

Economic Evaluation of Ecotourism Potential in Up-Country Tea Estates of Sri Lanka

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ABSTRACT

Ecotourism can be highlighted as an economical non crop income diversification method that can be implemented in tea plantations to increase profitability and to overcome high cost of production. The study was carried out to assess the ecotourism potentials in six upcountry tea estates distributed from Atabage to Katukithula, within the Pussellawa plantation subdistrict. Field surveys were conducted to identify the availability of potential resources within these estates. Additionally, surveys were carried out to identify the perception of the management and the estate community on ecotourism.

Descriptive statistics was used to analyze the data. Furthermore the data were used to calculate the tourism potential index and the best location for ecotourism was identified as Rothschild Estate followed by Hellbodda and Sogama Estates. Results revealed that more than 75 per cent of the community, from each estate is in favour of implementing an ecotourism project in the estate. Results from the tourist survey demonstrate that the willingness of foreign and local tourists to visit an ecotourism destination located in a tea estates are 84 per cent and 78 per cent respectively. Further studies are needed to evaluate the potential for ecotourism in upcountry tea estates prior to implement such projects which have a great potential to yield multiple socio-economic benefits to the society and to develop these estates into profitable agribusiness ventures.

KEYWORDS: Ecotourism, Estate Tourism, Tea Estates, Tourist Potential Index.

INTRODUCTION

Sri Lanka is one of the oldest tea producing countries in the world, with commercial production having commenced more than 125 years ago. The tea sector contributed 2.2 percent to the GDP in 2004 (Anon, 2004). The corporate sector and the smallholder sector are the two key components in the industry. Considering the corporate sector 20 Regional Plantation Companies (RPCs) are involved in tea cultivation and manufacture. These companies occupy 58 percent of the 181,000 ha of the total tea extent, but contribute only 38 percent to the total production (Anon, 2003). The average yield of the corporate sector is 1,275 kg/ha, which is lower than the national average yield of 1,863 kg/ha (Anon, 2004).

The tea industry has undergone major changes during the last two decades due to privatization of the management of the large estates. However, over the years the performance of the corporate sector has been unsatisfactory. The profitability of the plantation sector is vulnerable to external risk factors because the sector being an export-oriented industry it is subjected to world price fluctuations. The industry is struggling to overcome high cost of production mainly due to escalating energy prices and wages resulted from labour shortage. Additionally, there has been little technological development and modernization in either field or factory operations to increase productivity and reduce production costs. The current policy environment has not been conducive to private sector investment, and excessive government regulation and political intervention tend to undermine the RPCs' ability to adapt to changing conditions (Anon, 2000).

Due to the above mentioned factors, plantations are planning to diversify their income sources, which will enable them to increase the revenue while

engaged in tea production. It is important to examine the avenues to enhance the profitability of the core activities of the plantation sector and the options for maximizing the value of its assets. The alternatives that can be identified are value addition, diversifying uneconomic tea and rubber lands into other crops, implementation of other economic activities *viz.* commercial forestry and ecotourism (Anon, 2000). Therefore development of ecotourism in tea estates can be highlighted as one of the viable revenue source.

Tourism is one of the fastest growing industries that have become a major source of foreign exchange to Sri Lanka. In 2004 the foreign exchange earnings was 413 million US dollars and it has provided 53,766 direct and 75,272 indirect employment opportunities (Anon, 2004). The increasing economic importance of the tourism industry has captured the attention of many people. But the important aspect is to develop the industry in a sustainable manner, so that it will provide a positive output to society and to environment while keeping the negative repercussions to a minimum. The new phenomena which is broadly termed as "Ecotourism", has evolved as a popular response to the emphasis on consumerism and exploitation associated with mass tourism especially in developing countries (Cohen, 1987).

Ecotourism is defined by the Australian National Ecotourism Strategy as nature-based tourism, which involves education and interpretation of the natural environment, and is managed to be ecologically sustainable (Wood, 2002). Some of the key components of Ecotourism are, conservation of natural resources, educating visitors about the biodiversity and sustainable development, benefiting local community and being profitable to the implementers.

Ecotourism has a great potential to Sri Lanka as a means of conserving biological diversity and promoting sustainable use of biodiversity while generating an income (Kotagame and Vidanege, 1995).

Due to the great diversity throughout the country, different locations can be developed into ecotourism sites. Depending on the availability of natural, cultural, and human resources a unique identity can be developed at each site.

