Preface

The Forestry, Trees and People Programme, coordinated within FAO by the Community Forestry Unit (CFU) of the Forestry Department, focuses on strengthening local community efforts to improve the management of their forest and tree resources. The selection by the community or individual households of trees to plant or to retain (by protecting or avoiding to cut an existing or naturally growing tree in order to use its products and services) is a key aspect of tree management. The decisions leading to selection of particular trees are influenced by a number of factors, most of which are more related to social and economic causes than to technical considerations.

When the CFU took a close look at recent forestry projects which involved tree-planting by the community, it was quite apparent that some had been popular with farmers because the planted or managed trees were useful to them, were placed in a situation that suited the local land use patterns, and required a management regime that was compatible with the labour and input requirements of the entire production system. Yet it was equally obvious that many projects had been designed without adequately taking at the function trees were to play in the rural economy, nor at the distribution of the costs and benefits of a tree and its planting location.

In 1991, FAO published Community Forestry Note 9: Socioeconomic attributes of trees and tree planting practices, by John B. Flinn. The International Center for Research in Agroforestry (ICRAF) this document presented a new approach to understanding the factors influencing tree planting and tree retaining practices in local communities, and it forms the basis for the present field manual. Following this, the CFU produced a video entitled “What is a Tree?” - The functional approach to tree species selection, which considered the closely related issue of the many uses to which trees are put by traditional users. In view of the enthusiastic reception given to these documents, it was felt that there was a clear need for a practical field manual for selecting trees for community forestry projects on the basis of community needs and capacities, as well as the usual technical factors.

The manual has been developed by Dr. Katherine Warner, an anthropologist with extensive experience in community forestry, currently working at the Regional Community Forestry Training Centre (RECOFTC) in Bangkok, Thailand. It translates the concepts of the earlier Community Forestry Note into a practical methodology for exploring the physical and socio-economic situation of a community and then using this as a basis for selecting trees for planting. Dr. Warner, who has worked for many years on the interface between social science and forestry, has used the methods presented in this field manual in field work in several countries and situations in Africa and Asia, some of which are presented as case studies in Appendix I.

As in the case of other Forests, Trees and People Programme activities, the methods described in this manual lay a strong emphasis on community participation. Understanding community needs is highly dependent on the rapport which is established between the field worker and the local community. The active involvement of the community in the selection process is important to the quality of the results which can be obtained.

This field manual is being produced and circulated with the intention that its techniques will lead to revision and enrichment based on experience gained in different regions of the world. Readers and users are therefore encouraged to send their comments and suggestions to The Community Forestry Unit, Forestry Department, Food and Agriculture Organization, Viale delle Terme di Caracalla, 00100 Rome, Italy.

Marilyn W. Holmes
Senior Community Forestry Officer
Forestry Policy and Planning Division
Forestry Department

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INTRODUCTION

PURPOSE OF THE MANUAL

The purpose of this manual is to help field workers to work with a community in order to identify the tree species that would best serve that community’s needs. A growing number of projects and programmes are recognizing that the species chosen for tree-planting projects should reflect the needs and priorities of local communities.

Tree planting requires more than just planting trees. In most communities, tree planting involves a complex sequence of decisions regarding not only which trees should be planted, but also:

- how many trees should be planted,
- where they will be planted,
- by whom they will be planted,
- who will provide care, and
- who will derive benefits from the trees.

To be effective, the field worker involved in community forestry must understand the community in which he/she works and have a thorough knowledge of local tree planting and management practices. As the focus of community tree-planting projects shifts toward concentration on community needs, the role of the field worker is also changing. Rather than simply promoting tree species previously chosen by the tree-planting project, the field worker should work with the projects intended beneficiaries using a participatory approach, in order to assist the community’s own view of its needs and constraints.

This field manual requires the field worker to have expertise in collecting and analyzing information concerning environmental, social, economic and other factors, as well as skills in community extension. Working from this information, the field worker (bringing technical expertise and new options) and the members of the community (bringing local technical knowledge and sensitivity to local conditions) can select among several options of tree species and tree-growing technologies. The objective is to provide the greatest possible benefits to the community (see Figure 1).

