2. National Training Program Development

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2.1 Overview of steps for implementing a national IPM training program

Developing a training programme requires several steps in order to establish a cadre of trainers with the necessary technical knowledge and facilitation skills. Where it is necessary to reach a large number of field technicians and farmers, then training will usually follow a cascade approach in which successive groups are trained to train others. Figure 1 illustrates a possible pathway by which the core team is responsible for organising the training of a group of national master trainers. These master trainers will then lead the training of field technicians and the field technicians will in turn carry out farmer trainings in the communities where they are based. Depending on the country and the

Figure 1: Reaching large number of field technicians and farmers will generally require a training cascade whereby trainers are trained in stages.
number of farmers who grow tobacco, field technicians may train only a subset of "lead" farmers. These lead farmers may in turn train others either within the same producer club or more broadly in their community. Monitoring should take place across all stages (see Chapter 4 for more information on monitoring).

Each level in the training cascade represents a step which must be planned for as part of the implementation of the training programme (Figure 2). In the initial first step, the core team for each country will be formed. This group will be the "core" of the training programme in each country, driving the design and implementation of the programme. They will be responsible for all aspects of the development of the national training programme. The core team must already be knowledgeable about tobacco, and they must have a good understanding of Rational Pesticide Use (RPU), the CPAs recommended by PMI and the market requirements for tobacco.

Once the core team for each country is formed, they will work together to identify the training needs in their country. They will then review materials in Chapter 3 of this guide, extract relevant topics and activities, and adapt the material into a national curriculum which addresses the field technicians' and farmers' gaps in knowledge, awareness and skills. Once the nationally adapted training curriculum has been established, the core team will plan for all of the steps to follow.

Following the initial development of the national training programme, the core training team will then be responsible for training a group of national master trainers on the national curriculum and the approach to be taken for its implementation. This step can also be used to validate the proposed curriculum and to make any adjustments as necessary. Upon completion of this ToT, the national master trainers will lead the rollout of the training in the communities for which they are responsible. The national trainers will be responsible for providing technical training to field technicians as needed and for training field technicians to be trainers of farmers.

Once the field technicians have been trained as trainers, they will then train farmers. In some instances lead farmers will subsequently be expected to train other farmers. As indicated in Figure 2, each of the steps should be monitored (for more information on monitoring, see chapter 4).

2.2 Identifying training needs

In order to develop a successful national training programme, the core team of master trainers will have to consider what changes are needed in order for farmers to be seen to be using CPAs responsibly. What are the key measures that farmers fail to apply? What stands in the way of farmers improving their practices? Does a lack of awareness, gaps in knowledge or inadequate skills contribute to these issues? Are field technicians able to provide farmers with the support that they need? Where are the gaps in field technician knowledge? Are there any perceptions that need to be addressed through awareness-raising on certain issues?

A systematic process for identifying training needs is given in Appendix 1. The matrix in Appendix 1 lists the targets of phase 1 and the corresponding perception, knowledge and skills which are generally required for farmers and field technicians to be able to meet these targets. This information can then be cross checked against information sources such as the baseline study finding and Good Agricultural Practice (GAP) audits in order to prioritise topics for training.
Any available baseline data on farmers’ understanding, and implementation of the skills described, can be used to assess whether training on a topic is needed or not. Likewise, consultation with colleagues can provide additional information. The core team should work together to complete this exercise.

The topics which are highlighted by this process will serve as the basis for the curriculum used in the national training programme. The core training materials for these topics will subsequently be adapted to national conditions (see section 2.9 of this chapter).

2.3 Training of national master trainers

Once the training curriculum has been developed and the training materials have been adapted to local conditions, the core team will organise the training of national master trainers. These national master trainers will be responsible for leading the trainings of field technicians, both to build their understanding of key concepts and to enable them to become farmer trainers. Much of the training of field technicians by the national master trainers will be achieved through organised training sessions, but it could also be possible to establish a mentoring system. The national master trainers, with support from the core training team, will also contribute to monitoring and quality assurance of the training programme.

Key competencies for the national master trainers include a technical knowledge about tobacco production and RPU; good problem-solving, communication and facilitation skills, particularly on technical subjects; the ability to get along well with other trainers and field technician trainees; a concern for the programme objectives; and a responsible work attitude.