Pussellawa is a plantation subdistricts that is located in Kandy and Nuwera Eliya administrative district. Pussellawa also has a long standing history in the plantation industry. The first coffee plantation at a high elevation (above 3000 feet) was cultivated in Pussellawa district and thereafter tea replaced coffee (Ferguson, 1868). At present, the area mainly comprises of tea estates. The Pussellawa town is distributed on either side of the Kandy Nuwera Eliya road and the village is situated in the valley below.

Considering the present status of tea plantations, the basic resource and infrastructure are available within estates in different capacities. Therefore the commercial operation of an ecotourism project can be done with minimum capital investment.

Integration of the two industries, tea and tourism, will generate a wide range of benefits for the plantation companies and the local community. Principally it will help to increase the revenue of the estates, improve the living standards of the local community and conserve the natural environment.

The objective of this study is to identify the potentials for tourism in upcountry tea estates, as an alternative source of income. Further to identify the strengths and opportunities in the tea estates (Pussellawa Plantations) to develop ecotourism projects. The study also discusses the development strategy for an ecotourist site in up-country tea estates.

METHODOLOGY

Secondary Data

Information was collected from the RPC (Pussellawa Plantation Company) and government bodies viz. Central Provincial Council and Sri Lanka Tourist Board.

The area map was used to locate the distribution of the estates and the key tourist attractions around Pussellawa area (Appendix 2).

Primary Data

The study was carried out in six up-country tea estates around Pussallawa, during the period from February to June 2005. The estate survey was conducted to identify the natural resources, man-made attractions, infrastructure, community resources and their skills available within the estate. A point scheme was developed with the assistance of the experts of the industry to evaluate the above mentioned parameters (Appendix 1). Three point levels, 0-1-2, were used to assess availability of resources and infrastructure in each estate. Accordingly, the six estates were ranked using the cumulative value of the points as the Tourist Potential Index. The index signifies the capacity of

each estate to be developed into an ecotourism destination.

The sample surveys were conducted in the estates to collect information from the estate management, estate officers and estate workers. Two pre-tested questionnaires were used to collect the required information. One of the questionnaires was used to interview the management of the estate and the other was used to survey 50 randomly selected workers and officers from each estate. The collected data was used to identify the perception of the workers towards ecotourism, their awareness on positive and negative impacts of ecotourism, willingness to work in ecotourism projects, type of job they like to do and willingness to get trained in a skill related to ecotourism. It was also used to evaluate the living condition of the workers in that estate.

Stratified random sampling was used to obtain the views of tourists in order to identify the demand of 'Ecotourism in Upcountry Tea Estates'. The stratification was done as local and foreign tourists, where 50 units were included in each stratum. Collected data from the survey was used to identify their willingness to visit an ecotourist site in an upcountry tea estate and the products required to be developed in an ecotourism site in a tea estate. Tour operators were also interviewed to obtain their views on promoting ecotourism in upcountry tea estates.

RESULTS AND DISCUSSION

1. The Interaction between Tea and Tourism Industry

Currently the tea industry exploits tourism in a negligible level. Although, Sri Lanka is world famous for its Ceylon Tea, it has not been used to promote tourism in tea estates. Some plantations have established road side tea centers with the aim of earning an extra income to the estate. Eventhough, factory visits are included in most of the tour itineraries designed by tour operators it was identified that only a minute benefit is gained by the estate through these visits. Recently few RPCs have identified tourism as a good revenue source and promote their estate bungalows as holiday destinations. The Plantation Development Report by Asian Development Bank has identified 13 plantation companies that have recognized ecotourism as a primary non-crop diversification method as part of their future development strategies (Anon, 2001b).

2. Resource Availability in the Surveyed Estates

Resources in each estate were assessed using the Tourist Potential Index (Appendix 1). The Southern Region Ecotourism Development report indicates a similar point scheme that was used to evaluate different ecotourism products (Anon, 2002). The variation of resources available in these estates is illustrated in Figure 1. It signifies that the estates have different capacities to develop ecotourism.

