that the phytosanitary guarantee cannot just be organised by the public phytosanitary inspection service, but part of this phytosanitary responsibility should be assumed by the private sector as well.

Therefore in this project information transfer on relevant phytosanitary issues has been organised, not just for staff of DCP but for the private sector as well.

This project focused on the cut flower sector in Uganda, but in the end also identified phytosanitary issues related to the export plants for planting to the EU EU.

## **2. Evaluation of the project objectives**

The log-frame served as the guideline for the evaluation of the project results. Additional information is given as discussed with the different stakeholders during the meetings.

### **2.1. Overall and immediate objective evaluation**

The overall objective of the project in improving market access of the Ugandan flowers to the EU, has been partially achieved. The export has maintained a level a little lower in the year 2014 than in the year 2013. The EU demand for Uganda cut flowers is still there, but the Uganda export is facing higher costs entering the EU, because of the high inspection percentage currently enforced.

During the project period it resulted in an improved compliance with international phytosanitary standards for production and export of flowers for the European market. The number of interceptions on the relevant *Spodoptera*-moth have decreased significantly since 2013 (34), with 18 interceptions in 2014 and look promising in 2015 (no interceptions yet) with the current high season of the export of the cut flowers to the EU.

It needs to be indicated that the false codling moth (*Thaumatotibia leucotreta*) is currently being intercepted increasingly on hot pepper in the EU, also from Uganda. There is an indication that for the import of cut flowers the moth will be regulated in the EU as well.

### **2.2. DCP’s staff awareness and confidence**

The staff of DCP has received much training (8 sessions) on the issues related to inspection of cut flowers. The interaction with KEPHIS in Kenya and the workshop with the NPPS contributed very much to an improved awareness and confidence

level at the inspector's side. A procedure (SOP) has been produced on inspection, followed with another set of SOPs, 13 in total, on phytosanitary activities. This as a follow-up on the recommendations to develop a quality management system received during the visit with KEPHIS.

Recently a quality manual was drafted, putting effort in covering the responsibilities of DCP in relation to the recently approved Plant Protection and Health Act 2015.

In terms of increase at knowledge level of the inspectors at DCP on the international phytosanitary standards and the EU-legislation (2000/29/EC) a big improvement can be reported. The DCP staff and flower sector capacity has been developed to a level of equivalence with international standards of export certification systems and the requirements of the EU market.

### **2.2.1. Personnel issues at DCP**

As recorded during the formulation period of the project and mentioned during the project management team (PMT)-meetings the shortage of staff was only slightly solved with a small increase of staff at DCP.. There are two aspects influencing the small increase in staff at DCP. A relative high level of turnover of the staff and the difficulties to find qualified staff as well.

The present staff of inspectors is highly motivated to do their job, but remain poorly facilitated in performing their tasks. This makes the possibility of alignment with and implementation of the international phytosanitary standards a critical point at both execution level and the assurance level for the phytosanitary guarantee in export.

The university at Makerere and its faculty on agriculture has a too general curriculum for the students and make the graduates needing an additional training, when they join the DCP performing a phytosanitary task. No training program of the junior inspectors is present and making a coaching task for the senior inspectors possible and is not foreseen in a yearly work plan at DCP.

### **2.2.2. Meeting with minister of MAAIF**

A meeting was organised with the minister of MAAIF, Mr Tress Bucyanayandi. The minister expressed his appreciation of the contribution of the project to DCP and the cut flower sector.

He was aware of the shortcomings at DCP and was looking for possibilities to improve the situation. Making DCP an agency, with a certain level of independence, was apparently becoming uncontrollable with the many agencies already created in Uganda.

The possibility of using the collected fee with the inspection activities with improving the facilities and structures of DCP, needs more exploration. The fee needs adjustment as well (1,5 dollar per PC), as it does not reflect the time spent on the inspection and certainly is not on a cost recovery basis.

Nationally the issue of food security was a point of attention in Uganda. There is a need for other planting material, like new varieties of seed potatoes and other seeds of vegetables. The minister was informed on the Dutch initiative to improve the potato sector with the supply of new potato varieties. He was looking for more options to continue the collaboration with the Netherlands.

