

Wild Animal Intrusion on the Rural Community; with Special Reference to North Western Slope of Sinharaja forest Reserve in Sri Lanka

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Abstract- *There is a significant relationship between tropical rain forest and rural community in the third world countries. Numbers of socio-economic activities have focused on forest resources of the rural community. It has become a significant reason to having a marginalized life of the rural community. Wildlife is one of the largest barriers to upgrade their livelihood. Life pattern of rural community has become a voluminous challenge with the rapid change of the land use patterns nearby forest. Sinharaja rain forest which is situated in wet climate zone is one of the Sri Lankan examples for above issues. The main objective of this research is to identify the impact on rural community from wild animals in Sinharaja rain forest. Four villages were selected as study area situated in North Western slope of Sinharaja forest. Namely Kudawa, Buthkanda, Pethiyakanda and Pitakele. Primary data collected by Questionnaire survey under the surveying methods. Secondary data collected by using books, Magazines, newspapers and web pages. 70 people were selected by random sampling methods from micro level study area to collected primary data and analyzed by using descriptive analysis methods. The study identified three major factors for the wild animal intrusion to the peripheral villages. Those are changing food patterns of wild animals in the study area, Pinus plantation of the buffer zone in 1978, decreasing traditional Chena cultivation and distribution of tea cultivation. As a result of them, in process of time people who live around the forest have invaded the buffer zone of the Sinharaja Rain forest as a result of that wild animal attack has been increase and it causes to decrease socio economic level of rural community around Sinharaja forest. It is vital need to expand and maintain buffer zone of the forest regularly and systematic institutional plan should be introduced to demarcate the forest boundary. Having a comprehensive approach between rural community and the wild animal will be a suitable solution to mitigate this problem.*

Keywords- Wild animal intrusion, Rural Community, Sinharaja Rain forest

I. INTRODUCTION

There is an inseparable relationship between humans and the environment from the past to the present day. A regular evolution in the human-environment relationship could be identified from the beginning of the human civilization towards the present industrial era. Man has been attuned proceed along all environmental factors related to Possibilism concepts step by step evicting Determinism concepts to ensure the existence of man. Its real nature could be identified from world wild forest ecologies related to human civilization. Human have to face several problems due to the functions of invading natural phenomena and activities of ignorance. Impacts generated towards the community in and around the forests are implied as a particular aspect from the above. It is expected to conduct an analytic research on the adverse effects experience by the rural community living around from the wild animal of Sinharaja forest which is a tropical rain forest in Sri Lanka.

II. STUDY AREA AND SAMPLE SELECTION

The entire extent of Sinharaja forest which elongates the trio districts namely, Rathnapura, Matara and Galle is 11,187 hectares. Geographically it is situated between the North latitudes of 6°.21' and 6°.27' and between Eastern longitude 80°.21' and 80°.37'.

The boundaries of the Sinharaja rain forest which belongs to the tropical climate zone are:

- Napoladola and Kosgulanaganga on the North
- Mahadola and Gin ganga on the South
- Kalukandawadola and Kudawa Ganga on the West
- Beverly state and Deniyaya on the East

The maximum height of the entire forest cover is 1170 meters while the minimum height remains at 90 meters. Intensity of the annual rainfall in between 3000mm -6000mm. Annual temperature between 18°C – 24°C.

There are 22 neighborhood villages around Sinharaja rain forest. Out of them, the two villages named

Warukandeniya and Kolonthotuwa area situated within the limits of Sinharaja rain forest. Villages called Kudawa, Buthkanda, Pethiyakada and Pitakele are situated within the administrative jurisdiction of Kalawana Divisional Secretariat Division were selected as samples for the purpose of the study regarding adverse impact caused by wild animal towards the rural community living around Sinharaja rain forest. This study was conducted selecting random samples. There are 245 houses within this four villages in a land extent of 840 hectares.