The assessment was done according to the point scheme to the six estates, distributed from Atabage to Katukithula in the Pussellawa plantation subdistrict (Appendix 2). The highest score was received by

Rothschild Estate, followed by Hellbodda, Sogama and Sanquhar Estates. Melfort and Kaloogalla were at the last position with equal points. Rothschild scored higher points due to its richness in natural resources and estate community resources. It was identified that the sample estates had diverse natural attractions, unique to each estate that could be used as tourist attractions when developing an ecotourism project. When considering the perception on ecotourism by estate management and the workers, all the estates have equal points. This indicates that such projects are highly welcome enterprises in the estates.

Implementation of an ecotourism project can be beneficial to an estate in different aspects. Figure 2 depicts the responses taken from the community on their awareness on these effects. Majority of the community assumed that by implementation of an ecotourism project, it will earn an extra income for the estate (92%) and offer new job opportunities (85%). This shows that the community is aware of the benefits the estate will gain by implementation of such an ecotourism project. The results also signify that many individuals have a necessity of increasing their income in order to uplift their living standards. These benefits anticipated by the community can be accomplished by implementation of an ecotourism venture in the estates.

Most community members think that people may change their culture (42%). The young generation may absorb and imitate the visitors' behavior, clothing, and other cultural attributes. They also think that the environment may be affected by tourism (26%) viz. accumulation of litter, noise and water pollution.

When comparing the responses given to positive and negative impacts, it shows that the responses for negative impacts are low. This can be mainly due to the lack of awareness of the community and low exposure to the external environment.

3. Perception of the Estate Community on Ecotourism

Involvement of the estate community is an important aspect of ecotourism. The study revealed that more than 75% of the community, from each estate is in favour of implementing an ecotourism project in their respective estate. Therefore these estates can implement such projects with the cooperation of the estate community. Ecotourism can result in various types of impacts on the society and the environment. Therefore, the awareness of the community on some identified impacts due to ecotourism is discussed below.

