CAPACITY BUILDING OF ACP EXPERTS AND MIDDLE MANAGERS WORKING IN EXPORTING COMPANIES USING THE PIP TOOL BOX

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Abstract

The horticultural trade is an important driver for economic growth in many countries, and PIP helps ACP exports reach their full potential by assisting producers and exporters to meet the demands of the EU market. While export horticulture is the main focus, outputs are adapted to local and regional markets wherever possible to also benefit ACP consumers. Regulatory requirements, and in particular phytosanitary quality standards change rapidly. As ACP producers/exporters race to become more competitive, to keep their market share and to satisfay their customers' commercial demands (e.g. GLOBAL-GAP certification), the need for competent staff who are aware of the company's quality objectives and trained to follow instructions is crucial. Mastering sanitary quality is only possible if matched with a programme to build the skills of companies's human resources. PIP is a European cooperation programme managed by COLEACP. It is financed by the European Development Fund and implemented at the request of the ACP (Africa, Caribbean and Pacific) Group of States. The first phase of PIP ran from 2001 to 2009 with the objectives of enabling ACP companies to comply with European food safety and traceability requirements and consolidating the position of small-scale producers in the ACP horticultural export sector. The PIP Tool Box gives users permanent access to a wealth of information and useful documents on food safety, traceability and good agricultural practices in relation to European regulations. It contains: a pesticides database, crop protocols or production guides, an interactive training area that can be used for self-training and self-assessment in seven PIP subjects, training modules, a glossary that gives definitions of the most important terms used in the key areas of food safety, a video library containing around 20 extracts presenting the main ways of applying plant protection products, a photo library giving access to more than 600 annotated photos, concerning cultivation practices, crop enemies and so on. The PIP Tool Box has been used to train ACP experts and middle managers. The poster summarizes the experience after 4 years of training and skills assessment of ACP people.

Keywords: Food Safety, e-learning, capacity building.

1 THE COLEACP/PIP TRAINING ACTIONS

The Pesticides Initiative Programme (PIP) (financed by the European Development Fund) was set up by the European Union at the request of the ACP (Africa, Caribbean and Pacific) Group of States in order to forestall any negative effects on the ACP export sector resulting from ongoing regulatory changes in the EU and ensure the sector's long-term sustainability. PIP is managed by COLEACP. The first phase of PIP ran from 2001 to 2009 with the objectives of enabling ACP companies to comply with European food safety and traceability requirements and consolidating the position of small-scale producers in the ACP horticultural export sector. A second phase of PIP was launched in October 2009 for a period of five years. In accordance with the Millennium Development Goals, the global objective is to: "Maintain and, if possible, increase the contribution made by export horticulture to the reduction of poverty in ACP countries".

The horticultural trade is an important driver for economic growth in many countries, and PIP helps ACP exports reach their full potential by assisting producers and exporters to meet the demands of the EU market. While export horticulture is the main focus, outputs are adapted to local and regional markets wherever possible to also benefit ACP consumers. The ultimate focus of the PIP Programme being that ACP Companies could maintain their market-share onto the European market of fresh fruit and vegetables. Following ACP companies demands, PIP has initiated several training types: sensitization workshops, collective trainings, in-company trainings, individual trainings… in order to strengthen their technical capacities [1].

PIP actions concern aid to the many actors who form part of the fruit and vegetable sector in ACP States, namely professional organisations, public institutions, private consultants, laboratories, etc. To

date, some 50 capacity-building agreements are being implemented and around 50 more intervention applications are being analysed. The quality of the services provided by all these players, whether from the private or the public sector needs to match producers' needs and enable them to respond to the requirements of export markets [2].

As repeated training sessions must therefore be offered to middle managers, to private consultants (agricultural scientists, quality and hygiene technicians, etc.) and to the personnel of public institutions in charge of the fruit and vegetable sector (laboratories, extension officers and registration bodies), collective trainings will now rely on a self-learning process thanks to a tool developed by PIP (the "PIP Toolbox"). This tool helps to update export companies middle managers and ACP experts knowledge, as to develop and improve food safety and traceability practices in the entire sector. Nevertheless training skills seminars ("Field Training Workshops") and practical training sessions will still be added to the self-training sessions to complete their technical skills.

2 PRESENTATION OF THE PIP TOOL BOX

The "PIP Tool Box" is a dedicated software tool (a set of 2 CD-Rom, based on Visual Basic 6.0.) full with relevant functionalities and technical data concerning food safety, traceability and good agricultural practices, easy to install and user-friendly and easy to update (on line).