The importance of the participatory approach

Projects and programmes are becoming more participatory in orientation; rather than telling communities to plant preselected tree species in a preselected location, more and more often they try to work with the community to determine the tree species and planting sites that will best fit its needs. If the project activity is to be sustainable (to survive and continue to grow after the end of the project itself and of external funding), it must involve the community members. These benefits must come from the project; it should not just be someone else’s plan for them. The more the field worker is able to support and facilitate the community in planting and implementing the project, the more likely that this sense of ownership will be created.

There is significant variation in the degree of participation of local communities in projects and programmes. The importance of the participatory approach to understanding the factors influencing tree planting and tree retaining practices in local communities, and it forms the basis for the present field manual. As in the case of other Forests, Trees and People Programme activities, the methods described in this manual lay a strong emphasis on community participation. Understanding community needs is highly dependent on the rapport which is established between the field worker and the local community. The active involvement of the community in the selection process is important to the quality of the results which can be obtained.

ABOUT THE MANUAL

This field manual shows how to create an accurate portrait of the community, its use and management of tree resources, and its current and projected needs. It also shows how to analyse this information and use it to select the right trees for the community.

Rather than beginning with the trees and developing strategies to get the community to plant them, the approach of this manual is to focus on the community and its needs and identify what potential benefits trees can provide. Household drought will be determined by the level of implementation and sustainability of any tree-planting project, and these decisions are based on an assessment of whether the household will benefit economically and other and otherwise from the proposed activity. It’s not just a benefit (or it is unavailable), it is a benefit to take part in tree-planting activities. For projects to be sustainable, communities and households must perceive a potential benefit in planting trees.

In order to determine the tree species which will offer the most benefit to the most people, the field worker and the community will work together to identify what tree products and services (functions) are needed. The process begins with
the gathering of relevant information regarding the community and the present role of trees. The natural environment and the social environment together determine the existing opportunities and the limitations in choice of species. Once the cleared tree findings have been determined, the field worker's task is to work with the community to identify potential tree species and critically assess which of these species would be most appropriate for the community.

The ability of the field worker to work with the community is crucial for project success, but it is not sufficient in itself: a project requires technical expertise as well. In this manual the role of the field worker is to use his/her own technical expertise to provide guidance to the community, but the field worker and the community should gain knowledge from each other. The combination of local knowledge and outside expertise provides a better foundation for programme development than either one can provide by itself.

Assumptions: This manual has been prepared to provide guidelines for the field worker in a tree-planting project or programme. Some assumptions have been made regarding this project or programme:

- The role of the project has already been determined, so guidelines for choosing a project site are not needed. (If a site is not selected or if additional sites are needed, guidelines for selecting project sites can be found in Davis-Cave 1989). Although the general purpose of the project has been determined (tree planting), the actual formulation of the project design (in this case, mainly the selection of tree species and planting locations) has yet to take place.

The project will be participatory in orientation. In other words, the choice of species, location, and tree-planting objectives will be made by the community, with the support and assistance of the field worker.

In most cases, the main interest of the project is to assist the most disadvantaged groups in the community (the poor, minorities, female-headed households, etc.).

The manual attempts to provide a clear explanation of the process of identification of appropriate tree species. To assist this process the manual also includes worksheets that can be used by the field worker for collecting and analyzing information from both secondary source (government documents, project reports, etc. - see Appendix 3) and the community.

Although the primary purpose of the manual is to assist in the selection of tree species, it can be used for other purposes as well. For example, in a project with preselected tree species, the field worker still needs to determine the niches and spatial arrangement of the trees and consider if there would be any adverse conflicts. The worksheets concerning these topics can be used to gather the information needed for the analysis and planning.

Reflecting the range of community participation in community forestry projects, the role of the field worker will be as a facilitator (relief suggestions, providing expertise not available in the community), a primary decision-maker (authority to decide the tree species to be cultivated in the community), or an extension agent (preselected tree species, location, and community). A field worker in any one of these roles should be able to utilize the methods and the worksheets in this manual to obtain the information that is needed for a variety of uses.