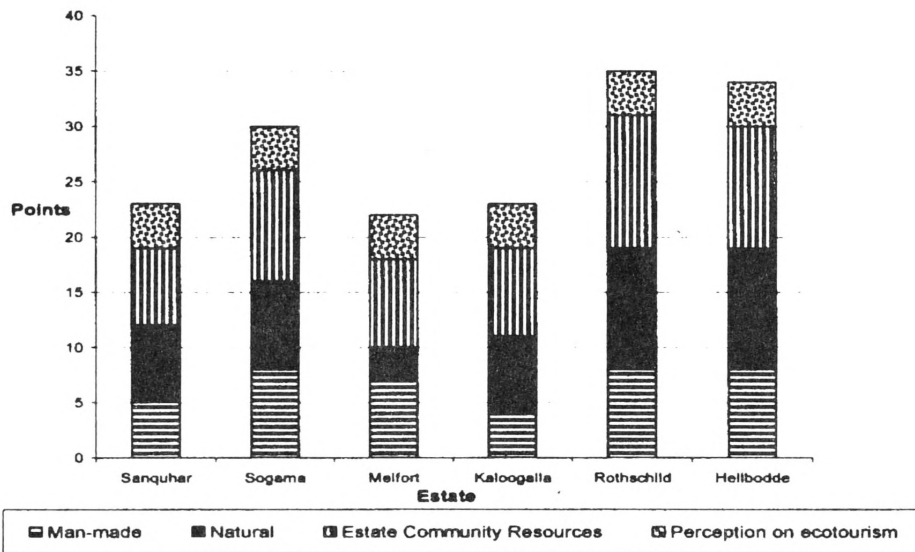


Figure 1. Score Distribution on Estate Resources

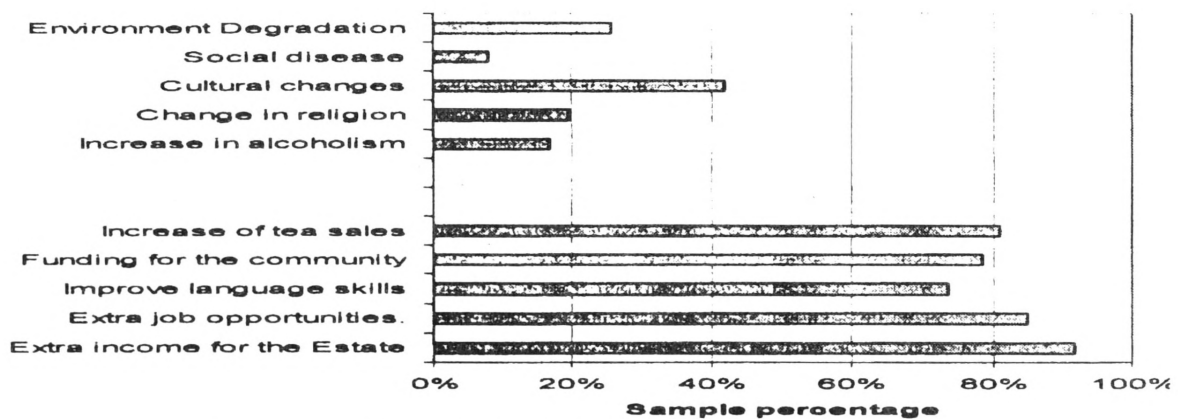


Figure 2. Effects on the estate due to ecotourism

The vital aspect is to manage the ecotourism project in such a manner that it will optimize the positive impacts while minimizing the negative impacts for the estate and its society.

4. Job Categories

A new project to be implemented in the estates can open up a wide range of employment opportunities. The study also looked at what type of jobs the community members like to do if an ecotourism site is developed within the estate. Most of the workers like to work as gardeners (76%) and bungalow caretakers (70%). This may be because that from the colonial era estate community members have been drawn to urban areas for similar employment and have developed a familiarity towards this type of jobs.

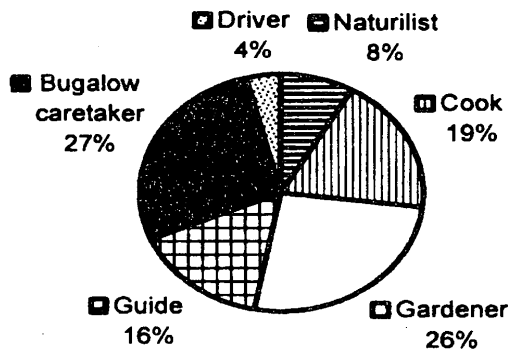


Figure 3. Type of jobs that the community would like to perform in an ecotourism site

Apart from this, some community members have skills in sewing, making flower decorations and weaving baskets ('pan baskets'). Communities that are involved in small scale vegetable cultivation and animal husbandry were also identified around the estates. These small scale businesses can be integrated with the ecotourism project by selling their products to the tourists. Thilakawardane (2001) indicates that the Muthurajawela ecotourism project involves the local community by selling their handicraft and handloom products in the nature center.

Establishment of a new venture will create the necessity of skilled workers. Therefore the members from the surrounding community can be selected and trained in different skills related to ecotourism. The results showed that 87 percent out of the total sample were keen on getting training on a skill related to ecotourism. Some old age members and most women who had to take care of the children and house hold work were reluctant to go for training programs.

5. Tourist Demand for Upcountry Tea Estate- Ecotourism Sites

Understanding the market potential for ecotourism involves understanding the tourists and the interrelationships between the tourists and their hosts. The responses taken from the tourists show that 84 percent of foreign and 78 percent of the local tourists were willing to visit a tea estate designed as an ecotourist destination. Better understanding of the niche markets and of the consumer is critical for the

development of suitable services that can lead to more value-added products and higher positive economic impact. Similar study done by Abeywardhane (2001) in Central Province hotels that promote ecotourism indicate that bird watching, tree trails and ayurvedic treatments (indigenous medicine treatment) are the most promoted activities in these sites. The tourist sample was also inquired for their response on the list of activities that could be developed in an ecotourism site (Table 1). The distinctive feature is that ecotourists prefer a variety of activities for their vacation. Therefore depending on the relative importance, the most demanded products should be developed within the ecotourism site.

Table 1. Potential ecotourism activities

Activity	Response
Tea factory visits	76%
Nature watching	73%
Tea field tours	64%
Forest trekking	61%
Bird watching	58%
Mountain climbing	49%
Educational activities	45%
Village tours	35%
Biking	23%
Ayurvedic activities	17%

Information gathered from the tour operators showed that visitors regularly request for alternative accommodation and amenities on their tour to upcountry. Therefore estate bungalows/ log cabins with the proper facilities will be most welcome by upcountry visitors.

6. Benefits of Ecotourism to the Tea Sector

The primary benefit sort after implementation of an ecotourism project is to increase the revenue of the individual tea estates. This can be helpful to overcome the high cost of production. Furthermore, the company can increase the direct tea sales by opening up roadside tea centers. These centers can cater upcountry tourist with factory fresh Ceylon Tea which has a high demand. It is also an opportunity for the estates to promote their production by the 'Estate Mark' (trade mark).

