6. Procedures for the Identification of Priority Areas for Tree Planting (refer to the flowcharts in Appendix 1)

The procedures are broken into a series of steps, in order that unsuitable sites can be eliminated early, before too many resources are invested into their assessment. As the site progresses through the successive stages, an increasing amount of detail, and therefore, financial and human resources are required. Highly detailed feasibility assessments, surveys, and extensive stakeholder consultations will help to ensure that the tree planting investment will be successful.

Step 1 is intended for planners, and is a desk based procedure using the maps contained within Appendix 5. Subsequent steps are conducted at implementation levels, as they require a certain amount of field based study.

6.1   Step 1 - Preliminary Identification of Potential Tree Planting Areas

Aim :   to identify possible sites for each tree planting objective using a series of maps, criteria and indicators

6.1.1   Define the purpose of tree planting clearly around the major objectives of:
   ♦ poverty alleviation
   ♦ environmental protection
   ♦ economic development

In reality there will be some overlap of objectives within most programmes and therefore, the guidelines are intended to apply in general to the range of options, with more detail available within the supporting documentation.

Table 1 – Management Options for Tree Planting

Poverty Alleviation	Economic Development	Environmental Protection
Community forestry	Industrial plantations	Government management
Community fuel wood plantations	Company/smallholder contracts	
Community planting on public land	Farm forestry	Collaborative protected area management
Partnerships		
Agro-forestry		
Urban forestry		

6.1.2   Evaluate different management options to identify those most appropriate in meeting the main objective. Table 1 provides some examples and indicates a need for a mixed approach in some cases, such as in an industrial plantation where an area has been set

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aside for community use, or for slope stabilisation. Further details and experiences of these options are outlined in Annex 1.

6.1.3 Identify potential sites for tree planting. The series of maps provided in Appendix 5, show :
- ◆ forest cover
- ◆ watershed classifications
- ◆ soil fertility
- ◆ level of disturbance
- ◆ poverty

which, when assessed against the criteria and indicators in Appendix 2, will indicate potential tree planting sites. Suitable indicators for each planting objective are shown in Table 2 below.

Table 2 - Suitable Conditions for Planting Objectives

	Poverty Reduction	**Environmental Protection**	**Economic Development**
Slope	Flat – Gentle	Steep	Flat
Soil Fertility	Medium – High	Any	Medium – High
Forest Cover	0 – 30%	0 – 30%	<10% (none)
Level of Disturbance	High – Medium	Medium – High	Non-forest only
Poverty Rate	High – Medium	Low – Medium	Low

6.1.4 Enter and store all information collected of relevance in the *Site Record*. This record will be continuously updated throughout the site identification procedure, to include :
- ◆ the tree planting objective
- ◆ location
- ◆ size
- ◆ management option
- ◆ site suitability
- ◆ status of land use planning
- ◆ checklist information, initial evaluation results, and priority category
- ◆ results of feasibility studies (environmental and social impact assessments, economic cost benefit analyses)

6.1.6 If the site matches the conditions in Table 2, submit the *Site Record* to the implementation level, to proceed with Step 2, otherwise end the process at this point.

6.2 Step 2 – Assessment of Land Tenure/Resource Access Security

Aim : to determine the level of land tenure/access security as a pre-requisite for selection of tree planting sites

6.2.1 Is land tenure/resource access secure for the areas identified?

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These procedures can only be applied within areas where this is so, as long-term security of land tenure/resource access is a precondition for any tree planting. Priority consideration will also be given to sites where land use planning is in process.

6.2.2 If land tenure/resource access is not secure, the land use planning process can be initiated. Selection of tree planting sites will be halted pending the outcome of the land use plan.

6.2.3 If land tenure/resource access is secure, or the land use planning process is in process, or planned, go to Step 3.

6.3   Step 3 – Preliminary Assessment of Site Conditions (Pre-Feasibility)

Aim : to assess site suitability based on existing information and short site visits

Key issues are addressed at this stage. Due to its nature, it is fairly rapid and inexpensive, and provides an early filtering out of unsuitable sites.