### **2.3. Clear responsibilities and roles between DCP and sector**

As indicated the cooperation between DCP and the sector developed quite well, all parties involved are fully aware on the things to be done. The sector has recognised the impediments of DCP and has made a small amount of funds available for the inspectors to be able to visit the production sites at least five times.

At the airport cooling facilities are present at Fresh Handling Limited, including a small room that allows to do some identification work with the present microscope.

More extensive laboratory work cannot be done at this location. A diagnostic SOP has been developed, apart from the fact that it is too general and very much linked to the surveillance activities, no facilities are available to do the diagnostic work.

Also at the production sites no laboratory facilities are available for diagnostic activities. In general in Uganda no well-developed diagnostic facilities are present. The private sector is seeking the diagnostic possibilities abroad.

During the visit of the expert a proposal was made to have the export inspection done at the production site. This was well received by the sector and demonstrates the good will to support the DCP as much as possible.

#### **2.3.1. Communication on international phytosanitary issues**

Besides the inspectors, also the flower sector has participated in a number of workshops dealing with legislative issues. This resulted in a good level of awareness on the phytosanitary requirements in the EU.

A remaining concern is how to keep updated on the developments and the changes on the phytosanitary requirements in the countries of destination. This both at DCP and at the producer's side. At the moment only a phytosanitary



helpdesk function could be realised by having a phone number to call. An Internet site and making this information available, would be recommendable.

The sector stated that the information availability on phytosanitary requirements of country of destination is not good accessible and is always staying behind with the actual situation. This is partly to blame on the current system at SPS-level with the IPPC-secretariat. The time needed for processing the sent information on changes in the national legislation or on notifications of interceptions, is preventing to be up-to-date.

Currently the EU-delegation at Kampala provides the notifications of interceptions and possible changes in the EU phytosanitary legislation.

### **2.3.2. Diagnostic support for the inspection**

On diagnostics at inspector level still a serious shortcoming needs to be reported. Though attempts and efforts have been developed to improve the situation for the inspectors to have a certain level of knowledge on the recognition and identification of relevant pests, especially in the cut flowers, facilities to support these tasks are still at a low level. Other possible laboratory support to DCP and its inspectors is hardly present in Uganda.

The National Agricultural Research Organisation (NARO)-institutes has some knowledge on the identification of pests, but as an agency needs to make an agreement with DCP in order to secure the availability of diagnostic support. The expert was not able to establish the level of knowledge present at NARO in order to offer diagnostic support. Moreover not all the diagnostic disciplines are present at NARO. This makes DCP depending on possible diagnostic support from abroad, which makes it more expensive as well.

A plan has been suggested to develop a service agreement with NARO providing diagnostic support. This plan is still in its initial stage and needs a financial support from MAAIF as well.

### **2.3.3. Facilities for inspection at the airport**

The conditions for inspecting the consignments with the cut flowers are in need of improvement. At the airport no proper inspection place is present and the room with a small stereo microscope is classified as a "laboratory".

The inspectors face also pressure of the companies or export agents with a tight time slot between the arrival of the consignments and the departure of the airplane. These conditions have a negative influence on the output of the inspector and having only a check of the consignments at the airport is a minimal

contribution to the phytosanitary guarantee stated in the phytosanitary certificate.

In the past a Dutch initiative was developed in having an electronic certification system (Client) in place. However due to the high maintenance costs, this system was closed. The expert indicated another possibility through UNCTAD with a system called Asycuda, giving the possibility to collaborate with custom. This system is free of charge and can be used with the inspection service as well. The system has not been made operational yet. The system needs also personnel to fill it with data and maintain the hardware structure.

In a meeting with the inspectors the possibility of having the phytosanitary inspection done at the place of production, was discussed. At the place of production the conditions could be facilitated by the grower with a separate proper inspection place. Still organisational and logistical issues need to be solved in terms of a shortage of staff at DCP and the inability to cover all the cut flower production places. How the identity of the consignment can be secured during the transportation to the airport, needs attention as well.

#### **2.3.4. UFEA's role and commitment**

UFEA through Juliet Musoke offers their support and will start a new base line investigation on the adaptation of the scouting system as a response to the transferred information on the monitoring activities during the given workshops. Already a classification system of the cut flower companies and assessing the possibility to export to the EU, has been put in place.