How to Use this Field Manual (and how to determine what parts you need to use)

What do you want to know? In order to use this manual effectively, you must first have a clear understanding of the kind of information you are seeking. The objective is to obtain enough of the right information to help the community and its members to make a competent decision.

The most common errors in collecting information are:

- to gather more information than is needed, and
- to gather the "wrong" information.

What is wrong information? "Wrong" information refers to information that will not answer the question which you are trying to answer, either because the wrong question is asked or because the right question is asked to the wrong (inappropriate) group.

A field worker needing information in the current use of trees in the community decided to use Sample Worksheet 10 ("Current function of trees") in this manual. However, the field worker discussed tree utilization only with men rather than with both men and women. The information was therefore incomplete and did not fully answer the key question: "What is the current tree utilization pattern in the community?" The right questions were asked to the wrong people: women (an important user group) were left out.

What is more information than is needed? The attitude of "the more information the better" is a common one, and it may seem difficult to challenge. However, spending scarce time, effort and resources on gathering information that is not essential is a luxury that few field workers or projects can afford. In spite of this, it is common to ask for more detailed information. Trying to get correct information concerning accurate crop yields, precise income, exact distances, etc. can take hours and days of your time, and the information is seldom reliable, and often not even used.

What is more useful than unreliable detailed information is carefully chosen specific information. Knowing whether a family harvested enough of a crop to feed itself through the year is enough for the purpose of tree selection, while knowing exactly how many kilos of each crop were harvested per hectare is too much. Knowing a household's sources of income is all you need for most uses, while learning accurate income data is difficult to achieve and is unnecessary (see Sample Worksheet 9).

Collecting wrong or unnecessary information is the result of not understanding what information is most important. This is usually because not enough thought has been given to why the information is needed. Before starting to gather information, ask yourself:

- Why do I need to know it?
- and
- How will I use the information?

Do you need to use all the sections in the manual?

Each section of this manual, along with its sample worksheet, can be used either by itself for a particular use, or in combination with other sections. Many users will not need to collect every section in order to carry out their role as facilitator for community tree selection. The decision on whether to use a particular worksheet, or what combination of worksheets to use, will depend on a variety of factors, as can be seen from the following situations.

If you work in the community on a regular basis, and already have a clear idea of the kind of information you are seeking, you may not need to use any of the worksheets. However, your decision to exclude any particular worksheet or area of investigation should be carefully considered: a common mistake is to assume that you know things that you have not actually specifically investigated. For example, one of the areas where "common sense" knowledge is often not sufficient is gender analysis. Very often, experienced field workers think that they know exactly how tasks, responsibilities and rights are divided between men and women within a household. Through further investigation, however, they usually find that their ideas are based on accepted cultural attitudes, and that the use of the worksheets can contribute significantly to improving their knowledge of this subject.

If your community is working with a specific household with an already identified need, the community needs and its worksheets do not have to be considered. The field worker should focus on what factors are relevant to that household and its need.

Should all the worksheets be completed? The purpose of the worksheets is to provide the tools to explore all the topics. However, for most projects and programmes you will not need to use all of them. Different users will need different worksheets, and you will be free to use or to complete the questions in a selected worksheet. The answer to the question "What do I need to know?" will differ according to the needs and nature of the community and the objectives of the project. For example, a field worker in a small homogeneous community in a physical environment that has little variation will need fewer worksheets in less detail, and a field worker who is attempting to identify new riches for a tree species which is already grown in the community will probably refer to all the worksheets. The Case Study in Appendix 1 is typical of the heterogeneous situation found in most projects. Based on the selection of tree species in a project in Asia, it is a joint community-government project: some of the tree species have already been identified by the Forestry Department; but other tree species, as well as the planting locations and spatial arrangement of all the species, remain to be chosen by the community.

