

## **SURVIVAL OF THE FITTEST: HUMAN – ELEPHANT CONFLICT AND ITS IMPACT ON THE SUSTAINABLE DEVELOPMENT**

- SPECIAL REFERENCE ADDALAICHENAI DIVISIONAL SECRETARIAT -

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### **Introduction:**

The history of human race has the record of living in the forest where man has to manage his livelihood with the sources available in the forest. First he was hunting animals and birds for meals and fruits for his survival. In that forest environment he has to face the threats of certain animals of which elephant is one. Beside elephant has been the asset of man because of its tusk with which it is very proud of its existence. Normally elephant keep this tusk bright and sharp. Apart from this man is also very fond of elephant because with its help he could remove many kinds of obstacles such as defending threats of other people or animals and to transport his goods and materials. Then in the course of time, man has come to make use of the assistance of the elephant for fighting against enemies. This was kept by the kings for defending enemies. The lords also had the habits of keeping elephants for pleasure. There were selected people who used to train the elephants for the use of man. In this way elephant was regarded and respected as an asset. Even now elephant are the main assets of Sri Lanka and the government also very much interested in preserving and conserving the elephant spices.

But now man also has come to face menace due to the behaviour of elephant, because the pattern of residents of man is changed due to the growth of population, activities of industries, colonization, establishments of new settlements and land use pattern for increasing the product of man for his livelihoods and saving for his family betterment. Because of these activities the forest is deforested making difficult for the elephants to live in the traditional forests which is cleared and used for mans activities. Alternatively the elephants started moving from the original forest to other place in search of new place for their living facilities. So they tend to cross over the lands having paddy fields, roads, tanks, and settlement and business centers and in the process man has to face damages to his paddy crops and other facilities for business and movements.

So much so, Sri Lanka as an agricultural country having paddy as the chief crops supported by the farm trees such as coconut vegetable and other cereal crops are the main aspect of occupation of the people. In the case of Addalaichenai Divisional Secretariat area in Ampara District where the majority of the people depend upon agriculture for their livelihoods and saving for their families. But agriculture has been subjected to drought, heavy rainfall, pesticide and other threats of animals. It is on the consideration of this problematic situation of clash between man and elephant that the researcher has come to focus on the impact of elephants on the progress of cultivators or farmers in Ampara District with special reference to Addalaichenai Divisional Secretariat area, surrounded by the ocean on the East, Akkaraipattu town on the South, Ninnthavur village on the North and paddy fields and forest on the West where the new villages and settlements have come to be established based on the tsunami disaster, Oluvil port development project and resettlement villages. This study also has its significance as recently various public opinions have been exposed about the inability of farmers in the Addalaichenai Divisional Secretariat area to cultivate paddy fields in the face of elephant trespass. So it has become major concern of the government and the policy makers to mitigate this problem for peaceful life of all the communities and sustainable development.

**Area profile:**

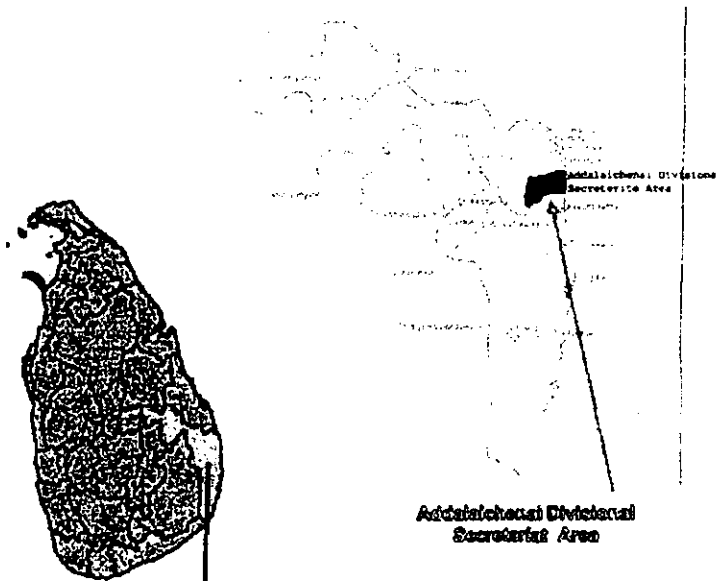
Addalaichenai Divisional Secretariat is the research area where the multi ethnic communities such as Muslims, Tamils and Sinhalese and Muslims are living mainly here. It has 10906 families accounting for 42761 as the total population. The following table illustrates the population of this area.

