

BASELINE SURVEY REPORT ON EVALUATION OF TRAINING EFFECT

BY

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1 INTRODUCTION

The forest cover in Kenya is about 3% of the total area. This forest cover is included in the 20% of the land mass which is arable while 80% of the land is arid and semi-arid (ASALs). The arable though only covers 20% of the total land supports 80% of the country's population whereas the ASALs supports only 20% of the population. This shows how much pressure is exerted on the arable land.

This trend has led to increased human activities in the recent past in the marginal areas which initially experienced very little. The ASALs have very fragile ecosystem and the increased activities only resulted in increased desertification and related environmental degradation. This scenario has caused a lot of concern to the Kenya Government who consequently requested a technical corporation with the Government of Japan to come up with a solution to this problem. The result was the conception of Kenya/Japan Social Forestry Training Project.

Background

The Kenya/Japan Social Forestry Training Project started in 1987 as a five-year main phase following a two-year preparatory phase. The project was set up basically to alleviate fuelwood crisis, prevent soil erosion, supply fodder, arrest desertification, reduce the degradation and depletion of forests etc., based on the Record of discussion exchanged between the two governments.

The training sub-project has two training centres:

The Muguga national centre carries out training at the national level, and other national events such as national seminars, national social forestry prize day and national workshop. It offers training to senior Government officers and NGOs officers in the same calibre at the provincial, district and divisional levels.

The objective was to update Government officers and others involved in social forestry, on forestry extension techniques and practical knowledge in tree planting and management in order to improve their quality of work in forestry extension.

The Kitui regional centre, is geared to grass-root level facilitators and farmers. The target groups include teachers, community leaders, field technical assistants, women and farmers. The objective was to develop and improve their knowledge on tree planting techniques in the ASALs.

At the end of the first phase of the project over 1600 trainees had graduated from the two centres. It was, however necessary to evaluate the effect of the training offered to ascertain that the objective of the project is being achieved and basing on this to identify the areas where there is need to lay more emphasis in the training curriculum. To do this a baseline survey was taken from the trainees to enable a follow-up survey be taken later for comparison.

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OBJECTIVE

The Pre-survey objectives were two fold:

- a) To gauge the level of forestry related information, technical know-how on tree planting techniques and socio-economic status of trainees prior to attending the courses.
- b) The results are to provide a baseline information for measuring the training effects/impacts of our training programmes
- c) Improve the training curricula with the changing needs of the society.

METHODOLOGY

A socio-economic survey was carried out in different parts of the country to identify the status of rural population, their needs and handicaps in social forestry. From the survey a questionnaire was developed covering subjects which were identified to be necessary for evaluating the trainees know-how on social forestry activities. Different sets of questionnaires were developed depending on the level of education and social status of the trainees.

The trainees on their arrival were requested to fill a questionnaire with the guidance of the training officers whenever it was necessary like with the case of illiterate and semi-illiterate trainees.

The data were analyzed by calculating the percentage response for each question. The percentages were then presented in charts, both pie and bar charts whichever was found appropriate. The details of the questionnaire are as given in the appendix as Annex 2.



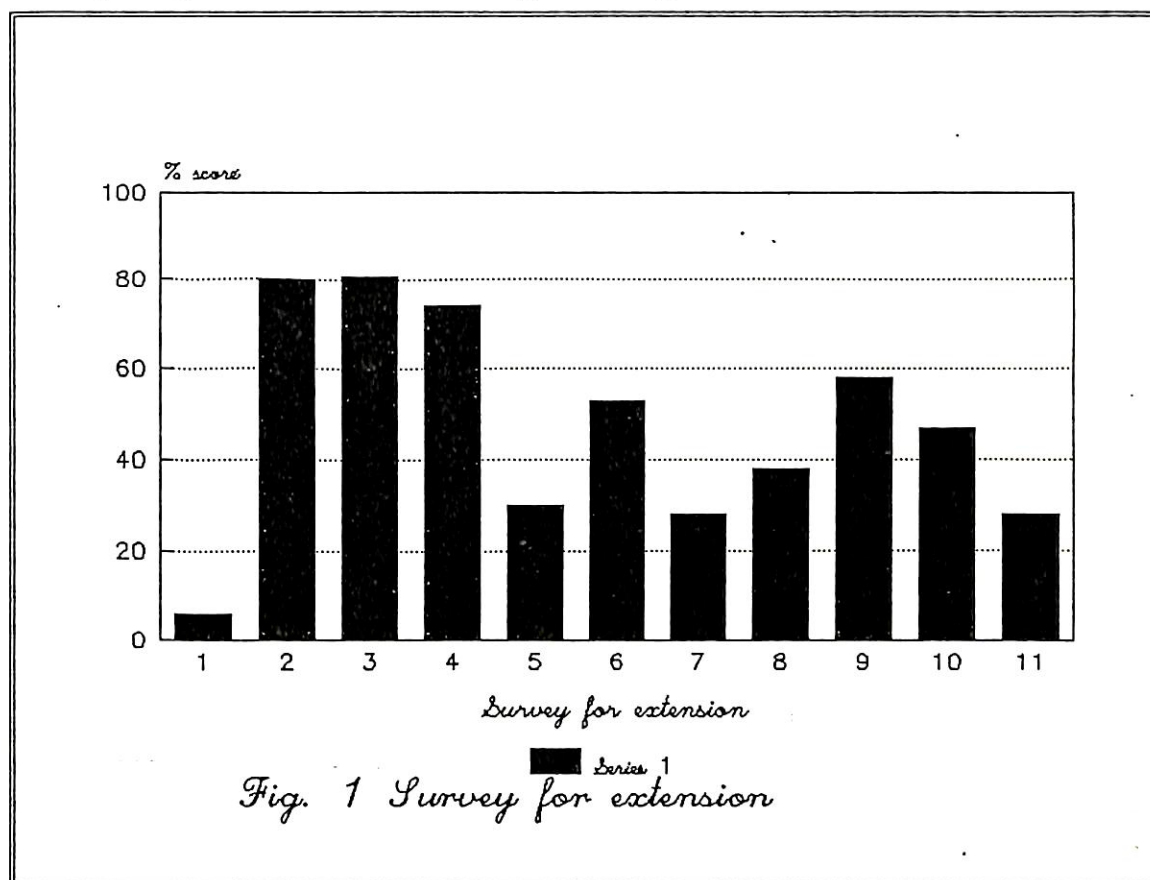
2.0 DIVISIONAL FORESTRY EXTENSION OFFICERS

The calibre of trainees in this category included both Government and non-governmental organization (NGOs) officers involved in forestry extension and other environmental activities at the divisional level. Two main activities were considered:

- 1) Survey for extension activities in the area,
- 2) Extension work in the area.

2.1 Survey for extension activities in the Area

This exercise recognised the importance of the officers carrying out a survey of the area in readiness for the extension work. This would enable the officers to assess the situation on the ground, identify the problem in the area, their needs and come up with appropriate extension packages. The results were as given in figure 1 below:



In figure 1 the numbers 1-11 are used to represent the questionnaire as those who had carried out a survey of:

1. have not carried out
2. number of tree nurseries
3. of species preference
4. number of seedlings produced in a season
5. acreage planted with trees
6. number of farmers who have planted trees

7. consumption of fuelwood for household
8. forest products such as charcoal, poles, seeds.
9. survival counts
10. degree of damage by pest, diseases, livestock, termites
11. minor forest/tree products (honey, fodder, fruits, etc)

The result obtained showed that the officers consider survey as an important tool in their extension work. This is reflected in that only 6% of the respondents had not carried out some form of survey. The most popular type of survey were given as survey of number of tree nursery, species preference and number of tree seedlings produced. Among the least surveyed were the survey of minor forest/tree products such as honey, fodder and fruits; consumption of fuelwood, where trees are planted and the acreage planted. The above shows that the extension officers are more concerned with raising of seedlings and tree planting than the end product. On the contrary the extension officers should survey and have the end product in mind to be able to come up with the best species selection. The same goes to high percentages in seedling raising activities and not where it is planted which will be of importance in survival count.