Involvement of the local community in the ecotourism project will create employment opportunities for them within the estate and will help to improve their living standards. Tisdell (2003) has stated how the fishermen around Giant Tank, Mannar derive some of the above mentioned economical benefits through ecotourism. Conservationists and economist have found that ecotourism and the income it generates can provide an economic rationale for natural resource conservation. Additionally, it is important to encourage the estate management to implement reforestation and forest conservation projects throughout the estate in order to promote ecotourism.

CONCLUSIONS

Even though each estate is having ecotourism potential at different capacities, the best location was identified as Rothschild Estate, using the tourist potential index. According to the response given by the management of the estates, all agreed that ecotourism is a feasible income source for the estates. When considering the community perception, more than 75 percent of the sample from each estate is in favour of implementing an ecotourism project within the estate.

The responses taken from the tourist showed that 84 percent of foreign and 78 percent of the local tourist were willing to visit a tea estate designed as an ecotourism destination. The most favoured activity by tourist in such a site was to visit a tea factory (76%). There is also a high demand for simple and rustic accommodation by both foreign and local tourists in upcountry.

Based on the study the following recommendations can be made. The six estates can be integrated into an Ecotourism Cluster. This will increase the attractiveness immeasurably of the destination. The tourist potential index used in this study can be applied to compare the potential sites, in order to identify the resource availability through which ecotourism can be developed as a better diversification option in the plantation industry of Sri Lanka.

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Annex 1

Table 2. The point scheme developed for resource evaluation

	<u>Man-made</u>	<u>Points</u>	<u>Subcomponents</u>
1	Bungalows/ Accommodation	2- 1- 0-	Vacant Bungalows Worker quarters No accommodation
2	Road grade	2- 1- 0-	Well maintained tarred road Gravel road partly tarred Gravel road
3	Communication facilities	2- 1- 0-	Land lines, mobile phone coverage, internet and email Land lines, Mobile phone coverage Lack of proper telephone facilities
4	Factory Type	2- 1- 0-	Orthodox factory CTC factory No factory/ Visiting not allowed
5	Archeological sites	2- 1- 0-	More than 1 site 1 site None

6	Other place of tourist interest E.g.: Kovil, Hydropower station	2- 1- 0-	More than 1 site 1 site None
7	Distance (km) from the main road to the estate office	2- 1- 0-	Less than 1km 1 - 2km more than 2km
8	Natural Elevation (amsl) office taken as the benchmark	2- 1- 0-	More than 1100m 1000m to 1100m Less than 1000m
9	Forest type	2- 1- 0-	Natural forest Forest plantation (pinus/ eucalyptus) Shrub land/ No forest
10	Natural forest cover (ha)	2- 1- 0-	10 ha or more 5-10 ha less than 5ha
11	Water falls (No.)	2- 1- 0-	More than 1 site 1 site None
12	Other water bodies (No.)	2- 1- 0-	More than 1 site 1 site None
13	Caves (No.)	2- 1- 0-	More than 1 site 1 site None
14	View points(No.)	2- 1- 0-	More than 1 site 1 site None
15	Other natural resource	2- 1- 0-	More than 1 site 1 site None
16	Fauna	2- 1- 0-	Ability to observe large mammals and rich in bird life Absence of large mammals but rich in birdlife Scarcity of wildlife within the estate
17	Estate Community Resources No. of Festivals per year	2- 1- 0-	More than 1 festival 1 festival None
18	*Based on the survey sample Housing type	2- 1- 0-	> 50% has single houses 25% - 50% has single houses < 25% has single houses
19	Sanitation-Toilet type	2- 1- 0-	> 75% has private toilets 50%-75% has Private toilets < 50% has private toilets
20	Education Level	2- 1- 0-	> 20% has done Ordinary level exam 10%-20% has done Ordinary level exam < 10% has done Ordinary level exam
21	Language skills	2- 1- 0-	> 20% can speak and understand Sinhala, Tamil, & English 10%-20% can speak and understand Sinhala, Tamil & English < 10% can speak and understand Sinhala, Tamil, & English
22	Skilled people Eg: Naturalist, Cooking	2- 1- 0-	> 75% has a skill 50%-75% has a skill < 50% has a skill
23	No of community societies Eg: Forest committee	2- 1- 0-	More than 1 society 1 society None
24	Perception on ecotourism of Estate Management	3- 0-	100% willing to implement an ecotourism project Not willing to implement an ecotourism project
25	Workers	2- 1- 0-	more than 75% 50%-75% less than 50%

