TRAINING METHODOLOGIES FOR RURAL PRODUCERS:
General aspects.

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Training methodologies for rural producers. General aspects.
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Con el apoyo de:
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Dear developer,

Through the implementation of certification program UTZ CERTIFIED Good Inside, we recognize the producers’ needs of broader and practical support to move towards sustainability and professional management of coffee production and processing. Our team of ten conscientious local representatives linked with more than 400 agronomists from different organizations, has given us extensive experience in the development of practical solutions to the different challenges that many producers around the world are currently facing.

The need for knowledge and advice goes from the implementation of certification program to the improvement in quality and cost efficiency aspects. However, we have structured the knowledge of these aspects in what we call ‘Support Tools’. These tools include Implementation Guide of Good Agricultural Practices, Internal Control Systems and Quality Management Systems, all supported by developments in E-learning guides to facilitate the producer and worker training.

These tools are printed and audiovisual documents that are constantly updated and improved based on experience during the practices and users’ contributions. The goal is to have a central source of practical knowledge applicable at local level and easily accessible. We hope that with these tools coupled to the support networks, we can effectively contribute to the improvement of your coffee production and management of your company.

On behalf of the producers and people who have been involved in our projects, a cordial greeting.

Niels Van Heeren
Solidaridad
Coffee Support Network
Head of Unit
Global Utz Origin Support
It is often thought that the interest of an education book is to find in it different ways to improve educational processes. And although this kind of interest is understandable and valuable, there is an increasing emphasis in the need that, people responsible of pedagogical processes are interested not only in teaching methods but also, and especially, in learning. It is difficult to teach well if you do not understand what learning is and how it occurs. In this way, in addition to consider how to teach, a good teacher must ask him/herself, how do we learn?

Some research shows that people do not understand or remember much of what is taught (Stone, 1999), which shows that quality education requires changing the way to do it. How much have you learned of what you were taught? How much do you remember about what you have learned? How much of what you have learned can actually use to address the problems and needs of your everyday life?

Focus on learning has produced important changes in the role of those who learn and teach. The starring role played by participants in their own learning process it is becoming more important. They are not longer conceived as students passively receiving knowledge of a teacher, but rather, as autonomous and active human beings, with many capabilities.
The teacher is now a facilitator, who is no longer at the heart of the educational process with its traditional authority role, and has become a counselor, someone who helps, motivates, and cooperates in the learning process.

This chapter was wrote thinking about a contribution on the learning process and the conditions that make it easier, taking into account some of the key personal factors that influence this process, such as motivation, age, learning styles and prior knowledge. In addition, they are considered two aspects that can make difficult knowledge acquisition: some preliminary ideas or beliefs, and certain forms of reasoning. And finally, it is considered the relationship between learning and technology use and some forms to create environments that facilitate learning are indicated.

1.1 LEARNING

WHAT DOES LEARNING MEAN?

It means developing new capabilities. Whenever you learn something there is a change in the way of understanding the world and act on it. But how to know if the person had learned? It requires more than simply repeat some contents by heart. The person who has learned is capable of:

- Explain what they learned in their own words.
- Apply what they learned in different situations to solve various problems.
- Conduct demonstrations.
- Give examples.

In other words, the person who has learned is able to make a flexible use of new knowledge, innovating from it.

In practice, it is likely that both facilitators as participants have identified one or more of the following situations:

- Someone is capable of repeating the theoretical contents that has learned on a particular subject, but when it comes to solve a problem with them, does not know how to implement them.

- Someone says to understand something, but cannot explain it or make examples if he/she is asked to.

- Someone explains what learned on a particular matter, but few days later he/she does not remember or cannot explain it.
Situations like these are common and show, on the one hand, the flaws that may occur in the learning process and, on the other how easy is to reach inadequate conclusions about the quality of an educational process.

**HOW DO YOU LEARN?**

Learning is never done “in vacuum” and teaching cannot be compared to “fill a bottle”. Acquiring knowledge involves the creation of relationships between the new and previous knowledge: more than a sum of knowledge, it is about a transformation and enrichment of previous knowledge, thanks to new one. However, this transformation is not always achieved, nor always easy. On the contrary, there are complex contents that take a long time to learn. This allow to understand the reason why, in some cases, despite repeating for years a key message that is supposed to improve the quality of life of people, it does not change.

Why do people tend to “cling” to their beliefs and their usual way of doing things? There are various explanations for this trend but due to their complexity are not listed here. Simply bear in mind that people can resist to learn what forces them to stop making things easily, as they always do it; that are reluctant to go against the terms of social and cultural environment, or that they believe they do what is right and what represents more advantages. In fact, there are so strong concepts that, despite years of teaching, remain intact.

In this regard it is important that the facilitator keeps in mind that new learning requires:

- **Feeling dissatisfied with what is known, with the way it operates.** For example, a producer who realizes that his crop management method is increasing his economic losses has more disposition and easiness to learn than the one who is convinced of doing it correctly.

- **Feel that new findings are clear enough and allow problem solving.** It is the event of a producer who finds that the new knowledge has sense and sees how others have improved from it. It gives him greater disposition and easiness to learn than the one who that anyone who feels confusion or mistrust.

In general, it can be said that new learning is possible when people experience difficulty or dissatisfaction against the way they normally have been doing things. The need for change makes easier the learning process.
As stated before, learning involves the development of new capabilities. These capabilities may involve one or more of the following learning dimensions:

- **Cognitive dimension:** It refers to learn data, concepts, which is something, how it is, why it is that way, what is related to. For example, when a farmer learns the importance of a correct calibration of a sprayer.

- **Emotional dimension:** Includes learning and acquiring attitudes to certain situations and develop new values. For example, when the farmer is encouraged to apply techniques and procedures to produce with environmental responsibility criteria.

- **Behavioral dimension:** Includes learning and acquiring attitudes to certain situations and develop new values. For example, when the farmer is encouraged to apply techniques and procedures to produce with environmental responsibility criteria.

These three dimensions are often closely linked: a farmer knows, for example, different types of organic fertilizers, acquires skills to prepare them and develops favorable attitudes to their use. However, it can happen that the farmer knows that this type of fertilizer increases water retention in soil, but does not understand why; or he understands the importance of soil protection, but has a negative attitude against the use of such fertilizers; or that learns how often and how to apply them but do not understand why he should do it that way.

Of the previous statement it can be inferred a very important principle to facilitate learning: Each new knowledge must integrate, where possible, development of concepts, skills and attitudes or, in other words, “know what to do”, “know how to do it” and “want to do it”. If this is achieved, it makes easier, among other things, the following:

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**Table 1: Learning takes time**

Numerous investigations have shown the importance of dedicating time to teaching and have commented that the majority of learning is slow and gradual (Nickerson, 1998). That is why attention is drawn on the need to think about the training processes in the medium and long term, and ensure a good accompaniment. The testimony of a facilitator of educational processes in the rural sector illustrates this idea:

“One often falls into the trap that the first sentence with the producers is “do such a thing”, or “take this issue” or “fertilize in this way”… Before that, you have to spend a lot of time with them, watch what they are thinking, what they want with their farm, where they want to get, what are they thinking about their families. First, watch all that and then come and discuss with them how to do things. That takes time, a number of encounters, not a single contact with the producer”.

Even though in the learning process there are other factors involved such as previous knowledge of the group, the complexity of the content, quality of the methods used, people motivation about knowledge, among others, the initial recommendation remains the same: to allow people to take enough time for significant learning.
Capacity building for farmers to apply in a crop the knowledge acquired in another crop, because they understand that there are some common principles in plant growth.

Conducting appropriate adjustments to technology, while respecting the basic principles inherent to the technology recommendation.

The continued implementation of new knowledge, to the extent that they know what to do, and how to do it and also want to do it.

However, different types of learning may require different processes and may demand different degrees of complexity. Some authors show how skill learning is usually slow and gradual and, draw attention to the importance of ensuring enough practice and adequate supervision and guidance by the facilitator. Regarding the development of new attitudes, they also emphasize the need for a continuous and long-term work. Finally, in relation to concepts learning they emphasize the difference with data learning.

It is believed that concepts learning is more effective and lasting than data learning, but is also more demanding. The difference is that data relate primarily to "loose" information on different facts. For example, required dosage of a product, damage level that justifies a control measure, number of days that take to develop a state of the life cycle of a pest, among others. The concepts involve the establishment of relations between data over a network that explains why things occur and what the consequences are. For example, a farmer that understands the biology and habits of a pest and the conditions that promote and do not favor their development, designs management strategies more easily.

According to the conclusions reached by some researchers on learning, most of the learned data are not understood and forgotten over time, especially those who are not used in everyday life. This explains all the things that are forgotten of the first educational years or the need that educators have of repeating the same data, to the same group or same person again and again.

However, it is not possible to pretend that people fully understand all the concepts, nor can be assumed that data learning is useless. Some authors emphasize how data learning may be necessary to facilitate learning of more significant information and may be enough to prevent behaviors that affect people’s lives. For example, it is difficult to pretend that all people understand how an insecticide acts, however it is essential to ensure that, even without a proper understanding, avoid the application of a dose that is lower or higher than the recommended.

It is worth highlighting the following point: when it is properly understood why things happen, it is possible to make good use of knowledge in different situations and with different problems.
1.2 FACTORS INFLUENCING LEARNING

1.2.1 PERSONAL FACTORS ASSOCIATED WITH LEARNING

There are several factors that have to do directly with the more or less easiness to learn. Some of them have to do directly with the characteristics of trainee that are discussed below, with emphasis on motivation, learning styles, age and background.

Motivation

Motivation becomes a key factor in learning and is closely related to the time and effort dedicated to learn. This explains why, people with higher motivation levels in a topic can learn more easily than others. Also explains why there are learning differences among people who have similar capabilities but different motivation levels. In education, two types of motivation are distinguished:

- **Internal motivation** is coupled with the benefits obtained from learning and use of new knowledge. The person attends a training process motivated to learn, solve problems or improve their life quality, etc.

- **External motivation** is linked to the existence of benefits additional to learning, such as input supply for projects, participation in tours, credit access, etc. Although people who possess this kind of motivation can also learn, it is common that they separate from the educational process after the external benefits finish.

A key aspect related to motivation is the self-confidence of the person in his ability to learn, which is closely linked to self-esteem.

| Table 2. Self-esteem and learning |

In general, self-esteem can be understood as the valuation that people have of themselves and their capabilities. When a person has high self-esteem feels comfortable about him, despite his weaknesses and failures, is able to cope with new situations and recovers easily from difficult circumstances.

When these features are moved to a learning situation, people with high self-esteem feel confident about their ability to learn. They also take as a challenge the difficulties experienced by certain educational experiences. In contrast, people with low self-esteem tend to express doubts about their capabilities to acquire new knowledge and, to show themselves dependent. They are also little persistent, tending to readily abandon the educational process.

The low self-esteem can affect both learning motivation and the educational process attendance. Hence the importance of creating an atmosphere of trust and security that will enable people to act without fear of being wrong. Some key recommendations to achieve this are:

- Recognize each participant as a unique and singular person.
- Propose tasks consistent with participant’s abilities.
- Help to recognize personal abilities.
- Assess the achievements of the participants in relation to learning.
- Avoid situations in which participants can feel threatened.
- Recognize mistakes so that the person feel that can overcome them.

The high esteem facilitates knowledge acquisition process and, in turn, the new learning can become an important source of self-esteem for people.
Learning styles

People have different ways to learn. For example, while some people easily understand abstract information and can learn through verbal explanations, others require or prefer concrete experience that allows them to observe, manipulate or experiment. In table 3 you can appreciate other differences in relation to learning style:

It is important that the facilitator takes the time to learn how each member of the group learns more easily. Is fundamental to be a very good observer and to identify, for example, who needs more guidance, who prefer to work alone, who has a faster learning pace or who need to repeat several times a practice. The facilitator must also select the methods and strategies that best suit the different learning styles in the group, taking advantage of the capabilities of its individual members.

Age

The age is related in different ways with learning, since it is closely related to the development of skills, experience, interest in certain items, the time available, among other things. Considering the above, for several decades special attention has been given to understand the peculiarities of adult learning and which is the best way to promote the acquisition of new knowledge at this life stage.

Is it higher or lower the ability to learn in adulthood? According to various studies, at this stage there is a lower performance on tasks that require speed, high levels of memory and perception, but higher performance in tasks demanding experience and know-how. On the other hand, adults can show greater resistance to change as a result of deeply rooted habits, but also have increased motivation, since education it is assumed like non-binding. In short, at this age, as in others, there are factors that facilitate and limit learning.

Some characteristics of adults that must be considered when organizing and conducting educational processes are:

- Adults tend to seek useful experiences that enable them to improve and develop skills, learn how to solve specific everyday problems at family, social and labor environments.

- Adults often have different family, labor and social responsibilities, that condition their time and willingness to learn, but at the same time, they may experience increased motivation towards participation in learning processes. The interest in learning can overcome the fatigue experienced after a day’s work.
The responsibility and autonomy levels in adults, favors self-teaching: the responsibility for learning implies less need for support and greater motivation to independent activities such as lectures, observation and personal consultations.

Adults are facing learning processes from an experience accumulated over the years: this makes easier for them to establish meaningful relationships between new knowledge and the one they already have, as well as bring the experience of serving the acquisition of new knowledge.

Adults often have a more specialized and selective memory, and easily retain the knowledge that has practical or emotional meaning for them: aspects directly related to job performance, problem solving, obtaining recognition, expanding social networks, etc.

Adults who feel threatened some aspect of their lives, like security, self-esteem or time, can easily leave the educational processes. In the same way that they independently decide to enjoy an educational process, they can also decide their disengagement.

The above characteristics of adulthood involve carrying out educational processes truly relevant to people and choose teaching methods suited to their interests and learning styles. This recommendation is valid for training processes with people of other ages, which requires in all cases to ask: what is interesting for these people in particular? Based on characteristics, which is the best way to facilitate their learning?

Schooling

As mentioned, a definitive element in the quality of learning is the ability to connect new knowledge with the one people that people already have. Everyone learns in different ways and to varying speeds, according to the knowledge they had acquired earlier and his ability to relate them.

The knowledge acquired in school plays an important role in learning, especially when it comes to content that requires basic skills such as reading, writing and performing basic mathematical operations. It is common to find that is difficult for many people to carry out production records, conduct assessments and determine dosages. However, it is necessary to understand that knowledge is gained in different spaces and through different people and experiences. Beyond schooling, the important thing is what the person knows and its ability to learn.

Even though more schooling can make learning easier, some knowledge can be acquired regardless of this factor. Likewise, although a higher education can facilitate the use of certain teaching methods, is not a requirement for others. In both cases it is necessary to bear in mind that the school itself is no guarantee of learning. In fact, there are people who have developed good skills in reading and writing out of the school, and some others cannot read or write, or perform basic mathematical operations, despite having several years of schooling.

In some cases, lack of schooling becomes a source of insecurity that can affect learning, especially when teaching methods require skills that are not fully developed. Therefore, it is the job of facilitator being flexible in the use of oral and visual strategies that take advantage of the capabilities that people have gained in areas other than school.
1.2.2 SOME PERSONAL FACTORS THAT MAY AFFECT LEARNING

One of the aspects that affects learning process has to do with resistance to transform the knowledge that people already have when begin an educational process. A second element relates to their ways of thinking. Next, both issues are developed.

Table 3. Some differences in learning styles

<table>
<thead>
<tr>
<th>SOME PEOPLE ...</th>
<th>OTHER PEOPLE ...</th>
</tr>
</thead>
<tbody>
<tr>
<td>Demand a lot of attention from the facilitator.</td>
<td>Have greater ability to learn by themselves, without guidance.</td>
</tr>
<tr>
<td>Have high capacity to interact and learn from others.</td>
<td>Are introverted and prefer individual learning activities.</td>
</tr>
<tr>
<td>Make decisions quickly.</td>
<td>Carefully consider every option, whenever they have to make a decision.</td>
</tr>
<tr>
<td>Face the challenges in an open way, testing, exploring.</td>
<td>They focus on a single alternative when they have to deal with a problem.</td>
</tr>
<tr>
<td>Have as a main interest “to do things better.”</td>
<td>Have as a main interest “to do things differently.”</td>
</tr>
<tr>
<td>Faced with a series of tasks, prefer to sort them one after another.</td>
<td>Faced with a series of tasks, prefer to work in all of them at the same time for short periods of time.</td>
</tr>
</tbody>
</table>
Beliefs, ideas and previous concepts

According to it was previously stated, when a person acquires a new knowledge, makes it from what he already knows. His background largely determines the type of selected information, how it is organized and the type of relationships established between ideas and concepts.

Numerous investigations in recent years have identified that some ideas rooted in people make difficult or impossible to acquire knowledge consistent with science findings. However, these are ideas or ways for understanding reality that, even if they are out of line with scientific principles, frequently allows acting in an appropriate manner.

Generally, previous knowledge cannot be replaced neither in a direct nor easy way. Sometimes there are resistant to change, especially when using teaching strategies that prevent confrontation, personal reflection, discussion and, the analysis of different perspectives. This situation justifies the need for improved learning environments and select appropriate teaching methods, aimed at generating imbalance or dissatisfaction with previous knowledge and, therefore, greater openness to new ways of understanding reality.

Limitations and errors in reasoning

There are different forms of reasoning used in everyday life that impede or hinder the acquisition of new knowledge. These relate to the ways of thinking or arguing, many of which simplifies reality so much, that at the end inappropriate conclusions are reached. And, although it is impossible to pretend that people leave all these forms of reasoning, the researchers draw attention to the need of learning how to identify them and, in some cases, try to change them or at least diminish.