2.1 PIP Tool Box installation

Version 1.3 of the "PIP Tool Box" can be installed on any Pentium computer equipped with Windows 98 or higher. 1.5 Go of space must be available on the hard disk. To install the PIP "Tool Box", the user (usually a middle manager of an exporting company or an ACP service provider) simply inserts the first CD-ROM in the drive of his computer: the installation process begins automatically. Once the installation process has been completed, the PIP "Tool Box" can be used on the computer on which it is installed. The CD can then be taken out of the drive. The "PIP Tool Box" can be installed by the user on another computer in the exporting company or even on his personal computer if he wants to continue the training at home. There are two language versions: English and French.

2.2 PIP Tool Box contents

The "PIP Tool Box" gives users permanent access to a wealth of information and useful documents on food safety, traceability and good agricultural practices in relation to European regulations.

The PIP "Tool Box" (Version 1.3) contains (Fig. 1):

- a "**pesticides database**" compiled from the following sources: European Union regulations on active substances, national regulations on active substances for the world's biggest import countries and authorisations in ACP countries. Three types of searches can be performed in the database:
  - search by trade name: the database gives all the information on the product in one or more countries;
  - search by active substance: the database shows the products (and their trade name) that contain the active substance in question;
  - search by crop: the database shows a list of all the products that can be used on a crop in a given country.
- "**crop protocols**" and "guide to good crop protection practices" (available in PDF format)
- a "**library**" giving access to the **training manuals**, brochures, handbooks and demonstration materials, explanatory sheets of the EU Regulations, statistics about the ACP-EU horticultural trade and to all of the PIP magazines
- an **interactive "training area" that can be used for self-training** and self-assessment in seven PIP subjects (food safety approach, traceability, hygiene and risk analysis, safe pesticide use, European regulations on crop protection products and food safety, crop protection)
- "**questions/answers**" on 6 key themes relating to food safety and traceability.
- a **photo library** giving access to more than 600 annotated photos, concerning cultivation practices, crop enemies and so on. A search for a photo is based on a crop and a cultivation practice.
- a **video library** containing around 20 extracts presenting the main ways of applying plant protection products

- a **glossary** that gives definitions of the most important terms used in the key areas of food safety. The keywords are arranged in alphabetical order and can also be accessed using a search *function.*
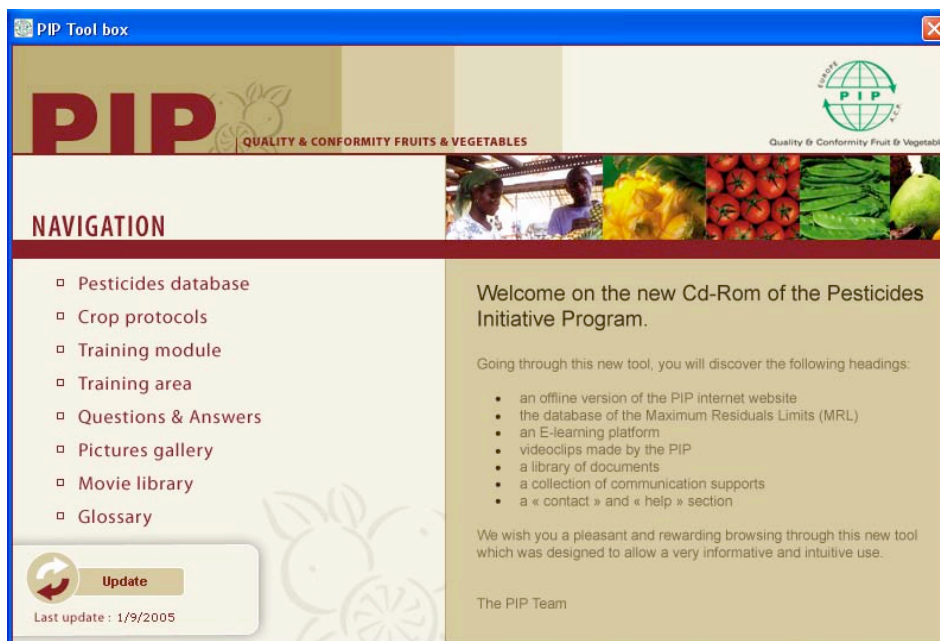

Figure 1 – PIP Tool Box opening screen

2.3 PIP Tool Box update

The "Tool Box" has been designed to be updated by logging onto the Internet. To facilitate this update, the PIP shall inform the "Tool Box" users by email as soon as new documents are produced or updated. Updates mainly relate to the crop protocols, the guides to good crop protection practices, the pesticide database and all the new brochures or handbooks that may be designed and developed by the programme's components.