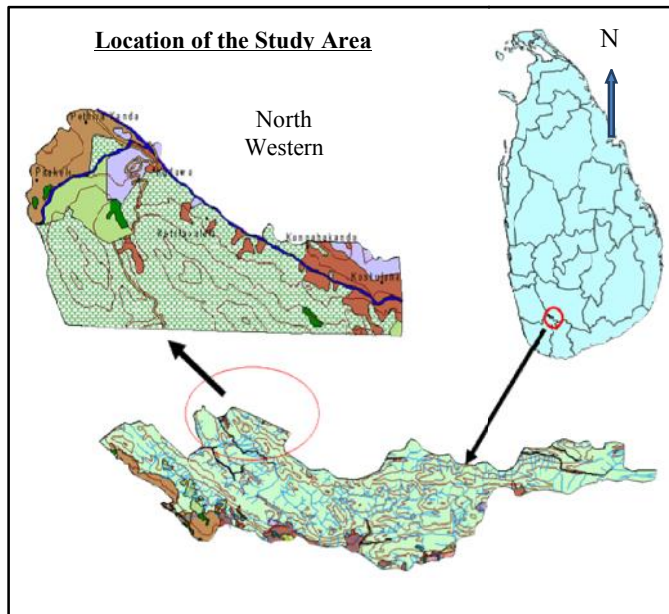


Figure 1. Location of the Study Area

Source: By Author

III. FOREST RESOURCES AND WILD ANIMAL INTRUSION

From the past, wild animals had occupied this forest for their security, food security and as a site for environmental friendly factors. Especially, all the factors that ensure their existence are richly available in this forest. From a recent time, a tendency has developed in certain species of animals encroaching the villages. It appears that this propensity increases gradually. As a result, wild animals are harmed while it becomes a serious threat to the dwellers and for their daily activities. However human activities have contributed towards heightening of this situation directly or indirectly.

Likewise in other forests there are various species of birds, animals, lizards in Sinharaja rain forest too, but they are subjected to the danger very rarely. Mostly Wild Boar, Sambar, Mouse Deer, Hedgehogs, Monkey, Giant Squirrels are subjected to danger. It is because they are the animals which damage the cultivation of rural community. Especially

coconut plantations are also badly damaged by Monkey and Giant Squirrels.

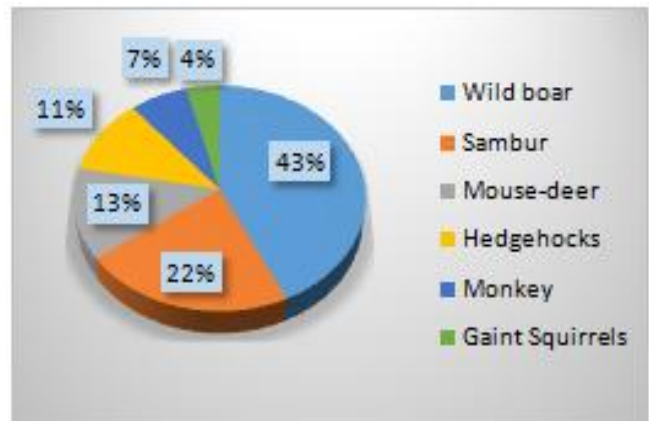


Figure 2. Wild Animal Which Damaged to the Cultivation

Source: Field Survey data

It was found from the entire study, that different types of cultivation are damaged by different species of animal on different levels. Among them, consumer crops and supplementary crops are mostly damaged by these species. More than an extent of 8.5 hectares of paddy lands has been abundant for years due to the attacks of wild boar and Sambur. As a result, the abandoned paddy lands have become marsh lands. Owing to this reason, the cultivation of manioc, sweet potatoes, brinjals, winged beans, long beans and many other supplementary crops have been completely given up. Although, there is ample extent of land. And also villagers are unable to cultivate any vegetable except tea plantation.