Some of the major limitations and errors in reasoning are as follows:

**Limitations on the use of information available:**

- Support a conclusion based on a small or inadequate sample. For example, to calculate the infestation level of coffee berry borer in a coffee crop, from the evaluation of a few trees.

- Consider only one case to defend an argument, without considering that there are multiple causes. For example, to mention that the low productivity of a coffee plot is only due to the lower fertilization, and not consider issues like plantation age, plant health and environment.

- To argue that something is good or correct because it is new, or the opposite, because it is the tradition. For example, it is common to find people who defend certain practices, arguing that his father or grandfather made them for many years.
Limitations referred to the relations between the elements or variables in a situation: Take an extreme position, ignoring that there are intermediate nuances that can be considered. For example, reject the use of chemical fertilizers, ensuring that all of them are harmful for soil.

Limitations related to personal / social interests: Accepting or rejecting an argument based on the person who raises it and not on the analysis of the approach. For example, rejecting a recommendation on planting distance, due to previous disagreements with the person who makes it, or accept the recommendation on how to store an agricultural product because it comes from the farmer with more economic resources.

Limitations concerning the cause – effect relationship: Believing that an increase of the cause produces a proportional increase of the effect or vice versa. For example, thinking that as the amount of chemical fertilizer is increased, so do profits.

Limitations on the use of available information: To argue that something is true because it has not been sufficiently proven otherwise. Defend an argument from a case that, even though it is true, it is insignificant compared to others. Establish relationships between variables without having enough information about how that relationship occurs. Ignoring or improperly using information, making it inconsistent with the defended position.

Limitations concerning the relationships between the elements or variables in a situation: Apply a general rule to a particular case where the circumstances show that this is an exception.

Defend an idea only considering two alternatives, without taking into account that there are many more.

Limitations related to personal / social interests: Employ evidence in favor of a particular argument, not because of its quality but vested interests around it. To argue that something is true, not because of argument quality but because many people agree with it.

Limitations concerning the cause - effect: Assume that if one thing happens after another is because the former is the cause of the second. Assume that one thing is another’s cause, when in fact both are effects of the same cause.

Many of these reasoning forms are not consciously used, so it is recommended that facilitators learn how to recognize them. In this way, they can help participants to know reasoning forms and reflect on how they affect the acquisition of new knowledge.
1.2.3 INTERPERSONAL FACTORS THAT FACILITATE LEARNING

Some thoughts on collaborative learning

Below are some of the most important elements to facilitate learning. First, it addresses the generation of opportunities for collaborative learning, which is based on strategies that promote collaboration among group members, taking advantage of the expertise and experience that each person has about a theme. Secondly, there is a series of recommendations to create adequate environments for learning, related to motivation, interaction, participation, knowledge integration, among others.

There are different ways to promote learning: focus on people individually or generating collective activities or collaborative learning. The latter form of foster new knowledge has become more important over time, as it can be more effective and also more enjoyable. However, it is important to take into account the willingness of people to interact with other group members.

Collaborative learning is based on methods that involve group work towards common objectives. These groups can be formed by people of different age, sex, education or experience.

- Improve social skills: working in small groups and assume learning as a collaboration, requires the development of skills for communication, leadership, conflict resolution, teamwork, etc.
Based on principles of collaborative learning and other criteria related to citizen participation and human development, a new concept in education has emerged: learning communities.

These are understood as organized human communities that build and engage in their own cultural and educational project, to educate themselves, as part of a cooperative and supportive effort (Torres, 2004). Within the framework of this proposal, it is considered that the possibility of ensuring education for all requires the joint effort of individuals, communities, leaders, members of the government and NGOs. Some of the principles of this proposal that can be used in educational processes developed in rural communities are:

**Learning occurs not only at school.** It occurs in all environments, through different experiences and people. All learning methods are important and complement each other.

**All communities have their own institutions, people and learning networks that operate informally or formally.** It is necessary to identify them and seek ways to articulate them in benefit of learning. Each member of the community is at the same time, a person who learns that can teach others. In this sense, it is important to take advantage of everyone’s knowledge, including young and older adults.

**Any age is good to learn.** On the other hand, it may be appropriate to integrate in the same educational process children, youth and adults of both sexes, since they can complement each other and create experiences of inter-generational learning.

**Community and school are not separate entities.** It is essential to strengthen their ties, to open the school to other community members and open the doors of the community to enrich school activities.

Such a proposal requires high levels of cooperation and solidarity among community members and other individuals and outside organizations. It also requires the open participation of all community members, avoiding hierarchical schemes.
Some of the main advantages of this form of learning are:

- Motivated when teaching methods require discussing with others, share experiences.
- Promote the exchange of individual skills: working in small groups makes it easier for each member to contribute from their own capabilities and experience and can create situations in which everyone can teach to and learn from others.
- Promotes the participation of shy people: for many people it is easier to participate in small groups as they feel confident and experience less fear of being wrong.
- Allows people with greater knowledge to support others’ learning: the collaborative learning is based on the principle that everyone knows and everyone teaches. Each participant, according to their abilities, can foster learning in other group members.
- Allows learning different ways of interpreting a situation or solve a problem: group learning gives access to different experiences, ways of understanding the world, of different ways of solving the same problem. This opportunity leads to an integrated and flexible learning.

Using this strategy requires the promotion of group awareness. To do this, it is important that there are shared purposes and that an appropriate distribution of responsibilities is generated and ensures the active participation of all participants, according to their preferences and abilities.

Involving children in these educational processes is important not only as a source of learning and preparation for their working lives, but also as the key to motivate them to the countryside and generate in them a greater sense of belonging.

Table 5. The importance of linking the family

In line with the principles of collaborative learning and considering the importance of family in production and administration processes and of a farm, is key to generate participation opportunities for other family members, both during farm visits and in group activities.

“Family is the main support of the producer. If you have a committed and motivated family, you have a motivated producer; but if you have an unmotivated wife or child, who say that it does not work, the producer, even if he wants, he won’t be involved... then that is the reason why is it so important to involve family in these processes” (Facilitator).

“There is more people to share with and to discuss issues and strategies ... If I’m going with a son for example, there may be an issue that was not clear for me, but maybe it was for the boy and will explain it to me, or I to him. Or the farmer that goes with his wife, is also very important; there are two people from the same house and if one of both forgets the information, the other will help to complement the idea” (Farmer).
1.2.4 RECOMMENDATIONS TO CREATE A GOOD LEARNING ENVIRONMENT

There is no single way of being a good learning facilitator, nor is it always possible to guarantee the same results. These depend on group characteristics, the time and resources available and the type of content. However, there are some basic characteristics, desirable in a facilitator.

According to some studies (Matijasevic, et al, 1999, 2001, 2002), producers gave special importance to the following characteristics of facilitators:

- Adequate knowledge on technical and administrative aspects of a farm and direct field experience.
- Knowledge about the communities where producers belong to and, their economic, social and cultural aspects.
- Cordiality, openness to participation and capacity to put himself in producers’ shoes.
- Availability to meet the needs of producers and compliance with the commitments made with them.
- Respect for the autonomy of producers and knowledge about factors that may limit technology use.
- The facilitator speaks the same dialect or guarantee that an interpreter conveys the message well (especially in regions with local languages or dialects).

Next, some facilitators mention the main features of his work, based on its long field experience:

Willingness to serve, experience and dynamism: “First, you have to have a vocation to serve, to be a person interested in helping the community to solve the problems. Second, it is desirable that the facilitator comes from a country family to know how to put himself in producer’s shoes. And third, he must be dynamic, very active and wanting to find alternatives to people problems”.

Willingness to take the time to facilitate learning: “Prudence and humility. If you are prudent with the one who does not know and calmly explain to him, can have good results. “

Ability to build trust: “Producers are not easily deceived, he realizes if you have the skill or depth knowledge on the subject. So the first thing is to win the confidence of the producer, to be prepared. On the other hand, to establish a good relationship. “

Knowing how to adapt: “I would say that you have to adapt to the person you are with, because if that person is calmed and quiet and, you approach very fast... you have to adapt to the personality of producers. “
A fundamental part of the role of the facilitator is to create environments that help people learn. This section provides basic recommendations to facilitate learning and maximize the use of acquired knowledge. The first recommendations are related to motivation to learn and selection of contents that are relevant to people, taking into account their training needs:

**Table 7. Some recommendations for selecting relevant content and foster the motivation to learn**

**What do to facilitate learning?**

- Ensuring that people involve in pedagogical processes motivated by learning and not by external rewards.
- Based on people’s interests and proposing solutions to problems common to all.
- Setting up activities to the abilities of people and allowing them to experience an accomplishment feeling.
- Encouraging participants to continue learning by themselves during and after the educational process.
- Taking into account the family, social and work conditions of adulthood and the reduced availability derived from them.
- Avoid situations that create insecurity or affect self-esteem, allowing people to express freely, without fear of error.

**How to do it?**

- By selecting goals that correspond to people’s needs and are achievable.
- Analyzing with the group its own reality and their communities, the characteristics and causes of their problems, their needs, their potential.
- Analyzing with the group its own reality and their communities, the characteristics and causes of their problems, their needs, their potential.
- Designing strategies that promote problem-based learning, and not the theoretical one that does not consider people’s needs.
- Encouraging learning from experience, including activities that enable learning by doing and using prior knowledge.
Another key issue for creating a proper learning environment has to do with the quality of relationships between group members and the group with the facilitator, as well as opportunities for participation.

**Table 8: Some recommendations on how to adapt to group characteristics**

<table>
<thead>
<tr>
<th>WHAT DO TO FACILITATE LEARNING?</th>
<th>HOW TO DO IT?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>TAKING INTO ACCOUNT THE ECONOMIC, SOCIAL AND CULTURAL CHARACTERISTICS OF THE COMMUNITY</strong></td>
<td>Participating in community life and sharing activities with people.</td>
</tr>
<tr>
<td></td>
<td>Performing activities that allow everyone to know and integrate the teaching of values, beliefs and customs of the community.</td>
</tr>
<tr>
<td></td>
<td>Using different community areas to develop learning processes.</td>
</tr>
<tr>
<td></td>
<td>Integrating different people from the community to teach what they know.</td>
</tr>
<tr>
<td><strong>BE FLEXIBLE</strong></td>
<td>Adopting the pedagogical process to the characteristics of each group: maturity, size, needs, knowledge and learning capabilities.</td>
</tr>
<tr>
<td></td>
<td>Using different methods, taking into account:</td>
</tr>
<tr>
<td></td>
<td>The objectives of the activity.</td>
</tr>
<tr>
<td></td>
<td>The complexity of content.</td>
</tr>
<tr>
<td></td>
<td>The resources available.</td>
</tr>
<tr>
<td></td>
<td>The own experience.</td>
</tr>
<tr>
<td></td>
<td>Respecting the different rhythms and learning styles of participants and adjusting the methodology to this diversity.</td>
</tr>
</tbody>
</table>
Finally, a good learning environment means that the facilitator put a special effort in learning quality, promoting concepts rather than data, encouraging the application of new knowledge and the integration of learning related to different knowledge areas:

**Table 9. Some recommendations directed to the improvement of learning quality**

<table>
<thead>
<tr>
<th>WHAT DO TO FACILITATE LEARNING?</th>
<th>HOW TO DO IT?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Helping people to understand concepts, not only to learn details</strong></td>
<td>Considering the real level of participants, their knowledge, skills, and experiences.</td>
</tr>
<tr>
<td></td>
<td>Identifying what people know about the topics that will be addressed in the pedagogical process.</td>
</tr>
<tr>
<td></td>
<td>Helping people to organize the information and understand how the new content relates to the existing one.</td>
</tr>
<tr>
<td></td>
<td>Introducing new information in a phased manner with the aid of diagrams and summaries.</td>
</tr>
<tr>
<td></td>
<td>Taking the time to identify the learning style of participants, their background, and motivations.</td>
</tr>
<tr>
<td></td>
<td>Including activities (lectures, demonstrations, problems, experiments) that lead participants to question their ideas, and see things from other perspectives.</td>
</tr>
<tr>
<td></td>
<td>Encouraging the development of skills to learn how to learn: analysis, synthesis, comparison, interpretation of reality.</td>
</tr>
<tr>
<td></td>
<td>Avoiding repetitive activities through activities that surprise and motivate participants to reflect, to seek solutions to interesting problems.</td>
</tr>
<tr>
<td></td>
<td>Encouraging people to learn “why” things happen and “what for” they are done and not only the “what” and “how” they are done Promoviendo en las preguntas.</td>
</tr>
<tr>
<td></td>
<td>Promoting on people the art of making questions.</td>
</tr>
<tr>
<td></td>
<td>Encouraging participants to reflect on their progress creating spaces for participatory and cooperative assessment.</td>
</tr>
</tbody>
</table>
Table 9. Some recommendations directed to the improvement of learning quality

<table>
<thead>
<tr>
<th>WHAT DO TO FACILITATE LEARNING?</th>
<th>HOW TO DO IT?</th>
</tr>
</thead>
<tbody>
<tr>
<td>PROMOTE THE APPLICATION OF KNOWLEDGE IN DIFFERENT SITUATIONS AND PROBLEMS:</td>
<td>+ Promoting the application of new knowledge to solve problems of everyday life.</td>
</tr>
<tr>
<td></td>
<td>+ Doing exercises that enable people to analyze how new knowledge can be used in different situations.</td>
</tr>
<tr>
<td></td>
<td>+ Setting goals for various types and not just productive. Encouraging other skills necessary for everyday life.</td>
</tr>
<tr>
<td>PROMOTE THE INTEGRATION OF KNOWLEDGE</td>
<td>+ Setting goals for various types and not just productive. Encouraging other skills necessary for everyday life.</td>
</tr>
<tr>
<td></td>
<td>+ Helping to establish relationships between knowledge from different areas.</td>
</tr>
<tr>
<td></td>
<td>+ Helping to integrate theory and practice, education and life, the emotional and intellectual processes</td>
</tr>
</tbody>
</table>
The facilitator can make an interesting self-assessment exercise by analyzing each of the areas included in the above tables. He only has to ask himself, which of the previous recommendations has adopted and which not? Which are his strengths? In what areas does he need to improve?

1.3 LEARNING AND DECISION-MAKING ON TECHNOLOGY USE

Taking into account the educational work carried out with rural producers, it is important to end this chapter with some reflections on the importance of learning in the use of technology related to agricultural production: why is learning important in decision-making on technology use? What relative importance does learning have in respect to other factors that influence decision-making?

Although it is a process that involves many additional factors to learning, it is indisputable that decision-making about technology use depends largely on the knowledge about it.

Some elements that must be taken into account about the process of decision-making on technology use are:

- Although some technologies represent improvements to processes that are taking place, people always face the decision of accepting or rejecting them. Their rejection or acceptance depends on multiple factors (See Table 6). However, it must be considered that people often make decisions that cannot be considered neither “good” nor “logic”. Many of them are taken from an inadequate or improper use of the available information.

There are greater opportunities for people to make use of new technologies when educational strategies that involve active participation are used. Various studies and extensive experience in the rural sector, show the ineffectiveness of extension models that seek to introduce new technologies in rural communities without considering their characteristics and preferences. It is required, therefore, to understand the community and the criteria used by families for decision-making.

Usually, decision-making is not immediate; it is a process that takes time and involves several previous actions. Many decisions about technology use can have a provisional nature, particularly when a great investment has not been made. This is because people are evaluating results and making the changes they consider necessary.

Decisions on technology use are not necessarily focused on the extremes of rejection or adoption. In fact, many people choose to make adjustments or tests. People, who find contradictory messages or not convincing results, can give up a decision that seemed permanent. A good education process and good support are essential to prevent the latter situation.