3 THE TRAINING AREA

To start the self-training course, a « New user » must create a "login user name" for the Theme that he has chosen to study. Each time the user comes back to work on his Theme, he will use this user name and will be allowed to continue the session. When he wants to change to another Theme, another user name must be created. This will help the tutor to follow more easily the progression of the trainee (Fig. 2).

Figure 2 – The authentification page for a new user, a registred user or a tutor

The following flow-chart (Fig. 3) describes the process during the training.
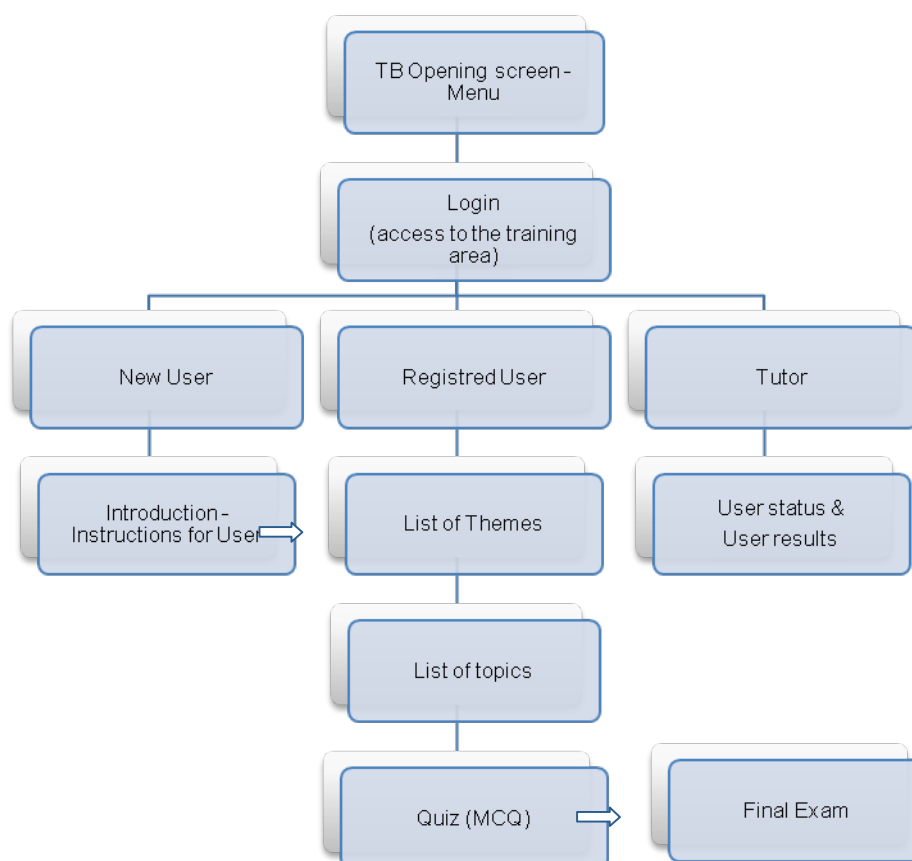

Figure 3 - Process during the training

A list of 6 Themes appears. Each Theme is comprised of a variable number of topics (e.g. : 19 subjects under the Theme « Safe Use of Pesticide » but only 5 subjects under the Theme « Regulations »). Each "topic"/subject is a specific unit and the knowledge of each will be evaluated separately from the others. The topics are presented in a logical sequence. They must be opened in the right order, carefully read and the questions in the «Quiz » at the end answered before the user can continue to the next topic. It is up to him to determine the pace of progress and to decide when he wants to move on to the next one. At the end of each subject, the trainee finds a « Quiz » (MCQ). To access to the following subject the score of the MCQ must be higher or equal to 80%. Finaly, at the end of all the subjects, the trainee will open an « Exam » (an another MCQ). The final exam is only accessible if all the subjects have been studied and if the user have passed each « Quiz ».

The system will generate a « Log Book » for the Theme studied that has the same user name (e.g. : Log Book of OWUSO_JULIUS_Crop Protection). The time that spent on each subject by the trainee and each questionnaire of the Theme studied will be saved in this Log Book. The Log Book can be accessed in the area reserved for the tutor. It can be saved on the computer, printed and sent by e-mail to the PIP Training Unit.

