

Chapter 3 Composition of the Guideline

3.1 Composition of the Guideline

The Guideline is constructed to basically follow the flow of the extension process explained in the previous chapters. It is composed so that if a reader follows the numbered sequences he/she will be able to understand the proposed extension process.

Furthermore, each chapter contains most of the following sections: “Objectives and procedural outline”, “Work content and necessary techniques”, “Inputs needed (personnel, material, cost and time)”, and “Pending issues”. Thus, one may choose to read only the chapter he/she is interested in to learn the corresponding techniques and the investments that would be needed.

The Annexes at the end of the Guideline provide the following information:

- Forms
- List of available guidelines and manuals on conservation and environment-friendly farming techniques
- List of available guidelines and manuals on farmland planning
- List of available guidelines and manuals on strengthening of organization
- List of available material on creating environmental awareness of farmers and providing environmental education to students
- List of organizations who provide personnel to conduct training sessions
- List of organizations that provide support in obtaining outside funds
- Manuals elaborated for individual activities by Alhajuela Project
- Case studies from experiences of Alhajuela Project

3.2 Objectives and significance of each Chapter

A brief explanation of the objectives and significance of each succeeding chapter are given below:

Chapter 4: Approaching the community inhabitants

When initiating activities in an area, one must be careful about the way to approach a community and making a first contact. If the initial contact goes bad, it may result in the inhabitants rejecting the project.

This chapter explains the role of the people from outside the community in improving environmental quality and community development. It presents the method and proper attitude for approaching the local inhabitants

and contacting key persons in a community. It explains the basic attitude one should always keep while carrying out each of the activities presented in the following chapters.

Chapter 5: Obtaining basic data

In the extension process, basic data is collected for the following purposes:

- (1) To understand the current situation and special characteristics of an area in order to foresee the direction in which to develop the project.
- (2) To acquire information for identifying and selecting the target communities where the activities will be carried out.

An explanation is given on how to select the topics for the base study that would accomplish the above purposes, as well as the methods to use to obtain, organize and analyze the data.

Chapter 6: Forming groups and creating an activity plan for the initial phase

In order to carry out a project with community participation, achieving the consensus of the inhabitants to participate in the project is of greatest importance. After making a successful first contact with a community, the following steps are taken: “promotional meeting” → “PRA” → “making the initial activity plan” to create consensus on the activities they wish to implement. This chapter explains the design, procedure, and important points of each of these activities in the order shown by the arrows.

Chapter 7: Farmland Use Plan

The integrated management of a watershed requires a planned and ordered use of the land and the monitoring of that process. Other activities such as conservation techniques, environment-friendly farming and tree planting, which are mentioned further below, also need to be done in a planned and adequate manner for them to be effective. The creation of a farmland use plan becomes the base for achieving these objectives.

This chapter explains these activities in the following chronological order: creating a current farm map, criteria for dividing the land into plots and the use of the plots, creating a future farm map, criteria for the conservation techniques to be introduced, and giving feedback into the activity plan.

Chapter 8: Strengthening the groups and their self-management

In order for the local inhabitants to continue with their groups and its activities in a sustainable manner, even after the project terminates, they need to acquire abilities in the following areas:

1. Group work methodology and values for group unity
2. Administration and coordination of group labor

This chapter explains the procedure for planning and conducting for training for the inhabitants to improve their abilities in these areas. Another very important issue is a group's "economic self-management", which is dealt with in Chapter 12.

Chapter 9: Environmental education and awareness creation for watershed conservation

Increasing the inhabitants' awareness of how their daily life is related to their environment, and also how the environment affects their daily life, is the first step toward involving the local population, by their own volition, in environmental conservation activities of the area.

In Panama there are a wide variety of material and methods available for environmental education activities that are geared toward children and students. This Guideline emphasizes the need of creating environmental awareness of the adult population as well, since they will be the ones directly in charge of managing the watershed.

Chapter 10: Introduction of conservation and environment-friendly farming techniques

The introduction of environment-friendly agricultural and agroforestry techniques to small and medium farmers is the central theme of a project committed to watershed conservation. Regarding large-scale farmers, Cleaner Production activities should be considered. There are already manuals available on specific environment-friendly techniques, therefore, this Guideline tries to fill the gaps that exist on how to select the appropriate techniques and what is the best order for introducing the techniques.

Chapter 11: Development of economic sustainability of the groups

In order to guarantee the economic self-management and sustainability of the groups, it will be necessary for them to practice the "circulation of funds" where the income they obtain from the production and sale of farm products and services is reinvested into their next activities. In this Chapter we explain the assistance a project can give to increase a group's ability in the management of its farming process and bookkeeping, the sale of products and services, the reinvestment of the group's own funds, and the acquisition of outside funds.

Chapter 12: Monitoring, evaluation and elaboration of annual plan

Monitoring and periodic evaluation are necessary for understanding the situation of project implementation, and to confirm the advances made toward the project's purpose. Incorporating the evaluation results into the following year's activity plan insures that the planned for activities will be carried in line with the project's purpose.

This chapter explains this process, dividing it into monitoring, evaluation, and feedback of evaluation results into the next plan.

Chapter 13: Adoption of techniques on individual farms and Horizontal dissemination

In order to achieve an integrated management of a watershed with the participation of farmers, the conservation and environment-friendly farming techniques need to be disseminated widely among the individual farmers as well, because the effect of watershed conservation will be limited if these techniques are only adopted on the group farmlands. Also, it is important to promote “horizontal dissemination” which means that the community groups developed by the project play an important role in transferring knowledge and techniques to their neighbors, other communities and in the future to other watersheds.

This chapter explains the general modality of assistance for individual farms as well as several methods of horizontal dissemination, in addition to the creation of social network.

Chapter 14: Technical role of the authorities in the management of watersheds

The basic concept of the participatory approach to watershed management presented in this Guideline is a “bottom up” concept where the project participates in farmer groups and transfers to them principally the environment-friendly techniques for productivity improvement and strengthening of groups. By this way, the farmers become trained and aware so that they will take the initiative in horizontally disseminating land-use management and watershed conservation activities on their own.

In order for such activities done by the inhabitants’ own motivation to make an effective contribution to watershed conservation, a system needs to be devised for the planned managing of the entire watershed. In this Chapter we present one example of a technical procedure that we consider necessary for creating an Environmental Land Regulation Plan and a Watershed Management Plan with the objective of achieving a rational management of the watershed.