In the cascade described in Figure 1, the master trainers are the “up-stream” source from which capacity building of field technicians and farmers will flow. Unless these master trainers are well prepared to train, the “mid-stream” field technicians who lead farmer trainings will be weak as trainers and will subsequently not be able to provide good training to farmers. It is thus crucial that the master trainers are properly trained right from the beginning and are able to play their role effectively. This will be achieved through the training of master trainers.

The responsibilities and specific follow-up tasks of the master trainers include:

- Organising and conducting ToTs for field technicians;
- Planning and preparing the ToT courses, including the operational/logistical requirements and;
- Obtaining the training materials required.

2.4 Training of trainers for field technicians

The national master trainers organise and carry out the training of trainers for the field technicians. Following training of the field technicians, the materials may be reviewed and updated, according to any feedback received from training activities.

Key competencies of the field technicians are similar to the national master trainers, with a clear focus on technical knowledge about tobacco, together with an understanding and ability to apply appropriate training methodology. In addition, they will be able to further adapt the training content to the local context.

The responsibilities and specific follow-up tasks of the field technician trainers include:

- Selecting appropriate farmer training sites and fulfilling the operational/logistical requirements, including the required supporting training materials, equipment and facilities.
- Assessment of field technician knowledge before and after training (see Chapter 4).
- Continuing to assist farmers through follow-up visits to provide advice and backstopping.
- Emphasis in these courses is to be placed on helping the field technicians to be prepared to lead their own trainings with farmers.
2.5 Field technician to farmer training

Field technicians will organise individual or group training, depending on the approach adopted by the specific country. This training should be carried out using the hands-on participatory learning methodology described in the national curriculum. Emphasis should be on discovery learning exercises.

Field technicians will also contribute to the internal quality assurance initiatives for the technical training program. For example, they will assess farmer knowledge before and after the training course. These activities are described in more detail in Chapter 4.

2.6 Farmer-to-farmer extension

Many extension services choose farmers to work with them in implementing their programs. Under this model, farmers provide extension advice to other farmers, often through the creation of a structure of farmer-trainers. The advantages of using farmer-trainers include the fact that they are based in the community; they communicate in local languages; and they are more sensitive to local cultures, farming practices, and farmers’ needs.

Those farmers selected to lead “farmer-to-farmer” extension are often called “lead farmers”. They are usually chosen according to their agricultural expertise and/or the leadership role that they hold in their respective communities. In addition to their farming expertise, lead farmers should also be selected based on their skills and passion for sharing knowledge. Other potential selection criteria include availability, accessibility, trainability, acceptability, ability to communicate and literacy. Women as well as men should be encouraged to become lead farmers.

The groups that the lead farmers will serve (formal or informal farmer associations) should play a key role in selecting lead farmers. This helps increase local ownership and makes the programmes more accountable to the groups that they serve. Input from these groups should also be sought in monitoring and evaluating the lead farmers.

Farmer-trainers need strong linkages with, and support from, the field technicians who train and backstop them. Farmer-trainers should serve as a complement to existing systems, rather than being a substitute for them. Simple and appropriate reference materials should be made available to the farmer-trainers.

2.7 Guidance for conducting participatory training

Participatory training acknowledges that adults learn differently. They already have their own experience, skills, knowledge and perceptions. In a participatory training it is necessary to make use of this experience and motivate farmers to exchange and learn from each other. Learning is best achieved through hands-on activities, especially activities that are relevant to their every-day lives.

In participatory training, trainers are facilitators; they are responsible for providing a structured experience which allows farmers to learn experientially. Farmers must be allowed to actively participate and share experiences during the training. Local knowledge must play a role in decision-making.

Participant reflection on what they have learned is an important part of participatory training. At the end of a session on a topic, debriefings can be used to summarise and discuss. For example, the facilitators can ask the farmers what they learned, what new realisations or discoveries they have made, and whether they have any lingering doubts or questions.
Some characteristics of effective facilitators of participatory trainings include the following:

- motivated to improve farmers’ understanding of, appreciation and enthusiasm for IPM;
- organised;
- appears confident but not arrogant;
- respects participants and their opinions and encourages their opinions;
- able to take-up inputs from participants and further develop these contributions towards the training objective;
- able to watch, listen and learn;
- able to improvise;
- makes eye contact;
- speaks clearly;
- keeps discussion lively (have plans to restart discussions that become stalled);
- manages time well;
- self-evaluates and learn from mistakes; and
- shares the leadership (ensure that no one, not even the facilitator to a certain degree, dominates the discussion; find ways to encourage silent participants to contribute ideas).