After the final exam, the trainee can send a mail, with the Exam (HTML format) attached, to the PIP Training Unit asking for a MCQ on the passed Theme. If the level is considered good enough (result of the Exam is higher than 60%), an electronic MCQ (20 questions) is sent to the trainee and this form must be filled immediately (boxes to choose), saved on the computer and sent back to the Training Unit. The MCQ is then corrected. A certificate is released to the trainee when the result is equal or higher than 50%.

4   TRAINEES FEEDBACK

Four years of training with the PIP Tool Box allowed the Training Unit to assess following aspects of the PIP Tool Box solution:

- Integrating asynchronous learning (local or distant) with synchronous tutoring seems to be the right combination in the sense that no trainee complained for being left "in front of a screen in the training area" of the Tool Box, on the contrary, throughout the week, progression differences gave evidence that learning the proposed themes individually allowed each trainee to get ready at own pace for the collective teaching interventions of the tutor and/or the Q&A sessions, not to mention the evaluations.

- The self-evaluation devices integrated in the learning path in each theme were cheered at by each and every trainee; they pointed at the interest of getting 'reminders' that mark out individual progression without having to report to an external trainer. The gradually organised series of reminders is the following:

  - Check points: pop-up screens with a single question related to the topics exposed in the current subject (check points are called up by the trainee via an icon positioned inside the text of the subject).

  - Quiz by subject: compulsory multiple-choice tests (5 questions linked with the check points) at the end of each subject; each trainee is entitled to two trial tests; when failing for the first one, the trainee is brought back to the beginning of the current subject; when failing a second time, the trainee is 'locked' and depends on the tutor to unlock him/her after relevant explanation as to what caused failure.

  - Quiz by theme: comprehensive MCQ at the end of each theme; this test is meant as a warm-up test for the certification exam.

- The additional databases were also warmly welcomed by the trainees in this that the Tool Box was not only to be seen as a training tool but also as an everyday reference device for both further trainings/info sessions to be given by the attending trainees as well as for everyday use at the office.

- The one-click update functionality was almost appreciated in that keeping abreast with the latest is not always easy for a field expert; to that extent, easy update rally mattered; upgrade of video et picture databases remains in this case a problem in that internet download of large files is not always easy everywhere in East-Africa; the cd-rom upgrade remains the only way out.

- The trainees were often left with the choice of following the training in-house wih a tutor or, after a minimal preparation session, to go back to their businesses and use at a distance the PIP Tool Box according to their professional planning, knowing that a tutor is available as a technical support. Many middle managers admit they could not concentrate enough at their office for the training to be efficient. Further comments in the same direction were heard during the sessions. It seems that company manager do not always realise how far they have to discharge the trainee from everyday tasks for the training to be worth it.

- The trainees appreciated the possibility of choosing only one or more study topics and to pass the certification just for the selected ones; the training contents thus matching their actual needs and individual objectives i.e. the contents related to their function in the business.

- In most case, lower trainees could easily catch up with the faster ones after a few days of training but it is always necessary to try to evaluate capacity of trainees prior to the training session starts.

5 CONCLUSION

The reception of the Tool Box training among the trainees is very positive, comments are issued on the quality of the information provided in the learning programme, the customised progression made possible by the different devices of self-evaluation (checkpoints, MCQ, theme exam) and the proximity of the tutors. Different trainees already informed on the way they could use the PIP Tool Box to propagate further in their company the information contained in the Tool Box.

Self-teaching (and what is more self-teaching thanks to a software tool) is a challenge for trainer, tutor and trainee. Although numerous advantages are linked with asynchronous teaching (the so-called e-learning, both on-line and locally as here with the "PIP Tool Box"), pure e-learning is now considered as a didactic dead-end. Most training programmes concentrate today on a 'blended' approach of vocational training: this evolution motivated the Training Unit of the PIP to set up a programme in which knowledge & know-how transfer and evaluations are computer-based but where synchronous interaction with trainer/tutor remains available, locally or at a distance.

In this sense, the use of the "PIP Tool Box" in a 'blended' programme combines the advantages linked with e-learning (local or distant), i.e. the economy of means and the high modularity of the learning path, with the human requirements met by face-to-face teaching. The trainee's autonomy being one of the objectives of all relevant trainings, the e-learning approach of the Training Unit represents undoubtedly a step ahead.

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