The factors to which rejection of a technology are usually attributed, differ between researchers, technicians and farmers, which draws the attention to the importance of understanding the motivations of producers to accept or reject a technology. Often, the rejection of producers of new technologies is attributed to ignorance, passivity or the existence of “traditionalists” or “conservative” attitudes, without considering the multiplicity of factors that influence decision making.
### Table 1. Factors influencing decision-making

<table>
<thead>
<tr>
<th>FACTORS</th>
<th>FACTORS TYPE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>CHARACTERISTICS OF INNOVATIONS</strong></td>
<td></td>
</tr>
<tr>
<td>Relative advantage: the degree of perceived superiority to the idea or practice that seeks to be overcome, either by utility, simplicity, time saving or effort.</td>
<td></td>
</tr>
<tr>
<td>Compatibility: perceived degree of consistency between innovation and the values, beliefs, experiences and family needs.</td>
<td></td>
</tr>
<tr>
<td>Complexity: the degree of perceived difficulty to understand and use new technology.</td>
<td></td>
</tr>
<tr>
<td>Trialability: the degree to which new technology can be tested before taking the decision.</td>
<td></td>
</tr>
<tr>
<td>Observability: the degree to which the results of new technology are visible or obvious (Rogers, 1974).</td>
<td></td>
</tr>
<tr>
<td><strong>CHARACTERISTICS OF THE COMMUNITY</strong></td>
<td></td>
</tr>
<tr>
<td>Cultural aspects: customs rooted in the community, beliefs, and values.</td>
<td></td>
</tr>
<tr>
<td>Physical and social infrastructure of community: roads, public services, access to markets.</td>
<td></td>
</tr>
<tr>
<td>Existence of support networks in the community to facilitate decision making and provide support.</td>
<td></td>
</tr>
<tr>
<td><strong>PERSONAL AND FAMILY FACTORS</strong></td>
<td></td>
</tr>
<tr>
<td>Characteristics of production system: biophysical characteristics, components grown, productive infrastructure.</td>
<td></td>
</tr>
<tr>
<td>Availability of physical and financial resources</td>
<td></td>
</tr>
<tr>
<td>Labor division and decision making in the production system</td>
<td></td>
</tr>
<tr>
<td>Willingness to deviate from community or family tradition if it does not agree with the innovation.</td>
<td></td>
</tr>
<tr>
<td>Family and community support in decision making.</td>
<td></td>
</tr>
<tr>
<td>Knowledge about the technology in question or similar technologies.</td>
<td></td>
</tr>
<tr>
<td>Willingness to try new technologies and a good level of frustration tolerance.</td>
<td></td>
</tr>
<tr>
<td>Existence of a genuine need or a priority problem that technology can solve.</td>
<td></td>
</tr>
<tr>
<td>Previous experience, of the producer or other people, with other technological innovations.</td>
<td></td>
</tr>
<tr>
<td><strong>CHARACTERISTICS OF CHANGE AGENTS AND QUALITY OF INTERACTION</strong></td>
<td></td>
</tr>
<tr>
<td>Confidence in the relationship between the facilitator or change agent and community.</td>
<td></td>
</tr>
<tr>
<td>Openness of facilitator or change agent to allow a free decision-making.</td>
<td></td>
</tr>
<tr>
<td>Types of media used to disseminate new technology and facilitate learning about its use.</td>
<td></td>
</tr>
</tbody>
</table>
The search for information is an essential element in decision-making. The producers go to different sources and use those with most credibility for them, which can vary from guidance of technical staff, experiences from neighbors, relatives’ views, and self-observation, among others.

Considering the nature of the decision-making process earlier described, it is important to encourage an open dialogue with producers on how they perceive new technology, to provide a good understanding of their ways to make decisions and do a good accompaniment after the decision. It is also important to consider the many factors that influence the decision-making.

Various factors included in the above table are directly or indirectly linked with learning. Regarding the characteristics of innovation, both “complexity” and “Compatibility” are directly related to people knowledge and beliefs. Both are key criteria in decision making process, mainly in its early stages, when the technological innovation is being explored.

According to research, technology use according to technical recommendations is strongly associated with its proper understanding. On the other hand, a good understanding is associated with the existence of realistic expectations about technology.

Those who do not use technology according to technical recommendations often have a poor understanding of the technology. On the other hand, adjustments are often made by people who have a partial of poor understanding of the technology, but when there is good understanding, the adjustments made tend to be appropriate.

Finally, the facilitator should keep in mind that beyond foster positive attitudes towards innovation, it is about people modifying some of their practices and keeping them over time. However, one thing does not necessarily lead to the other: people with a positive attitude towards a particular technology do not always decide to use it. Similarly, there are people who, after a long educational process, decide to adopt new practices, but give up quickly. All this points to the need of providing support and that facilitator must have a good understanding on the underlying motivations for producer’s decisions.
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THE TRAINING PLAN

The purpose of this document is to provide tools and promote facilitation skills directed to technicians who work directly with growers and their families, enabling them to facilitate training projects useful for the community. At the beginning of chapter, some principles that will guide facilitator actions are stated. The principles are those aspects that illuminate his work, becoming the beacon that illuminates the daily action in his training work.

2.1 PRINCIPLES

First, the facilitator must be clear about the Training Plan, not as isolated training actions, but as a process that will undertake with the producers and takes time to bear fruits. On the other hand, community participation appears as an essential component for any activity to be concerted and adapted by the producers and their families.
Horizontality allows establishing deep communication relationships between facilitators and producers.

Mutual learning relates to the fact that not only the facilitator but also the producer learns from the experience although it is motivated by the former.

The relevance has to do with the relationship that should exist between pedagogical processes and social, economic, environmental and cultural issues in the region where they are taking place.

The training of trainers looks for the facilitator to encourage the producers as trainers of other producers in the different themes and activities of the Training Plan, promotes “farmer to farmer” sharing and, lays the foundations for the process to continue with community initiative.

The promotion of collective leadership gives tools to the facilitator to broaden participation and leadership of producers, according to their strengths and affinities, minimizing the development of individual and individualistic leaderships.

The immediate utility means that learning promoted through the Training Plan should be easy to make and can be implemented with local resources. The principle of equity refers to the care that facilitator must have to adequately include both men and women and young and older adults, using appropriate methods to their gender, age or social, cultural or economic situation.

Teamwork is a key principle of training for participation and collaboration spirit, in which producers are familiar with the validity of other people ideas, accepting their collaboration and dare to make their own contributions.

Next, each principle will be detailed:
Training is defined as a relationship of understanding and learning between the one who teaches and the one that learns. It is not a specific activity but an interaction relationship between the two parties, at certain times and spaces, that results in a process that remain through time.

For the development of educational plans it is important to understand the difference between training and education: training gives importance to the use of tools or techniques management, leading the participants to acquire precise knowledge that is superficial in its basic concepts and too specific to the particularities of the tools or techniques used.

In contrast, training promotes understanding of concepts and processes that are more permanent in time and allows participants to develop their creativity and resources to plan and cope with daily challenges, taking into account their social, cultural, economic and environmental context.

It is important that facilitator encourages training processes with producers that go beyond problems resolution in production or marketing. They should promote the vision of a comprehensive production process with essential components as planning and evaluation of different activities and results.

Participation ensures the success of long-term training, as in this perspective the starting point is to value ideas, experiences and knowledge of producers and their families to enhance their ability to make decisions independently.

It is necessary to clarify that term “participation” has different meanings. It has been used to ensure local capacity and self-confidence, to delegate power and decision making, for data collection and also for the interactive analysis. However, we must be careful of not leading people to engage in activities in which they are not interested in or that take so much time for them, with the aim of “promoting participation.”

In some experiences, there have been identified seven ways for using the term participation, ranging from passive in which only information is provided, to ways in which producers and their families take initiatives independently of the external agent or facilitator.
It is restricted to persons who are informed of what is going to happen or already happened. It is established a one-sided relationship in which decisions are made by the external agent without considering the opinions of individuals to whom it is addressed. Training plans developed with this approach are limited to communicating the plan and arrange the dates for farmers to attend. Under these conditions, the potential for success is reduced.

The community participates when consulted by external actors, who listen to their views and define both the problems and solutions, which can be modified in the light of answers from people.

For material incentives, the community is encouraged to participate in exchange for compensation. For example, working in exchange for food, money or other material incentives. In agricultural research projects, it happens very often: the farmers lend their farms but they are not involved in testing or in the learning process. Even though this is not considered as participation, producers are not interested in continuing with the activities when incentives finish.

People are involved creating groups that must meet predetermined objectives related to the project and may involve the development or promotion of an external organization. Such involvement tends to occur after the early stages of project cycles or planning, when the most important decisions had been made. Although these groups tend to rely on external facilitators, they can be self-managers.

People participate in the joint analysis of a given situation, leading to generate action plans and to the formation of new local organizations or strengthening existing ones. In general, it uses interdisciplinary methodologies that involve various perspectives, promote orderly and structured learning processes. These groups take control over local decisions, so as to maintain the interest in preserving the structures and practice of what was learnt.

People take their own initiatives (self-mobilization) to make changes in situations or practices that affect them, without the help of external agents. They make contacts with institutions to obtain the resources and technical advice they need and also decide how to use those resources.

<table>
<thead>
<tr>
<th>TYPE</th>
<th>CHARACTERISTICS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Passive</td>
<td>It is restricted to persons who are informed of what is going to happen or already happened. It is established a one-sided relationship in which decisions are made by the external agent without considering the opinions of individuals to whom it is addressed. Training plans developed with this approach are limited to communicating the plan and arrange the dates for farmers to attend. Under these conditions, the potential for success is reduced.</td>
</tr>
<tr>
<td>Consultive</td>
<td>The community participates when consulted by external actors, who listen to their views and define both the problems and solutions, which can be modified in the light of answers from people.</td>
</tr>
<tr>
<td>For material incentives</td>
<td>People are involved creating groups that must meet predetermined objectives related to the project and may involve the development or promotion of an external organization. Such involvement tends to occur after the early stages of project cycles or planning, when the most important decisions had been made. Although these groups tend to rely on external facilitators, they can be self-managers.</td>
</tr>
<tr>
<td>Functional</td>
<td>People participate in the joint analysis of a given situation, leading to generate action plans and to the formation of new local organizations or strengthening existing ones. In general, it uses interdisciplinary methodologies that involve various perspectives, promote orderly and structured learning processes. These groups take control over local decisions, so as to maintain the interest in preserving the structures and practice of what was learnt.</td>
</tr>
<tr>
<td>Interactive</td>
<td>People take their own initiatives (self-mobilization) to make changes in situations or practices that affect them, without the help of external agents. They make contacts with institutions to obtain the resources and technical advice they need and also decide how to use those resources.</td>
</tr>
<tr>
<td>Self- mobilization</td>
<td></td>
</tr>
</tbody>
</table>
Generally, participation is applied in the relationship between project facilitators and producer groups. However, it is also necessary inside the different groups of actors. If the institutional processes and structures, both in development organizations and in organizations of the target group, are not participatory, the work cannot be participatory (Grundmann - Stahl, 2002). The relationship between facilitators and their fellows in the organization must be participatory. If they do not experience participation as individuals it may be difficult to promote it.

If participation is considered a key concept for project development, there must be a consistent working methodology to facilitate participatory processes in all steps of the process.

WHAT MIGHT HAPPEN IN A NON-PARTICIPATORY PROCESS?

✓ To ignore all the knowledge and experiences of the target group and that all of their inputs to the process would be lost
✓ That the target group is not identified with the project, do not support it and is even against its execution.

HOW CAN A PARTICIPATIVE METHODOLOGY BE DEFINED?

Making a thorough analysis of the base situation approaching the issues, needs and potentials of different social groups.

Making a planning involving all stakeholders. With constant observation, documentation and analysis of progress and difficulties in the change process.

Making adjustments to the strategies when necessary.

Developing training or advice activities that really contribute to people through an appropriate communication, adapted training materials, specific issues according to gender needs, etc.

Moderating events that enable true sharing of participants.

Working effectively within the organization and facilitators team, reaching group learning and adapting to changing environments.
The facilitator must look for the active participation of producers and their families in the whole process of conception, design, implementation and evaluation of the Training Plan, making contributions and changes that best suit their contexts, needs and expectations.

It is important to remember that participatory process should include women and men, young people and older adults, rich and poor. In many cases, these processes are dominated by a few people belonging to one gender or social and politics class, so it is important to encourage the participation of all community members through appropriate teaching methods.²

**HORIZONTALITY**

Horizontality in training processes relates to the responsiveness and openness between facilitators and producers. The facilitator can create a confidence climate that favors dialogue, which allows the inclusion of all participants and tolerance. He must promote openness to the needs and concerns of the producer and his family as an essential condition for genuine dialogue. It is almost impossible that dialogue occurs without a real appreciation of the other, without the conviction that it is a good person and can give a contribution.

This process of information, knowledge and experience exchange, between local people and external actors, is very important and should be a two-way process (back and forth).

According to FAO, many traditional methods of research and development planning placed outside actors in a privileged place. Thus, they identified the problems, gave the solutions, and played the role, in every sense, of “experts”. It was assumed that the local population, “needed” advice and direction of external actors. The information exchange took place only in one-way, residents answered to questions of external agents, or the technical advisers gave guidance and recommendations.


³ FAO: La Mujer Rural y su Papel en la Protección de la Biodiversidad y en la Seguridad Alimentaria en América Latina y el Caribe (documento de trabajo).
Adults require a learning method in which they can have an active participation and that also generates an horizontal, flexible, and participatory learning processes.

MUTUAL LEARNING

The teaching process is dynamic and deeply interactive. In the case of adult learning, not only the adult learns from the facilitator or teacher, but also the facilitator is enriched from learning that adults have for their life experience.

According to FAO, there are resources that tend to be unknown in rural development interventions, mainly referring to traditional knowledge. These can be on the environment (soil types, fertility degrees, use categories), biological taxonomy for the classification of plants and animals, agricultural practices that overcome difficulties (slopes, floods, droughts, pests and diseases) and so on.

This knowledge depends on the experience gained in performing different roles that men and women have in their environments. Several studies show that women also have a cultural heritage about indigenous crops and of plants, obtained throughout history in tasks like selection, reproduction and exchange of different plant species, planting, crop association, integrated pest management, soil conservation, plant protection and use for nutritional, health and economic purposes (FAO, 200).

It is important that the facilitator is open to receive lessons from the producers and their families, is enriched with their knowledge and expresses this feeling to the people that he is working with. Producers’ knowledge is very important, and in many cases is the basis to understand social, cultural, economic and productive dynamics in the work area.

RELEVANCE

Relevance is the principle that takes into account the correlation between education proposal promoted by facilitators and the expectations and needs of producers and their families. In practical terms, relevance refers to the use of concepts, techniques and materials that are suited to the peculiarities of the producers and their families, to sociocultural and economic environment, and that facilitates required education for an integral productive development.


5 FAO: La Mujer Rural y su Papel en la Protección de la Biodiversidad y en la Seguridad Alimentaria en América Latina y el Caribe (documento de trabajo).
For producers, it is important that all they learned have a real and practical application that can benefit them as soon as possible. This refers not only to production or commercial activities but to any activity that improves their personal, social, communal and productive relationships.

The facilitator must consider this issue while planning the activities, wondering what will be the practical value and which are the conditions required for producers and their families to use, as soon as possible, the education promoted in the Training Plan.

**TRAINING OF TRAINERS**

The pedagogical proposal implied in the Training Plan must be focused on training trainers, which is basically that the producers group could later share its knowledge with other producers. For this reason, the facilitator should consider the development of different training activities focused on comprehensive production, and also deliver to the producers and their families, educational tools and accompany training practices in which producers will lead activities with other producers.

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Training methodologies for rural producers. General aspects.

It is important that members of the same community act as promoters of training, research and, organization activities. Training of promoter farmers has great advantages as they are part of farmers’ reality, and they can feel it and be identified with it. They are also aware of the situations that motivate rural families to change their lives and usually are recognized by community members in which they work.

Methodologies that incorporates the farmer-farmer relationship allow a deeper analysis of the community beyond technical issues, and also to add the ideas and knowledge of community to the new ideas, adapting the solutions in a participatory way.

PROMOTION OF COLLECTIVE LEADERSHIP

To achieve the objectives of training process, it is necessary to define the leadership type that will be promoted by facilitator in his producers groups. Individual leadership, despite being positive in many ways, can bring problems to the group. Individual leaders generally limit participation of participants, capture the opportunities to reach agreements, polarize conflict situations and can lead the group towards a wrong direction.

The facilitator should identify participants’ potential and try to highlight them and support the group work according to their potential. That is, if any producer has agreement skills, the facilitator will try to support him to develop this potential in the group with skills, discursive practices, management, etc.

The facilitator should not focus the responsibilities in only one participant; he must promote the participation of women, young and older adults, giving them an important role for the group and support them to develop activities in this regard.

 Pretty, Jules et al, Guía del Capacitador para el Aprendizaje y Acción Participativa. Instituto Internacional para el Desarrollo y el Medio Ambiente. Londres, 1995
Leader characteristics

It is important for trainers to know leader qualities to look for them in the producers and support them in leadership development that better suit collective interests.

These are some of the leader characteristics:

The leader plays an important role in decision making as he counts with group support. As leadership depends on community, in addition to analyzing leader characteristics it should be considered the context in which the group operates.

A good leader must make decisions and be able to raise realistic and achievable goals. He has to acquire information and much of it has to be the result of the interaction and confidence with his partners. All of this is due to communication: The interest in knowing the feelings and thoughts of people who work with him and the contact with them. In contrast, to be isolated does not help at all.

Accessibility is a basic point of leadership. A good leader transmits the sensation of being approachable, someone who producers can openly express their ideas to. It is important to feel that the group leader is interested in listening, understanding and knowing all the suggestions, that he notices the importance of work that has been done, that is genuinely committed to achieving the proposed goals and counts on everyone. Other leader qualities are warmth, kindness, optimism and, above all, knows how to positively reinforce.

Recognizing a job well done and having a friendly and cordial conduct are techniques that comfort people and promote the interest and enthusiasm for the job.

Finally, a good leader is not the one that imposes his power, but the one who moves among his partners to maintain a gentle touch, conveying humor and giving example by his conduct, of the effort levels required to others 8.

Leadership styles

Many terms have been used to define leadership styles, but perhaps the most recognized is that of the three basic styles: the autocratic leader, the participative leader and the free reign leader.

**Autocratic leader:** assumes full responsibility in decision making, begins the actions, directs, motivates and controls the other participants. The decision depends on him. This leader may consider that he is the only competent and capable person for taking important decisions; he might feel that their partners are unable to guide themselves or may have other reasons to assume a strong position of strength and control.

**Participatory leader:** Uses consultation to practice leadership. Does not delegate his right to make final decisions and points out specific guidelines to their partners but consults their opinions and ideas about decisions incumbent on them.

**The Liberal leader (free reign):** Delegates to his subordinates the authority to make decisions. He expects that subordinates assume responsibility for their own motivation, guidance and control. Except for the stipulation of a minimum number of rules, this style of leadership provides very little contact and support to the followers. Evidently, the subordinate must be highly qualified and capable so this approach can have a satisfactory outcome.