2.2 Type of extension activity

This question was important in showing the extension priorities of the extension officers. It would help in assessing whether the priorities conform with the expectation of the farmers in social forestry. The results obtained were as given in figure 2 below:

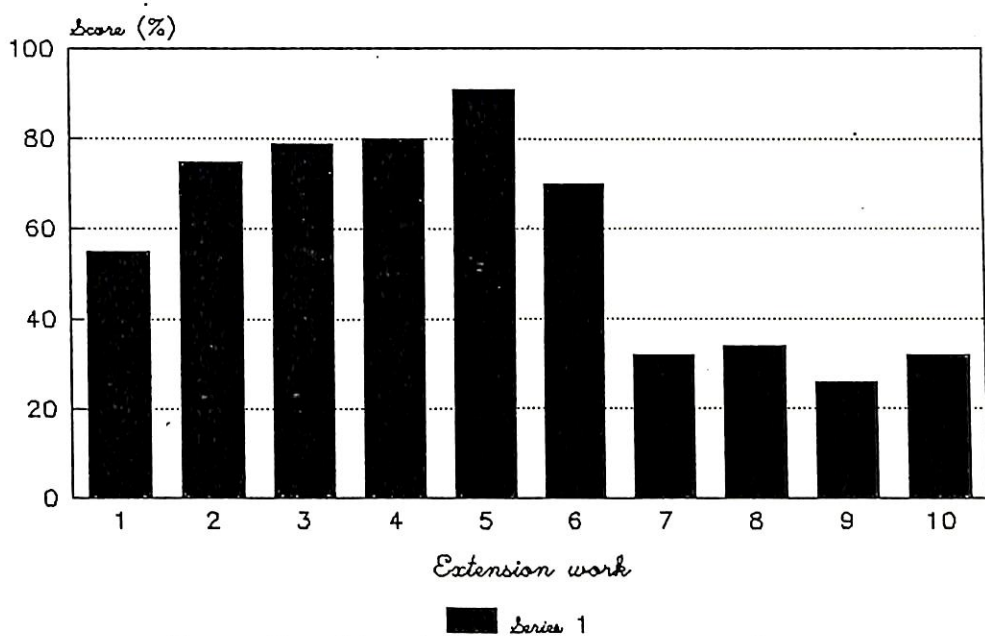


Fig. 2 Kind of extension work

In figure 2 numbers 1-10 are used to represent the questions in the questionnaire of the kind of extension activity as follows:



1. made plan for extension
2. held seminar/baraza/workshop/field day etc. for tree planting
3. recommended establishment and management of new nurseries
4. taught techniques of tree planting
5. distributed seeds and/or seedlings
6. distributed tubes or tools
7. held seminars/workshops/baraza/field day for utilization of wood
8. took measures for fuelwood
9. took measures for charcoal production
10. carried out other works

The highest extension work had been done on distribution of seeds and/or seedlings to people as was shown by 91% of the respondents. The other two most important as could be seen from the figure above are teaching techniques of tree planting and establishment and management of new nurseries. Notable low priority in extension work were fuelwood awareness extension packages. In the contrary these activities should be of very high priority since the price of fossil fuel is rising each day and the farmers need to be made aware of the need to produce and conserve woodfuel. The high percentages in seedling distribution, planting and tending without equal emphasis in other areas confirms the earlier observation that the extension officers are more concerned with planting but pay little attention on minor forest products as was indicated in figure 1.

3.0 DISTRICT FOREST OFFICERS

These were Government and non-governmental officers directing forestry and related activities at the district level. Also included in this calibre of trainees are the District Environment officers (DO-E), who are responsible for the coordination of all environmental oriented activities in the district. They were interviewed on four areas of concern as follows:

1. the trend of the forest areas for the last five years,
2. the production trend of the forest products in the area such as production of fuelwood, timber and charcoal,
3. priority extension subjects in the area,
4. kind of extension in the area.



3.1 The trend of the forest area for the last five years

This question was important in showing whether the forest area is on the decrease or increase and the possible reasons to explain these trends. The trend will then dictate the measures and extension strategy be adopted to remedy the situation. The results are shown below in figure 3.

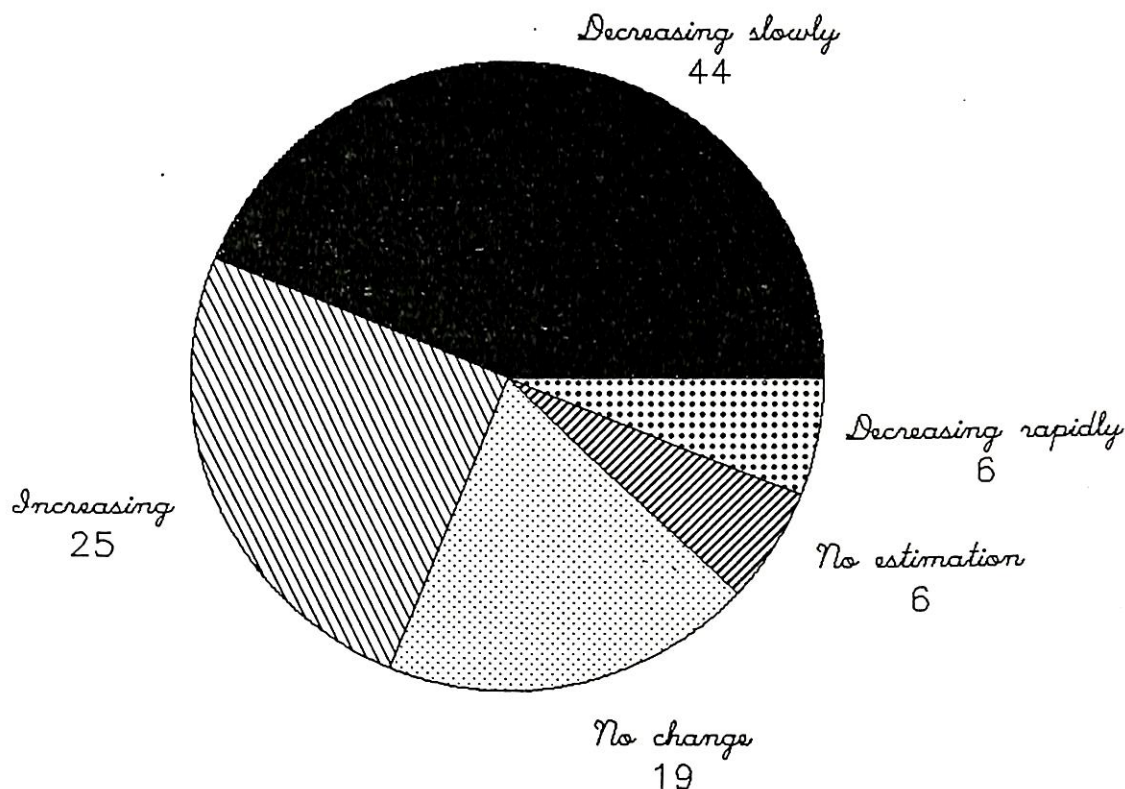


Fig. 3 Trend of the forest land

Fifty percent responded that forest area was on the decline either slowly or rapidly, while only 20% responded that it is on the increase. This confirms the earlier notion that the forest area is decreasing. The main cause of the decline in forest area was identified to be excision of forest for other land uses mainly agricultural, illegal encroachment and settlement while the cause of increase was given to be due to gazettement of hill tops and increased rural afforestation efforts.

3.2 Trend of forest products in the last five years

5.2.1 Production of timber

The results obtained from the respondents are as given in figure 3-1 below:



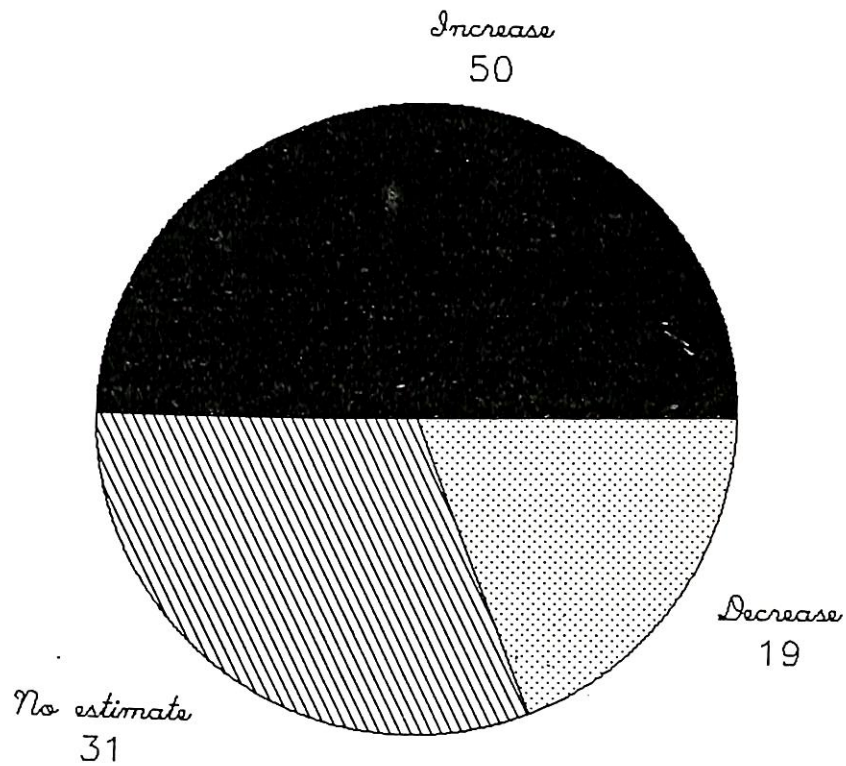


Fig. 3-1 Trend of timber production

The results above indicates an increasing trend in timber production. This could be due to the growing demand caused by the rapid population growth and developmental needs.

