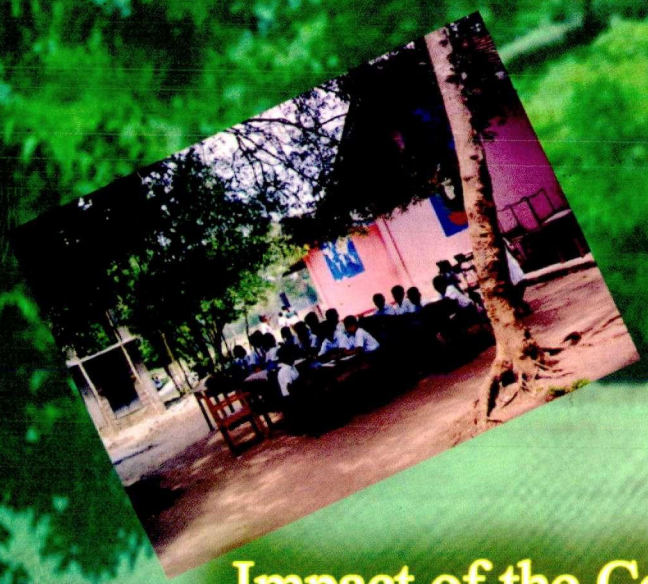
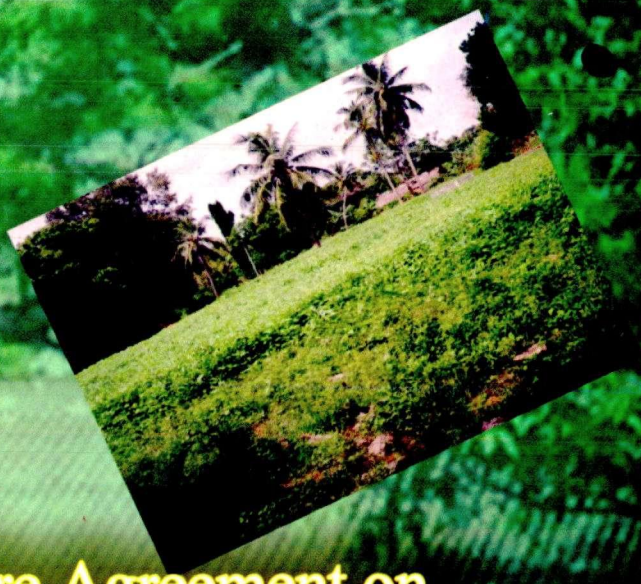
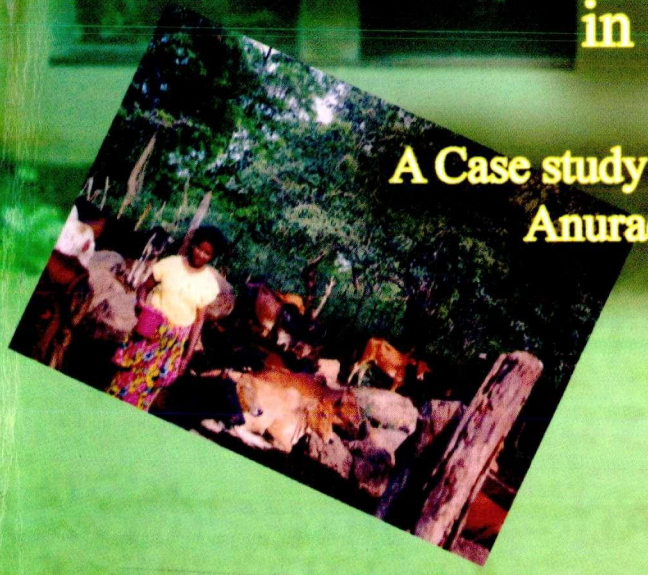
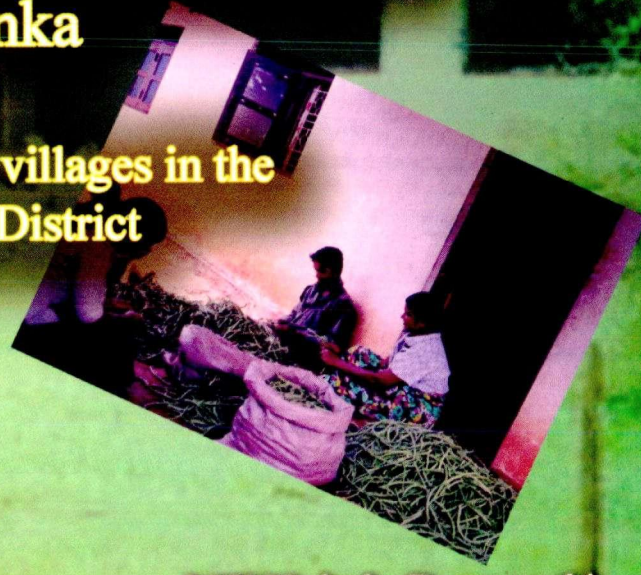