In addition to these leadership styles, there are other ways to create a group through the motivation towards the development of partnership and trust relations within the group. The following table shows other leadership styles, in which “peer leadership” highlights, which is best suited to a participatory methodology.
TEAMWORK

Teamwork is of great importance for achieving greater efficiency in institutional work and greater satisfaction in work with groups or organizations. With teamwork, the potential of individuals is used through their abilities and skills to achieve common goals.

Teamwork requires learning through which the facilitator prepares its participation within organizations and is an important element to facilitate participatory processes with target groups. If participation is not learned and appreciated in the organization, it is inconsistent the proposal of facilitating participatory processes with communities.

In turn, teamwork strengthens the group’s ability to think, discuss and participate in the process. To work as a team it is required to recognize the autonomy of each participant, respect their ideas, opinions and beliefs and value the diversity of experiences, knowledge, skills and abilities as something enriching. Reflecting on the process and the pursuit of consensus allow the transformation of mistakes in learning and experiences for work improvement.

Table 2. Another leadership alternatives

<table>
<thead>
<tr>
<th>LEADERSHIP TYPE</th>
<th>WHAT DOES IT MEAN?</th>
</tr>
</thead>
<tbody>
<tr>
<td>DESIGNATED LEADERSHIP</td>
<td>Take responsibility of the group and guide it towards its goals. Establish how the group can accomplish the goals.</td>
</tr>
<tr>
<td></td>
<td>Support the designated leader.</td>
</tr>
<tr>
<td></td>
<td>Participate in group decision-making giving ideas and looking for clarity.</td>
</tr>
<tr>
<td>ACTIVE FOLLOWERSHIP</td>
<td>There is group work and they support each other to accomplish group goals.</td>
</tr>
<tr>
<td></td>
<td>Each group member knows what he needs to do and does it.</td>
</tr>
<tr>
<td>PEER LEADERSHIP</td>
<td>Each person takes care of him/herself to take care of the group.</td>
</tr>
<tr>
<td></td>
<td>Everyone has its own initiative and character.</td>
</tr>
<tr>
<td>SELF LEADERSHIP</td>
<td>Take responsibility of the group and guide it towards its goals. Establish how the group can accomplish the goals.</td>
</tr>
</tbody>
</table>

In turn, teamwork strengthens the group’s ability to think, discuss and participate in the process. To work as a team it is required to recognize the autonomy of each participant, respect their ideas, opinions and beliefs and value the diversity of experiences, knowledge, skills and abilities as something enriching. Reflecting on the process and the pursuit of consensus allow the transformation of mistakes in learning and experiences for work improvement.
Basic principles for organizing teamwork
The following principles serve as guide for organizing teamwork:

- **Environment.** It is necessary to have an adequate space, as comfortable as possible to facilitate the participation and cooperation of all participants. It can be a communal room or rotate among the houses of producers.

- **Trust.** Interpersonal relationships must be kind, honest, with appreciation and collaboration. A confidence climate should be established among participants to enable them to know each other, be tolerant and understanding regarding the differences of each one. One of the team objectives should be to achieve good interpersonal relations. The bigger the confidence degree, the greater the group performance.

- **Clarity of purpose.** The work team objectives should be established as clearly as possible. All members must participate in their design to achieve greater identification and strengthen the collective consciousness and the sense of “us” indispensable to the smooth running of the team.

- **Coordination.** The group needs a coordination to provide, on the one hand, the internal work establishing clear dates, rules and monitoring activities. And on the other hand, works as a liaison with facilitators for developing the activities of the Training Plan.

- **Flexibility.** Although it is expected that work is developed as planned, new challenges and the emergence of other needs can cause changes and modifications to the pre-established methods and procedures. Therefore, there should be a flexible attitude to avoid the rigidity of regulations and that match the work needs.

- **Continuous assessment.** The team needs to know whether its work and internal rules and its tasks division respond to the needs and objectives. Therefore, a continuous assessment of the process, work progress and required changes should be made.

- **Constructive communication.** The team should establish a free and spontaneous communication to avoid antagonism, polarization, and coalitions and that facilitates reaching mutual agreement decisions and resolutions, in order to take advantage of all the ideas that emerge inside the team. Taking as a starting point the consensus, favors the communication.

- **Process comprehension.** To understand the process generates an effective participation, facilitates achievement of objectives and helps making adjustments along the way. The facilitator must pay attention to the issue being discussed as well as what happens in the group during the process: reactions, stress, anxiety, views and different interpretations about the process and conflict resolution.

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9 Como la sal en la sopa. GRUNDMANN Gesa, STAHL Joachim (2002), Como la Sal en la sopa: Conceptos, métodos y técnicas para profesionalizar el trabajo en las organizaciones de desarrollo; Capacitación, Asesoría, Comunicación, Manejo de proyectos y Contexto organizacional. Quito, Ecuador. Ediciones ABYA_YALA.
Methods and Techniques

For teamwork, methods and communication, conflict management, moderation and visualization techniques are applied. Listed below are some specific techniques.

As a starting point, the teamwork rules and procedures should be set and evaluate their fulfillment. Similarly, change or add new ones, according to the lessons learned. The operation of these rules and procedures reflect the history and the consensus reached in the group.

### Table B. Rules for teamwork

<table>
<thead>
<tr>
<th>Rules</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>T</strong></td>
<td>Meet the commitments related to the schedule of the day, the time for speeches, exhibits and breaks. Coordinate the convening of meetings in advance and make available all necessary documents to participants.</td>
</tr>
<tr>
<td><strong>E</strong></td>
<td>Participate with their own opinions, actively listen to individuals and refer to contributions, respect all the design and order of interventions. Set the agreement points and not lose sight of the goal.</td>
</tr>
<tr>
<td><strong>M</strong></td>
<td>Respect and share feelings, concerns and expectations; feel responsible for the group process and consider the different personalities.</td>
</tr>
<tr>
<td><strong>I</strong></td>
<td>Analyze the project and process development in a concrete way, without making value judgments or hinder the work.</td>
</tr>
<tr>
<td><strong>R</strong></td>
<td>Use mechanisms that allow seeing the agreements reached, develop clear work plans, establish responsibilities and monitor their compliance.</td>
</tr>
<tr>
<td><strong>U</strong></td>
<td></td>
</tr>
<tr>
<td><strong>L</strong></td>
<td></td>
</tr>
<tr>
<td><strong>E</strong></td>
<td></td>
</tr>
<tr>
<td><strong>R</strong></td>
<td></td>
</tr>
</tbody>
</table>

As a starting point, the teamwork rules and procedures should be set and evaluate their fulfillment. Similarly, change or add new ones, according to the lessons learned. The operation of these rules and procedures reflect the history and the consensus reached in the group.
GENDER, SOCIAL AND INTERGENERATIONAL EQUITY

The facilitator must take into account all the differences among participants, not as their strengths and weaknesses but as learning opportunities for women, adults, children and youth. The social and economic differences between producers and their families must also be considered.

Taking into account these differences is very important to act in an inclusive way with those who, due to their age, gender or socioeconomic condition, require special support to maximize the learning opportunity that the facilitator is encouraging.

When talking about gender, we refer to the differences and inequalities between men and women for social and cultural reasons. They are shown through the roles that each gender has been designated by society and the different responsibilities, needs and priorities of men and women. These differences are expressed in the different possibilities of access, management, use and control of resources. Therefore, applying a gender equity methodology consists on the implementation of teaching strategies aiming for both men and women of different ages and social status, to have equal participation opportunities in activities that define resource access, management, use and control.

It is important that facilitators are sensitive to these differences and take into account the views of all participants when making activities and, allow an equitable participation for men and women. In addition, the development by gender must be analyzed in process evaluation.

Some aspects that must be considered for implementing gender equity are as follows:

- In the diagnostic phase, consider the activities of men and women, aspects facilitating or limiting access, resource use and control, influence in decision-making and labor division.

- At planning stage, resume gender elements that became evident in diagnosis to include them as variables in training plans: appropriate schedules for educational activities of men and women, comprehension levels, specific needs, cultural issues, etc.

- While developing activities, it is necessary to consider the particular needs of women and men. The use of appropriate methods, convenient schedules, duration, among others, must be considered.

- In monitoring and evaluation, look for specific valuation of goals achievement from both men and women, in undertaken activities.

- It is important that inside the organizational structure of facilitators, gender equity is applied; otherwise the work strategies on gender promoted by facilitators will be inconsistent.
2.4 TRAINERS AND PRODUCERS ROLES: THEIR COMPETENCIES AND RESPONSIBILITIES.

To understand the different roles of trainers and trainees it is important to establish that in participatory learning processes the facilitator can modify his role of the technical adviser, “bearer of knowledge”, to that of “facilitator”, which means to transform his attitude toward the producer and his family and guide his actions toward a collaborative process rather than control in which the technical adviser is responsible for everything.

In this regard, the facilitator should bear in mind that although the primary responsibility is his, there are activities that can and should be delegated to participants. This will enrich their experience.

From SEAGA manual of FAO, some favorable characteristics in facilitators are taken. They can help making of formation process a truly participatory one, that constitute a learning experience and have positive impacts in the medium and long terms.
### Table 14. Características de un buen facilitador

<table>
<thead>
<tr>
<th>Característica</th>
<th>Descripción</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Es un escuchador atento</strong></td>
<td>Escucha muy atentamente para resumir o repetir en otras palabras lo que se ha dicho; conoce la dirección de las discusiones y puede identificar las actitudes o juicios subyacentes. La atención es la clave para todas las técnicas de facilitación.</td>
</tr>
<tr>
<td><strong>Es un buen observador</strong></td>
<td>Observe las dinámicas del grupo, principalmente quién habla y quién no habla en cada momento, cómo interactúan diferentes personas. Utilizará la observación para entender cómo y cuándo usar diferentes métodos para asegurarse de que todos están involucrados.</td>
</tr>
<tr>
<td><strong>Hace preguntas</strong></td>
<td>Utilice preguntas para iniciar la discusión, enfocarla y profundizar los temas. A menudo, una simple pregunta como “¿Por qué?” es suficiente para llevar la discusión a un nivel más profundo. ¿Quién? ¿Qué? ¿Cuándo? ¿Dónde? y ¿Cómo? Son preguntas útiles para obtener más detalles.</td>
</tr>
<tr>
<td><strong>Es bien organizado</strong></td>
<td>Organice todos los materiales y haga los arreglos logísticos necesarios, de manera que los participantes usen el tiempo al máximo.</td>
</tr>
<tr>
<td><strong>Es flexible</strong></td>
<td>Responda a las necesidades de los participantes y esté dispuesto a adaptar o cambiar los métodos, herramientas y preguntas.</td>
</tr>
<tr>
<td><strong>Es entusiasta pero respetuoso</strong></td>
<td>Presenta las herramientas de manera interesante y actúa durante el debate de manera interesante, demostrando respeto por los participantes y su contribución.</td>
</tr>
<tr>
<td><strong>Es competente pero modesto</strong></td>
<td>Tiene una formación técnica adecuada y es capaz de comunicarse con el público de manera simple, haciendo preguntas concretas y no utiliza términos forzados.</td>
</tr>
<tr>
<td><strong>Es firme pero no autoritario</strong></td>
<td>Sabe cuándo intervenir y cuándo permanecer en silencio en una discusión. Sus esfuerzos están enfocados en motivar la participación de todos los participantes y en proporcionar orientación cuando las tareas están desordenadas o cuando el tema cambia.</td>
</tr>
</tbody>
</table>

FACILITATOR FUNCTIONS

The facilitator is in charge of certain functions within the training process. He can have an assistant that helps him in activities (this position can be assumed by a community member). The general functions of the facilitator and his assistant are:

Facilitator:
- Explaining the purpose of each activity.
- Arrange the participants in groups or as required by each activity.
- Ensure the active participation of all the people.
- Listen and ask questions.
- Delegate activities and responsibilities.

Assistant:
- File a copy of the maps, sketches, calendars, and all the graphic material, to preserve them for future reference (it is important to take pictures or record on video).
- Take careful notes of the topics presented and discussed by the participants.
- Take notes on group dynamics (indicate who participates and who does not).
- Write down the comments made by different people during the activity.

The facilitator follows some guidelines to promote participation and to ensure the success of training calls. The following are some of the activities that can be made to achieve satisfactory calls:
Table 5. How to promote participation?

**Select a place accessible for everyone:**
The place for meetings should be located near to houses and must be accessible to all groups. Public places like schools or sport fields are the most appropriate.

**Motivate participation of passive participants:**
If a low participation is detected in some persons, a good way to motivate is to ask them questions about specific issues of asking for their help in the making of graphic material.

**Schedule training activities according to available time of participants:**
Daily activities of people must be considered as well as intensive work sessions. Comfortable hours must be used and, if required, work with each group in an independent way; for example, work with men in the morning and women in the afternoon.

**Guarantee that each group can express its opinions:**
A way to motivate participation is to group participants according to their gender, activities that develop, age, etc. It makes easier the discussion of common issues in each subgroup resulting in agreed positions. However, mixed groups can also be formed guaranteeing full participation of all members.

**Ask specific questions about community to dominant participants:**
If it is noticed that there are persons in the group that dominates participation, a way to reduce their participation is to commit them in deep talks on specific issues after meetings.

2.3 THE TRAINING PLAN

Based on the guiding principles of this manual, next are presented the activities required for the formulation and implementation of a training plan to boost a comprehensive productive development.

2.3.1 THE DIAGNOSIS

One of the most important aspects for training processes to have an impact in the short and long term is the facilitator’s diagnostic of the work area to understand the social, economic and community context.

The first thing that the facilitator must do to develop a training plan is to get closer to the community where he will work, to understand its dynamics and the problems and potential of the area. This exercise of prior recognition, which is called the initial contact, will allow the adjustment of proposals and expectations to reality.

Initial contact

Before working in a community, the facilitator must make an initial contact. This is a stage prior to project beginning and ends when the community has agreed to work with the external agent.

During this period, the facilitator should make some informal visits to the community, stores, schools, and tours in the region to have a clear idea about the most important features of the community such as language, social and political organization, productive areas and, outstanding cultural characteristics.

The facilitator conducts the initial contact through the following techniques:

- Informal tours in the community.
- Bibliographic research.
- Consultation of historical data.
- Consultation of statistical data.
- Visits to stores, pharmacies, markets, schools, church, health centers, etc.
- Informal talks with leaders, teachers, housewives, etc.
The diagnosis is done with community participation. It is important to clarify that a diagnosis is not a finished product, and each year it can be updated. The formulation and implementation of a training plan and the development of a work process with positive results depends largely on having done a good initial contact. When the community agrees to work with the facilitator, the process begins.

Development of diagnostic

In the development of the diagnosis farmers and their families should be involved This instrument enables the community to be aware of the knowledge of their reality, as they explore the problems, resources and potentials of the locality that can be exploited for group profit. Allows the identification, sorting and prioritization of community problems and, through it, enables producers to have better information for the formulation of training plan.

The diagnosis must be participatory, as the community is involved in its creation, it will be helpful for people to understand their situation identifying problems and obstacles that hinder their development and defining priorities.

There is a big difference between a diagnosis made with community participation and another made by external actors. The action plans and the solutions may be more appropriate and effective when based on analysis done by people affected by problems. Although it is true to say that participatory diagnosis is a community activity, it is necessary to have facilitators’ support for using appropriate methodologies in its creation.

In summary, the diagnosis is based on obtaining information about community problems and needs and their dynamic articulation with local and external resources, and also in existing development opportunities for producers and their families. The facilitator must take into account the specific problems of production, related to social, cultural and economic factors that influence the low quality and quantity of production in the region. He must also identify, with input from the community, the resources and strengths such as human talent, economic and productive vocation, natural and geographical elements, social organization, natural leaders, among others.

A good diagnosis should make easy the knowledge of:

- The needs perceived by the community as its greatest problems (felt needs).
- The real needs that cause felt needs and that can be resolved with the will of the community and available resources.

Some questions that guide the facilitator to conduct a proper diagnosis are:
Below are some participatory tools taken from FAO’s SEAGA Handbook, that will help the facilitator to get a correct diagnosis.

<table>
<thead>
<tr>
<th>Environment, economic, political, social, demographic and cultural characteristics of the community?</th>
</tr>
</thead>
<tbody>
<tr>
<td>Which are the technological practices used by producers and their families?</td>
</tr>
<tr>
<td>What activities are conducted by men and women within the family unit, taking into account children, youth and older adults?</td>
</tr>
<tr>
<td>What is the role played by producers associations in the region?</td>
</tr>
<tr>
<td>Which are the existing limitations?</td>
</tr>
<tr>
<td>Which are the elements that contribute to production and marketing?</td>
</tr>
</tbody>
</table>

Map of community resources

Contains environmental, economic and human resources available to the community.

The community map or sketch is a working tool that allows, through graphic representation, to get information on community resources. This first approach helps to visualize the spatial and geographical features not accurately mapped but rather as an expression of community perceptions. People of the community determine map contents, focusing on what they consider important.

The maps or sketches include data on:

- Infrastructure (roads, houses, and buildings), water sources, agricultural land (location and crops diversity), agro-ecological zones (soils, slopes, elevation).
- Forests, grazing areas.
- Stores, markets, hospitals, health centers, schools and religious establishments.
- Other places (bus stops, cemeteries, squares, parks, etc.).

In addition, the community map or sketch is a useful tool for diagnosis because its preparation promotes dialogue between community members and facilitators.