In what order? It is not important to follow a specific order when collecting the various types of information, thought it may be logical to use roughly the order given in this manual. This follows a progression from simpler, more descriptive information of the physical environment, which makes greater use of secondary sources, to more complex and potentially more difficult to obtain information about the socio-economic environment, tree management and tenure and rights. However, the first section will also vary for reasons like the time constraints of information gathering. In this manual the role of the field worker is to use his/her own technical experience to provide guidance to the community, but the community should gain knowledge from each other. The combination of local knowledge and outside expertise provides a better foundation for programme development than either one can provide by itself.

The worksheets were designed to be thorough, and therefore they will usually include questions which are not applicable to the particular community in which you are working. After you have determined what you need to know, delete, or change questions or sections of the worksheets that are not applicable or expand the worksheets by adding questions and sections as needed.

The examples: Appendix 1 presents a case study which is an example of a complete use of the manual methods for a particular tree-planting project. In addition, for each worksheet there is an example in Appendix 2 that illustrates how it can be used. An analysis of each example is then presented that explains what was learned by the activity.

The three steps

The manual is organized around the question:

What do we need to know to identify the tree species that would be suitable for the community?

Identifying the appropriate tree is a process which includes three steps (see Figure 2).

The three steps

1. Identifying
2. Selecting
3. Planting

General demographic and physical data

In some communities, community-based data is collected on the following subjects:

- Population, settlement patterns and migration
- Land use system, including both a map and interviews
- Current tree growing patterns, including both transects and interviews, and
- The general climate, rainfall pattern, temperatures, wind patterns and soils.
Socio-economic conditions and resource use in the community: After the basic information is collected, it is necessary to look more closely at the social and economic organization of the community, which will be important in determining the specific community needs which could be satisfied by trees and tree products. This is done by examining the community production systems, and then selecting a representative sample of community households to develop a household profile which reflects the needs and constraints of the community as a whole. The key information concerns:

- crop production systems
- livestock production and management systems
- the household profile, divided in two parts: household socio-economic conditions, and household tree resource use and needs.

Regulation and management of tree resources: The third and final type of information to collect in the community is that which regards resource use and rights to land, trees and tree products. This is the information most specifically tied to the task of selecting tree species to plant and deciding where to plant them. It must be used together with the more general information collected previously (in a) and (b) above in defining both the opportunities and the limitations which will determine the final choices. The three areas to be explored are:

- current functions of trees and tree products
- users of trees and tree products, and
- tenure and use rights to land, trees and tree products.

STEP II: DATA ANALYSIS AND TREE SELECTION

Developing a profile of the community: analysis of the data: Now that all the necessary information has been gathered, it is time to sit down with the community and put the data together into an organized analysis of the community’s tree needs, opportunities and constraints. This analysis follows the progressive order used in data collection:

- analysis of the general setting of the community
- analysis of the current role of trees in the community, and
- consideration of the functions to seek from new trees.

Selecting the most appropriate trees: When the analysis of the needed functions, tree-planting sites, users and rights is done, the moment has come to make concrete proposals of tree species. The checklist of ideal tree characteristics can then be used to match the selected tree as closely as possible to the locations and functions identified.

STEP III: THE BEST TREES? EVALUATION OF THE SELECTION

The impact of the selection on tree and land rights: How would the chosen tree or trees affect existing land and tree tenure systems? Would anyone be excluded from benefiting from the new trees? How would the most vulnerable groups be affected, and what benefits will they derive? These are some of the questions that you will try to answer at this stage of the selection process.

The final check: Is it the right tree? The selected tree and planting location are now put through a final exhaustive checklist of questions. These questions cover all of the factors dealt with in this manual as they can be expected to relate to that particular tree. If the tree or locations are found to have significant problems during this check, you must go back to Step 2 (b) above to select another species.

In summary

This manual is a tool for enabling field workers to work with the community in choosing the best tree species for its needs. The text describes what information to gather and provides instructions for gathering it, as well as providing guidelines for the analysis and use of the collected data. The worksheets help to structure the process of working with the community to put together the necessary information. The examples help to clarify the way in which the process works in real field situations.

Users of the manual may decide how best to adapt the worksheets to fit their own situation. Although primarily designed for field workers who need to identify appropriate tree species for a tree-planting project, sections of the manual and the worksheets can also be used to obtain specific information for more narrowly defined concerns.