Impact of the Cease-fire Agreement on Socio-Economic Development in the Villages Adjacent to the Conflict Zone in Sri Lanka

A Case study of three villages in the Anuradhapura District





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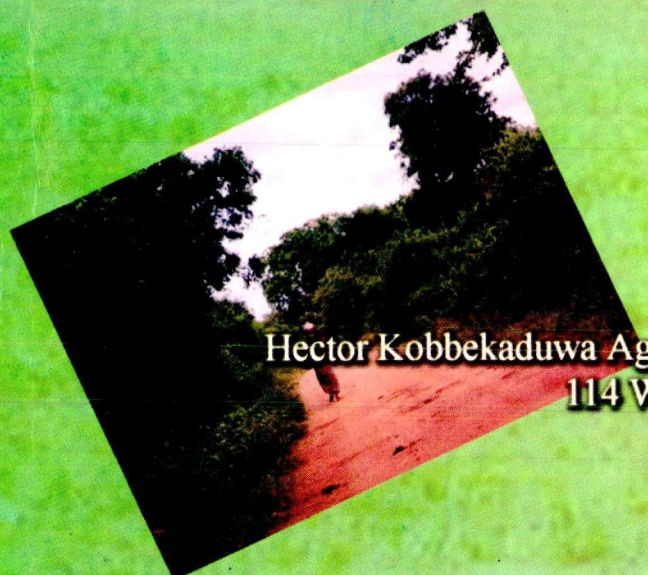

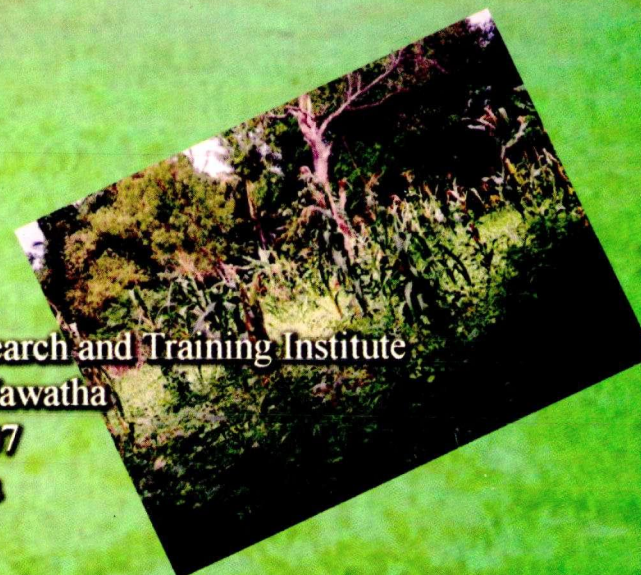

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Impact of the Cease-fire Agreement on Socio-Economic Development in the Villages Adjacent to the Conflict Zone in Sri Lanka

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Foreword

Sri Lanka's economy, society, culture and polity suffered in varied forms due to the armed conflict staged by rebel groups seeking to establish a separate State for the Tamils in the northern and the eastern provinces of the country. The conflict continued from 1983 until a Cease-fire Agreement (CFA) was signed between the Government and the Liberation Tigers of Tamil Eelam (LTTE), the major rebel organization, in early 2002.

The northern and the eastern provinces in which the active conflict took place and the communities living adjacent to the conflict zone (CLACZ) have borne much of its destructive impacts. An estimated 65,000 lives were lost, 800,000 persons were dislodged and many were disabled. In addition, the people in such areas were affected by a reduction or curtailment of access to livelihood means and basic services like education, health care, drinking water and sanitation. Women, children and the elderly suffered mostly due to the war in the two provinces.

Most communities living adjacent to the conflict zone were affected by the residual impacts of the conflict or by frequent attacks by the LTTE local cadres. Besides the widespread feeling of insecurity and vulnerability, the livelihood systems of these communities were severely affected. Almost all CLACZs were dependent on agriculture as the major livelihood. The armed encounters or uncertainties emanating from the conflict environment adversely affected such livelihood systems. In many CLACZs economic infrastructures such as the irrigation, roads and communication were destroyed or were not maintained for a long time. Affected areas of activity included the input and output markets, health care, education and extension services.

The situation in the provinces directly affected by the war has been assessed and documented from time to time. However, the situation in CLACZ has rarely come under a close analysis. The present study takes into account this knowledge gap and assesses the problems faced by three CLACZs in the Anuradhapura district. This assessment also unravels the problems the study communities encounter in returning to normalcy and coping strategies they adopt. The report shows that agricultural production, the mainstay of the livelihood system in the study localities, was impeded not only due to the lack of access to inputs and producer markets but also due to the curtailed physical mobility. The regulations imposed by the Government Security Forces and the extra taxes imposed by the LTTE, have resulted in a sharp drop in the supply or access to consumer goods in such areas. In addition, disruption of the transport and marketing networks and reduction in local food production has had a severe impact on access to food and food security at the household level. It is likely that poverty in such communities worsened during the

war. Some villagers had experienced severe traumatic conditions having had to spend the nights in the forests without any lights or food. Amongst those who had to spend the nights in the forests, the infants, children, aged, sick and women suffered mostly.