3.2.2 Production of fuelwood

Fuelwood production in this context was taken to mean the amount harvested for domestic use as well as those sold in the markets. The result obtained are as given in figure 3-2 below:

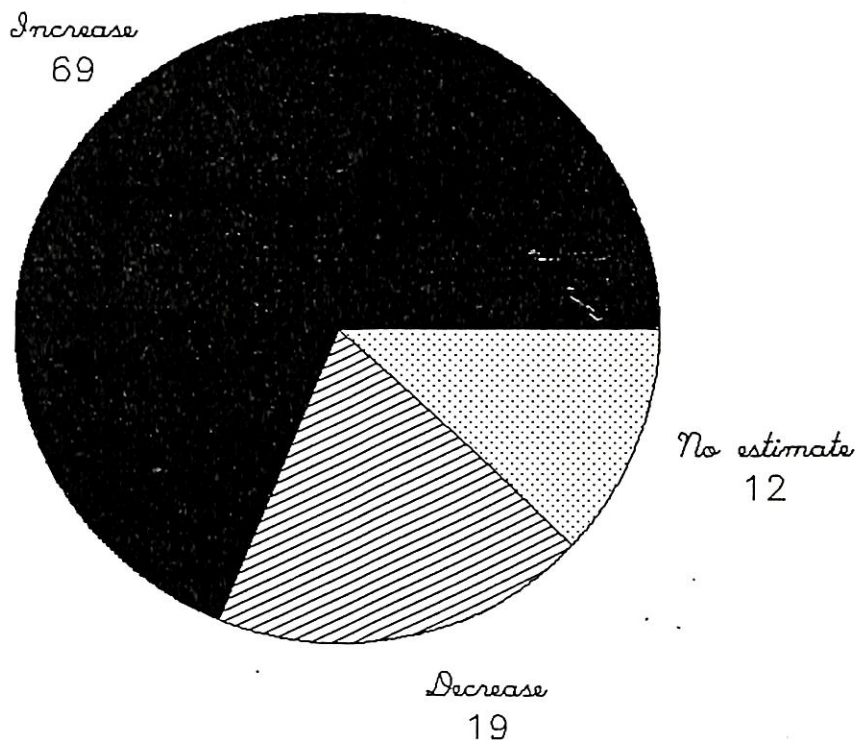
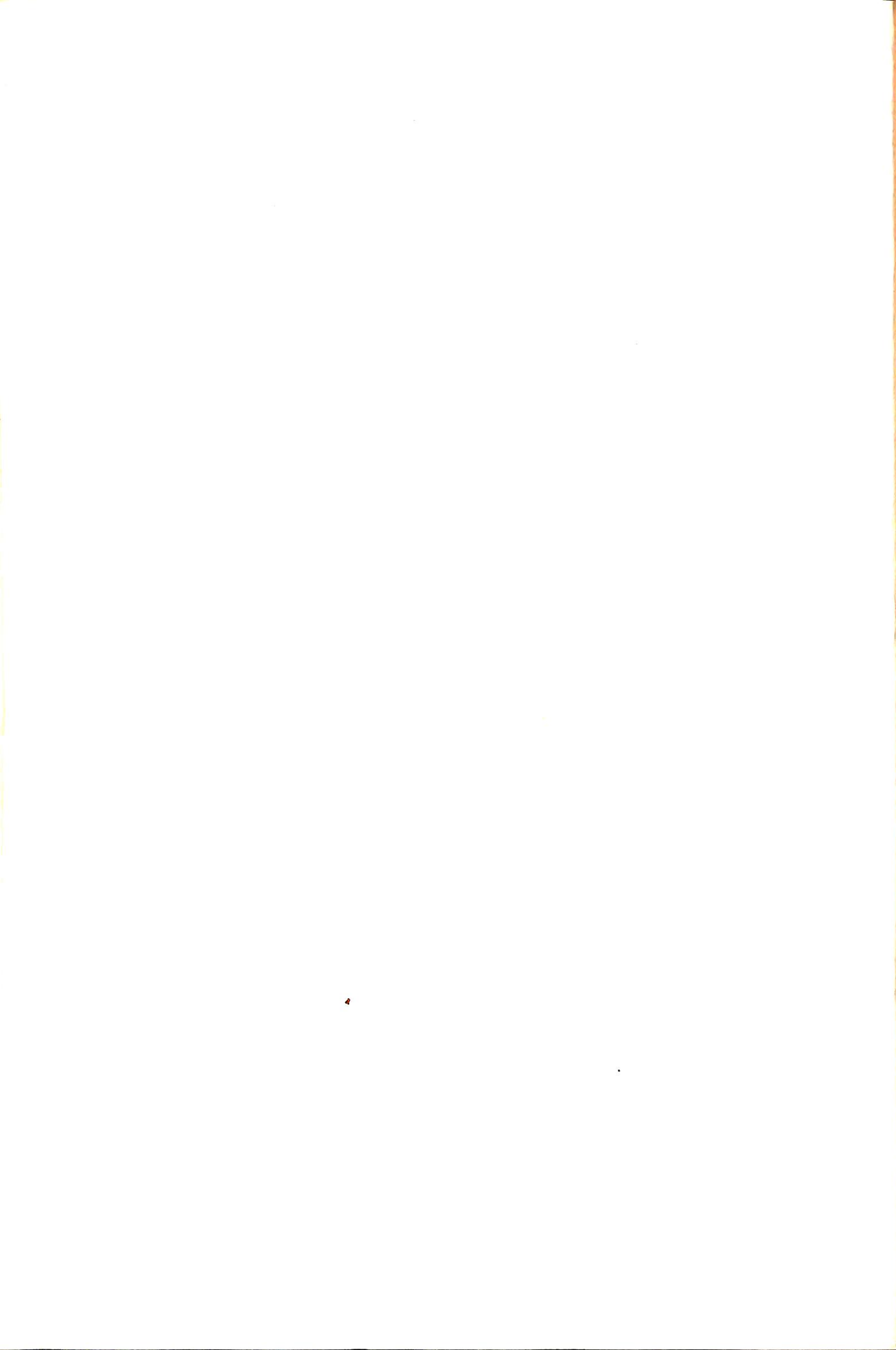


Fig. 3-2 Trend of fuelwood production

There has been a high trend in fuelwood production over the years. This is bound to increase even more because of the rising prices of fossil fuels and fast growing population. The decreasing trend of forest area observed in figure 3 could be due to such impacts. Thus without a corresponding increase in tree planting area, this may result in degradation of forest areas with adverse consequences on the environment.



3.2.3 Production of charcoal

Production here referred to the amount of charcoal burnt both for domestic use and sold to the market. The result obtained are given in the figure below:

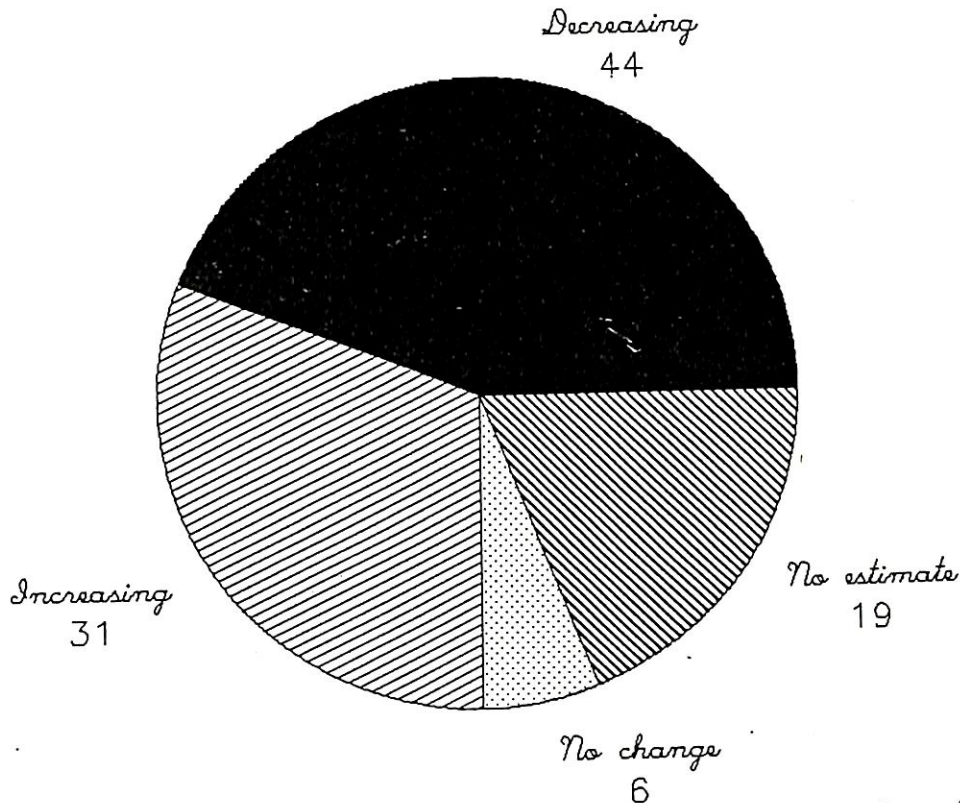


Fig. 3-3 Trend of production of charcoal

Response on charcoal production indicated almost a balanced trend between decrease and increase, even though it is more on the decreasing end. This could be impart due to Government restriction on charcoal burning and recent innovations on more efficient energy utilization and conservation measures.

3.3 Important subject in the area

For each subject given below respondents were asked to give a ranking based on their opinion of importance. The ranking were on a scale of 8 with 1 being the most important and 8 least important.