- A meeting is set up with all or most community members, considering the obligations and available time of participants.
- In a large piece of paper a space to represent the community is delimited
- A reference point, central and important for the community as the main square or park, the market or cooperative headquarters is marked.
- Then, suggest to participants to draw anything they consider relevant to the community
- Participants must not be interrupted, but if they stop drawing, the facilitators should encourage them to continue drawing the houses, streets, farmlands or infrastructure works that are not in the map yet. Some questions may be used to add elements and to deepen in exercise development.
- Once the map is finished, participants are asked to describe the results.
- It is suggested to participants to add other elements that would like to see in the community and that are not represented on the map. The facilitators can ask on how would they like their community to be in the future. This will lay the foundation to begin a participatory planning process.

Materials

Newsprint, masking tape and colored markers.
Notes for facilitators

Facilitators need to pay attention to map construction as it provides an overview of the physical-space characteristics and resource base of the community. On the other hand, is an opportunity to lay the foundation of teamwork, that is participatory and of mutual cooperation. They must ensure that the final map includes the cardinal points (North, South, East, West) and that community boundaries are demarcated.

Transect (Cross Route)

Used to know the natural resource base of the community, land characteristics and its use, farms location and size, location and availability of infrastructure and services, and economic activities.

Transect or cross route is a sort of one-dimensional sketch formed by a line crossing the community map that represents the journey performed by participants. Transect allows to obtain information on the organization of community areas, existing resources and the changes that have occurred in recent years. This tool adds details to the community map.

Process

- Divide the participants group in two, three or four subgroups, which can be men, women, youth and older adults. Each group must physically walk by the drawn line, analyzing during the walk the territory aspects considered as the most important.

Questions

- Where did the community born? In what direction has expanded?
- What resources exist in abundance? What resources are scarce? What resources are being used and wasted?
- Are there any community lands?
- Who decides on the use of common resources?
- Who makes the decisions about who can use land, water or other important resources?
- Where do people obtain water, firewood, pastures, and other resources from?
- Are equal the access rights to resources for men and women, and people of different ethnic or socioeconomic groups?
- Which of the mentioned resources show biggest problems? Why?
- Do some families have right on land or other inherited resources?
- Are there certain geographic locations considered sacred?
- What happens to the land if the head of household dies?
- How many families have no land in the village?
There is a possibility that each group observes all the route elements that calls its attention or focuses on a single aspect. For example, a group can concentrate on soils observation, land use and crops; another group can analyze vegetation and water resources, and a third group can be devoted to infrastructure, housing and services. Encourage groups to share information for transect construction.

Using the map of Community Resources, draw a line, more or less straight, that crosses the area. The line must touch as much physical zones as possible, different vegetation types, areas with different land uses, and so on. It is suggested to start in the highest point on the map.

The route can be done walking or in a vehicle, depending on the size of the area and the nature of the terrain. It is advisable to use the slowest transport mean because they allow a more detailed observation of the terrain.

**Materials**

Notebooks, pencils, newsprint, colored markers.

**Notes for facilitators**

Ask questions about the characteristics of each area.

Remember that one of the advantages of this route is that people often have a greater willingness to discuss all kinds of items when they are in the place (including those sensitive as land ownership). It is recommended to take note of participants’ comments during the tour.
Guiding Questions

- Which are the most important activities that are developed in each community area?
- Which are the activities that vary according to the seasons?
- Which are the activities that depend on the gender, age, socioeconomic status or ethnic group of people?
- What services and infrastructure are there in each zone?
- What resources are available in each zone?
- Who uses the resources and which is the purpose?
- Which are the economic opportunities available in each area?
- Do women and men have access to the different resources in different areas?
- Do ethnic groups or other social groups have access too?
- Which are the major problems of community?
- Have there been any initiatives for improving the community? Who have promoted them?

Social map of communities

It gathers information about community population, local indicators of poverty and the number and location of different types of households (ethnicity, households headed by women, different economic levels of families, etc.).

Purpose

The social map of the community is a tool used to obtain information on the social fabric of community and on how the differences between the various family units are set. For example, changes in population patterns (migration, birth rates, mortality) and other social indicators.

The social map must show the type and location of all family units in the community, represented in all socioeconomic groups. The results constitute a starting point for the discussion of existing inequities, social problems, possible strategies and solutions.

Process

- Groups representing the community are organized, making sure they are made up of men, women, elder adults, and youth, to achieve the representation of the rest of participants.
- In a paper the social map of community is drawn.
- The location of all households is indicated.
Once the homes are drawn, a discussion about what constitutes wealth, welfare and poverty is carried out.

- The process continues until agreement is reached on the criteria that define wealth and poverty.
- These criteria may include elements such as type of housing, the amount of land and livestock, money sent from abroad, availability of food for own consumption, access to services and so on. It is recommended that participants define their own criteria.
- Every family unit is evaluated using the previously defined welfare criterion.
- Each house is marked with a symbol according to previously defined categories. If they have produced several maps, following the completion of the exercise, participants will be able to compare them and explain them.
- The discussion on households’ characteristics, socioeconomic differences existing between them and trends is deepened, with the help of guiding questions.

Materials

Newsprint, masking tape and colored markers.

Notes for facilitators

If facilitators are not familiar with the social fabric of the community, it is suggested to review the secondary material before beginning the field work. Additional information can be obtained through informal discussions with community members.

It should be verified that cardinal points (North, South, East, West) and community boundaries are included in the final map.
Map of farm systems

With this map, information on the activities and resources of household members inside and outside the farm, and in agricultural and non-agricultural areas is obtained.

Purpose

The map of farm systems is used to identify agricultural and non-agricultural systems of households in a community. Allows the observation of the family units activities, subsistence sources, the use of resources (some may be communal property), specialized and differentiated knowledge from women and men, and the way in which the various family units are interrelated (flow of resources from family to family and members involved in this).

Process

- Two family units (preferably those already identified in the social map of the community) are selected.
- Each household is visited. The visit began with greetings and a clear explanation of the work to carry out. Then, family members can be asked to explain the activities of their economic micro system (There is no need at this point to begin drafting the map).
- Family members (women and men) are invited to a walk through their plots. This tour allows each family member to express its interests and display its knowledge. It is also important to visit the house and the areas of community property.

Questions

How many family units are in the community? What is the size of the houses?

How is the family unit composed? What is the total number of people living in every house?

Is it increasing or decreasing the community population? Why (births, migration, other causes)?

If in the community live other ethnic groups, how are they located in the territory?

Are the poorest families or those without land concentrated in a specific part of the community?

Which are the local definitions for “richness” and “poverty”? What homes are rich, poor and median wealth?

How many households are headed by a woman? Is this number increasing? If so, why?

Is the structure of the community hierarchical?
During the walk (30 - 40 minutes) it is recommended to ask about their activities and on how they access the existing resources. It is important to find out if there are substantial differences in the activities and resources during different times of year.

There is a conversation about what was seen in the tour with household members and then they are asked to draw a map that includes collected information.

SEAGA questions are used to add additional elements to the drawing.

**Materials**

Paper, colors, markers, masking tape.

**Notes for facilitators**

The concept of farm systems is best expressed with diagrams than with words. Diagrams should include the activities developed in different communities, without too many details. With this tool, it is possible to obtain general information on the different community systems.

While conducting this exercise, the SEAGA questions are used to analyze resource flow and labor division. It must be ensured that in the map roles and responsibilities are separated, taking into account gender, age and the position of members in the family (householder, sister, wife, son, partner, etc.).
**Benefit analysis table**

It is useful to study the use and distribution of benefits, taking into account gender issues.

**Questions**

Which are the most important agricultural activities (crops, livestock, poultry production, fruit production and vegetables)? Who is responsible for each one of them (men, women or both)?

Which are the extra-agricultural activities (firewood collection, water harvesting, fishing)? Who is responsible for each one of them?

Which are the non-agricultural activities (marketing, other activities generating income)? Who is responsible for them?

Which are the activities that contribute the most for meeting the basic needs of home? How can the maps of the different socioeconomic groups be compared? Which households have more trouble meeting their basic needs? Why?

Which households have subsistence strategies more diversified? Which are the most vulnerable groups?

Identify the relationships between different types of activities and resources, such as between forestry activities and livestock production.

**Purpose**

The benefit analysis table is a tool that shows the results of the activities carried out by household members to meet their needs, showing who enjoys and controls these benefits. This is a tool that complements the information derived from the map of farm systems.

The activities related to meeting the needs and use of resources generally produce benefits. For example, the benefits of forestry may include fruits, fodder, fuel wood, timber, bark, etc. The benefits of corn cultivation may include maize as food, oil or fuel extracted from the plant, the parts used as material for fences construction and also those used as animal feed. The benefit analysis table helps identifying who uses each product, who decides how to use them, and who controls the returns from their sale.

**Process**

- Work is done with families who made the map of farm systems. Cards prepared by the facilitator, based on discussions held in the previous meeting, are used.
- Each card must illustrate a “benefit” or “product” created in the activities carried out with household members.
For example, benefits of poultry production may include eggs and meat from birds used for household consumption, and for sale feathers, fertilizers, and so on. Each of these products should be drawn on a card.

Cards are distributed to family members and they are asked to observe and describe which person of the family uses the products, how are used, who decide how to use them and who controls the money from their sale. If the family member does not have any information about the product, he should pass the card to another member or to the person who best knows the subject. Additionally, it is important to have the map of farm systems and blank cards, which are used to add information about other products.

**Materials**

Cards prepared by the facilitator, blank cards, colored pencils, blank paper to write down the main points of discussion and map of farm systems.

**Notes for facilitators**

This tool is an interesting opportunity to explore in detail the fundamental economic issues of livelihood strategies of different households in the community.
Questions

Which are the most important benefits derived from agricultural, livestock and poultry activities?
How are they used?
Who decides on their use?
If they are sold, who uses the money?
Which are the most important benefits derived of extra-agricultural activities (wood collection, water harvesting, fishing)?
How are they used?
Who decides on their use?
If they are sold, who uses the money?
Which are the most important benefits derived of non-agricultural activities (marketing, paid job, other income-generating activities)?
How are they used?
Who decides on their use?
If they are sold, who uses the money?
Which benefits are consumed within the home?
Which one generates income? Which of them are exchanged for other products?
Which are the products that contribute the most to meeting the needs of the family?
What products are controlled by men and which by women?

Daily routine clock

It allows to know labor division within home.

Purpose

The daily routine clock is a tool that helps identifying the routine activities of people in the community (productive, reproductive and communal).
In addition, allows the observation of the differences and similarities in daily routine of men and women in different socioeconomic groups.
This tool, as highlights the productive activities as well as reproductive and communal ones, can help with the value of domestic work made by women at home.

Process

- Organize separate groups of men and women, ensuring the representation of the different socioeconomic groups.
- Participants are asked to draw a clock.
- Participants are asked to mark on the clock their daily activities. They can reproduce what they did the day before, constructing a table with all the activities and the time allocated for each one of them. The activities carried out simultaneously as child care and cooking can be marked in the same space.
The facilitator should focus the discussion on the different activities of group members and the time used to make them. It is important to note that activities can change according to the agricultural cycle and the seasons, therefore each group can draw several clocks.

Materials

Newsprint, markers, masking tape, rules.

Notes for facilitators

- To start this exercise, the facilitator can draw his own clock of daily routine, including all kinds of activities such as cooking, child care, sleep, etc.
- It is important that the exercise involves different people (considering occupation, socioeconomic status, etc.), as this makes it possible to identify differences within the community.
- It must be remembered that children make some activities within and outside home, so it is advisable to include them in the discussion.
- This exercise serves as a reflection of daily workload for women and men to make productive, reproductive and communal work, and the way in which these activities are shared between them.
- If participants prefer to measure the passage of a day with a graphic rather than with the clock, other graphics can be used.
Seasonal Calendar

It is used to know the seasonal variations in women and men work, as well as in food and water availability and in the income and expenditure patterns.

Purpose

The seasonal calendar is used to analyze the distribution of women and men activities in different socioeconomic groups throughout the year. It also allows identifying periods of increased activity, particularly in relation to agricultural activities. It is important to remember that reproductive activities are conducted throughout the year and therefore should be included in the diagram.

The identification of productive and reproductive activities carried out by women and men at home and the establishment of the time of the year with more intensive work can help in the generation of initiatives to direct a better task division among household members.

Calendars can be used to identify changes in work patterns of family members throughout the year and to demonstrate the seasonality of resources, as water and food.

Questions

- How much time do women and men spend to each productive, reproductive and communal activities?
- How do these daily routines vary according to the seasons?
- Which are the differences between the daily routine clocks of women and men?
- What is the difference between the daily routine clocks of different socioeconomic groups?
- Which is the clock with more activities?
Discuss with participants how to divide it: by months, seasons (seasons must always be indicated).

Participants are asked about rainfall patterns, which should be marked with colored dots in the boxes, to define the amount of falling water (an almost full box means that it rains a lot in the area).

Other calendars can be drawn to measure the agricultural work, food availability, frequency of diseases, water availability, holydays calendar, etc.

This process is repeated until all the items of interest are represented. Of particular importance are the calendar on food and water availability, as well as the sources of revenue and expenses.

**Materials**

Newsprint, masking tape and colored markers.

**Notes for facilitators**

Additional items can be included according to participants’ interest, such as human health, seasonality of fishing, collecting activities, market opportunities, animal health, etc.
Baseline

What is a baseline?

In project development, a baseline or baseline study is called the first measurement of the indicators considered in the design of a social development project. It allows knowing the current status of the community in which the work will be carried out. It incorporates measurable indicators at the time of initiating the planned actions, that is, provides the starting point of the project or intervention.  

The baseline is usually quantitative and can resort to primary sources produced by the same project, such as participatory diagnostics, and secondary sources consulted by facilitators in the initial contact (census, preliminary studies, etc.). However, the primary sources are preferred due to the particular conditions of group or community where the work is carried out.

The baseline should be made with the community at the beginning of the training process. Otherwise, it will not provide data to make comparisons and find out the changes occurred as the plan is in execution. If it is not implemented, the later evaluations of results and impact will be less reliable.

The base line result is expressed in a report that describes the status of the identified problem before project intervention and this information is known as base year, reference point or year zero.

Usefulness of the baseline

The baseline allows:

- Establish the initial situation of the community that will help developing the Training Plan.
- Make later monitoring and evaluation to determine the achievement of objectives and expected results based on the initial data.
- Ratify the data obtained in diagnosis.
- Characterize the community more accurately, and even reformulate the goals to obtain greater relevance, effectiveness, efficiency and sustainability.
- Technically plan the project.

Methods

Although the base line has a quantitative character, in its creation quantitative and qualitative methods are used with the aim of optimizing data quality. When enough data are found on the community in the initial contact, these serve to set the starting point, that expands and accurate with the completion of participatory diagnosis.

Based on interviews or meetings with producers groups, the information can be extended required data are specified to have a reliable base line.

The report prepared by facilitators should be as complete as possible with regard to relevant data such as social and economic conditions, literacy levels, technological knowledge, existing organizations, power relations, labor division between men and women, marketing chains, etc.

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11 http://es.wikipedia.org/wiki/L%C3%ADnea_de_base_%28proyectos_de_desarrollo%29
It should also contain matrices in which the data are recorded for each particular field.

2.3.2 PLANNING: DEVELOPMENT OF TRAINING PLAN

When training is seen as a process, the first function used is planning. Once the objectives have been determined, the necessary means to achieve these goals are presented as plans. The plans of a group or organization determine its course and provide a basis for estimating the degree of likely success in meeting its objectives.12

Purpose

Plans are prepared for activities in the short or long term. It must be clearly stated on them the objective of the activity, the time in which it will be accomplished, its leaders and needed resources. A blank space must be left to verify compliance and to make further monitoring and evaluation.

Process

- A prioritization exercise must be made with the community to agree on the most relevant topic as well as their development, taking into account the interests of different participants (men, women, youth, older adults, etc.) and based on previous diagnosis and knowledge of problems of the sector. A meeting must be coordinated to agree with producers and their families the issues of greatest importance, organize them according to priorities and from these decisions develop the Training Plan.

- **Selection of subjects:** The facilitator suggests a brainstorming on priority issues to be included in the Training Plan. It is necessary to find the way that producers and their families can view the proposed items.

- **Prioritization:** Having identified possible subjects for the training plan, next the most urgent are prioritized to set up the Plan’s calendar. This prioritization can be done in two ways:
  - **By consensus:** The participants reach an agreement in a short discussion, in which the importance of each particular subject and its urgency are defined.
  - **By voting points:** In this methodology each participant assigns a value from 1 to 5 points to each of the proposed issues according to the importance he gives to them. The facilitator counts the points given to each issue. The theme with the highest score will be the priority issue and so on with all proposed issues.

- If there are issues that do not obtain points or their score is quite low, the facilitator should consider whether or not it should be included in the plan and promote a brainstorming for producers and their families to sustain their importance. The facilitator must take into account if that is a topic of particular interest to women, young or older adults, it is necessary to find a way to highlight its importance without creating uneasiness in the group and find the way to include the issue within the Plan as a special activity for the concerned group, or if necessary, ask other entities to cover it.

- **Schedule of Activities:** At the end of prioritization the schedule is drawn up, considering the yearly social and agricultural calendar of the community, which are supplied by the facilitator.

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12 Elements obtained from www.monografias.com
The dates are chosen taking into account the work, social and cultural events included in the calendar.