The study shows that some discernible changes have taken place in two CLACZs after the CFA. Most apparent changes include expansion and diversification of agriculture, increased adoption of productivity increasing technologies, revival of animal husbandry, greater market oriented production and enhanced availability of food for consumption. The study also notes an improvement in transportation, access to education and health care facilities and safe drinking water following the CFA. The housing conditions of the sample households too have improved. Data show an upward trend in the incomes of the majority of households in all three villages, with the percentage of people in lower income brackets registering a drop.

I hope that the findings of this study will be useful not only for understanding the human, social and economic impacts of the war, but also for policy formulation and planning for relief, resettlement and rehabilitation of communities ravaged by the conflict in Sri Lanka. I sincerely thank the authors for their efforts to unravel the conditions of the "voiceless" people suffering silently the tribulations of the conflict they are not partners of.

V.K Nanayakkara
Director
Wednesday,March 22, 2006

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Abbreviation

CFA	- Cease- fire Agreement
CLACZ	- Communities Living Adjacent to the Conflict Zone
CPA	- Center for Policy Alternatives
DDEC	- Dambulla Dedicated Economic Center
GDP	- Gross Domestic Products
GND	- Grama Niladhari Division
HARTI	- Hector Kobbekaduwa Agrarian Research and Training Institute
LTTE	- Liberation Tigers of Tamil Elam
MASC	- Madawachchiya Agrarian Services Center
MDSD	- Madawachchiya Divisional Secretariat Division
NGO	- Non Governmental Organization
PASC	- Punewa Agrarian Services Center

Executive Summary

The population of Sri Lanka suffered a great deal due to the armed conflict that protracted for over twenty years. However, the districts in the northern and the eastern provinces where the conflict actually raged and the areas bordering the conflict zone have borne much of the brunt of the most disastrous impacts of the armed struggle. Some form of cessation of hostilities ensured when a Cease-fire Agreement (CFA) was signed between the two warring parties; the Government of Sri Lanka and the Liberation Tigers of Tamil Elam (LTTE). Along with this relaxation of tension, much attention has been paid to relief, rehabilitation and reconstruction needs in both conflict affected provinces.

Most communities living adjacent to the conflict zone (CLACZ) were significantly affected by the residual impacts of the conflict or by the frequent attacks of the LTTE local cadres. Besides, the widespread feeling of insecurity and vulnerability, livelihood systems of the CLACZ have been severely affected. Almost all the people in the CLACZs were dependent on agriculture as their mainstay and the conflict impacted this source of subsistence in many ways. However, little attention has been paid so far to assess comprehensively the impact of the conflict on CLACZ, especially how these communities have been coping up with the destruction and hostilities during the conflict period and how the peace process that followed the CFA has helped the CLACZ to revert to a certain degree of normalcy and overcome the constraints faced during the conflict in meeting their basic social and economic needs. Neither the cost of the clash in such localities nor the benefits that followed the cessation of hostilities have been assessed. The present study is aimed at assessing the impact of the CFA or cessation of violence on agricultural production and living conditions and the major factors constraining their returning to normalcy in selected areas in the CLACZ.

Field studies were undertaken in three CLACZs in 2004 in which the methodology adopted was a sample questionnaire survey. The data gathered from the questionnaire survey was triangulated with data collected through observation and interviewing of key informants. The two villages selected to ascertain the impact of the conflict related hostilities and the effects of the CFA are Thammannakulama and Mahakoongaskada. To explore the situation in locations sans the threat of the conflict, the Pul - Eliya village located closer to Thammannakulama and Mahakoongaskada were also studied as a control group. The study also has taken into account the secondary data and official reports.

The study found that agriculture, paddy farming on lowlands and cultivation of other food crops on highlands and shifting cultivation have been the major sources of

livelihood in the villages. Agriculture in Pul Eliya has been expanded, diversified and commercialized in spite of the conflict since the village was spared of terrorist attacks. The onslaughts on Mahakoongaskada claimed 45 lives and caused displacement of the entire community which depended on a meager subsistence by the cultivation of highlands on a shifting basis. One of the most significant impacts of the conflict on the economy of the CLACZ appears to be the impasse placed on the realization of their agricultural production potential. The CFA brought some sort of normalcy to the area and the Mahakoongaskada families returned to their original settlements and resumed their traditional form of subsistence farming with some making an attempt to produce for the market. Indeed, a tangible change took place in Thammannakulama where the residents began cultivating expanded extents of land and crop diversification. Positive changes could have been expected in the study villages, if not for the two year long drought that ravaged the area. On the other hand, as alternative livelihood or employment opportunities expanded in Thammannakulama and Mahakoongaskada, due to the re-emergence of the peaceful environment, the CFA resulted in a drop in agricultural pursuits. Similarly, paddy production declined in both Mahakoongaskada and Pul-Eliya villages after the CFA and this is mainly attributable to the prolonged drought.