Table 01: Population distribution by villages

No	Villages	No of Families	Total Population
01	Addalaichenai	5963	23573
02	Oluvil	2193	8607
03	Palamunai	2119	8336
04	Thegawapiya	631	2245
	Total	10906	42761

Source: Divisional Statistical information hand book, Addalaichenai, 2009

The people of this area are living below the poverty line and getting Samurthi assistance under the government programme as a supportive relief. Most of the people of 2769 families are engaged in agriculture activities such as paddy (89.84%), coconut cultivation, and sub food and chena cultivation. Fishing, animal husbandry, government jobs and trade and commerce are also the main source of income of the people in these area coverage 4 villages given in the above table. (Divisional Statistical information hand book, Addalaichenai, 2009)

**Map of study area:****Nature of human-elephant conflict:**

Conflict is a common feature of the society from ancient time. Creating the conflict-free society has been the main concern of all reformists, preachers and the well wishers in the world but it did not reach the point of reality permanently. Not only the conflict exists among the human being but also between the man and animals in different situation has been this main concern.

Globally, wild elephants are present in 50 countries, 13 of which are in Asia and 37 in Africa. At present the number of wild Asian elephants (*Elephas maximus*) is between 35,000 and 50,000 ([www.elephantcare.org](http://www.elephantcare.org))

Human-elephant conflict is one of the features of South Asian countries. The elephants entering into the agricultural areas and destroying them on one side and killing the elephants by the people on the other side are the day to day events to be seen or heard. It is recorded that there are 1700-3000 elephants that had been killed by the people and thousands of people by the elephants due to human-elephant conflict in South Asia for the last 40 years. Beyond this record there are many human-elephant conflicts in this area. (Publication of department of wild life, Amparai, 2009)

In Sri Lanka, the conflict is specially seen in Anuradapura, Polannaruwa, Trinco, Ampara and Batticloa districts. The government of Sri Lanka spends 1.5 million rupees annually to maintain, safeguard and protect the elephants and to mitigate the human-elephant conflict to ensure safety and security of elephants on one side and mankind on the other side. (Department of wild life, Amparai, 2009)

In this research area called Addalaichenai Divisional Secretariat there are the villages called Addalaichenai, Oluvil, Palamunai and Deegavapiya well-known for human-elephant conflicts. Pallakadu, Ashrafnagar, Katchenai, Sampunagar, Alamkulam and Deegavapiya are very famous points, man and elephants are likely to meet against each other for finding their path for existence.

The elephants are encroaching to the Addalaichenai Divisional Secretariat area from three directions:

1. From Pottuvil and Panama through Akkaraipattu
2. Through Amparai, Damana and Uhana from the forest area
3. Through Central Camp, Kiddanki and Sorrik Kalmunai from the forest area

These encroachments to the Addalaichenai Divisional Secretariat area take place during the following three seasons in a year:

1. Maha season (January-February)
2. Yala season (August-October)
3. Rainy season (November-December)

Here, the Maha season is the harvesting time. The elephants come during this time to eat the crops and final products. Yala season is the post -harvesting time. The elephants directly enter the settlement area in search of crops such as coconut, plantain, jack fruit tree and sugar cane for foods and in that process attack the farmers or people who tried to chase them out of the fields or settlement area. During the rainy season the elephants are encroaching in this area to wash their wounds in the legs for healing due to wet in the sea water and to eat the agricultural crops and attack the man.

The elephants are encroaching to the research area in the following ways:

1. As a big group of 17 elephants
2. As a small group of 4 elephants
3. Single elephant

### The reasons for the human-elephant conflict in the research area:

#### 01. Deforestation for the human development and settlements

Here around 30% of the forests lands were cleared or destroyed for settlements purpose. So the elephants move towards human settlement in search of food and water and in that process of movement destroy the crops and attack the man as moving on the path.

#### 02. Ethnic conflicts

The activities of armed groups and the operation of forces in searching terrorist groups had collapsed the lives of elephants from their traditional habitation places to the human settlement area.

#### 03. The proximity of human settlement to forest

The areas where the human-elephant conflict take places are seems to be very close to forests or on the borders of tropical forest. As a matter of fact, the purpose of the intrusion of elephants is justifiable on the power of mercy on the life of creature in fact. One elephant need 60 kg of grass as food for which it walks 60 mile per a day. The Addalaichenai Divisional Secretariat area is very suitable for this purpose.