Further development of regulating rules on conditions for export of the cut flower to the EU in relation to the number of notifications, is advised.

The suggestion to facilitate the export inspection at the place of production with the assurance of the identity of the consignment during transport to the airport, was received positively. An agreement needs to be developed.

This response to the proposed issues clearly indicates a good commitment of UFEA and its willingness to find solutions on restrictive elements in the export of the cut flowers, is present.

#### **2.4. Improved knowledge and skills for surveying and monitoring**

During the training sessions on survey and monitoring activities useful information, identification charts, has been handed over in order to distinguish the relevant moth species for the export of the cut flowers. At the last moment the false codling moth was added a harmful organism of relevance to the export as well. Other key pests received attention as well in order to learn about the different approaches of the different type of pests.

### **2.4.1. Database compiling**

There is a need for phytosanitary data compiling at DCP. At the moment no staff has been appointed to assume this task. Risk assessment could be derived from the compiled data, resulting in a more efficient approach in the phytosanitary measures to be taken, trying to prevent spreading the pests of concern.

Recent development of the interceptions of the false codling moth (*Thaumatotibia leucotreta*) in the export of hot pepper to the EU, with a serious attention to this organism in relation to the import of cut flowers, should make additional attention and phytosanitary measures necessary in Uganda. The sector would like to be more informed on possible new developments on EU phytosanitary requirements, this is only possible if staff at DCP is appointed to screen the website of DG Santé (former DG Sanco) on its information flow on phytosanitary decisions.

### **2.4.2. Development of the scouting system at the production sites**

The workshops on surveillance with the training sessions for the scouts and the inspectors as trainers resulted in additional actions and intensification at the production places of the cut flowers.

This quick and adequate response of flower sector on information related to the development of their scouting system, is seen as a positive development in the measures taken to prevent the presence of the *Spodoptera littoralis* (Egyptian cotton leaf worm) in the cut flowers.

The expert visited two production locations in order to establish the impact of the project on the scouting system.

At Wagagai, a producer of cuttings from different plant species, already a well-developed scouting system was present. This system was not just developed because of the EU-requirements and the inspection activities of DCP. The mother companies in Europe made it part of the production plan and have given clear instructions how to perform the scouting on pests.

At the production sites a strong emphasis was given to preventing spreading of mainly viruses between the covered production sites. Strong access control with a strict hygiene protocol, by washing hands and put on protective clothing, made the spread of viruses by staff and personnel almost impossible.

In this case also samples are taken for the analysis on the presence of relevant viruses, in principal not on quarantine viruses, but quality viruses. The samples were sent abroad, as no reliable diagnostic laboratory is present in Uganda.

The heads of the scouting teams at Wagagai were satisfied with the received training, as it contained new information on harmful organisms of relevance to their production site. The group of miner flies got a detailed attention all the way to the level of specie identification. Though interesting, the relevance in relation to measure to be taken, fell short. There is in principle a zero tolerance of the miner flies at the production sites of the chrysanthemum cuttings. Other insects of interest at Wagagai are thrips, white fly and false codling moth.

The second visit was to Rosebud with a cut flower production. This company has 60 ha of rose production. Recently the decision was taken to have an additional scouting team available, only occupying itself with the monitoring of the two relevant moth species (*Helicoverpa armigera* and *Spodoptera littoralis*). Each day each and every plant is inspected and the flower heads demonstrating symptoms are taken off and collected in a bucket with some water in it. Later this material will be destroyed.

Additionally a huge amount of light traps have been placed outside the green houses, but also some light traps are placed inside the green houses. Besides that a new approach was developed in inspecting the harvested cut flowers both in the green house and at the entrance of the packing house.

The enormous amount of moths collected each day need to be identified by an entomologist in Uganda. This will provide very useful information on the pest status of these moths in Uganda. The producer claimed that out of the 30.000 moths collected only one is *Spodoptera* and the rest *Helicoverpa*. With the identification of the collected moths this statement could be substantiated.

In Uganda an entomologist to be able to identify these Lepidoptera up to species level is hard to find. Possible support could be found in Kenya.

The head of the scouting was satisfied with the received training on scouting. As a result clear pictures with all the stages of the moths were placed in the greenhouses and the packing station.