6.3.1 Complete the standard checklist shown in Appendix 4. Information should be drawn from existing sources, such as :

- ♦ village census data
- ♦ commune development plans
- ♦ land use maps
- ♦ cadastral maps

- ♦ PLUP data
- ♦ agricultural ecological zonation
- ♦ SEILA data

6.3.2 Make a short site visit. There are 2 main reasons for this :
- ♦ to collect what is not available within existing sources to complete the checklist
- ♦ to check the information gained from secondary sources against the real situation on the ground, especially in relation to current land uses and land users, and future land uses, in order to identify possible conflicts of interest

6.3.3 Assess the information gained in terms of the potential of the site for tree planting. The socio-economic data collected on the checklist is qualitative rather than quantitative, and therefore cannot be measured or ranked. It is necessary for a reasoned judgement to be made at this point.

6.3.4 Update the *Site Record*.

6.3.5 Go to Step 4.

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6.4   Step 4 - Categorisation of Areas for Tree Planting

Aim : to assign a priority category to the site

6.4.1   Re-assess site according to field checks and socio-economic conditions, according to the priority categories in Table 3.

Table 3 – Priority Categories

	Poverty Reduction	**Environmental Protection**	**Economic Development**
Site Condition	As stated in Table 2	As stated in Table 2	As stated in Table 2
Level of Resource Disturbance	High	Medium - High	Non-forest only
Poverty Rate	High	Medium - High	Low
Socio-Economic Conditions	Favourable	Favourable	Favourable

6.4.2   Update the *Site Record*

6.4.3   If the site is placed within the priority category for the stated tree planting objective go to Step 5.

6.4.4   If the site does not fall into the priority category, it should be placed on a register of suitable sites for future assessment at lower levels of priority. The process ends here.

6.5   Step 5 - Detailed Assessment (Feasibility Study)

Aim : to conduct detailed studies to determine economic feasibility and to mitigate social and environmental impacts

Preliminary conclusions reached up to this point require ground-truthing, detailed analysis and interviews with local people. It is a costly and time consuming process, but one that can not be overlooked in aiming towards successful tree planting programmes.

6.5.1   Conduct feasibility studies, preferably within the land use planning process, in order to gain a greater level of understanding of the political, economic, social and environmental conditions, the potential impacts (positive and negative) of tree planting upon the current situation.

Land allocations must consider the interests, legal rights and long-term plans of all sectors concerned with, or affected by, plans for tree planting. It should be done in consultation with affected communities, in consideration of their legal claims on the land, and take into account present and future needs for agricultural and pasture lands, as well as customary use of various forest products and conservation requirements.

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This step includes assessments of social and environmental impacts, covering such issues as:
♦ number of local people/communities affected by the plantation
♦ ways in which local people/communities will be affected by the plantation
♦ amount of site to be put aside for community use
♦ availability of suitable land and optimal size of tree planting area
♦ environmental impacts on water resources and rainfall, soil, vegetation
♦ mitigation options for conflict and negative impacts

References include
♦ IUCN/WWF, 2000, Planning Forest Plantations
♦ ITTO, 1993, ITTO guidelines for the Establishment and Sustainable Management of Planted Tropical Forests
♦ ITTO, 2002, Guidelines for the Restoration, Management and Rehabilitation of Degraded and Secondary Tropical Forests
♦ MoE, undated, Guidelines for Conducting Environmental Impact Assessment
♦ DFW, 2000, Guidelines for Sustainable Forest Management

6.5.2 Determine what would happen without the proposed tree planting, and whether the root causes of forest degradation can be removed, otherwise the chances of success are limited.

6.5.3 Undertake a detailed cost-benefit analysis that is broad enough to include biodiversity and environmental service functions, social benefits, and potential new forest products. Such an approach will allow analysis of short and longer term costs and benefits, as appropriate to the tree planting objective. It will include:
♦ costs and benefits of the proposed activity and alternate land uses
♦ cost/benefit sharing

6.5.4 Update the *Site Record*.

6.5.5 If the results of the detailed assessment are positive go to Step 6.

6.5.6 If the results of the detailed assessment are negative, the site should be rejected, and the process ends at this point.

6.6   Step 6 – Funding and Implementation

Aim : to secure funding for implementation

6.6.1 If funding is available within the Forestry Administration the tree planting programme can start immediately in accordance with Part II.

6.6.2 If funding is not available, develop proposals for submission to potential donors, investors, and government.

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