For technical activities, it is recommended that they coincide with cultivation activities, and harvesting and marketing seasons marked in the calendar, with the objective of carrying out the practices.

Activities of personal and organizational strengthening must be distributed in a balanced way during the agricultural year. This facilitates reading the processes.

Materials: Newsprint, masking tape and colored markers.

2.3.3 OPERATIONAL PLAN

To make visible the Training Plan it is required the development of a matrix with the community where agreements are written down. In this format it must be included all possible aspects to make clear to facilitators, producers and their families their commitments, times set, responsible person, required resources and evaluation of each of the proposed activities.

Construction tool

For developing the Participatory Training Plan, the tool Preliminary Community Action Plan, developed by FAO, is taken as the guide.

Purpose

The Participatory Training Plan is a tool that develops from the problems prioritized in diagnosis. It allows determining the resources needed to implement the activities, participants (local and external) and the timing of activities.

The development of Participatory Training Plan allows for concrete and realistic proposals as it promotes reflection on required training activities and on the capabilities and resources available in the community for its development.

Process

- A meeting is set up with producers and their families. It is important to ensure that date and times are appropriate for all (men, women, socioeconomic groups). If possible, invite people who can enrich the process, other organizations or institutions.
- Before the meeting, an outline of the Participatory Training Plan is prepared. For each priority problem or expected result, the first column is filled (Activities) taking into account the development opportunities mentioned in the problems box.
- Participants are asked for the resources needed to execute each activity. Answers are written down in the second column, Resources. For example, land, water, labor, supplies, training, etc. It is answered what resources are available in the community and what must come from outside.

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In the third column, Responsible, the groups that will participate in the completion of each activity are listed.

In the next column, Chosen Methodology it must be agreed with participants the most adequate methodology for each activity.

In the last column, place and date, participants are asked to indicate when, approximately, they might develop the activities. Taking into account the points that were set in the schedule related to climate, work and holidays, agreements are reached with both men and women, without losing sight of their needs and priorities.

**Questions**

- What resources are required to carry out proposed activities?
- According to the context analysis, which of them are available in the community? Which of them can only be obtained from external sources?
- Which are the gender aspects that relate to each of the proposed activities? For example, which is the time availability for women? Which are their priorities?
- What groups have to be involved in the execution of proposed development activities?
- What community groups could support each activity? What groups or external institutions should participate?
- Do the groups selected for supporting development activities include women and marginalized groups? Do women take decisions about their priority development activities?

**Materials**

Newsprint, adhesive tape, markers, blank paper and copies of the Diagnostic and seasonal calendar.
The matrix for Operational Plan or Training Plan can have the following structure:

<table>
<thead>
<tr>
<th>Community</th>
<th>Group</th>
<th>Facilitator</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective</td>
<td>Activity</td>
<td>Methodology</td>
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</tr>
</tbody>
</table>

Each of the boxes of the Plan contains the following data:

- **Objective or priority:** are prioritized by producers and their families in the prioritization exercise. One same objective can demand different activities to achieve what has been proposed with the group.

- **Activity:** each activity should be stated in a clear way, setting the theme and its importance. It can be included activities moderate by the facilitator and activities that producers and their families can make without his participation.

- **Chosen methodology:** describe the methodology chosen for achieving the goals set in each activity. For example, workshops, exchange visits, field trips, etc.

- **Requirements:** once the resources that will be required for developing the activity are set, they must be prepared in advance. Financial resources will not always be necessary and depending on the activity the same producers can provide the resources they have locally.
**Place and time**: they should be agreed with the entire group and taking into account the seasonal calendar and the daily routine clock to schedule activities without crossing them with dates related to production or social activities such as holidays, etc. The daily routine clock displays the most convenient schedules for both men and women. This allows producers and their families to make arrangements so that all participate in the Plan.

**Responsibility**: the responsible person or persons for each activity are agreed with the producers and their families. The main reason for making this is that responsibility is not only in facilitators’ hands. To ensure maximum participation of all participants, the facilitator should apply the most appropriate leadership criteria for the community and the Plan.

**Schedule**: the schedule and duration of each activity is established based on the needs and characteristics of men and women, so that everyone can devote the required time to develop them.

**Assessment**: establish from the beginning that producers and their families, with the support of facilitator, will evaluate the results of each activity, once it finishes. In this way, it is possible to monitor and systematize in a simple way the achievements or difficulties encountered in the development of activities, and in achieving training and development goals.
Bibliography


GRUNDMANN Gesa, STAHL Joachim (2002), Como la Sal en la sopa: Conceptos, métodos y técnicas para profesionalizar el trabajo en las organizaciones de desarrollo; Capacitación, Asesoría, Comunicación, Manejo de proyectos y Contexto organizacional. Quito, Ecuador. Ediciones ABYA_YALA.


Monitoring and evaluation should be seen as essential components of the training process. Once the diagnosis and planning are done with the participation of producers and their families, there are enough elements to include monitoring and evaluation in the activities schedule of the Training Plan. It is a systematic and permanent process of obtaining information for the control and management of the training plan implementation.

The central objective of monitoring and evaluation is the continuous observation and comparison between what was planned and the achievements. Through it, the difficulties in conducting activities are discussed and serve as a criterion to reorient proposed activities or to adapt or modify Plan elements when necessary. Monitoring and evaluation allow to facilitators and working groups to reflect about what they are doing and avoid that activities are done because they have to. They also require that they are consistent with the needs expressed by communities and achieve results proposed in the Training Plan.

Being monitoring strategies for processes or projects developed with a particular group, monitoring and evaluation, in some cases, can be viewed as additional work or as a control mechanism for institutional teams or facilitators, which can generate some resistance.

**Monitoring** involves the systematic and permanent collection of information on the execution, the comparison between what was planned and the achieved, and the analysis of differences found. Allows the facilitators and producers to see the progress of the process and also present alternatives to the factors that influence results.
In the *assessment* consequences and effects of the results obtained from monitoring, in terms of implementation and planning, are analyzed, and alternatives are arranged to establish corrections or adjustments to the Training Plan. This chapter presents some current views on monitoring and evaluation, with a participatory approach from the expected results during the training process, and suggests some tools to use these tools.

### 3.1 WHAT ARE MONITORING AND EVALUATION?

Are management functions through which facilitators and community check whether the agreed Training Plan has enabled the achievement of expected results.

The training plan is monitored permanently to check for the achievement of objectives and results, the progress of activities and the general situation of the group. This process is important to make adjustments and adaptations during the development of different activities, which improves the quality of results. Monitoring and evaluation also allow measuring the acceptance level of the Training Plan in the environment in which it is developing.

Next, there is deep approach of terms, their implication, importance, procedures and the relationship between monitoring and evaluation.

### 3.1.1 MONITORING

Monitoring is a continuous which main objective is to provide facilitators and community the indicators on progress or lack of it in the achievement of training plan objectives.

The monitoring allows to facilitator the identification and assessment of potential problems and successes. It is the basis for adopting corrective actions to improve the design, use and quality of the results obtained in the Training Plan; moreover, it makes possible to strengthen the positive initial results.

Thanks to the monitoring, facilitators and communities can also determine whether the training process is still relevant or not. In this context, it is understood that a process is relevant when there are the following circumstances:

- The training plan responds to the priorities set by communities.
- The efforts are mainly directed to the producers and their families.
- The objectives are still valid although there have been changes in the Training Plan.

For an effective monitoring, it is necessary to have the diagnosis data, performance indicators and results, and the application of appropriate methodologies, such as workshops, farm visits, meetings with the community and regular reporting. As an essential management function, monitoring measures should be properly planned.

Monitoring measures should be implemented throughout the development of the Training Plan.

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14 The term “monitoring” will be used through the text as a synonym of follow up, like continuous processes related to the Training Plan.
In addition, special activities can be conducted. For example, when there is an unexpected problem upon which monitoring activities cannot provide enough information. The results of those interventions can reach a timely resolution, and avoid waiting for the outcome of a formal evaluation. Like other monitoring activities, such analysis should include the views of producers and their families on how to improve the convenience and performance of the Training Plan.

3.1.2 ASSESSMENT

The assessment is an activity that seeks to determine in an ordered and objective way the relevance, performance and success of the Training Plan during its implementation and when it ends. Unlike the monitoring, which should be carried out permanently, the assessment is done at key stages of the plan development: in the middle and the end or by quarters, depending on what community and the facilitators consider most important.

The assessment that is carried out in the middle of the development of the Training Plan serves as a means to confirm or correct the initial assessment of relevance, effectiveness and efficiency obtained in monitoring activities. It also determines the initial signs of success or failure of the Training Plan. If it is done after finishing the training plan, the results determine how successful the plan was in relation to its effects, the sustainability of results and the contribution to developing capacities of producers and their families.

Like monitoring, evaluation activities should be planned by groups of producers. There should be established the diagnostic data, which constitute the baseline and performance indicators and results.

Types of assessment

The assessment involves the application of organized methods to determine the project progress during its implementation and, once completed, if the objectives were achieved or not, and how they did it. The evaluation process combines different types of information with the criteria and views of involved or affected people.

Based on the relationship between the training cycle and the assessment products, the following table shows the two main types of evaluations: the formative, that occurs during preparation and implementation stages of the project and summative, which takes place after completion of the project. The interest will focus on formative assessment.
The table shows the cycles and stages of project evaluation and the corresponding formal tools of evaluation. The final products of the assessment consist of the documents themselves, as they are generated in each stage, and the process results, generated by agreed decisions between facilitators and the community.

Additionally, the table explains why the evaluation results should not be limited to those produced by the summative type. The formative evaluation plays a very important role because it is possible to understand the process when there are still chances of re-direct certain actions and improve results. The evaluation exercises should be extended to the preparation and execution stages of the project through methods and techniques of formative assessment.

**Table 6. Formative and summative assessments**

<table>
<thead>
<tr>
<th>ASSESSMENT TYPE</th>
<th>PROJECT CYCLE</th>
<th>FORMAL ASSESSMENT TOOLS</th>
<th>PRODUCTS</th>
</tr>
</thead>
<tbody>
<tr>
<td>Formative assessment “During”</td>
<td>Ex ante assessment preparation Base line.</td>
<td>Formal assessment tools</td>
<td>Diagnosis document Matrix Design of an improved training plan that can be assessed</td>
</tr>
<tr>
<td>Implementation</td>
<td>- implementation monitoring and monitoring - intermediate assessment of implementation Base lines</td>
<td>Quarterly reports</td>
<td>Improved training activities Better performance on training process</td>
</tr>
</tbody>
</table>

15. Impact assessments study the technological, institutional, economic and, politic effects and impacts.

Source: World Bank, Project assessment section
IMPORTANCE OF MONITORING AND EVALUATION IN TRAINING PLAN

To achieve that evaluation allows the improvement of project performance it must be planned, managed and integrated into all project phases. If it is properly endorsed and is administered as expected, the assessment should produce a better participation in the executive responsibility and the performance of projects and programs. The evaluation process throughout the training cycle requires that facilitators and communities permanently agree on their decisions, allowing a performance of the process that actually contributes to their development objectives.

The resources needed to carry out continuous assessments should be appropriately scheduled in the Training Plan.

Relationship between monitoring and evaluation

Monitoring and assessment are closely related but different means, lend mutual support and are equally important. The monitoring can provide quantitative and qualitative data, based on the use of certain indicators, and these data can be used in evaluation activities.

The assessment, in turn, helps to monitor, because it is a source of lessons that can be applied to achieve theoretical or methodological innovations to improve the monitoring function, for example, designing suitable indicators on results achievement.

Table II. The assessment through Formation Plan (16)

| Preparation of training Plan | Monitoring and assessment process generates information on acquired experience and practices that may suggest better approaches for developing the learning process. At this stage, the process must include baseline data and indicators which are essential for monitoring and assessment of Training Plan performance. In this level, the introduction of assessment principles is considered formative as it sets conditions for future assessment. |
| Plan Execution | At this stage, the assessment process takes the form of permanent monitoring. The assessment during execution is considered formative because its goal is to support the continuous improvement of Training Plan execution. |
| Plan completion | The evaluation process, after completion of Training Plan, reexamines the identification and original design and investigates about its execution and development performance. At this stage, the evaluation is summative. |

16 Fuente Original. Banco Mundial, adaptaciones propias.
Even though it can be thought that a good monitoring eliminates the need of evaluations, this is only true only when the main objective is to gather basic information to improve a specific program or project.

When it is required a definitive opinion on the impact, results sustainability and contribution to development of intervention capacity, assessment is necessary for time reasons; it requires certain time distance to obtain enough evidence of the results and determine how far they are related to that intervention. In addition, when the goal is to obtain general lessons from the experience of a group of projects in the same sector or have a specific thematic approach, it is more suitable the assessment, since monitoring activities are performed activity by activity while the assessment may include multiple results.

The relationship between monitoring and evaluation should be understood in an interactive way. Neither of the two functions can be used in place of another.

### 3.3 CHARACTERISTICS OF A GOOD MONITORING AND EVALUATION PROCESS

To obtain any contribution of evaluation process in the performance and results of Plan development, the facilitator and participants should ensure that this process is:

**FAIR**

It consists of neutrality, transparency and fairness in the analysis and generation of evaluation findings. Producers and facilitators cannot have any personal or interest conflict. Fairness must prevail in all aspects of the evaluation process.
**CREDIBLE**

The essence of credibility is the trust that producers and their families have in the findings of monitoring and evaluation processes. The facilitator should promote the use of clear tools to ensure community involvement in the assessment analysis and make explicit the logical connection between the findings and options for correction. In addition, there must be considered the needs and perspectives of various stakeholders and interested in the assessment: men, women, youth, older adults, etc.

**USEFUL**

The measure of success of a monitoring and evaluation process is its effect on individuals and organizations that learn from that process. What makes positive the effect of assessment results on their target is that such results are timely contributions to the decision-making process, and are presented in clear and concise language that involved and interested people can easily understand.

**PARTICIPATORY**

The current evaluation practice emphasizes on participation of all involved and interested, including sharing experience among them. Thus, the assessment should reflect different interests, needs and perceptions of those involved.

**FEEDBACK**

The assessment should generate information that contributes to the feedback of decision-making process and organizational learning. Therefore, the person in charge of an assessment should also ensure the systematic dissemination of the results among those involved, including project designers and managers responsible of policies formulation.

**COST / EFFECTIVE**

As institutional investment, the assessments should emphasize the relationship between the demands of rigor, information validity and its analysis, with obtaining a result or product with effectiveness and efficiency (“effectiveness” is the ability to achieve a desired or expected effect, however, “efficiency” is the ability to achieve the effect with the least possible resources). The evaluations should also add value to the experience of stakeholders and find that the result are proportional to the investment made by those involved with their own resources.

**3.4 PARTICIPATORY MONITORING AND EVALUATION**

Participative monitoring and evaluation are essential aspects of any training project. They allow to the community to determine the progress of the activities and take necessary measures to solve problems by making the necessary adjustments to the objectives and activities.

The facilitator, in addition to the promotion of this process, helps the community to identify indicators, to collect information and its registration. Discussions are made with the community and local institutions to decide actions in response to the results of monitoring and evaluation.
WHY PARTICIPATION IN MONITORING AND EVALUATION

The participation in monitoring and evaluation serves as a support tool for improving the efficiency and effectiveness of communities in activities management and as a learning process through which they raise their awareness and increase the understanding of the different factors influencing their lives. Achieving these two objectives increases the community control on the development process.

Monitoring and evaluation give to the community and facilitator the ability to monitor the progress and impact of the project, establish the feasibility of the targets and identify and anticipate problems, thus enabling them to take the necessary measures to prevent or resolve them in due course. These processes are linked to decision-making, as they allow to community the redefinition of its objectives and make adjustments to activities, if necessary.

When implemented together, the monitoring and evaluation provide opportunities for individual satisfaction, creativity and the exchange of new ideas.

WHO MAKES THE MONITORING AND EVALUATION?

In participatory processes, the community is in charge of implementing the monitoring and evaluation process, with the support of facilitator in the system design, monitoring of activities and the analysis of gathered information. However, the ideal is that community assesses its progress in the training process.

WHAT IS MONITORED AND ASSESSED?

In a participatory training project, the following tasks and processes are monitored and assessed:

- The progress of each activity.
- Its effectiveness in achieving the goals.
- Its correspondence with priorities established by the community.
- The performance of those responsible for the activities.
- The evolution of the Training Plan.
- The relationships between the community and other organizations or external institutions.

The baseline and diagnosis encompass many different aspects related directly or indirectly with the Training Plan, as agricultural production or the time designated for men and women to different activities. For monitoring and evaluation process are prioritized the activities directed to solve some of the major problems identified. The information related to the proposed objectives in the Training Plan is taken, and compared with the selected data of the baseline and diagnosis to see the changes.

Any qualitative information must be supplemented with quantitative data, which can be achieved through the identification and selection of quantifiable indicators.

**INDICATORS**

- Measure that provides clear indications on the changes, and shows us where we stand with respect to the goals.
- Depend on the objectives and key questions.
- Are possible aspects of being measured or appreciated, as the number of producers who run appropriate production practices, number of women participating in activities of the training plan, etc..
- They come from sources that allow their verification, such as lists of participants of the meetings, photographs of the Plan launching and the time of evaluation and monitoring, community and farm maps made for the diagnosis and current maps, records of groups formation, etc.

The following list can help facilitators in the selection of indicators relevant to the type of chosen and practiced activity. These indicators should contribute to the group or community discussions.