IV. MOSTLY DAMAGED CONSUMER CROPS AND SUPPLEMENTARY CROPS

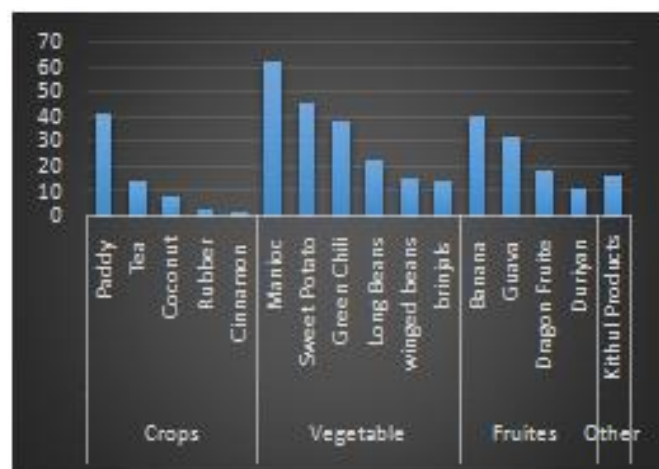


Figure 3. Mostly Damaged Consumer Crops and Supplementary Crops

Source: Field Survey data

Means of living of village community of study area depends on the agro-economic basis. Migrations to urban areas from this village are relatively lesser than from other areas and as such their economy depends mainly on cultivation. More than 80% of the people in the study area have strengthened their economy through tea plantation. People in about 87% of the households in the sample selected for the study area maintain tea plantation. But due to the sharp decline of consumer crops, the daily cost of living in this community has increased distressingly. They have to buy their daily needs of consumer vegetables from the market.

V. MAIN REASONS FOR WILD ANIMAL INTRUSION

Various species of animals migrating towards the villages have changed the land utilization pattern on a long term basis some of the factors are as follows:

- Villages have been accustomed to use the land up to the edge of the forest.
- Existence of food preferred by animals in addition to the availability in the forest.
- Due to the *Pinus* plantation in the borders of the forest, an animal have lost their habitats and has caused scarcity of food.
- The borders of the forest are not precisely demarcated.

Especially due to the expansion of land utilization pattern, the utilization of land has extended up to the borders of the forest. It has enabled the wild animals to encroach the villages. Similarly, the food patterns of animals too have changed according to the availability of their preference in villages. The rate of encroaching village by wild life has increased due to the availability of the same kind of food. As an example, manioc, sweet potatoes, and other kinds of yams and creepers (leaves) are much preferred by wild boar and sambur. Plantation of *Pinus* in the boards of the rain forest in 1970 could be regarded as a prominent layer of vegetation.

There is no availability for any animal or birds to live in this *Pinus* cultivation area. Therefore the wildlife which leaves Sinharaja forest, approach the villages without remaining in the adjoining forests. Similarly, it is a problematic situation that there is no border zone between the forest and village. The human and environmental problems due to the encroachment of wild life are twofold. These are the impact caused by wild life encroaching the village and the harmful effects towards the wildlife by villagers. Following are the threats caused by wildlife towards the villagers:-