3.3.1 Tree planting and tending

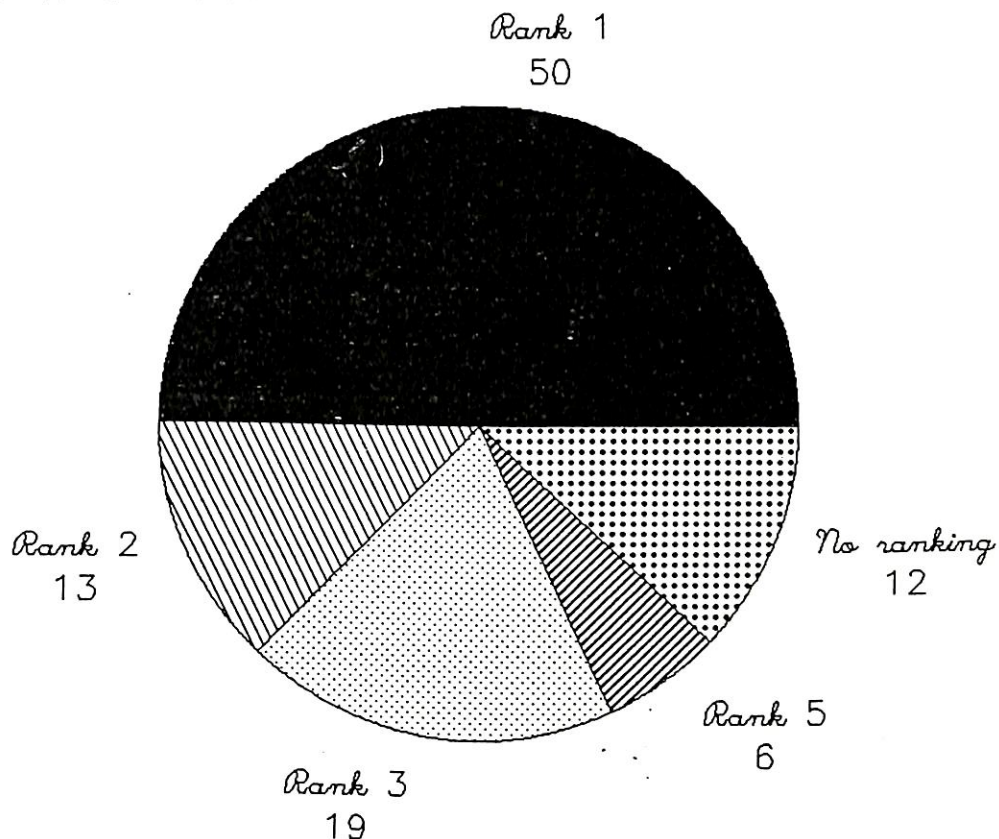


Fig. 4-1 Tree planting and tending

Figure 4-1 above shows that tree planting and tending is a very important subject with 82% of the respondents ranking it between 1 and 3. This is understood in the light that most of the extension activities are geared towards tree planting as the ultimate goal.



3.3.2 Prohibition of cutting natural forests

The response obtained were as given in figure 4-2 below:

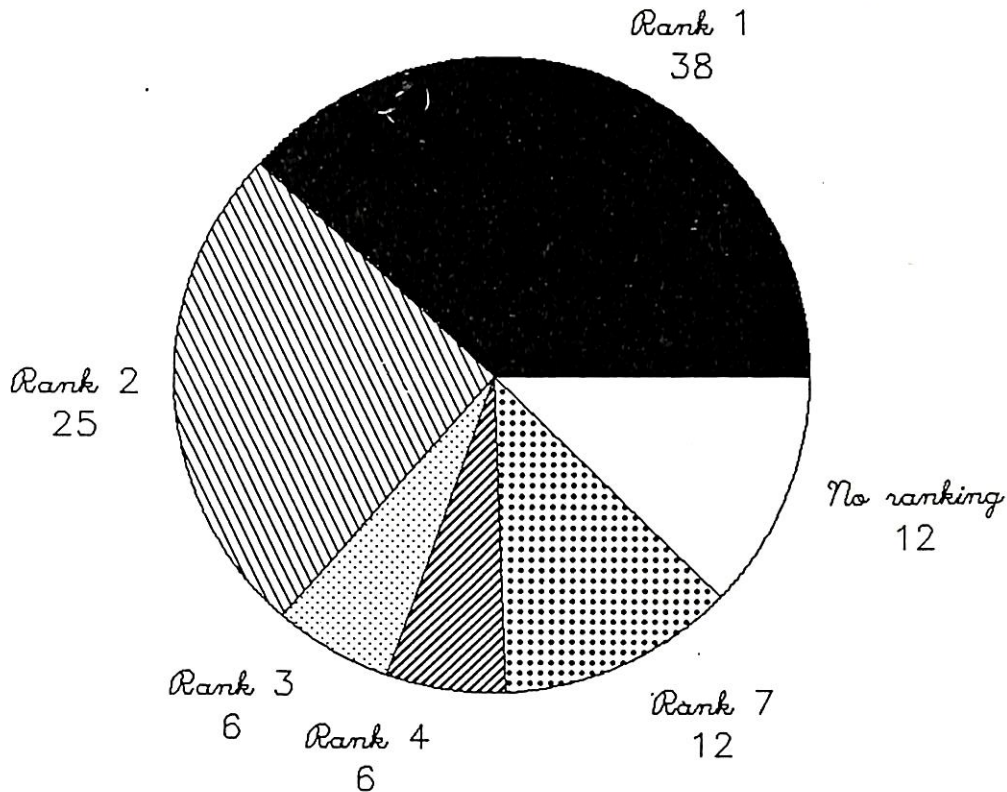


Fig. 4-2 Prohibition of cutting natural forest

This activity received a high ranking only second to tree planting and tending with 38% ranking it 1 and a total of 69% of the respondents ranking between 1 and 3. This could be attributed to the Government's restriction on exploitation of natural forests. The Government, therefore, uses her machinery to enforce this directive making it a pet topic of the provincial administration, local authorities and extension officers.



3.3.3 Supply of timber

The results obtained are as given in figure 4-3 below:

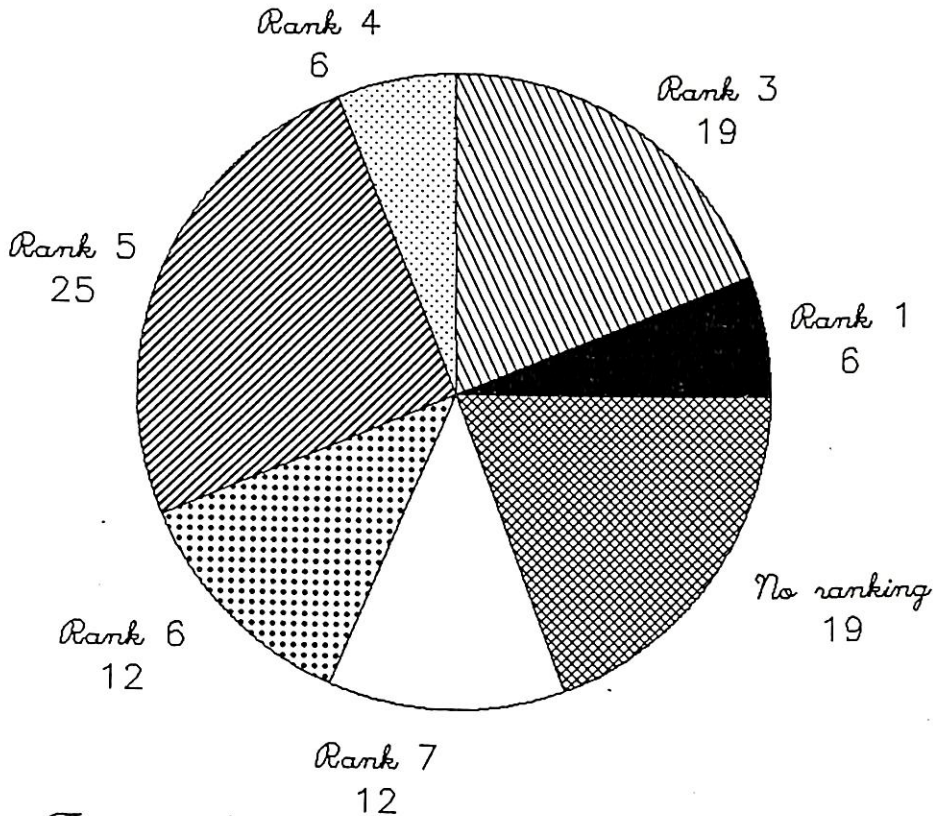
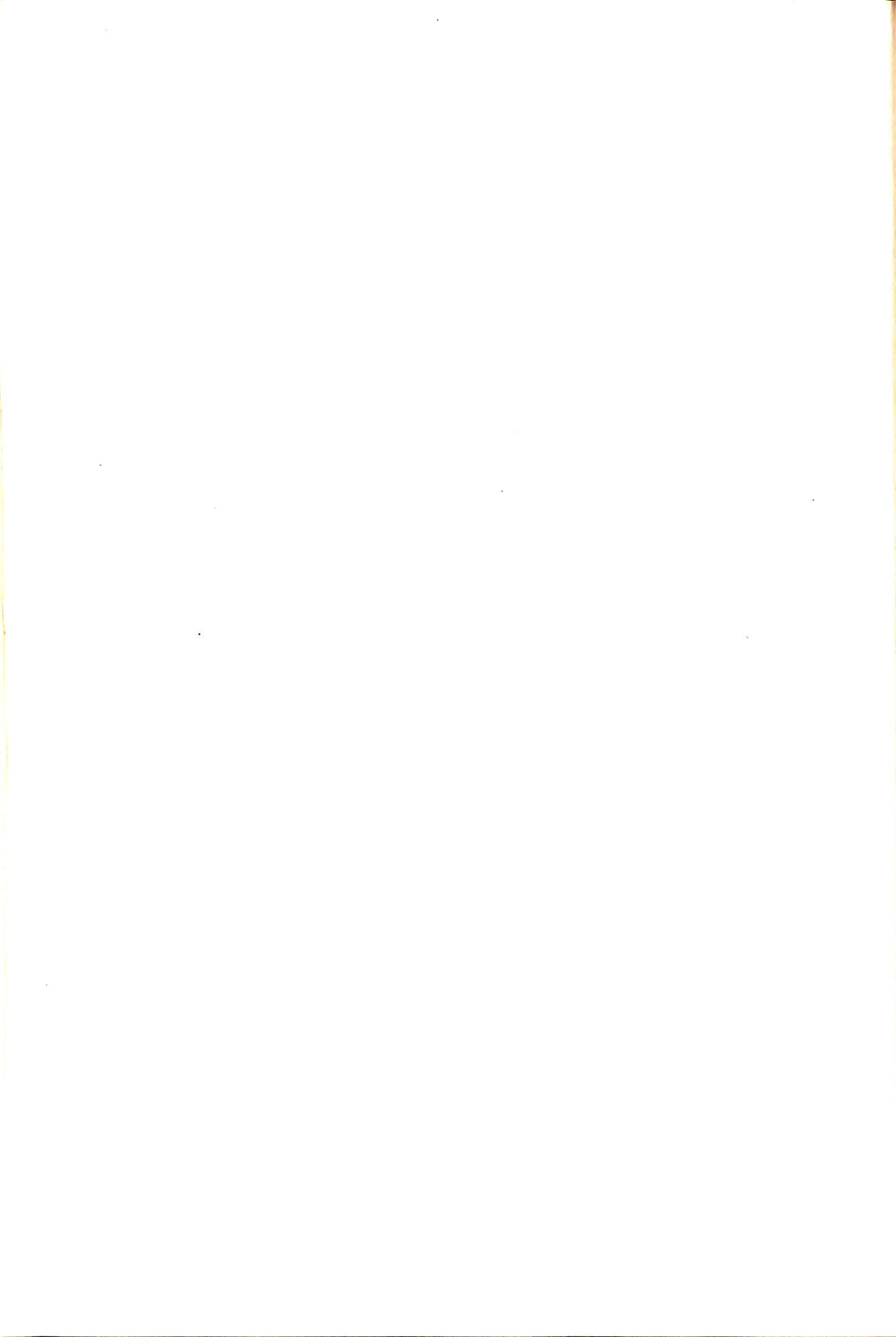