The conducive environment resulting from the CFA has also induced other positive changes in the study villages. An increasing tendency is observable in the income levels of the households. Recent changes in income levels have had a positive impact on the disposable incomes at the household level in Thammannakulama (59 percent), Mahakoongaskada (31 percent) and Pul Eliya (21 percent) villages, which largely went into savings or investments. Housing conditions and amenities such as access to drinking water, electricity and telecommunication have improved after the CFA in the study villages. For instance, in the Mahakoongaskada village 30 percent of the households shifted from kerosene lamps to a solar power based lighting system. In the Thammannakulama village 17.5 percent attained power supply after the CFA was signed. In the three study villages the vehicle ownership has also increased. The access to public services such as education, transportation and health care etc. has marked an improvement both in Thammannakulama and Mahakoongaskada following the CFA. Educational facilities in Thammannakulama and Mahakoongaskada villages were in a more appalling situation than those in Pul - Eliya before the CFA. However, the better environment that ensured after the CFA facilitated the students from the study villages to attend relatively better schools outside their villages. By improving the sense of security, the CFA also has paved the way for outside agencies to enter the villages for various business purposes and serve the communities. Vehicle ownership in Pul-Eliya more than doubled though this observed trend is likely to be due more to the general trend in the country than to a direct impact of the CFA.

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Chapter one

Introduction

1.1 Background

Sri Lanka's economy and social fabric have been torn apart by the communal conflict that prevailed from 1983 until a Cease-fire Agreement (CFA) was signed between the conflicting parties in early 2002. The conflict which originated with the demand for a separate State for the Tamil community was characterized by violence and destructive action in the Northern and the Eastern provinces unleashed by the Liberation Tigers of Tamil Eelam (LTTE). The area under the two provinces make up about 24 percent of Sri Lanka's land area, and contains between 10 to 13 percent of its population.

The protracted conflict has caused a sharp drop in the economic growth in the two provinces and their contribution to the national gross domestic product (GDP). The war discouraged investment in the economic and infrastructural sectors, stifled such service sectors like tourism and greatly curtailed the agricultural and fisheries production. Escalated defense expenditures in turn caused a sharp decline in investment on social development affecting the quality of health care, education, telecommunication and transportation throughout the country. Much of the physical, economic and social infrastructure in the conflict affected provinces have been damaged, destroyed or have deteriorated over time for want of maintenance. Economic cost of conflict has been estimated as 1.7 times the national GDP of 1996.[1] Another estimate that takes into account the direct expenditure of the conflict, the cumulative losses of output in the north and the east, the losses from the seriously affected tourism etc for the period from 1983 to 1998 has shown this cost as Rs. 1,167 billion.[2]

The entire population of Sri Lanka has gone through the agonizing experiences of the conflict, but the districts in the northern and the eastern provinces and the areas adjacent to the conflict zone have borne much of its disastrous impacts. The conflict has added to the existing misery of the poor sectors of the communities in the directly affected areas. An estimated 800,000 people have been displaced, 65,000 people have been killed and many more have been disabled. In addition to the deaths, injuries, displacement and conflict-associated trauma, the people in the area have been badly hit by the reduction or curtailment of livelihood means by the restriction of and limited access to basic services like education, health care, drinking water and sanitation. For example, in all conflict-torn

[1] Institute of Policy Studies, " Economic Costs of the War in Sri Lanka" (January 2000)
[2] National Peace Council of Sri Lanka, "Cost of the War" (January 2001)

areas in the north and the east such as Jaffna, Mannar and Batticalo districts, the number of hospital beds recorded a decline after 1983. Schools experienced a paucity of teachers, equipment and teaching material. Access to deep sea fishing was remarkably curtailed through restrictions imposed by the security forces and the agricultural input and output markets because rather inaccessible.

In particular, the means of livelihood of the poor smallholder farmers and the members of fishing communities, in the conflict-affected areas have been seriously endangered. The worst hit due to the war in the two provinces are women, children and the elderly while many young women and men lost their lives or suffered injuries. Statistical information of poverty levels in the two provinces is lacking and what mostly available are qualitative assessments, which suggest that the income, poverty and economic conditions leave much to be desired in the areas concerned than in the other parts of the island. Despite the dependence on very limited sources of information, the existing estimates suggest that the incidence of consumption poverty in the two provinces is likely to be high-ranging from 25 percent to 55 percent amongst those still residing in the areas. The lower incidence estimate is consistent with the preliminary findings of the World Bank's integrated survey in the cleared areas of the two provinces undertaken in 1998. On the basis of this information, the number of poor households in the north and the east may range from 500,000 to 1.1 million.