### 2.8 Other complementary approaches for knowledge exchange

Session-based modular trainings are best accompanied by other complementary methods to reinforce the messages given and to ensure continued learning. In some countries with large numbers of farmers, reaching all farmers will depend on using at least some of these complementary mass extension methods. Some information and recommendations are readily communicated through mass media channels such as video, newspapers and radio. Meanwhile, other topics require observation over time in order to convince farmers to change their practices. Some complementary approaches for knowledge exchange are described below. This list is not definitive and many other methods are possible.

**Video**

Video can present scenarios in detail. It can be used for transmitting uniform messages and information. It can also be used as another way to share experiences, for example through interviews with farmers who have had success applying a technique (or suffered the consequences of failing to adopt a practice).

**Radio**

Community radio is one of the primary ways that rural people in many countries obtain information thus it can be instrumental in distributing educational and informative programming on farming.

**Tobacco app**

The tobacco app can be downloaded to phones or tablets. The packet of materials available through the app includes factsheets with key messages for each of the core training topics as well as green and yellow lists. Country-specific factsheets and green and yellow lists are available.

**Call centres**

In some countries where tobacco is grown, call centres have been established. Farmers can call a free telephone number for tobacco related issues. Their questions are logged by the call centre and followed up on by the VI affiliate or leaf supplier.

**Model farms**

Experimental farms can be used to demonstrate improvements in agricultural techniques, efficiency, etc. They are a particularly relevant tool for topics which are not easily conveyed by mass media channels. They allow for observation over time in order to convince farmers of the effectiveness of a practice.
Farmer field schools

A farmer field school (FFS) is a season-long non-formal education programme conducted on a crop in farmers’ fields. This is a group-based learning process that has been used by a number of governments, NGOs and international agencies to promote IPM. FFS bring together concepts and methods from agroecology, experiential education and community development. A group of farmers gets together in one of their fields to learn about their crops. During the learning activities in FFS, hands-on field practice is favoured. The FFS approach empowers farmers to develop solutions to their own problems. They learn how to improve their practices by observing, analysing and trying out new ideas on their own fields.

The FFS approach aligns well with many of the targets that will be addressed in phase 2 of the programme (Full IPM). Detailed guidance on FFS will be provided in the master trainers’ implementation guide for phase 2.

Some other examples of complementary approaches for knowledge exchange include Whatsapp groups, other social media, newsletters, SMS and theatre.

2.9 Preparing a national training package and plan

The core training teams should discuss the steps and chart out the details of the specific work plans, including identifying which team member is responsible for which tasks, how and when the tasks will be performed as well as the expected outputs. The worksheet in Appendix 2 should be filled in to facilitate the planning process.

Establish targets and a structured approach for roll out of the training programme. The number of ToTs of field technicians, training events of farmers and farm workers should be agreed for each year of the programme. The specific areas and venues for the trainings must also be identified. The number of trainers and participants at each event needs to be agreed. Will trainers work on their own or in teams? How many training workshops for farmers are field technician trainers expected to lead?

Prepare locally adapted curriculum and training materials. The topics identified as training needs (Appendix 1) can be addressed through the corresponding training topics in Chapter 3. The core training material in Chapter 3 should be adapted to local conditions. For example, local terminology should be used, and exercises should involve the locally available equipment and registered CPAs. More guidance on how to adapt the material is given in Appendix 3. Agendas should be prepared for each type of training workshop that take into account the time required to complete each activity. Activities should not be unduly rushed; time should be left for discussions. Topics can be addressed through multiple training sessions. Topics presented in a given session should be grouped logically according to theme, season, requirements and location of practical exercises, etc. Consideration should be given to how to incorporate complementary forms of knowledge transfer.

Plan and prepare operational and logistical requirements. Besides getting the training curriculum and training materials ready, it is also necessary to ensure all other operational and logistical requirements are in place. For each type of training, a check-list should be prepared to ensure all training materials and logistics needed are on hand. If necessary, arrangements should be made for participant transport to the training location and accommodation provided.

Trainers should visit the training venues and field sites prior to the training workshops to ensure that everything is in order. During the ToTs, all participants should be provided with the agenda, a nationally adapted training package and a field kit with the key supplies needed to implement the trainings of field technicians.