#### 04. Rutting behaviour

The rutting behaviour of elephant at a particular time in a particular place suddenly become uncontrollable and severely affects the passers by.

#### 05. Business purpose

Elephants have been killed for its worthy tusks that have demand in the world and many profitable business activities are going on using elephant. This situation also creates conditions for the elephant threats in this area.

### Adverse impact on the livelihood activities of Farmers:

#### 01. Human Losses and physical affects

Eastern Sri Lanka is the most affected area from the point of elephant menace. There is a record of 215 elephants by men and 58 men by elephants killed here from 1990 on wards and 31 men were killed in Ampara district. In Addalaichenai Divisional Secretariat area, 7 man and 5 elephants were killed from 1990. The following table illustrates the human losses by human-elephant conflict.

Table 02: The human losses by villages

Year	Name	Village	The place of incidence
2000	S.S. Lakmal	Deegavapiya	Deegavapiya
2005	L. Somaratne	Deegavapiya	Deegavapiya
2006	D.Lal Pramachandra	Deegavapiya	Deegavapiya
2006	P.Somaravathi	Deegavapiya	Deegavapiya
2005	S.S. Ali Mohamed	Palamunai	Pallakkadu
2008	U.K. Hithayathullah	Addalaichenai	Katchenai
2009	S.M. Issadeen	Addalaichenai	Aalamkulam

Source: Department of wild life, Amparai, 2009

According to the table, Deegavapiya is the most affected area by elephants and the human loss had been more after 2000. Similarly, 18 people had been injured and wounded in Addalaichenai Divisional Secretariat area from 1990. The following table

illustrates the number of persons whose limbs were damaged and wounded by the attack of elephants.

**Table 03: The physical effects of human-elephant conflicts**

No	The village of affected people	No of physically affected people
01	Deegavapiya	08
02	Addalaichenai	05
03	Palamunai	03
04	Oluvil	01
05	Thiraikeni	01

Source: Department of wild life, Sammanthurai division, 2009

In 2009, 18 people were affected physically by elephant in Ampara district and 3 people in Addalaichenai Divisional Secretariat area out of 18 people.

## **02. Impacts on infra structure facilities**

The livelihood activities and infra structure facilities of this area had been destroyed fully in some areas and partly in some other areas by elephants movements. Houses, schools, health care centers and religious organizations in Assrafnagar, Aalankulam, Katchenai, Kotchikatchenai, Deegawapia had been demolished by the elephants. There were 29 houses in 2008 and 11 houses in 2009 were damaged by elephants. But the compensation was given only to 29 people and the others were not given anything. (Department of wild life, Amparai, 2009)

The educational activities also were affected due to elephant disturbance. The principal of the Al- Aqsha Maha Viddyalaya in Ashraf Nagar explained the educational problems due to elephants as follows:

“The areas where this conflict prevail are comparatively backward in nature and have inadequate infra structure facilities. The elephants had aggravated this short falls. They have attacked the school buildings and other facilities and created the horrible panic in the minds of students as well as teachers. This has come to affect the education of the children in this area.”

Health care facilities and water supply services are found problematic here. The well wishers and NGOs also do not have any interests in developing these type of infra structure facilities due to the fear of elephant attack. So this situation keeps this area under developed. Now the people prefer to move from their settlement to other safety areas and they withdraw themselves from cultivating the lands due to the fears of elephants and related devastation. Psychologically this has become an unhealthy condition and economically great a loss to the people.

## **03. Impacts on Economic Sector**

### **a. Impacts on Agriculture sector**

Agriculture is the major occupation and main source of income of the people in this area. The arrival of elephants to this area had affected this system heavily by eating the crops and destroying the final products. The people in the area have to lose 30,00000 rupees annually by the attack of elephants. (Rural Development Centre, Sampu Nagar, 1996)

One of the affected farmers M. Yunus Lebbai says his unforgettable incidents of elephants as follows:

“After the successful harvesting in 2006, I prepared 100 bags of paddy and left them at night. When I come in the morning, 66 bags of paddy out of 100 were eaten by the elephants and made 135,000 Rupees loss for me. This had increased further my debt.”