Fig. 4-3 Supply of timber

Supply of timber received very low ranking among the respondents. This could be due to the fact that timber production activities are normally associated with Government plantation forests, thus ignored by extension officers. On the contrary, this should be an important subject since the rural population needs timber for their use in construction and others utilities. This again confirms the view that the extension officers are more concerned with tree planting trees than the end use.



3.3.4 Supply of fuelwood

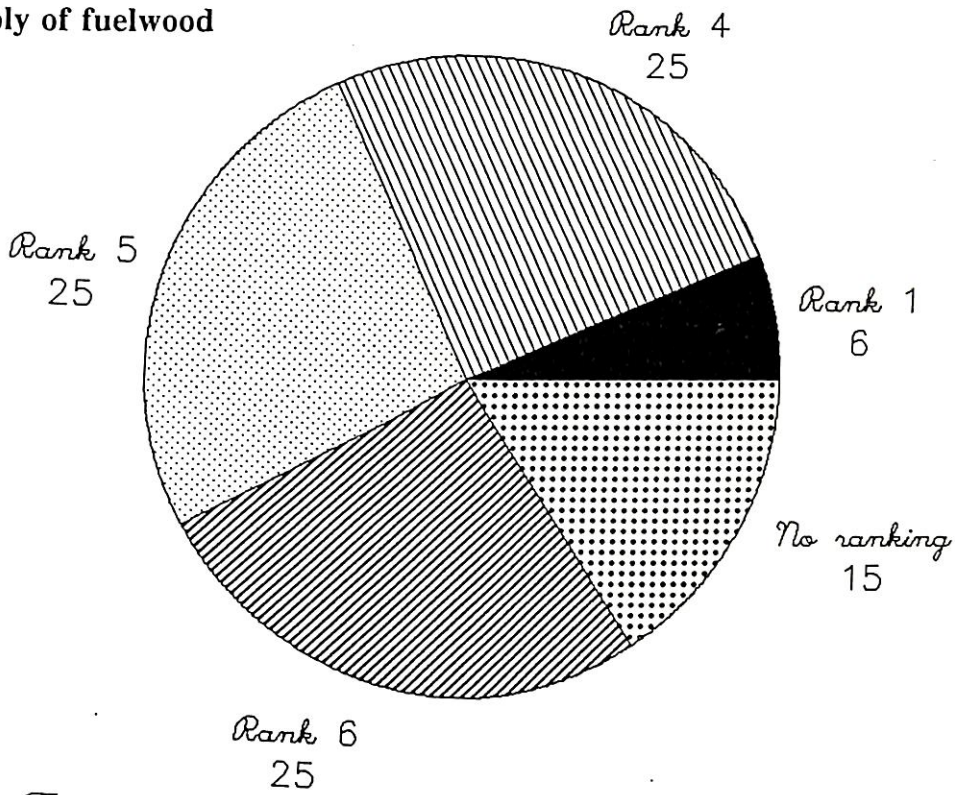


Fig. 4-4 Supply of fuelwood

3.3.5 Supply of charcoal

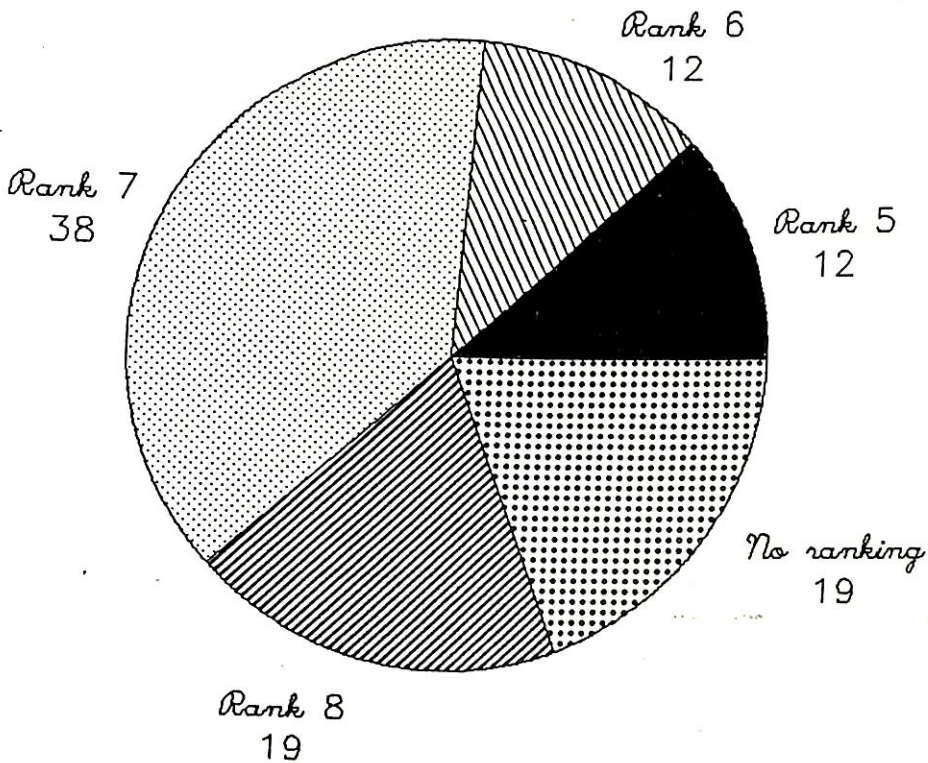
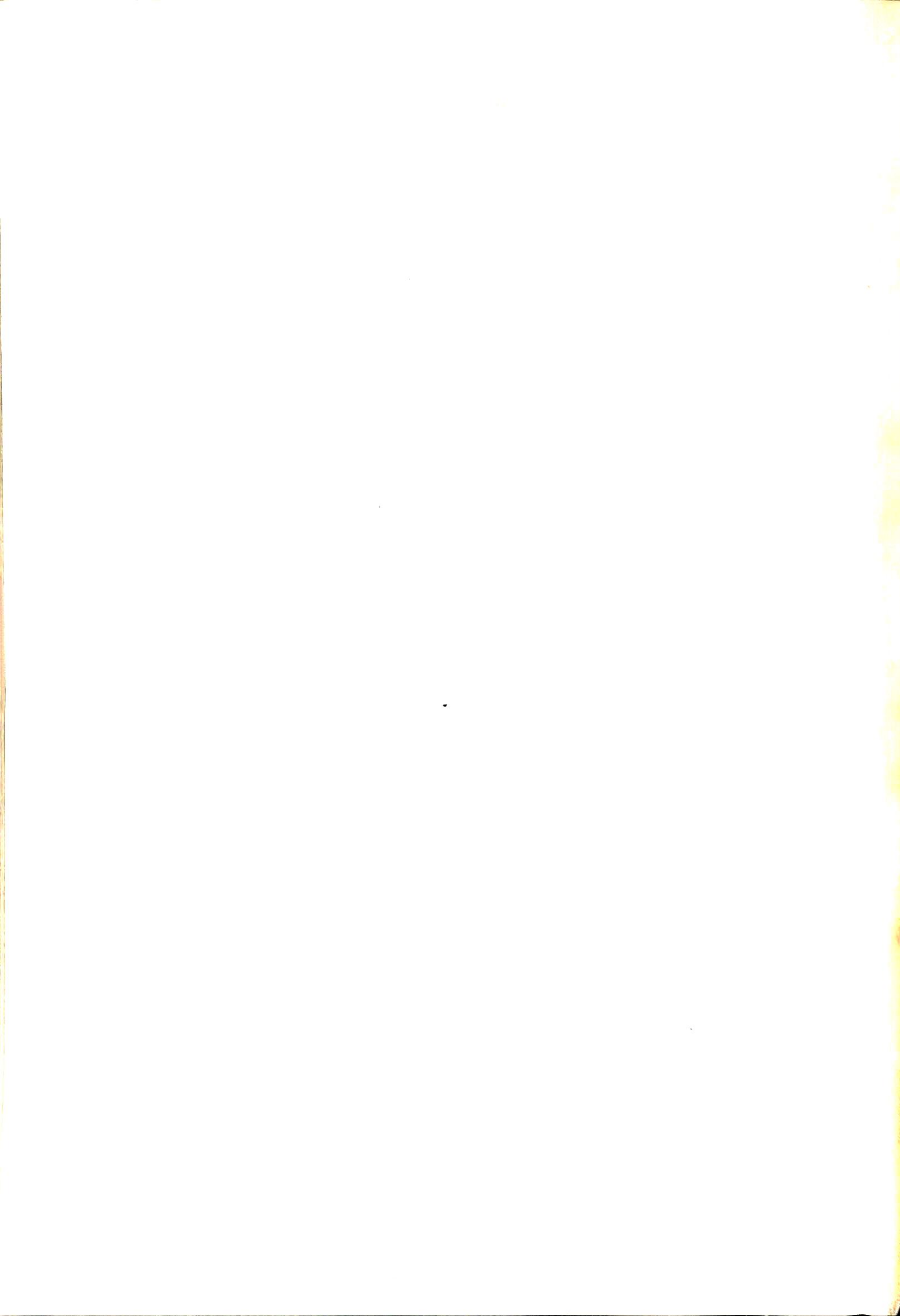