In a meeting with UFEA more information was exchanged on the intensification of the scouting activities at the place of production by the cut flower sector. It was suggested to analyse the current situation on the level of survey and monitoring at the 13 cut flower production sites. This could then be developed into a certain basic standard, which could serve as a minimum condition of survey and monitoring for exporting the cut flowers.

### **3. Challenges and lessons learned**

This chapter is indicating a number of challenges faced during the project period and some lessons learned as well.

### **3.1. Challenges during project implementation**

Several challenges were met and solved during the project period. Shortage of experts and venues was a regular issue to be sorted.

Response of MAAIF on the project recommendations and advice on organisational adjustments has not come to a conclusion during the project period.

Response of the cut flower sector on the project recommendations and advice was prompt and very reactive.

### **3.2. Challenges anticipated as a result of new institutional structure in MAAIF**

The big turnover of personnel and staff both at DCP and to some extent at the cut flower site made it difficult to ensure a durable and long term effect of the project. However some staff persons remained and could serve as a key person providing the gathered information of the project.

The surveillance activities have been well developed by the cut flower sector, but need more development with the upcoming threat of the false codling moth. The small amount of staff at DCP faces difficulties to keep track and use the collected information at the production sites by setting-up a database. Additional staff is needed and secured in order to perform the tasks indicated in the recently approved Plant Protection and Health Act.

The different reports after the trainings session have identified a number of subjects which need immediate action at DCP. Though recognised as relevant subjects still the financial resources are missing.

A revision of the fee system is needed in order to make the DCP recover part of their costs and MAAIF should also make a big part of the needed budget available.

MAAIF should realise that a well facilitated DCP is not just guaranteeing the prevention of the introduction and spread of harmful organisms at the border, but is responsible for the national plant health situation as well. Especially in terms of food security. Facilitating this service is of national interest.

The continuation of the development of a Quality Management System remains at risk if no separate group is appointed to deal with these issue, by developing more SOPs and implement them accordingly.

It is advisable to make a work plan and a road map for the coming five years for the development of the DCP as a NPPO in line with the IPPC standards.

### **3.3. Lessons learned**

All participants within the activities and the management levels at both MAAIF and the involved private sector have reacted positively to the effect the project.

The measurable indicators in the log-frame are quite clear. The advice and recommendations have been clear on the road to follow, but apparently the time frame of the project was too short to materialise them all.

During the project period some challenges were reported on the availability of the NPPS experts. However CABI solved this problem with contracting a Kenyan expert, Samuel K. Muchemi, who delivered the remaining workshops in a consultation process through E-mail with the current expert.

Though commitment at DCP towards the project was secured, the big turnover of its inspectors, made a more sustainable result of the project, within DCP, more difficult to achieve. The absorption capacity at DCP became a limiting factor and the group of inspectors varied much in the level of knowledge, which made it difficult to deepen the subjects presented during the workshops.

The facilities for the development of the activities were not secured well in advance, which made a late solution with the help of the private sector needed. The sector together with UFEA provided the venues and offered their production sites as well to perform practical exercises. This caused some shortcomings in the available tools during the workshops and training sessions.

In general the commitment of the stakeholders was of a good level. The practical organisation of the foreseen activities suffered from both expert and participant side on its availability.

## **4. Recommendations**

### **4.1. Ensuring an effective export inspection system**

To make the inspection more effective the proposed change of having the export inspection done at the production site should be pursued. As UFEA and the cut flower sector has reacted positively, the only restraint left is the availability of sufficient DCP inspectors. There is shortage of staff to cover all the 13 cut flower production sites. Probably Rosebud Company needs more than one inspector for inspection, due to the large amount of cut flowers to be exported.

As the challenge to solve the shortage of inspectors will not be achieved on a short notice, starting to train personnel of the cut flower producers on inspection work as well, might be a solution. Of course a DCP supervision is needed and an at random check needs development in a protocol. The actual official finalisation of the phytosanitary certificate could then be done by the DCP inspector.

The best solution however is to recruit more staff at DCP for the inspection tasks. A multi-year plan for DCP including a part related to recruiting staff and a good division of the tasks indicated in the new Plant Protection and Health Act, is recommendable.