01. Creation of marginal and bare lands

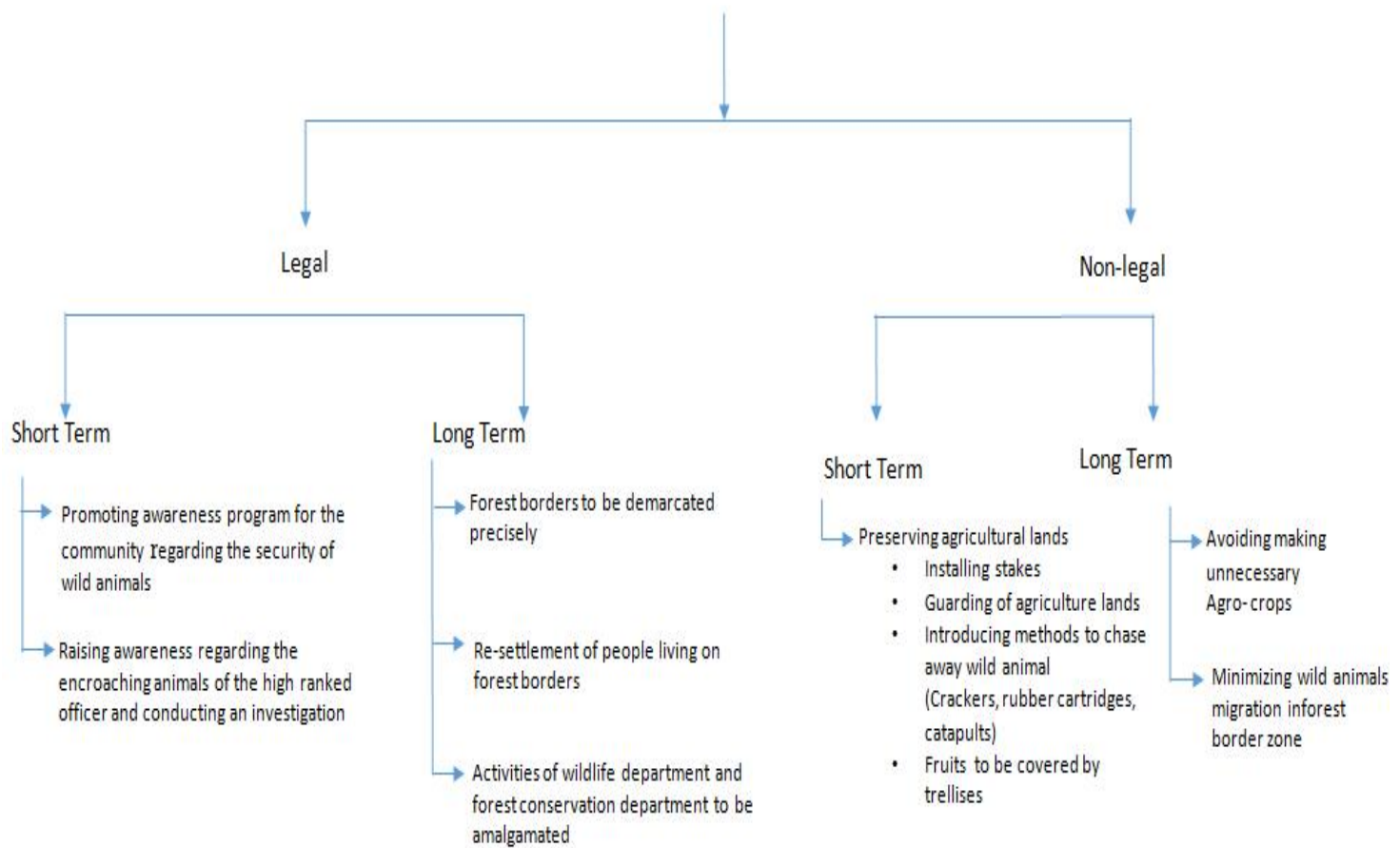
02. Spending of a higher cost to safeguard crop land along with a higher labor cost
03. Decline of villages economy resulting in weakening of the living conditions
04. Villagers living in distressful and frustrated conditions

Similarly, the adverse impacts caused by wildlife towards the community could be identified. Among them the following factors could be identified namely, destruction of wild animals, changing of the food pattern of animal, animals affected by chemicals and insecticides. Accordingly, the most important fact revealed by the above, is that environmental and economic impacts are numerous and heavy in weight.

RECOMMENDATION

The following activities could be implemented to minimize the adverse impacts from wildlife referred to in the research.

Methods of minimizing the harm caused by wild animals



If the above methods are practiced, institutionally and socially, conflicts between wild animal and humans can be minimized.

Although, it could not be reduced 100%, it could be minimized to a certain extent. There are a number of conclusions arrived at related to villages that led to the study in the south- western slope of Sinharaja rain forest. Problem is organized from time and special changes of land utilization pattern in the study area. Human activities have expanded up to the forest border zone due to insufficient land area and development of consumer requirements. As a result, the distance between the forest border and the villages has been reduced.

It could identified that wild animals such as wild boar, Sambar, Mouse Deer, Hedgehoges, Monkey, Giant Squirrels have encroached the villages as there is food much preferred by these animals. At the end of the study it was concluded that the main target of wild animals is the agricultural products of the villagers and as a result, the economic status of the community has declined.

VI. CONCLUSION

The present situation in the study area has become so problematic due to the tendency of the breach of the inseparable relationship between man and the environment which endured for a long time. Wild animal-human conflict has led to the decline of the social-economic situation of the community in the study area. When considering these facts, although it has not led to a serious risk, it could be identified as a situation where there is a certain amount of impact. Although, discussion at higher levels have been conducted on human-Elephant conflict in Sri Lanka as length. There is not much of consideration about this kind of micro level conflicts where the rural community is subjected to serious problems. It was observed that no more research have been carried out on this matter and it became clear from this research that the situation has to be dealt with by the authorities as a requirement of the area.

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