Fig. 4-5 Supply of charcoal



The two activities in figures 4-4 and 4-5 above were ranked lowest among all other specified ones. This agrees with the earlier observations that fuelwood related activities were least important in extension priorities. A possible explanation could be that fuelwood is still considered by and large, by most societies as a woman's activity. With other forms of fuel becoming scarce or expensive, this topic needs an urgent attention by the players involved.

3.3.6 Livestock control for forest establishment

The results obtained were presented in figure 4-6 below:

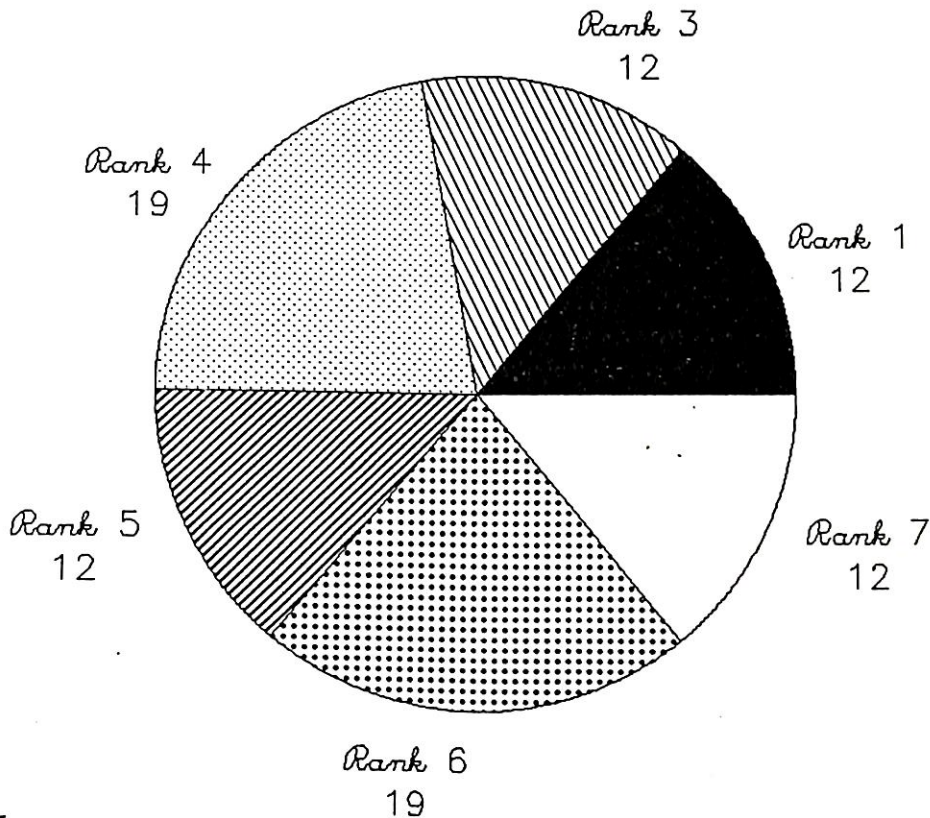


Fig. 4-6 Livestock control for forest

There was no clear-cut distinction as to how the respondents valued this activity since it was ranked evenly in all the categories. This could give an indication that the respondents had little knowledge on it or did not even take it seriously. Most Kenyans are still mixed farmers who keep livestock in addition to crops production. Livestock factor still play an important role in the success of trees planted within and outside the compound especially in arid and semi-arid areas where the population is still purely pastoralists. Livestock have been noted to play a role in environment degradation due to overgrazing. This subject, therefore, needs to be addressed.



3.3.7 Assistance for private forest or tree planting

Figure 4-7 below shows the results obtained:

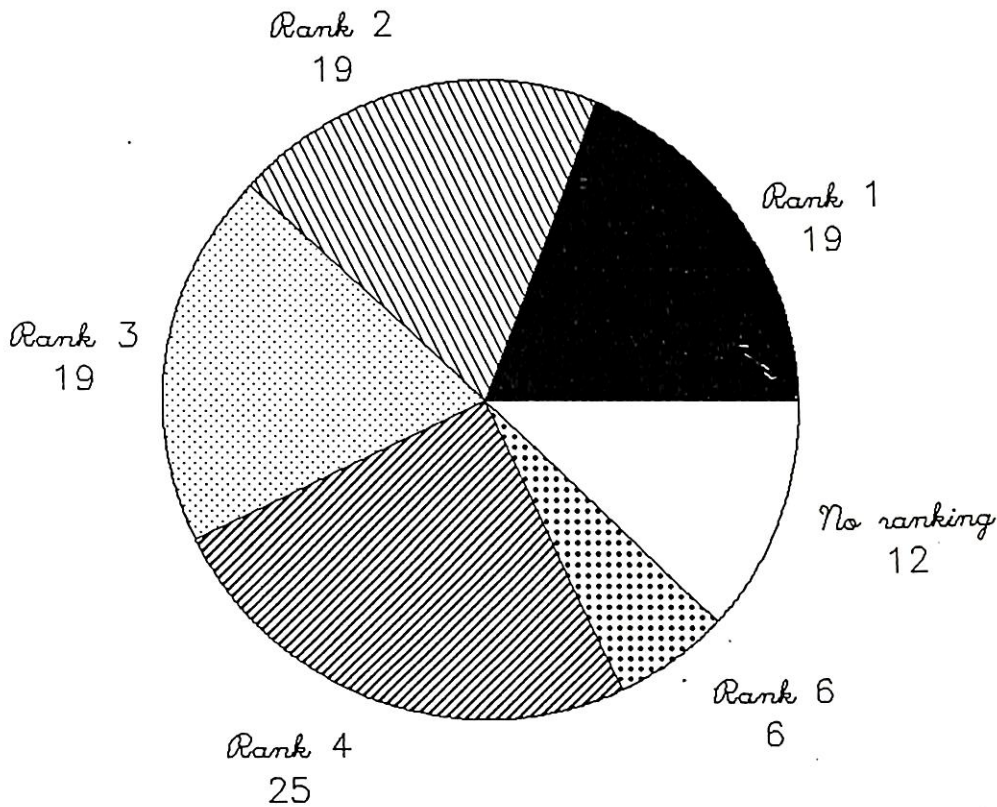
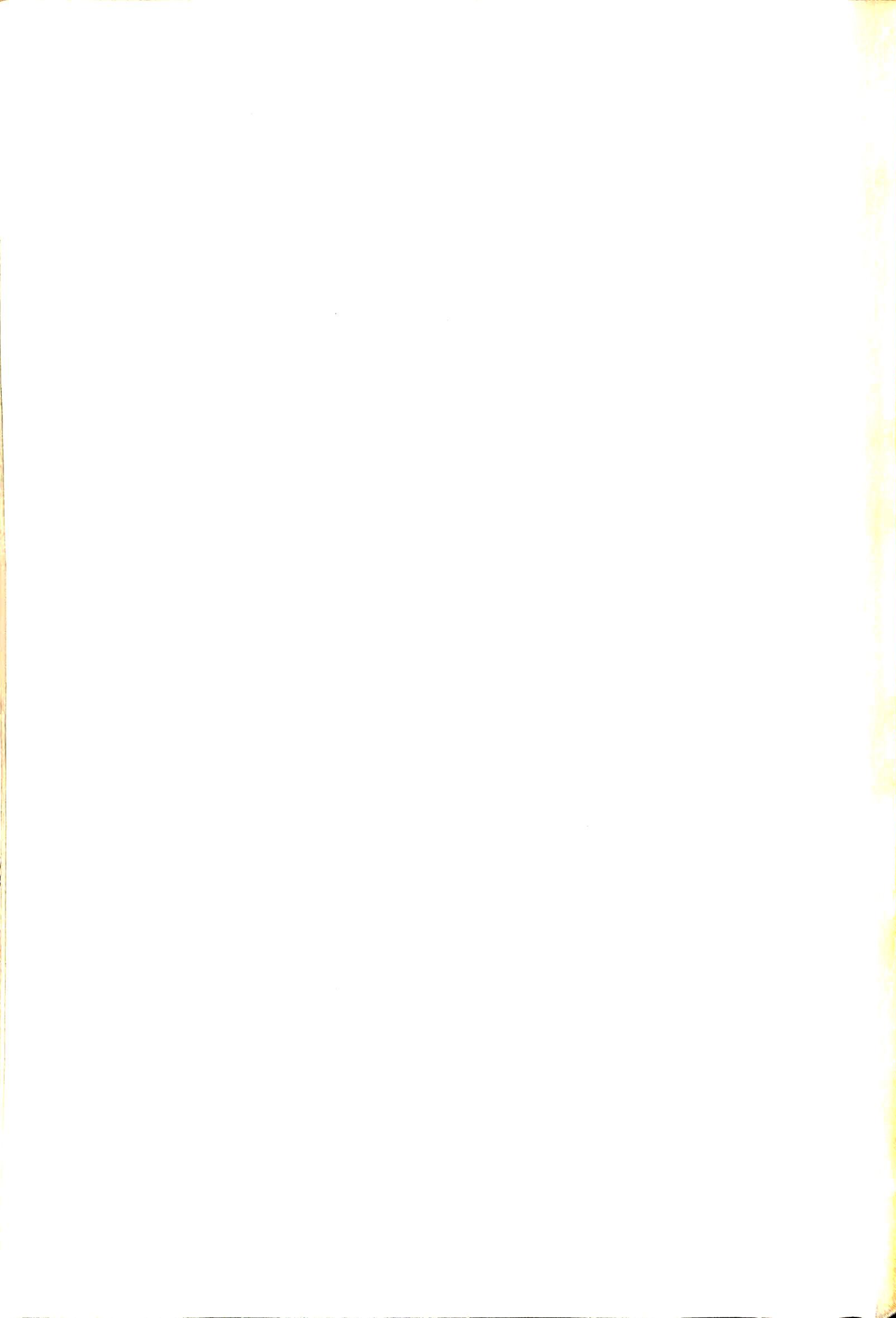