Resumption of normal livelihood and life styles in the two provinces would largely depend critically on rehabilitation of key infrastructure facilities and the resettlement of communities. The ceasefire that commenced in February 2002 with the signing of the Cease-fire Agreement (CFA) has been beneficial not only for creating and environment for providing relief but also for planning for resettlement and rehabilitation activities in these affected areas. Seizing the opportunity provided by the cease-fire, the Government and a few international agencies, including some lending agencies have prepared plans for resettlement and rehabilitation work in the north and the east. For example, a need assessment of the conflict-affected areas was carried out in early 2003. The assessment identified immediate and medium term rehabilitation needs across all the sectors. The findings in turn were presented to the international community at the Sri Lanka Reconstruction and Development Conference held in Tokyo in June 2003. The programme of resettlement and rehabilitation was estimated to cost about $1.9 billion of which about $700 million was considered as an immediate requirement. Reconstructing roads, provision of power, electrification and infrastructure, and community facilities including the small-scale water supply schemes, sanitation, education, health, access roads, renewable energy, and other community development activities were seen as the

immediate and important pre-requisites to enable the people to rebuild and resume their normal lives.

The communities in areas adjacent to the conflict zone too have borne the brunt of the conflict though not to the extent of those in the conflict torn areas. Some such communities have been attacked continuously by the militant groups resulting in death or injury of several villagers. Destruction of houses, productive assets and irrigation infrastructure that the people depended on for food crop production was the outcome of such onslaughts. Sporadic attacks on CLACZ disorganized the neighborhood and the households entirely. However, the indirect impact of such attacks and the panic-stricken environment that followed, access to livelihoods, basic services and living conditions have not been recorded, rendering it impossible to get such information for planning and policy purposes. Despite the fact that information based on anecdotal evidence indicates a severe impact on physical, economic and social conditions of those living in the areas, such information has not been taken into account in the rehabilitation and reconstruction strategies that were presented to the Sri Lanka Reconstruction and Development Conference held in Tokyo.

1.2 Research Problem

The communal conflict that dates back to 1983 has largely concentrated in the northern and the eastern provinces where the civilian population has been the worst affected. The impact of the protracted conflict on the agricultural and the fisheries production and food security in these provinces has been catastrophic. The traditional sources of livelihood of the households in the affected areas have collapsed and thousands of people have been internally displaced or have left the country. As already noted, the estimated number of internally displaced persons in the two provinces amounts to about 800,000. The majority of these people have at one time or the other sought refuge in welfare centers, which typically were over-crowded and had insanitary living conditions. Food production, external sources of food supply, marketing arrangements and trade in food commodities between the north and the south have been largely disrupted affecting the food supply to the conflict torn areas. It was reported, from time to time that food was in short supply, and the food distribution programmes of the Government and the donor agencies were largely limited to the camps or the welfare centers. Food prices outside the north and the east were also affected by the inflationary pressures of deficit financing in view of the costs involved in the conflict and other government expenditures. By the time the CFA was signed, peace, relief, rehabilitation and reconstruction had become the highest priority for the people concerned, the Government and the international aid agencies.

However, the human, economic, physical and environmental impact of the conflict was experienced in a much wider area, in different degrees in different locations along with the communities in the north and the east. The communities in locations next to the conflict-zone in the rest of the provinces also have gone through the harrowing experience emerging from the conflict. Misery of some communities in such areas was not less severe. The media often reported how certain rural communities in the border villages to the conflict zone were terrorized by the militants massacaring children, elderly, pregnant women, clergy etc. The disruption of the transport and marketing network as well as the regulations imposed by the government security forces and the extra taxes imposed by the LTTE, resulted in the consumer goods in these areas being available only in limited quantities. Local food production system had been largely paralyzed due to the tight security situation and the inadequacy of the operation of normal input and output markets. Agricultural production being the mainstay of the people in the areas bounded by the conflict-zone was hindered not only by the lack of access to inputs and producer markets but also due to the curtailed physical mobility. Some settled areas had been totally abandoned, bearing the sporadic threats from the terror groups. The situation in provinces directly affected by the conflict has been documented from time to time. However, as already noted, the most affected include the communities living in the borderline areas or in the areas adjacent to the conflict affected districts. Most communities in the former areas were affected by residual impacts of the conflict or by frequent attacks of the LTTE local cadres. Besides the widespread feeling of insecurity and vulnerability, has made inroads into their livelihood systems. Almost all communities adjacent to the conflict zone were dependent on agriculture for their livelihood and the conflict affected this source of subsistence in a number of ways. Economic infrastructure such as the irrigation, roads and communication, markets etc were either destroyed or in a state of neglect for a long time. Input and output markets, access to health care and education too fared worse. Anecdotal evidence suggests that agricultural extension facilities were available to a bare minimum in the areas and the access to vehicular transportation was a serious impasse.