#### **4.2. Further training required as a part of the training plan**

Both DCP and the cut flower should continue the training of their staff on the issues mentioned in the project. At the cut flower sector regular training takes place, lately more emphasis is given to training specialised scouts.

In general an organisation should have a yearly training program for their personnel, this as a part of the quality management system and establishing and improving the competences of their personnel.

#### **4.3. Strengthening data and information systems at DCP and at sector level**

Both the sector and DCP have a need for information on developments relevant to both parties. Changes in national legislation are normally communicated through the regular channels and local media.

International changes on phytosanitary requirements are more difficult to be informed about. Normally it is the IPPC-secretariat that makes such information available to the NPPOs worldwide through internet. This is a time consuming process and is certainly not up-to-date.

Electronic certification facilitates trade, reduces administrative mistakes and speeds-up the clearance in the country of destination. The implementation of such a system must be pursued either with Asycuda or reviving the Client system. The flower sector has an interesting volume to start a pilot with.

Already indicated in the survey an monitoring program interesting information can be gathered and compiled with the available surveillance data at the production places. With an agreement between DCP and the sector (UFEA) this information can be made available. Conditional is that collected insects are also properly identified.

#### **4.4. Strengthening collaboration and communication between DCP and the sector**

As indicated above on the international changes in the phytosanitary requirements of countries of destination, are difficult to obtain and to be kept up-dated. Accurate communication on these matters is of great importance to both DCP and the sector. In the case of the EU-requirements a short-cut is present

with the EU-delegation in Kampala. Also the sector is in direct contact with their buyers and has sometimes quite early information on the actual changes.

This entails that both parties in Uganda should have regular meetings keeping each other informed on the recent changes. This point should be a regular point on the agenda of the meetings. Already a scheme of regular meetings has been developed between DCP and UFEA.

Through the intensified monitoring system interesting information can be collected on the pressure of the harmful organisms and possibly a joint action could be developed. Exchange of such information during the regular meetings of DCP and the sector is extremely important.

#### **4.5. Diagnostic facilities and service in Uganda**

The diagnostic services and facilities aimed at identification of harmful organisms are limited in Uganda. This makes it difficult to have the phytosanitary inspection supported in both the export and import of plants and plant products with a proper equipped and staffed diagnostic laboratory.

The chance that a miss-identification and unjustified measures are taken is very realistic during inspection or scouting activity.

Making use of the NARO-facilities and increase their staff with diagnostic specialists and have staff available that can perform molecular biology techniques is a good possibility. A possible agreement between DCP and NARO has been suggested.

Having a complete diagnostic laboratory within DCP is the ultimate solution, however this requires a big investment and recruiting a large group of diagnostic specialists. Having a plan with a financial paragraph is recommendable.

Another solution to be considered is making use of private or public diagnostic laboratories in the region. With a foreign NPPO having an up-to-standard diagnostic laboratory a service agreement could be considered, with the financial assurance guaranteed of course.

### **5. Conclusions**

In relation to the overall objective to improve the market access of the cut flowers to the EU, no increase can be reported. The 100% inspection application, because of the reduced check system, has not changed since the disastrous year of 2013. Looking at the developments in 2014 and the start of 2015 in the export of cut flowers to the EU, a more promising perspective can be presented. It is expected that the inspection percentage will be lowered during 2015.



The sector (UFEA) together with DCP has worked hard in meeting the EU phytosanitary requirements over the past two years. The knowledge level has improved through the organised workshops where both scouts and inspectors participated. Not just the knowledge on the EU-requirements, but also the practical implications at the production sites in terms of monitoring the presence of the moths, has improved significantly.

A streamlined inspection and export certification system based on public-private partnership is still under development. It is clear that DCP is short in staff and need very much the support of the private sector. The cut flower sector has made a good follow-up by improving their scouting systems. DCP together with UFEA should decide how to continue to develop their private-public partnership after the baseline check at the cut flower producers has been developed.

Exchange of scouting data must become obligatory between DCP and UFEA's members. Compiling the information at DCP followed with a discussion with UFEA on the next steps to be taken, will become a regular activity and can be described in a protocol. An agreement is under development.