Fig. 4-7 Assistance for private forest

Assistance for private forestry was ranked very favourably by most of the respondents. This could be explained to be due to the fact that extension forestry actually involve planting on private land thus most of the assistance goes to individuals and groups on their own lands whether communally or individually owned.



3.3.8 Other works

Figure 4-8 below gives the result obtained:

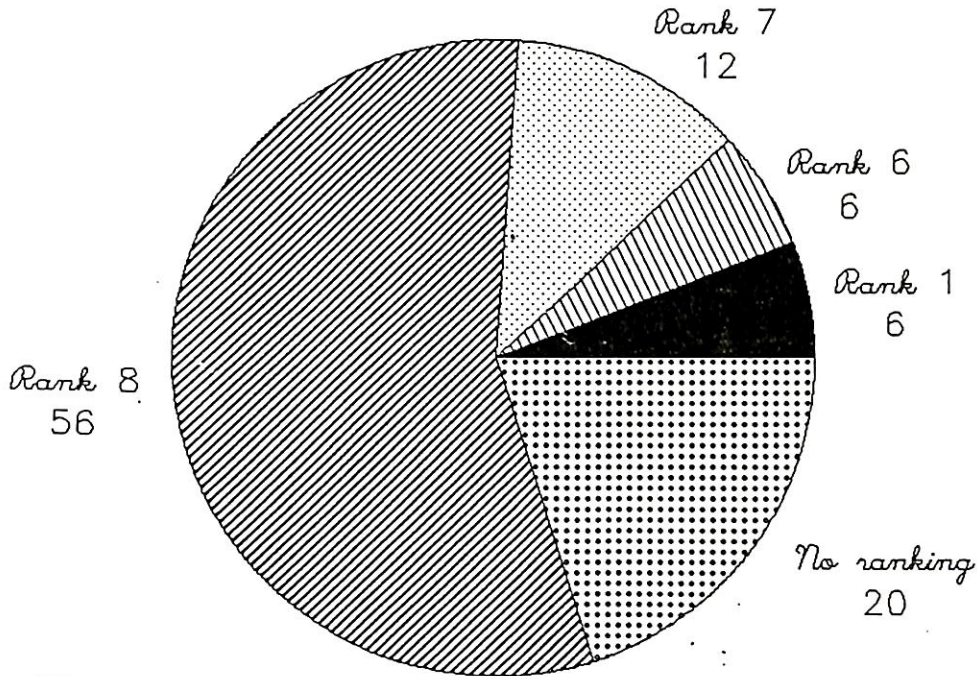


Fig. 4-8 Other works

This question was not specific but a room for any thing else that was not covered in the questionnaire. Among ones the mentioned are giving advisory services to schools and institutions and soil conservation.

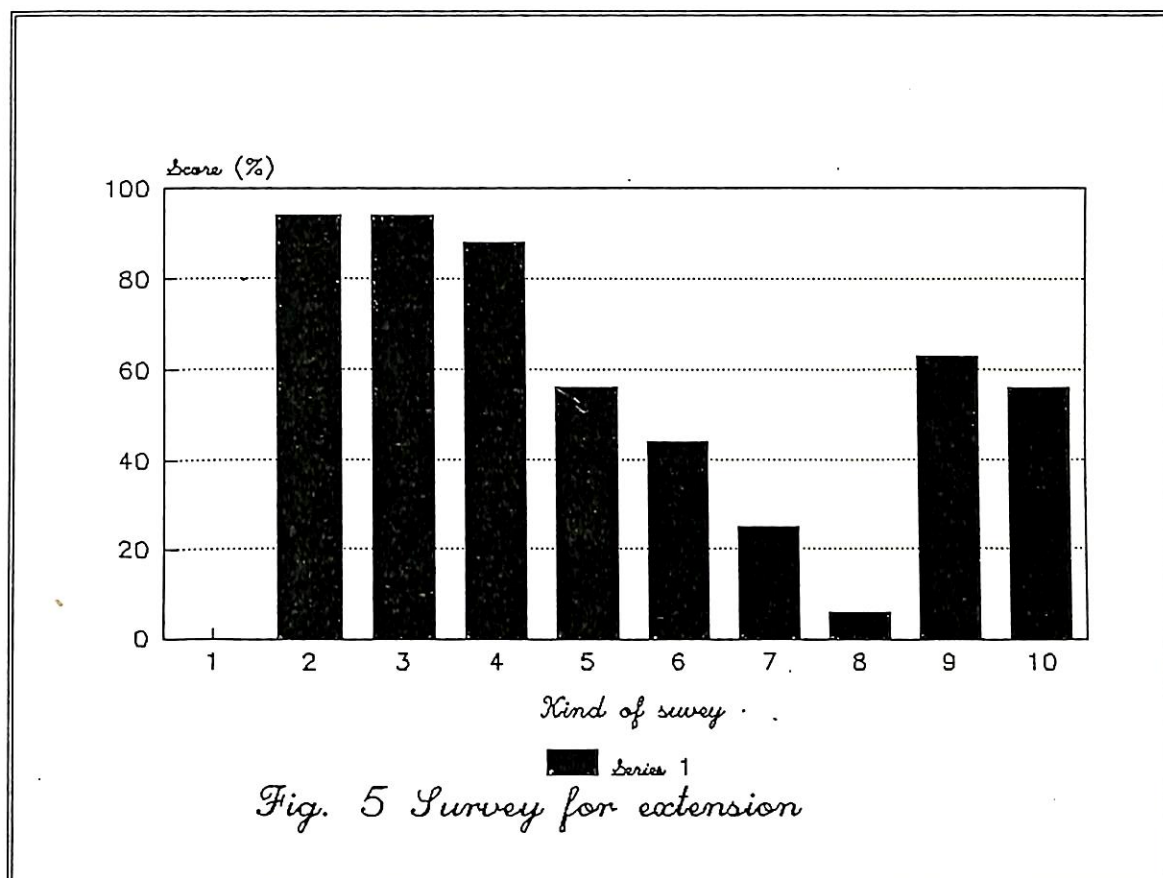
3.4 Kind of extension work carried out

This activity was sub-divided into two categories as follows:

3.4.1 Survey for extension in the area

All the respondents had carried out some form of survey for extension in their respective areas. The results obtained were as given in figure 5 below:





In figure 5 above numbers 1-10 were used to represent the surveys carried out of:

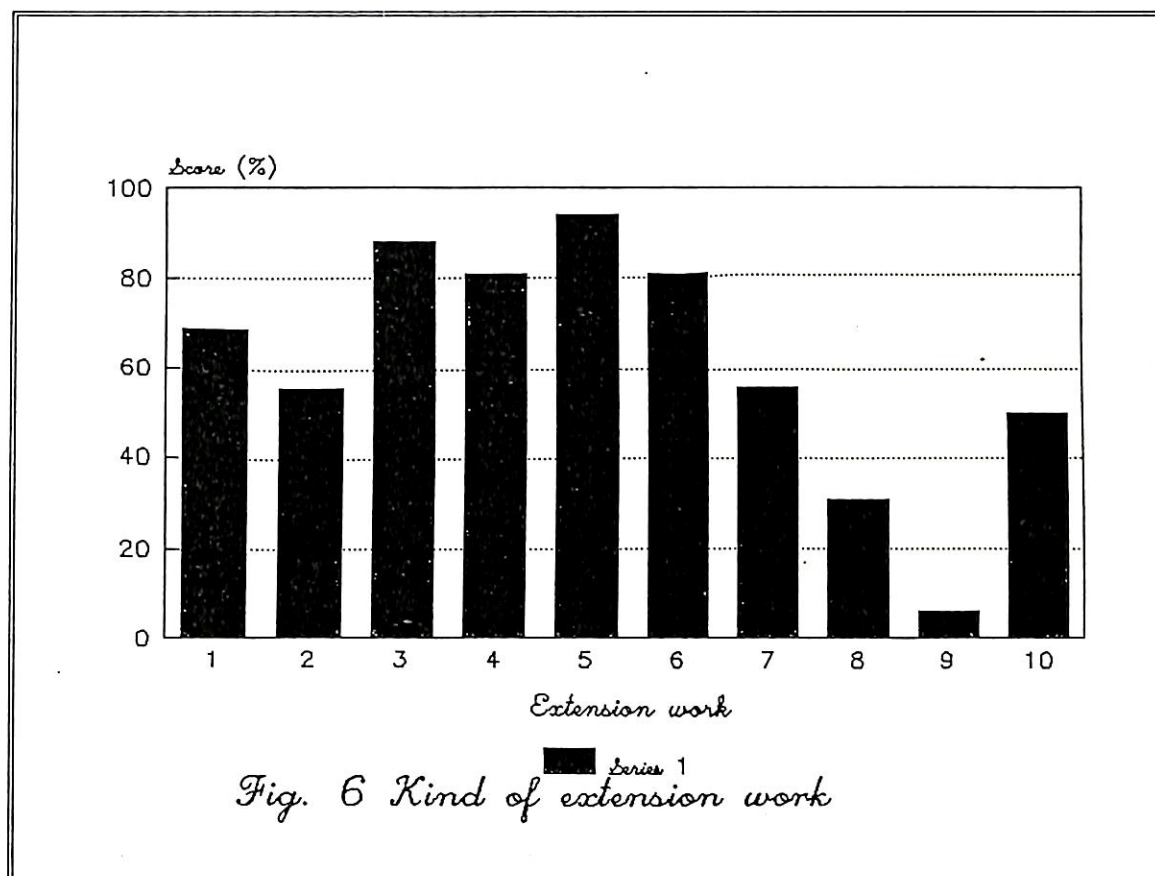
1. Have not carried out
2. number of tree nurseries
3. species preference
4. number of tree seedlings produced in a season
5. acreage planted
6. number of farmers who planted trees
7. consumption of fuelwood for household
8. production of charcoal
9. price of charcoal
10. price of poles

As could be seen survey of the production of charcoal was the least important followed by survey of consumption of fuelwood. This result agrees with the earlier observations. Same as the earlier observation this could be attributed to the fact that fuelwood is normally considered a woman's affair. Most of the extension officers in forestry are bent to give it low priority. The most popular was survey of the number of tree nurseries, species preference and number of seedlings produced. This agree earlier observation that the extension officers are more concerned with tree planting than other activities. (Wangwe, 1993) notes that the success of foresters are still being judged by the number of seedlings produced.



3.5 Extension Work

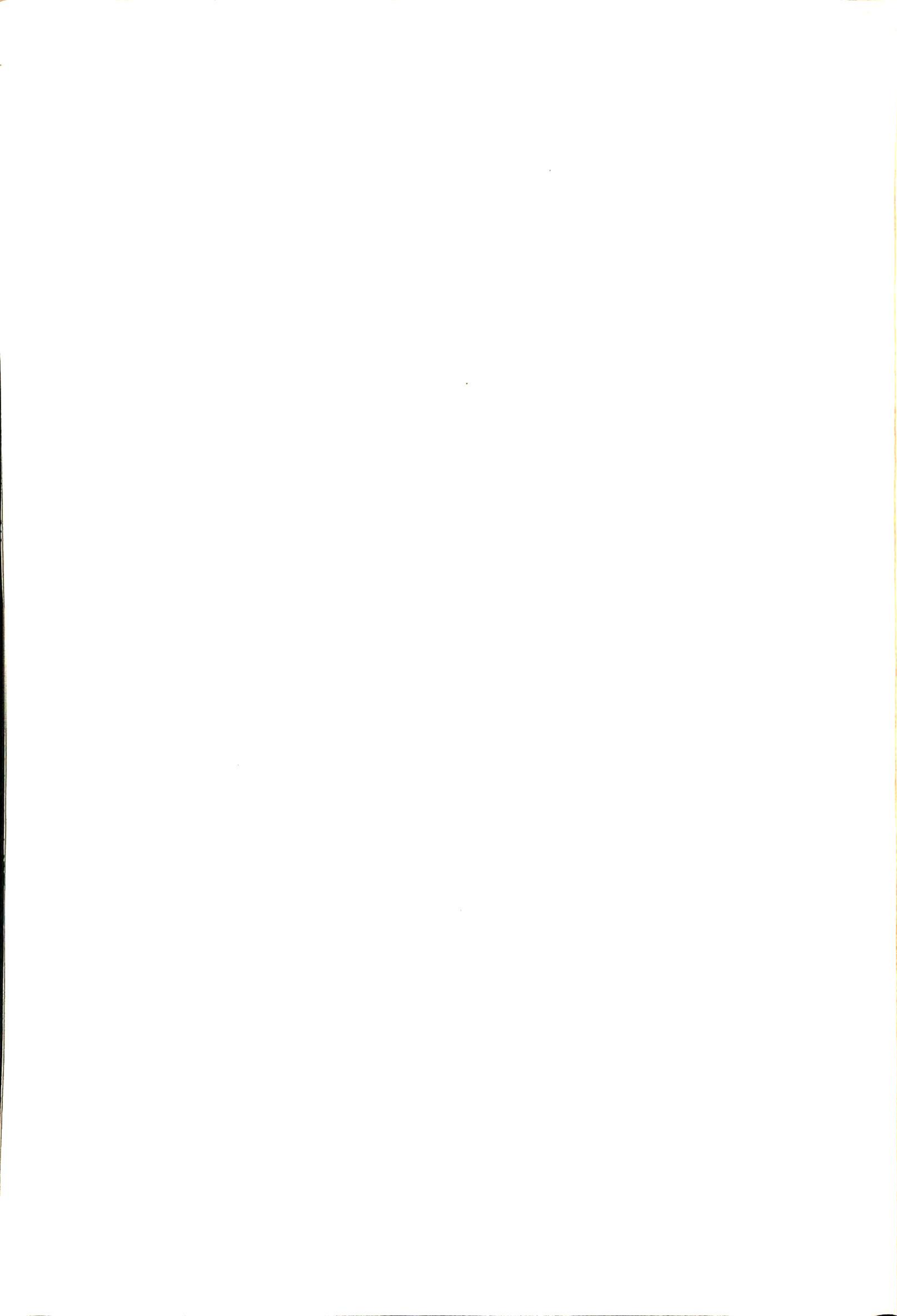
All the respondents had done some extension work or at least made plans for such. The result obtained are given in the figure 6 below:



In figure 6, the following numbers were used to represent different extension works:

1. made a plan for extension
2. held seminar/workshop/baraza/field days etc, for tree planting
3. recommended establishment and management of new nurseries
4. taught techniques of tree planting
5. distributed seeds and/or seedlings to someone
6. distributed tubes and/or tools to someone
7. held seminar/workshop/baraza/field days etc for utilization of wood
8. took measures for fuelwood
9. took measures for charcoal production
10. carried out other works

The results as shown above conformed with the earlier results as far as fuel related activities are concerned. Again fuelwood related extension works were the least score. The highest extension work were scored for establishment of new nurseries, distribution of tubes and tools and holding and holding of seminars/baraza/workshop/field days.



4.0 CONCLUSION

From the two sets of interviews conducted, DFEOs, and DFOs, it was evident that most of the extension officers were ignoring very vital points in extension. They were concerned with raising of trees but not how the existing trees were utilized nor the product of the trees planted. They were also raising and distributing seedlings but without paying attention on where they are planted.

The results in some cases showed a contradiction like in conditions where there was high interest in survival count than corresponding interest on where trees are planted. Despite all these, useful observations could be obtained which should generate more interest in further investigation on the effectiveness of the extension methods and priorities currently employed.

The training curriculum should in addition, emphasize on the subjects that are important and specific to the needs of the rural population that are currently being ignored such as woodfuel production, conservation measures and forest products.