Possibly the communities living adjacent to the conflict zone (CLACZ) are still struggling to surmount these adverse impacts. However, little attention has been focused so far to make a comprehensive assessment of the problems faced by CLACZ, especially to ascertain how these communities have come to grips with hostilities during the conflict period and how the peace process subsequent to the signing of CFA has contributed to a return of normalcy and overcome the constraints encountered during the conflict in meeting the social and economic needs. Neither the cost of the conflict in such localities, nor the benefits following the cessation of hostilities have been assessed. Such an appraisal will not only be beneficial for the planning intervention programmers to solve

their problems, but also for conflict resolution in political terms by highlighting the cost of the conflict in terms of CLACZ.

The present study aims at addressing two major research questions:

To ascertain:

1. the impacts of the CFA or the cessation of violence and hostilities consequent upon the on-going peace process on agricultural production and living conditions in CLACZ
2. the major factors constraining the CLACZ returning to normalcy

In specific terms, the present study seeks answers to the following questions:

1. Has the cessation of hostilities acted as a contributory factor to bring normalcy into CLACZ?
2. How the identified changes, if any, are reflected in terms of agricultural production and consumption? A related issue is the extent to which the agricultural lands abandoned for security reasons in CLACZs are being used for agricultural production, income generation and fulfilling household level food security needs following the CFA. Intensity of land use, crop diversification and adoption of productivity increasing technologies, if any, as a result of the peace process are other areas requiring attention.
3. Extent to which the peace process has become instrumental in the growth in on-farm and off-farm employment and in providing access to basic services like markets, schools, health care providers etc.
4. To what extent the peace process has influenced expanding employment opportunities and increasing household incomes
5. What trends in living condition as reflected by food security, physical mobility etc have accompanied the cessation of hostilities in CLACZ?
6. What policy implications from the study can be drawn for policy and planning for rehabilitation and reconstruction of CLACZs?

As the informal agenda of the present study, the following two issues will also be examined.

1. The conflict experiences of the selected CLACZ
2. The major challenges to be met before the villages can fully realize the existing potential for growth, in particular the growth of the agricultural sub sector in CLACZs.

1.3 Significance of the Study

Existing studies concerning the impact of the conflict largely focus on its economic and social implications on the people living in the conflict zone areas such as the north and the east. The effect of the conflict on CLACZ or the impacts of the CFA on the latter have not been the subject of a comprehensive assessment. On the other hand, the situation in the conflict-affected areas does not adequately reflect the situation in CLACZ and will not provide a basis for planning policies and programmes aiming at reconstruction and rehabilitation in such areas. Therefore, there is a clear, urgent need to explore the situation and the needs in CLACZ in terms of a comparative analysis of the past experiences and the prevalent situation now. Thus, the present study focuses on the impact of the conflict on such communities in general and the effects that ensured the cessation of hostilities as a result of the CFA in selected villages in CLACZ, in particular.

1.4 The Methods Applied in the Study

Fuller understanding of the impact of the conflict and the cessation of violence after the CFA demands a large sample survey of the population affected in the districts adjacent to the conflict zones like Anuradhapura and Polonnaruwa. Many villages adjacent to the conflict zone in such districts suffered severe setbacks socially and economically. For a more accurate appraisal of the impact, there is a need to study as "controls" the population with similar conditions in CLACZ, but not affected by violence and destruction associated with the conflict. However, the limitations by way of resources and time, precluded us from studying a large number of villages representative of CLACZ. Therefore, for the present study it was decided to select two villages that had been affected by hostilities and another village with no such effect from the conflict or terrorist elements, from within CLACZ of the Anuradhapura district. The following research tools were applied to collect and analyze information.

1.4.1 Selection of Study Villages

The two villages selected to understand the impact of the conflict related hostilities and the CFA are Thammannakulama and Mahakoongaskada situated respectively in the Grama Niladhari Divisions (GNDs) of the Periyakulama and Anekattiya in the Medawachchiya Divisional Secretariat Division (MDSD) of the Anuradhapura district. To understand the conditions in a location with no threat of the conflict or villagers being chased away by the terrorist elements, the Pul-Eliya village located closer to Thammannakulama and Mahakoongaskada was selected as a "control group". The control group provides for study, an environment with no stimuli, which may be either

negative or positive. Thus, control group was used as a quasi-experimental design for the present study. The village next to Pul-Eliya, namely Thammanna-elawaka had been badly hit by the conflict as the LTTE carders had ravaged it several times and had killed 44 persons. Pul-Eliya itself was under the threat of being attacked by the terrorists and a crew of home guards had been employed by the Government to ensure the security of the village community.