**Indicators related to learning:**

- Changes in the number of participants in training activities.
- Changes in the production system.
- Changes in tasks distribution for men and women at home and in production.
- Number of families and producers that have introduced new production and marketing strategies.
Indicators relating to equity:
- Changes in labor division and time use by sex.
- Changes in resources distribution for production
- Changes in income distribution.
- Changes in knowledge and skills distribution.

Indicadores relativos a la participación comunitaria:
- Training, like farms tours, method demonstrations, workshops, field trips, etc.
- Changes in the size of the groups.
- Frequency of attendance to meetings.
- Participation of marginalized households.
- Number of person / days of work on project activities.
- Number, percentage and gender of people who take the lead in activities.

Indicators on the community’s interaction with external services:
- Number and type of institutions with which the community has established sustained links.
- Community involvement in external decisions affecting them directly.
- Number of people trained by external institutions.

HOW TO CARRY OUT PARTICIPATORY MONITORING AND EVALUATION?
- The monitoring and evaluation process combines the register of specific information with discussion sessions on activity progress and the discovery of difficulties.
- The community decides the criteria for judging the success or failure of the Plan. These criteria should be reviewed regularly.
- In the development of each activity, the group discusses possible indicators and agrees on what to choose. The facilitator supports the discussion.
- The information for monitoring and evaluation should be directly linked with the Training Plan. The facilitator must keep track of the changes indicated during informal discussions with community members.
Most of the techniques used in diagnosis can be used in participatory monitoring and evaluation. With the help of the facilitator, producers must develop a monitoring table that expedites data collection and recording.

The facilitator draws up a matrix, which is shared with producers and their families, aiming to monitor and evaluate the different activities and advance in the systematization of the achievements of priority objectives.

The following matrix allows the monitoring of the training process; it should be filled in agreement with the producers and their families, and establish the concerted and timely corrective actions required to achieve the goals. When monitoring is done only at the end of the process, it is no longer possible to implement appropriate corrective measures and may be difficult to recover the enthusiasm and credibility of the group.

### MONITORING AND EVALUATION OF ACTIVITIES PROGRESS

<table>
<thead>
<tr>
<th>Community name:</th>
<th>Planning period:</th>
<th>Date:</th>
</tr>
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</table>

<table>
<thead>
<tr>
<th></th>
<th>Activity</th>
<th>Period / Date</th>
<th>Responsible person</th>
<th>Planned</th>
<th>Executed</th>
<th>Causes for difference</th>
<th>Corrections</th>
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The principles that guide the approach of participatory monitoring and evaluation make it different from conventional approaches, as they require the acceptance of a different way of conducting them.

PRINCIPLES WHICH DISTINGUISH THE CONVENTIONAL ASSESSMENT AND MONITORING FROM PARTICIPATORY MONITORING AND EVALUATION

CONVENTIONAL MONITORING AND EVALUATION
- Aims to establish a criterion on the program (training for this case) for the purposes of liability and not the empowerment of program stakeholders
- Tries to achieve the objectivity of monitoring and evaluation findings, thereby distancing the external evaluators of stakeholders
- It is intended to meet the information needs of institutions, not those of facilitators and communities affected by the program
- It focuses on achievement measurement, according to predetermined indicators.

PARTICIPATORY MONITORING AND EVALUATION
- Constitute an individual, collective and capacity building process through which people become more aware of their strengths and weaknesses, their social realities and their notion and appreciation of program scope. This learning process creates conditions for change and action.
- They insist that there are various participation levels (low to high), with different types of stakeholders in the initiation of monitoring and evaluation, the definition of their parameters and their realization
- They are a social negotiation process between the different needs, expectations and worldviews of individuals, addressing equity, authority and social transformation issues. Form a flexible process in constant evolution and adaptation to changing circumstances and needs of the program.

BENEFITS OF THE PARTICIPATION OF PRODUCERS AND THEIR FAMILIES IN PLANNING AND CONDUCTING OF MONITORING AND EVALUATION:
- Findings of monitoring and evaluation are related to local conditions. Stakeholders appropriate monitoring and evaluation results, promoting their use to improve decision-making process
- Increasing local capacity for monitoring and evaluation, and therefore the autonomy in project implementation. It allows stakeholders to better understand their strategies and program processes (which takes effect, what does not, why).
- Contribute to strengthening communication and collaboration between program participants who work at different levels of its development
- Strengthens accountability among the sponsors
- Promote the efficient resource allocation
- Promueve la asignación eficiente de los recursos.


Con el ánimo de ampliar el marco de referencia de los lectores y mostrar alternativas que se están implementando con éxito en diferentes lugares del mundo, en este capítulo se presenta una recopilación bibliográfica a manera de resumen de algunos documentos que describen la metodología de las Escuelas de Campo para Agricultores (ECAs). El interés no es abordar el tema y los contenidos con la profundidad que se requiere para su aplicación, lo que se busca es motivar a los lectores para que busquen información complementaria en Internet, bibliotecas y otras fuentes. Al final del capítulo, se incluye un repertorio de referencias bibliográficas de documentos que desarrollan la temática con mayor profundidad y presentan múltiples alternativas y posibilidades de uso para el facilitador.

Las escuelas de campo (ECAs o FFS, por su nombre en inglés Farm Field School) consisten en una experiencia pedagógica que se articula en torno a un grupo de productores y productoras de una misma comunidad que, con el apoyo de un facilitador local, diagnostican participativamente su realidad y establecen una serie de prioridades. Una vez definidas las prioridades, tiene lugar la articulación de acciones dentro de un proceso que puede caracterizarse como de **validación, construcción, recreación y aprovechamiento**, es decir, ir validando, construyendo, recreando y aprovechando un cuerpo de conocimientos en torno a temas o tópicos específicos de interés local (Ardon, 2003).
Por lo general, una ECA comprende un grupo de 20 a 30 agricultores que se reúne regularmente durante un período de tiempo definido, por ejemplo durante un ciclo de producción de un cultivo, para validar nuevas opciones de producción con la ayuda de un facilitador. Esta metodología fue desarrollada por primera vez en 1989, por la Organización de las Naciones Unidas para la Agricultura y la Alimentación (FAO). Se utilizó para capacitar a los productores de arroz en Indonesia en el manejo integrado de plagas (MIP), como parte del Programa Nacional de MIP (Groeneweg, et. al. 2005). Debido a su éxito, la metodología se ha adoptado en muchos países del mundo.

4.1 OBJETIVOS DE UNA ECA

El objetivo principal de una ECA es que los agricultores mejoren su capacidad para solucionar problemas y tomar decisiones, razón por la cual, todas las actividades contienen elementos de observación y análisis del agro–ecosistema, que conducen a la toma de decisiones y a la experimentación continua (Pumisacho y Sherwood, 2005).

Otros objetivos propuestos por Groeneweg et. all. (2005) son:

- Ayudar a que los productores aprendan a organizarse y a organizar a sus comunidades.
- Promover relaciones entre productores, facilitadores e investigadores, que les permitan trabajar juntos para probar, evaluar y adaptar una gama de opciones dentro de unas condiciones locales específicas.

- Aportar a los productores conocimientos y habilidades para que sean expertos en sus propios campos.
- Fortalecer la capacidad de los productores para tomar decisiones cruciales con base en el análisis y el razonamiento, que hagan sus actividades productivas más rentables y sostenibles.
- Sensibilizar a los productores frente a nuevas maneras de pensar y de resolver los problemas.
4.2 VENTAJAS Y BENEFICIOS DE LAS ECAS

Este enfoque invita a los productores a que utilicen técnicas participativas de aprendizaje y experimentación, en vez de decirles lo que deben hacer.

Anima a los productores a que tomen sus propias decisiones en la finca, aplicando las lecciones aprendidas de experiencias anteriores y de la prueba de nuevas tecnologías.

Las ECAs fortalecen la capacidad de los productores y de las comunidades locales para analizar sus sistemas de producción, identificar sus limitaciones principales y probar posibles soluciones.

Al integrar el conocimiento del productor al conocimiento científico, los participantes de la ECA logran identificar y adoptar las prácticas y tecnologías que más se ajustan a su sistema de finca, haciéndola más productiva, rentable y adaptable a las condiciones cambiantes para responder mejor a sus necesidades.

Principios de una Escuela de Campo (adaptado de Groeneweg, et. al. (2005)

Cada ECA está orientada por los siguientes principios:

* Aprender haciendo. Los adultos aprenden mejor experimentando. El aprendizaje que parte del descubrimiento es parte esencial de la ECA porque le ayuda a los participantes a desarrollar un sentimiento de propiedad de lo aprendido y a tener la confianza en que son capaces de reproducir las actividades y los resultados en su propia finca.

* Actividades de aprendizaje definidas por los agricultores. Son los productores quienes deciden qué es relevante para ellos, y por tanto, qué temas quieren que se traten en la ECA. Esto garantiza que la información sea pertinente y se ajuste a sus necesidades reales.

* Aprender de los errores. El aprendizaje es un proceso evolutivo caracterizado por la comunicación sincera y abierta, la confrontación, la aceptación, el respeto y el derecho a equivocarse. Este último punto es determinante, pues casi siempre se aprende más de los errores que de los éxitos.

* Aprender la manera de aprender. Los productores aprenden las habilidades necesarias para mejorar su capacidad de observar, de analizar sus propios problemas y de tomar decisiones sobre fundamentos sólidos. También, aprenden la manera de educarse y de desarrollarse.

* Planteamiento de problemas y solución a los problemas. Los problemas se presentan como retos, no como limitaciones. Los grupos de productores aprenden diferentes métodos analíticos que les ayudan a obtener la capacidad de identificar y resolver cualquier problema que puedan encontrar en el campo.

* La finca del agricultor es el terreno de aprendizaje. Todas las actividades se organizan en torno a la finca (sistema de producción), convirtiéndose en la principal herramienta de aprendizaje. Los productores aprenden a partir de lo que observan, recogen y experimentan directamente en sus fincas.
Los extensionistas son facilitadores, no profesores. Los extensionistas se denominan facilitadores porque su función es orientar el proceso de aprendizaje y no enseñar. El facilitador aporta a las discusiones en busca de llegar a un acuerdo sobre las medidas que deben tomarse.

La unión hace la fuerza. La autogestión a través de la acción colectiva es primordial. Cuando los agricultores trabajan juntos, tienen más fuerza que cuando trabajan de manera individual. Además, cuando un individuo es reconocido como miembro activo de un grupo, su función social dentro de la comunidad mejora.

Cada ECA es única. Las actividades de capacitación deben partir de los vacíos existentes en conocimientos y habilidades de la comunidad y también deben considerar su nivel de entendimiento. Cada grupo es diferente y tiene sus propias necesidades y realidades. Puesto que los participantes desarrollan su propio currículo, cada ECA se considera única.

Proceso sistemático de capacitación. Toda ECA sigue el mismo proceso sistemático de capacitación. Los pasos fundamentales son la observación, la discusión en grupo, el análisis, la toma de decisiones y la planificación de acciones.

Las experiencias con las ECAs han indicado que los mejores resultados se logran con reuniones semanales. Intervalos más prolongados pueden limitar el proceso de aprendizaje. La duración del ciclo de la ECA depende de la actividad focal. Las ECAs orientadas hacia la producción de cultivos o de aves de corral, por lo general, basan su duración en el ciclo de producción.

4.3 ACTIVIDADES BÁSICAS DE UNA ESCUELA DE CAMPO (GROENEWEG, ET. AL. 2005)

Las cinco actividades básicas que se repiten en cada sesión para darle el marco a cada ECA son:

ANÁLISIS DE AGRO-ECOSISTEMAS

El análisis de agro-ecosistemas es el corazón del enfoque de las ECAs y parte del concepto de ecosistema, en el cual cada elemento en el campo tiene una función propia y única. Incluye observaciones en el campo, recopilación y análisis de datos y recomendaciones. Los datos se recopilan con base en factores claves observados, para ayudar a posicionan un proceso en la toma de decisiones.

El análisis se realiza en sub-grupos de cuatro a cinco integrantes para mejorar el aprendizaje participativo.

En las sesiones plenarias, cada subgrupo presenta sus observaciones y recomendaciones para la toma colectiva de decisiones sobre las medidas de gestión.
**EXPERIMENTOS COMPARATIVOS DE CAMPO**

Se llevan a cabo experimentos sencillos con el propósito de mejorar las habilidades de observación y análisis de los productores para que investiguen las causas y los efectos de los principales problemas de producción.

Los experimentos también promueven la validación y adopción de nuevas tecnologías o prácticas. En este caso, los experimentos comparan las prácticas de los productores con un conjunto de soluciones disponibles presentadas ya sea por el facilitador, los investigadores o por otros productores. Al analizar los resultados y al desarrollar habilidades de registro, los productores están en capacidad de decidir qué solución (tecnología o práctica) se ajusta mejor a su situación.

Cada experimento debe incluir un análisis de costos y beneficios. De esta manera, los productores pueden entender mejor la diferencia entre producción y productividad (donde se calcula el costo por unidad producida) para determinar la eficiencia de sus propios sistemas.

**FACILITACIÓN DE TEMAS ESPECIALES**

El espacio del tema especial o tema del día se utiliza para presentar información técnica.

Los objetivos de los temas especiales son:

- Ofrecer una oportunidad para que los facilitadores, los investigadores o los especialistas provean los insumos teóricos necesarios para un entendimiento general del tema, antes de realizar cualquier actividad.

- Mejorar los conocimientos técnicos de los productores y presentarles la información necesaria en el momento oportuno.

- Garantizar un proceso de aprendizaje orientado por la demanda.

- Nivelar los conocimientos entre los participantes.

**MONITOREO Y EVALUACIÓN PARTICIPATIVO (MEP)**

Los agricultores y el facilitador deben observar continuamente si se está produciendo algún cambio positivo y si realmente se están alcanzando las metas fijadas.

**EJERCICIOS DE DINÁMICA DE GRUPO**

Los ejercicios de dinámica de grupo se utilizan para crear un ambiente agradable de aprendizaje, facilitar el aprendizaje y generar un espacio para reflexionar y compartir. También fortalecen las habilidades de comunicación, la capacidad de solucionar problemas y las cualidades de liderazgo.
4.4 APRENDIZAJE POR DESCUBRIMIENTO, ASPECTO IMPORTANTE DE LAS ECAS

En el aprendizaje por descubrimiento, se crean condiciones para que los productores fortalezcan sus conocimientos y, con base en éstos, encuentren y utilicen alternativas de solución a sus problemas (Fundación PROINPA, 2001).

Cuando se trabaja con adultos, es determinante tener en cuenta la experiencia adquirida a lo largo de toda su vida. Los nuevos conocimientos siempre serán contrastados y comparados con los ya adquiridos, pudiéndose presentar resistencias en el caso de que sean opuestos o diferentes.
TABLE 9. Stages of discovery learning

Producers identify the problem and interpret it according to their previous knowledge

Producers discuss how to tackle the problem

Producers develop various alternative solutions

Of tested alternatives producers choose the most appropriate

Conditions to guide the stages of discovery learning are:

- Establish an environment of active and dynamic participation
- Promote horizontal communication between facilitator and producer
- Promote sense of research in the producers
- Strengthening cooperation between the facilitator and producers
4.5 ORGANIZACIÓN DE UNA ESCUELA DE CAMPO

A continuación, se presenta el proceso metodológico para implementar una escuela de campo, sugerido por Pumisacho y Sherwood (2005), con algunos ajustes. Cabe aclarar que diferentes autores proponen variantes en las fases, pasos o etapas para organizar una escuela de campo. Todas son valiosas y tienen sus ventajas, y en esta medida corresponde al facilitador tomar los elementos de interés y hacer los ajustes que se requieran.

Los siguientes pasos pueden seguirse para poner en marcha una ECA:

ESTABLECIMIENTO DEL GRUPO

**Contacto inicial:** preferiblemente, son los agricultores quienes deben hacer la solicitud de participar en una ECA, pues esto garantiza mayor motivación y compromiso con el proceso. Para fomentar las solicitudes, se puede invitar a representantes de la comunidad a participar en días de campo y graduación de otras ECAs.

Con los grupos interesados, se realiza una reunión preliminar, durante la cual se presentan los objetivos propuestos por la ECA y se despierta interés en el programa de capacitación.

**Auto-identificación de participantes:** En una reunión, la comunidad selecciona a los aspirantes a la ECA y prioriza los temas para tratar en el curso. Se comienza con la construcción de un plan de trabajo, que contempla:
- Fecha y hora de la reunión semanal o quincenal de la ECA.
- Lista de los participantes de la ECA.
- Programa de actividades para toda la temporada.
- Ubicación de la parcela de aprendizaje y los experimentos de campo.
- Plan de financiamiento de la ECA.
- Diseño de los experimentos.

**Some requirements for becoming a member of an FFS may be**

- Be interested and be a producer of the main crop of the area
- Have demonstrated willingness to participate in community activities, have broad cooperation spirit and initiative
- Be innovative, have positive attitudes towards change and active interest in trying out what they have learned
- Have time, interest and capacity to attend regular weekly sessions during crop cycle
- Be willing to share what they learned with other farmers
- Be willing to invest their own resources in their own training
Para la organización del grupo, se tienen en cuenta los siguientes aspectos:

- Elegir una junta directiva que facilite la comunicación y realice algunas actividades de coordinación y apoyo logístico del grupo.
- Estructurar un reglamento de funcionamiento.
- Definir cronograma y agenda de reuniones y actividades periódicas.