Another affected farmer A.L. Mohaideen says that

“The elephant destroyed my two acre paddy fields by eating and throwing the plant when it was ready for harvesting. The estimated loss by this event is 155000 Rupees.”

Around 140 farmers were affected by these types of incidents with the loss of 30,000 – 130,000 in respect of each person in 1997-2000. (APC, Addalaichenai, 2009)

Further, to frighten away the elephants from entering paddy lands and land properties the farmers resolved to buy crackers, explosives, fire woods and touch lights use them against the elephants . These expenditures have added to the cost of production to get increased to a very high rate, thus eating away their meager surplus income. This situation keeps the farmers always below the poverty line, debt and frustration.

#### b. Impacts on coconut cultivation

One of the key informants, who is working in Agricultural Productivity Centre, said that

“The people in this area are engaged in coconut growing in addition to the paddy cultivation as full time for some people and part time jobs for some other people to run their life. There were coconut plants in 400-550 acre in 1967 in this area but it is reduced to 220 acre in 1990 due to the destruction of elephant. Now the people do not engage in coconut cultivation in the conflict zone due to the fear in the demolition.”

There were 37 people engaged in coconut cultivation as full time jobs have lost their gardens and way of income. The following table indicates the number of people who have given up the coconut cultivation as full time job.

Table 04: Details of people who have given up the coconut cultivation as full time job

No	Village	No of people
01	Oluvil	09
02	Palamunai	07
03	Addalaichenai and Katchenai	21
	Total	37

Source: Focus Group Discussion

The participants of FGDs narrate their awful stories as follows:

“There were coconut gardens owned by 19 farmers, with 4 acre each in Pallakadu in Oluvil-01 and we could get 20, 00000 rupees by way of harvesting for every three months. Now these coconut gardens were destroyed completely by the elephants in 1991.

Like in Pallakadu there are many affected villages and the people who had lost their coconut gardens and the way of income by the elephants. The main hindrance in the coconut cultivation is that the young coconut trees are eaten up by the elephants as it is their favorable food.

**c. Impacts on Chena Cultivation**

One of the key informants, who is an officer in Agricultural Productivity Centre, said that

“There are some poor farmers who do chena cultivation. They mainly plant corn, peanuts and village vegetables like chilies, ladies fingers and snack coal. Annually the total product is 2200 Tons and it is reduced now to 1500 Ton by elephant attacks.” This upland crop cultivation is now restricted to few areas.

**04. Impacts on forest based occupation**

There are 15% of people involved in Forest based occupations. They are very poor people. As this occupation and the way of income are collapsed due to attack by elephant impact and 4 people were killed in this way. (Department of wild life, Sammanthurai division, 2009)

**05. Effects on other activities of man**

The people of Aalangulam, Katchenai, Kotchikatchenai, Ashrafnagar, Deegawapiya were engaged in reef growing for mat making. According to the FGD they could harvest 1350 bundle of reef per month. Now it is reduced to 750 bundles due to the human-elephant conflicts. This has led to the decline of cottage industry in mat production. Similarly, there are plenty of raw materials, land and water in this area, but the people can not get involved in brick making due to human-elephant conflicts.

Further, there are 23 Tea boutiques and Retail shops that had been damaged in these villages by the elephants in 1996-2000. (Rural development Centre, Sampunagar, 2000)

One of the owners I.L. Pakkeer Lebbai, who was affected in this way, said that “My tea boutique was in Vilangadu, near Oluvil. But it was destroyed completely.”

In the findings are having reality in that the responses given by the 42 sample selected persons to whom questionnaire was distributed upon which the following figures are felt necessary to be revealed to the responsible officers and future researchers for further consideration.

**Table 05: The details of impacts by human-elephant conflicts**

No	Type of impacts	Percentage
01	Human losses	7.3
02	Physical effects	18.5
03	Increasing poverty	71.9
04	Loss of houses	79.2
05	Displacement	12.5
06	Impacts on education	28
07	Impacts on infra structure facilities	76
08	Impacts agriculture	72
09	Impacts on coconut cultivation	82
10	Impacts on chena cultivation	72
11	Impacts on forest based occupation	9
12	Effects on other activities of man	12

Source: Survey data, 2009

This information gives the real impact negatively on the man in Addalaichenai Divisional Secretariat area.