1.4.2 Sampling

The major instrument of data collection used in the present study was a questionnaire survey of the sample households selected from all three study villages. Random samples of households were selected by paying attention to the size of the population in the specific village and the need for adequate number of households to perform a meaningful analysis. For this purpose, the lists of households that were available with the Grama Niladharies (GNs) of the respective villages were updated using other accessible information such as that available with village level staff - the Samurdhi Officers and Agricultural Research and Development Assistants. In this manner, 58 households out of a total of 76 households from Thammannakulama, 63 households out of a total of 84 households in Mahakoongaskada and 61 households out of a total of 104 households from Pul Eliya were selected for the study.

1.4.3 Methods of Data Collection

The major method of data collection being the sample questionnaire survey, a questionnaire was designed to capture the livelihood practices, livelihood outcomes and living conditions before and after the CFA or the cessation of hostilities. The questionnaire covered the following spheres of information and was used for collection of data at the sample household level.

1. Demographic characteristics of the sample households including age and gender distribution.
2. Educational attainments of household members.
3. Activity status and employment of those sample household members from 10 to 64 years of age.
4. Housing characteristics and household assets
5. Productive assets like agricultural lands owned or used by the households.
6. Agricultural production, marketing and consumption patterns.
7. Access to and use of basic facilities like the schools, hospitals, clinics, transport, extension services and markets etc.

8. Income and major sources of income.
9. Perceived changes by the respondents after the CFA and their attitude to the peace process, following the CFA.

Questionnaire was designed in such a manner so that the conditions before and after the CFA could be captured easily in relation to each of the spheres of information needed. Two social science graduates were selected and trained on interviewing techniques and rationale underlying the survey and was employed in the field for about 06 weeks to administer the questionnaire at the sample household level.

In addition to the information gathered through the questionnaire survey, key informants like the village level officers, functionaries of NGOs that are active in the locality, community leaders etc. were interviewed. Informal interviewing was useful to cross check the information given during the questionnaire survey by sample respondents and to identify the issues that did not surface in their response to the questionnaire. The Principal Researcher stayed in the study villages for three weeks (making informal interviews and observations) and the two field investigators stayed for nearly two months. This stay was useful for making observations on living conditions and the community infrastructure etc. In the process of observation, the day-to-day discourses of the people, where relevant, were listened to and recorded. The field survey was completed during the period from April to July 2004

1.4.4 Secondary Data

This study uses a series of data collected from secondary sources like an analysis of the conditions of CLACZ, especially in compiling the socio-economic dimensions in the villages and profiling such dimensions in the district. For example, the study uses data from reports published by the Census and Statistics Department, official reports that were available at the national and local levels, research reports by various agencies and relevant documents of the National Peace Council of Sri Lanka and the Center for Policy Alternatives (CPA)

1.4.5 Data Analysis

After the administration at the household levels, questionnaires were scrutinized and edited for accuracy and coded for inputting to the computer. The Statistical and Data Processing Division of the HARTI completed inputting the data into computer for processing and made the analysis in terms of the broader guidelines given by the Principal Researcher. Taking into consideration, the qualitative nature of the data and in

order to make a simple presentation, it was decided to limit the analysis to cross tabulations. This was thought appropriate as the study was aimed at comparing villages and conditions before and after the CFA. The data gathered from the questionnaire survey was triangulated with data collected through observation and interviewing of key informants.

1.5 Limitation of the Study

The major limitation of this study is the low density of the population covered, which is limited to three villages. Conversely, limiting the number of study locations to three villages has helped the researchers to have an in-depth knowledge about what has occurred in them in relation to the conflict and the CFA. Therefore, a lesser intensive study covering a large area in the future would meet the data needed for policy and programme planning.

1.6 Organization of the Report

This report is structured into seven chapters. The present chapter describes the foundation, the rationale and the methodology adopted in the study. The chapter two is aimed at placing the study villages in their broader physical, environmental and socio-economic context with an analysis on such conditions that influence the study villages and challenges posed by the villagers in determining the success of livelihood strategies adopted by them. The chapter three analyses the patterns of agricultural production in the study locations and the factors influencing the production including the effects following the signing the CFA. This chapter also includes such aspects as the land use, crop diversification, technology adoption, livestock development etc. The chapter four is devoted to examining the trends in consumption and food security in the study villages with a view to understanding the impact of the CFA on such aspects. Chapter five presents the situation with regard to access to basic services and facilities in the study villages before and after the CFA. Chapter six examines the general changes in living conditions and trends that ensued after the CFA in the sample households. Chapter seven brings into a conclusion, the major findings of the study and draw recommendations for policy and planning.

Chapter Two

Background to the Study Villages

2.1 Introduction

An assessment of the impact of the conflict on communities bounded by the conflict-zone necessitates a knowledge of economic, social, physical and natural environmental circumstances of such communities. It is also important to understand the limitations imposed by such environmental factors on livelihood conditions in those villages. Such an understanding of the reality or the contextual factors affecting the people in the study villages is useful for comprehending the seriousness of the impact the conflict had on them and a fuller awareness of the benefits a peaceful environment can bring about. With the above purpose, this chapter attempts to place the study villages in their wider context of the district and the divisional secretariat division.