**DETERMINACIÓN DEL CONTENIDO TÉCNICO**

Se parte de un diagnóstico participativo y el establecimiento de una línea de base mediante la cual los productores identifican factores limitantes, intereses y conocimientos. Esta información sirve para determinar el currículo del curso y para identificar los temas que se van a estudiar en las parcelas de experimentación. La secuencia de temas constituye el programa de la ECA. Lo esencial es que los productores jueguen un papel central en el diseño de su propio plan de aprendizaje, para asegurar la relevancia y aplicabilidad de la capacitación.

Para levantar la información de base, se pueden aplicar diversas técnicas como encuestas, entrevistas, plenarias, diálogos, mapas, etc.

Conocida la realidad de la organización en la cual se va a establecer una ECA, con base en la información lograda con la aplicación de la línea base y el diagnóstico participativo, con el grupo se definen temas y actividades que permitan obtener respuestas conjuntas a los problemas planteados. El contenido de la capacitación debe ser diseñado entre el facilitador y los participantes y debe dar prioridad a las limitantes identificadas.

**ESTABLECIMIENTO DE PARCELAS**

**Formación de grupos de trabajo:** La mayoría de las actividades de la ECA son conducidas en grupos pequeños de trabajo de cinco participantes, número considerado óptimo para un trabajo de grupo efectivo e interactivo.

**Siembra de parcelas de aprendizaje:** definidos los grupos, se procede al establecimiento de la parcela de aprendizaje y las parcelas de experimentación. El grupo selecciona el sitio e instala las parcelas.
DESARROLLO DE ACTIVIDADES DE APRENDIZAJE

Sesiones de aprendizaje: el plan de capacitación es el fundamento del proceso de enseñanza-aprendizaje de las Escuelas de Campo, dado que su contenido refleja las necesidades de capacitación detectadas en la ejecución de la línea base y que debe ser abordado en el ciclo de la Escuela de Campo.

Análisis del agro–ecosistema (AAE): El análisis del agro–ecosistema consiste en la observación cuidadosa del campo. Ayuda al productor a entender mejor la interrelación del cultivo con su entorno compuesto por suelo, clima, insectos, enfermedades y otras plantas. Es la base para la toma de decisiones en el manejo del cultivo.

Las actividades de aprendizaje se desarrollan preferiblemente en subgrupos, que pueden ser los mismos definidos para el establecimiento de las parcelas.

Observación de parcelas: A cada grupo se le asigna un número determinado de plantas en las cuales debe observar los problemas, su desarrollo y las situaciones anormales que se puedan presentar.

Dibujos y registro de datos: el registro de datos relacionados con estado fitosanitario del cultivo, grado de desarrollo de las plantas, problemas nutricionales encontrados, etc., es un aspecto importante de la metodología, el uso de dibujos ayuda al proceso de registro de la información.

En el registro de datos también se consignan las labores y los costos, con el objetivo de hacer un análisis económico y de rentabilidad de las labores implementadas.

Análisis de la información: en esta etapa se interpreta el conjunto de datos obtenidos del cultivo y su entorno (el agro–ecosistema).

Plenaria y toma de decisiones: en esta actividad cada grupo de trabajo presenta los resultados de la observación de las parcelas y el registro de datos al grupo completo. Al final de las presentaciones, se concluye sobre el estado del cultivo y se determinan las decisiones definitivas para su buen manejo.

Ejecución de decisiones: Los grupos ejecutan la decisión tal como se recomendó en la plenaria.

Visita a los experimentos: Adicionalmente al análisis del agro–ecosistema, se hace seguimiento a diversos experimentos desarrollados por los participantes.

Dinámica de grupo: Los ejercicios de dinámica de grupo sirven para desarrollar la cohesión del grupo, las habilidades para solucionar problemas, pueden reforzar los conocimientos de un tema de aprendizaje y fortalecen la colaboración y la creatividad de los participantes.
**Temas especiales:** Son actividades vivenciales que apoyan un análisis más profundo del agro–ecosistema, se pueden abordar temas específicos relacionados con el desarrollo del cultivo y los principios del MIC (Manejo Integrado de Cultivo).

**Día de Campo:** El Día de Campo es una actividad esencial en el desarrollo de la ECA, ya que permite a los productores participantes mostrar los resultados y avances del proceso de capacitación y promover la metodología en forma masiva a otros productores, a instituciones y a actores relacionados con el sector agropecuario en la región.

**Cosecha y evaluación económica:** El trabajo de campo de una ECA concluye con la cosecha de las parcelas de aprendizaje y de los experimentos específicos. Durante esta fase los participantes, además de medir los rendimientos, hacen el análisis económico del cultivo y de las medidas adoptadas.

**GRADUACIÓN Y SEGUIMIENTO**

**Evento de graduación:** Finalizada la ECA se realiza la graduación de los participantes que hayan cumplido los requisitos establecidos al inicio de la capacitación. El acto de graduación es de mucha importancia para los productores, promotores y facilitadores. Al igual que el día de campo, es una oportunidad para compartir y difundir entre los invitados los conocimientos alcanzados durante la capacitación, a través de la presentación de los resultados de las parcelas de aprendizaje (rendimiento, relación costo-beneficio). También representa una oportunidad para promover la metodología con autoridades locales, representantes de instituciones gubernamentales y no gubernamentales y dirigentes de organizaciones de base.

**Plan de seguimiento:** Cuando termina una ECA, se espera que los participantes logren mejorar sus sistemas de producción a través de la aplicación de las nuevas experiencias adquiridas. También se espera que los participantes se hayan apropiado del proceso de aprendizaje y tengan la motivación para seguir aprendiendo. Es importante hacer un plan que haga seguimiento a estos aspectos.

**Actividades de apoyo:** Después de haber establecido el plan de seguimiento con los egresados de una ECA, el facilitador establece el plan de acompañamiento, que puede incluir visitas regulares de apoyo para solucionar inquietudes, reforzar temas técnicos, entregar información adicional, etc. También se puede fomentar el establecimiento de enlaces con otras organizaciones, que apoyen nuevos procesos y necesidades del grupo.
4.6 LA PARCELA ECA O PARCELA DE APRENDIZAJE

Un aspecto indispensable y básico de la metodología es la construcción de las parcelas ECA o parcelas de aprendizaje, que son parcelas de práctica que sirven como “laboratorio vivo” para el aprendizaje.

Objetivos de la parcela ECA (adaptado de Ardón, 2003)

- Aprender en la práctica conceptos y principios de manejo del cultivo.
- Fortalecer destrezas, conocimientos y habilidades en el MIC (Manejo Integrado de Cultivo).
- Aprender a tomar decisiones con base en el análisis agroecológico.
- Comprobar los beneficios de diversas prácticas culturales que se aplican.
- Promover actitudes favorables al MIC.
- Validar tecnologías de origen local o externo.

El tamaño de la parcela varía según el cultivo con el objetivo de tener suficiente área para realizar las prácticas. Una parcela muy pequeña no permite suficiente espacio para estudiar la agro-ecología y realizar los experimentos. Mientras, una parcela muy grande ocupa mucha mano de obra y demanda mantenimiento, demasiado dinero y tiempo de parte de los productores.

Información adicional sobre el manejo de las parcelas de aprendizaje se puede encontrar en el documento de Pumisacho y Sherwood, 2005.

Finalmente, queremos motivar al lector para que profundice en el conocimiento y manejo de la herramienta y contacte a instituciones como la FAO en su país u organizaciones locales, que pueden apoyar al facilitador en el dominio de la metodología aquí mostrada.
Bibliografía


Páginas web de consulta adicional


Pagina web del “GLOBAL FARMER FIELD SCHOOL”, tiene como objetivo ofrecer capacitación, documentación y materiales de entrenamiento para personas y organizaciones interesadas en implementar la metodología de escuelas de campo. En esta página se pueden encontrar bases de datos con gran cantidad de información bibliográfica sobre el tema, foros de discusión, noticias y eventos relacionados con el tema; Correos de contacto con expertos en el tema.

Las escuelas de campo para agricultores (ecas) en el desarrollo rural una propuesta metodológica coherente.


En este documento el autor hace una revisión de los artículos compendiados en la revista LEISA Revista de Agroecología (Aprendiendo con las ECAS), Vol 19, No. 1 del 2003. Aborda el tema de las ECAS con una construcción de conceptos, principios y fundamentos de aplicación. El autor entrega elementos importantes para la aplicación en el contexto latinoamericano, haciendo un análisis general de impactos y lecciones aprendidas en la práctica.

Guía metodológica sobre escuelas de campo de agricultores


Éste documento entrega información detallada sobre las bases teóricas de las ECAs, el proceso metodológico para su implementación, costos de financiamiento. Adicionalmente hace un análisis de lecciones aprendidas, retos para el futuro y ofrece gran cantidad de herramientas, formatos de aplicación y ejemplos concretos de sesiones de capacitación ECA en diferentes cultivos.

Guía de escuelas de campo de agricultores ecas: como estrategia de gestión de calidad de café en el norte de perú.


Este documento aparte de entregar información general sobre la metodología ECAs, muestra una propuesta de implementación de Escuelas de Campo de Agricultores de café en el Perú. En el se pueden encontrar ejemplos, posibilidades de actividades, formatos y herramientas aplicadas a café para implementar la metodología.
Las escuelas de campo para agricultores (ECAs) en el pesa-nicaragua: una experiencia participativa de extensión para contribuir a la seguridad alimentaria y nutricional en nicaragua.

http://www.pesacentroamerica.org/biblioteca/manua_ECAs.pdf

En este documento se puede encontrar la descripción de la metodología de escuelas de campo aplicada al contexto Centroamericano, con énfasis en Nicaragua. Se encuentran opiniones y puntos de vista de agricultores, técnicos; se describen dificultades encontradas, recomendaciones y retos para el futuro.

Página principal de la revista LEISA, revista de agro ecología

http://latinoamerica.leisa.info/

El volumen 19, número 1: Aprendiendo con las ECAs fue dedicado al tema; en esta edición se presentan artículos donde se describen conceptos y principios de aplicación, se citan experiencias en diferentes países de Centro y Sur América, se habla de la aplicación de la metodología con cultivos específicos (papa, café, forestales), se describen experiencias y aprendizajes en la implementación; también se presentan proyectos financiados por organismos internacionales.

Manual para la capacitación de trabajadores de extensión y agricultores:


En este documento de la FAO en los capítulo II, III y IV se hace una buena descripción de las ECAs; enfatizando en actividades de aplicación y ejercicios específicos para el manejo integrado de plagas (MIP) y manejo del suelo.

La escuela de campo para mip y el comité de investigación agrícola local: plataformas complementarias para fomentar decisiones integrales en la agricultura sostenible


Este documento es de aplicación de la metodología ECAs al Manejo integrado de plagas; suministra información clave sobre principios, procesos metodológicos; adicionalmente cita experiencias alrededor del mundo con la implementación de la ECAs. En este documento también se hace referencia a la articulación que se desarrolla entre la metodología ECAs y los Comités de Investigación agrícola local (CIAL); metodología de investigación participativa.
Natural Learning: A learning style
Supplied by: Bernie Jonker, Coffee Support Network, Solidarity.

In the United States, there is a learning style called ‘authentic learning’. Based on this style of learning, the APS-National Center for School Improvement, APS in the Netherlands, developed the concept of natural learning (van Emst, 2002). Learning is based on natural and social constructivism and is applied in schools to change the traditional view that focuses on teaching to a perspective centered on learning.

<table>
<thead>
<tr>
<th>LOGICAL POSITIVISM</th>
<th>SOCIAL CONSTRUCTIVISM</th>
</tr>
</thead>
<tbody>
<tr>
<td>Objective knowledge</td>
<td>Subjective Knowledge</td>
</tr>
<tr>
<td>Knowledge transmission</td>
<td>Knowledge construction transmission</td>
</tr>
<tr>
<td>Teach</td>
<td>Learn</td>
</tr>
<tr>
<td>Useful</td>
<td>Meaningfull</td>
</tr>
<tr>
<td>From a part to the whole (fragmentary)</td>
<td>From a whole to a part</td>
</tr>
<tr>
<td>Compare results with the average</td>
<td>Compare results with the last result</td>
</tr>
<tr>
<td>Teacher: practice</td>
<td>Teacher: practice and learning</td>
</tr>
<tr>
<td>Appealing to two intelligences</td>
<td>Appealing to more intelligences</td>
</tr>
<tr>
<td>Follow the student system</td>
<td>Student-follow-yourself approach</td>
</tr>
<tr>
<td>Tendencia a leer y escuchar</td>
<td>Tendency to experiment and explain</td>
</tr>
<tr>
<td>Tendency to consider that someone cannot do it</td>
<td>Tendency to consider that someone can do it</td>
</tr>
<tr>
<td>Belief that to construct together is to copy</td>
<td>In groups, each member learns more than when it is on his own</td>
</tr>
<tr>
<td>It focuses on what someone does not know</td>
<td>It focuses on what someone cannot do (yet)</td>
</tr>
<tr>
<td>Education intended to knowledge and skills in parts</td>
<td>Education intended to competences</td>
</tr>
<tr>
<td>Knowledge is kept without considering the context</td>
<td>There is no knowledge without context</td>
</tr>
<tr>
<td>Education tending to domination</td>
<td>Education tending to build and design</td>
</tr>
<tr>
<td>Technical knowledgen are the main theme</td>
<td>Enlarged developments are the main theme</td>
</tr>
<tr>
<td>The teacher selects educational material and most of all, is an instructor</td>
<td>The teacher stimulates learning process and is:</td>
</tr>
<tr>
<td></td>
<td>- Expert – coach</td>
</tr>
<tr>
<td></td>
<td>- Instructor – pilot</td>
</tr>
<tr>
<td></td>
<td>- Trainer – adviser</td>
</tr>
<tr>
<td>Learning is for the future</td>
<td>Learning is for the present</td>
</tr>
<tr>
<td>Objective evaluation</td>
<td>Intersubjective evaluation</td>
</tr>
</tbody>
</table>
“Strong investment in learning” is the motto of APS. Summarizing the APS represents:
1. Meaningful construction
2. Design with customers
3. Back and forth between theory and practice
4. Intervision, train and prepare
5. Professional development

The following resources are used to carry out this learning concept:
- Learning and development lines.
- Activities
- Practice and learning teachers.
- Appeal to different learning styles.
- Portfolio.

1. Learning and development lines

The process of changing the vision of education focused on teaching to education based on learning, begins spending one day with participants. On this day, they will experience natural learning. The aim is to stimulate a change of thought, so that participants know what they are going to choose and what the consequences are. If they choose the natural way of learning, they will build and design learning and development lines. The objective in learning lines is in what is needed to learn. In development lines, it is to develop conduct lines.

**Designing development and learning lines**

Think about:
- Feasibility.
- Relevance.
- Clarity.

S.M.A.R.T. (specific, measurable, acceptable, realistic, timeframe)

**Initial behavior**

- Examples are required
- Needs direction
- Thinks on parts
- Thinks about trying

**Independent behavior**

- Can reflect on development and learning lines
- Vision is the guide
- Thinks about the whole
- Thinks about activities

FROM

Keep being dependent

1 

2

3

4

5

TO

Be an independent critic
2. Activities
Activities are open (very varied due to the contributions of participants), consider all the elements, are complex and manifold, are real and significant, must be worked in groups, the participants solve problems and how to formulate is clear, is a source of inspiration and considers criteria such as time and budget if necessary.

3. Learning and practice teachers

Learning and practice teachers have competences like accompanying learning of each participant, so that everyone learns at an accelerated basis. Learning teachers are can develop a good communication with participants and earn their trust. They know the balance between directing and stimulating free activities.

The skills of teachers are:
- Develop commitment.
- Give direction.
- Develop self-direction.

A learning teacher
- Guides the personal development of a participant.
- Learns from participants’ experience to develop his professional qualities.
- Gives an accelerated pace to participant learning
- Let participants to choose activities related to their profession.
- Works with clear conduct rules.
- Follows participants’ learning in their development lines.

A practice teacher
- Guides the professional growth of each participant.
- Promotes participants’ learning on knowledge and skills.
- Encourages teamwork in participants.
- Let participants to choose activities related to their occupation and profession
- Works with clear conduct rules.
- Follows participants’ learning in their development and learning lines.
4. Consider different learning styles

Everyone develops a way to learn through his life, that is called a learning style. It determines the best way to learn. Kolb (1999) creates a learning circle where he describes four stages:

At each stage, a learning style prevails: the dreamer/designer, the thinker, the decision maker and the maker. When designing activities, it is important to know how participants learn and also, oneself. In this way, it is possible to guide and deeply understand the development of participants and self-development.

5. Portfolio

A portfolio is a folder or document, in which participants keep their tests on their activities and their development and learning lines. Saving them, the participant is selecting his best abilities and, shows them to others like his teachers, family or boss. Based on this presentation, the participant can reflect about his development with his learning teacher. The portfolio contains good experiences and successful results.

Since 2006, this learning concept has been developed, in a project carried out by Solidaridad – CSN, directed by Dirk Jan Vos and with pedagogical advice of Bernie Jonker. It is being implemented in developing management systems with coffee producers in Honduras. The aim is to develop a system built from the bottom of the organizations for their continuous improvement and facilitate access to multiple certification programs. The full evaluation of the project will be available in late 2008.

For more information, please contact Solidaridad (www.solidaridad.nl)

commended bibliography

APS,
http://www.aps.nl/apssite
http://www.apsinternational.nl/international
KOLB, David A. The Kolb Learning Style Inventory, version 3. Boston: Hay Group, 1999