The specific monitoring and survey activities on the production sites, with the two relevant moth species, is now mainly an activity developed by the cut flower producers. In the future the DCP should take the lead and initiative to develop their own yearly national surveillance plan.

At political level the plant health situation in the cut flower sector deserves more attention. More priority should be given in facilitating the DCP and its phytosanitary inspectors. At the moment the focus is more on plant health issues at national level and in relation to food security.

In general the project demonstrated progress in the awareness of complying with the EU phytosanitary requirements, both at DCP's inspectors and in the cut flower sector. Over 100 scouts have been trained and the complete inspection staff (10 persons) received several training sessions on relevant issues for the export of the cut flowers.

The private sector has very well responded on the need to intensify their monitoring program on the relevant moths. The inspectors of DCP are not able to follow these activities at the moment, there is not enough capacity in staff.

There is still a big amount of arrangements to be made in the cut flower sector in order to make the phytosanitary guarantee supported by DCP together with the private sector.

In the future attention should be given to the fruit and vegetable sector as well, as the increase in interceptions of the false codling moth in hot peppers is an alarming signal.

## 6. Observations during the PMT-meeting at UFEA

With the commissioner chairing the meeting a number of issues were raised by the only grower, Rosebud, present at the meeting.

As the pressure of the relevant moths in the production places of the cut flowers is quite high, also the use of pesticides is quite high. With the risk of resistance development alternative measures in reducing the presence of the moths were discussed on its possibilities in Uganda.

The current situation on the availability and trade of pesticides need attention. There are a number of pesticides present with a red label, having a high toxicity and big environmental impact. The registration process of pesticides needs an evaluation as well, as the dossier evaluation takes only in account the efficacy on a target organism. Furthermore once an active ingredient has been registered, no protection of the dossier data is pursued. This make the import of the same pesticides possible, but control of the formulation and its quality is done. There is a serious problem with less effective pesticides sold in Uganda.

Already the use of biological control agents has been explored with BT (*Bacillus thuringiensis*). However this only was effective in the 3<sup>rd</sup> and 4<sup>th</sup> larval stage of the moth. This stage was never reached at the places of production. The use of pheromone traps seem not to be effective, though the pheromone was recommended to be useful to the moths of concern. The use of Neem tree oil seem to have a good repellent effect and is further explored by the grower.

The admission of other biological agents is not just an administration battle, but the beneficial effect needs to be proven with scientific data in Uganda. Accepting data from abroad demonstrating its effectiveness, seems to be problematical. However in Uganda no conditions for scientific research on these biological control agents are developed and present.

It was reported that additional inspection costs for the identification of the moths in the Netherlands were charged, as the inspectors could not tell the difference between *Helicoverpa* and *Spodoptera*. The expert indicated to look at this matter.

The meeting decided to prepare a message for the final seminar on the 26<sup>th</sup> of March this year.

Both UFEA and DCP need to develop a road map for the near future, trying to meet the present and future challenges with the cut flower sector.

DCP together with MAAIF need to work out a strategic plan on the present and emerging phytosanitary issues. Again structural changes need to be made at DCP

and the public-private partnership need further development in order to secure the phytosanitary guarantee in Uganda.

The results of the project need to be published and communicated with the press and the public.

## **7. Acknowledgement and appreciation**

The expert has to extend his acknowledgement and appreciation to Ephrance Tumuboine, in guiding him and serve as back stopper of the conclusions and point to evaluate. She is clearly the motivating force to her inspectors.

Last but not least the expert extends his appreciation to CABI, Nairobi, in the person of Florence Chege, in trusting me and giving me the confidence to properly do the evaluation of this project.

## **Appendix 1: TORs for NPPS to undertake project evaluation, activity 2.3**

### **Background and Purpose**

Netherlands Plant Protection Service (NPPS) is providing technical support to the STDF 335 project titled "Strengthening the Phytosanitary Capacity of the Floriculture Sector in Uganda". The technical areas and modalities for NPPS engagement are stipulated in a contract between CABI and NPPS to which this TORs are appended upon signature on each page by both parties.