} of sample like if an ecotourism project is implemented in the estate

Annex 2

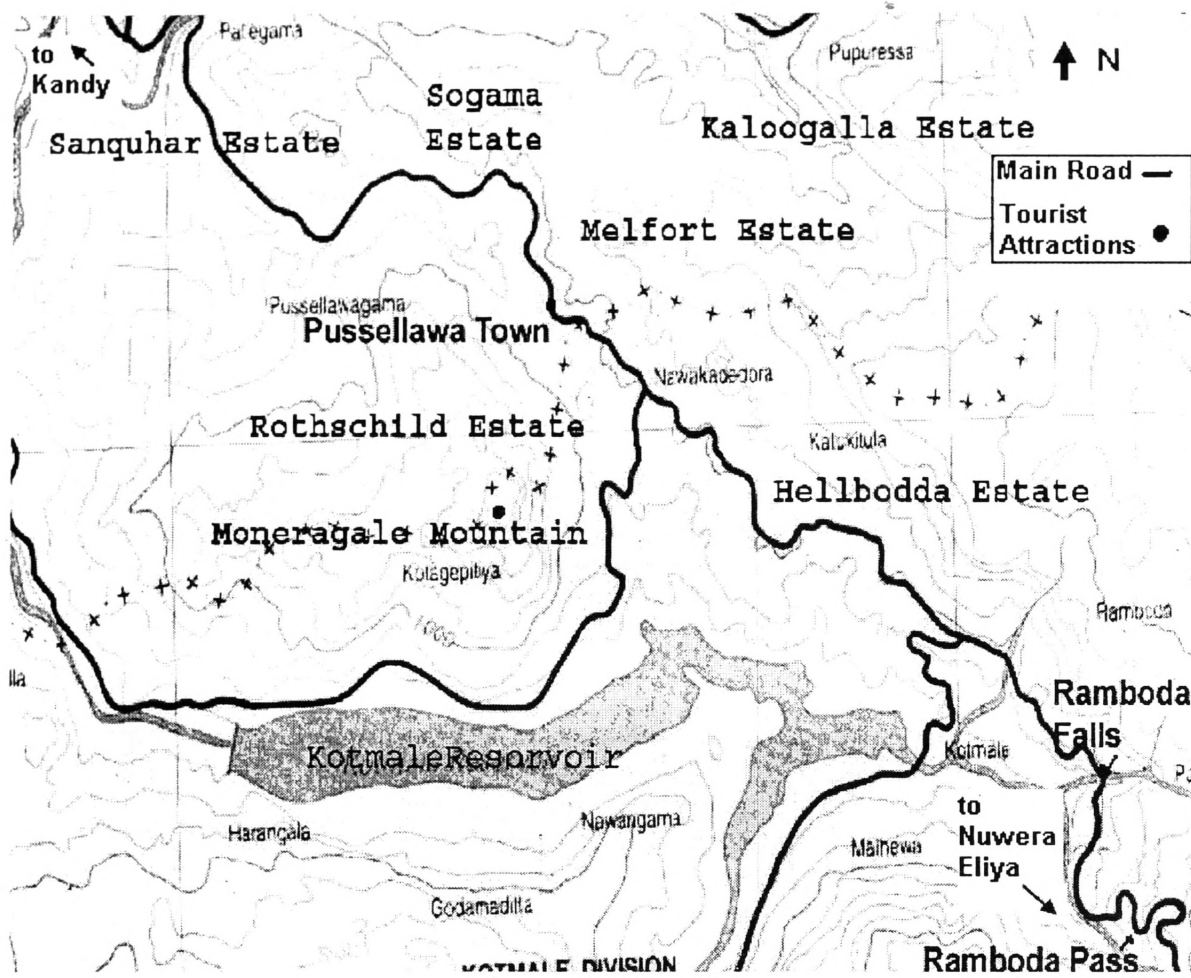


Figure 4. The distribution of estates in the Pussellawa plantation subdistrict.