**The Measures by the government to control the human -elephant conflict:**

The elephant has great history of contribution to the social, political, economical as well as cultural activities of Sri Lanka and also the elephant of Sri Lanka is being in the process of disappearance. Similarly, it destroys the human beings. So the elephant should be protected and human and elephant conflict should be mitigated. Tourism, zoo and other sanctuaries are to be promoted for national beauty and prosperity.

There are many measures that had been adopted to implement by the government with the collaboration of Ministry of Environment to keep safe the elephants and to mitigate the prevailing conflicts. The following are the implementing programmes.

**01. Keeping the elephant in the resort and corridor, parks and sanctuaries**

By this activity, the elephants live freely without the disturbance. The resorts in Lovegala, Sahama, and Galoya in Amparai district are available to protect and allow the elephants to live and there is also a famous corridor where they are moving then and there in Amparai district. It will help contributing to the tourism for national income and sanctuary for national beauty.

**02. Mitigating the human and elephant conflict by establishing kajamithuro central organizations**

This work plan was tabled in the parliament and approved in 2008.10.15. This plant is being implemented through the Divisional Secretariat Office by establishing task forces. Erecting or putting up electric fence, natural fence using trees tidily as well as providing crackers and training to the farmers are some of the activities organized by these organizations. There are 4 electric fences that had been established under this work plan in Amparai district.

**03. Providing compensation for the affected people**

The government has made arrangement to give compensation for different events to the affected people. As it is 100000 rupees are given for the human loss. The APC and Department of wild life also involve in attending to the need of providing compensation for the losses caused in agriculture sectors and other livelihood activities.

**04. Laws rules, regulation against attacking elephants and the penalties to be imposed**

The government has enacted strict law against the habit of killing elephants based on the following penalty system.

- 200000 – 300000 rupees
- 5 years imprisonment
- 50,000 – 250, 000 rupees and 2 – 5 year imprisonment for the killing of elephant for tusk.

These are the general activities taken up by the government to mitigate the human-elephant conflicts. But there are some problems in implementing these laws in Addalaichenai Divisional Secretariat area. There is a system to provide compensation to the affected farmers but they did not get anything even though they make requests to the Divisional Secretariat. The compensation will be provided to the affected farmers who insured on APC with its rules and regulations. The electric fences also are not set up yet completely here and some of the electric fences also are destroyed by the elephants. The tasks of kajamithuro central organizations are also problematic. The functions of these groups are not dynamic in function and the village people have the lack of interests in



participation with these organizations. The people say that the plans and laws of government do not give the safety and security to the man.

**Conclusion and Recommendation:**

According to the findings of this study there are human-elephant conflicts prevailing in Addalaichenai Divisional Secretariat area and the farmers and their livelihood activities as well as elephants also had been annihilated. This critical and dreadful situation directly put the blocks and hindrance in achieving the sustainable developments. To overcome these problems and to attain the sustainable development, the measures of government should be implemented properly to solve the problems at the bottom level and the farmers also should actively involve in the program of the kajamithuro central organizations.

To conserve and preserve the elephants, the national assets, traditionally respected creature, even by the foreigners, the people and the government officers should get together to keep and rear the elephants in the secured place so that they do not come out and do not move about along the path to the neighboring village or the surrounding area. These elephants are valuable animals and strange to the foreigners. So it is an item for tourism to be established and promoted and be preserved as national, traditional and historical heritage.

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3. **Other Publications**
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6. Annual reports of Rural Development Centre (1996), Sampu Nagar
7. Reports of Agricultural Productivity Centre (2009), Addalaichenai
8. Divisional Statistical information hand book – 2009, Addalaichenai
9. [www.elephantcare.org](http://www.elephantcare.org)

**Names of key informant interviewee:**

1. I.L.Badurtheen – CDO, Agricultural Productivity Centre, Addalaichenai
2. A. Niyas – Officer, department of wild life, Sammanthurai division
3. A. L. Jabeer – officer, Rural Development Centre, Sampu Nagar
4. M. I. Naseer – Principal, Al – Aqsa maha vidyalaya, Ashraffnagar
5. U.L. Siyath –In charger, Agricultural Productivity Centre, Addalaichenai
6. A.L. Niyas – Girama Niladari, Oluvil-01
7. A.M. Ahamed Lebbai – Vaddavithanai, Vellakal Thoddam
8. A. L. Ashraff - Agricultural Officer, Oluvil- Palamunai

**Case studies:**

1. M. Younus Lebbai
2. A.L. Mohideen
3. I.L. Pakker Lebbai