### **Specific Objectives**

The purpose of these TORs is to engage NPPS to undertaken an end-of-project evaluation focusing on three areas:

1. Assess the capacity, systems and procedures developed and being implemented against what is stipulated in the project logframe in particular
  - a) based on the data provided comment on how the project has contributed to indicators at the overall and immediate objectives
  - b) assess the achievement of expected results 1-3 and compliance to EU Phytosanitary requirements
2. Challenges and lessons learned including
  - a) lessons learned and challenges experienced by partners in the execution of this project and implementation of the new systems
  - b) anticipated challenges as a result of the new institutional structures at MAAIF if any
3. Draw recommendations for sustainability including the following areas
  - a) ensuring effective inspection, certification, survey and monitoring
  - b) further training that would benefit DCP and other players in the industry; and additional infrastructures
  - c) strengthening data and information systems
  - d) maintaining and further strengthening collaboration and communication between DCP and the industry

## Methodology and reference materials

1. The evaluation will be conducted against the project logframe hence project achievements will be gauged against what the project intended to achieve in two years
2. The consultant will need to become familiar with the recent institutional changes at the DCP in order to make recommendations that would be feasible under the new structures
3. A three-day mission to Uganda on 10<sup>th</sup>-12<sup>th</sup> March 2015, during which the following will be undertaken:
  - a. Hold discussions with staff from DCP, UFEA, farm owners and other relevant stakeholders in the flower industry
  - b. Visit and make observations at flower farms, the inspection unit at the airport and other relevant places
  - c. Hold debriefing and consultative meetings with members of the PMT, and task force

## Work plan

The days indicated in table 1 are inclusive of time spent on preparations, 3 day mission in Uganda and reporting. The final day for finalizing the work is 23<sup>rd</sup> March 2015 noting the project officially ends on 31<sup>st</sup> March. The findings will be used to brief stakeholders during the final seminar scheduled for 26<sup>th</sup> March.

**Table 1: Activities, number of days and dates for reporting**

Specific activity	No. of days	Date for submitting reports
Preparation for evaluation including review of project progress reports and documents	1	
3 day mission in Uganda and travel	4	
Submit a draft technical report	2	18 <sup>th</sup> March 2015
Submit a final report, and invoice	1	23 <sup>rd</sup> March 2015
Total	8	

## **Deliverables & Reporting requirement**

The following documents will be delivered at the end of the agreed workplan period and submitted to CABI and DCP, except the financial report and accountability that should be sent to CABI only

1. A draft evaluation report including an executive summary of findings, lessons learned and recommendations by 18<sup>th</sup> March 2015. The report will address and be structured according to the three key evaluation areas, numbered 1-3 under the 'specific objectives' section of this TOR. The report is expected to be between 10-20 pages
2. A final evaluation report taking account of any comments provided on the draft, and invoice by 23<sup>rd</sup> March 2015

## **Appendix 2 Itinerary**

### **Monday 9 March 2015**

Travel Amsterdam – Entebbe, arrival 22.30.

Hotel Imperial Golf View Hotel

### **Tuesday 10 March 2015**

Meeting at Department of Crop Protection with Commissioner Mr. Komayombi Bulegeya and the head of the inspection service, Ms, Ephrance Tumuboine

Followed with a meeting with seven inspectors who have participated.

The day was finalised with a meeting with Ephrance Tumuboine and a discussion on the Quality Manual produced and related project results.

### **Wednesday 11 March 2015**

Meeting with Pim de Wit, director of Wagagai and the two heads of the scouting teams.

Followed with meeting with Ravi Kumar, farm manager at Rosebud Ltd.

The day was finished with a meeting at UFEA with Juliet Musoke, director and Esther

### **Thursday 12 March 2015**

Meeting with the Minister of Agriculture, Animal Industry and Fisheries, Tress Bucyanayandi in the presence of Florence Chege, project leader CABI, and Commissioner Mr. Komayombi Bulegeya.

The next meeting was at UFEA office located at the airport. This was a preparatory meeting, followed with a short visit to the “laboratory” at Fresh Handling Limited.

The afternoon was concluded with a PMT meeting, chaired by Commissioner Mr. Komayombi Bulegeya and with the additional presence of Mr Ravi Kumar from Rosebud and Mrs Florence Chege, CABI.

23.30 Departure back to Amsterdam

### **Friday 13 March 2015, 6.00 arrival at Amsterdam**