2.2 Anuradhapura District

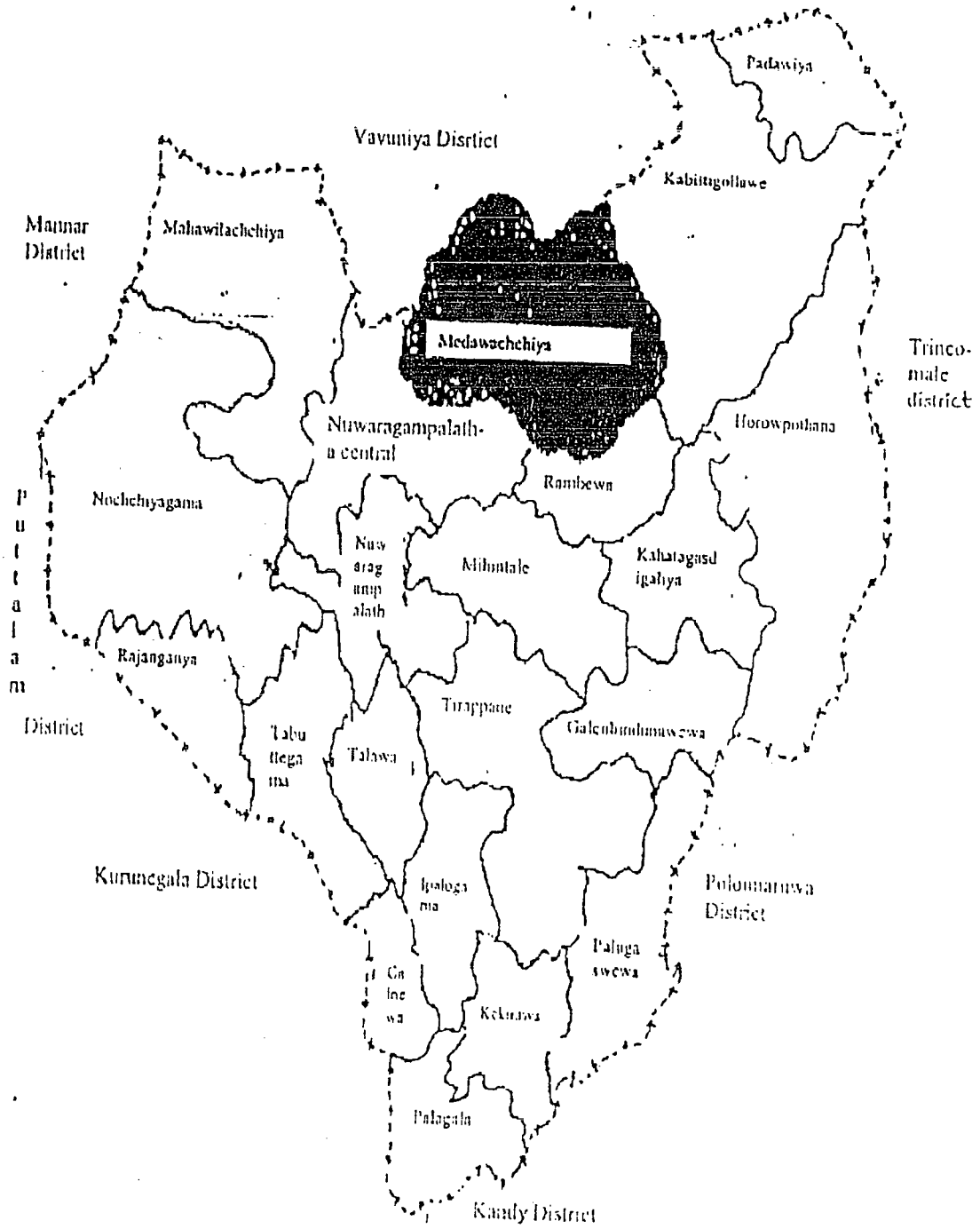
One district adjacent to the conflict-zone of north is the Anuradhapura district located in the north-central province of Sri Lanka. Anuradhapura is the largest district in the country and falls within the agro-climatic zone classified as the dry zone. The Anuradhapura district is bounded by the Vavuniya district in the north, the Trincomalee district in the east and northeast, the Polonnaruwa district in the southeast, the Matale district in the south, the Kurunegala district in the southwest, the Puttalam district in the west and the Mannar district in northwest (see map number 1).

The district consists of 23 Divisional Secretariat Divisions (DSDs), 631 Grama Niladhari Divisions (GNDs) and 3,088 villages. The total population of the district in the year 2001 was estimated at 746,500. It had a population density of 82 persons per square kilometer in 1981 and this had grown to 112 persons per square kilometer by 2001. Of this, 689,800 persons were living in rural areas. Average household size in the district is 4.4. The literacy rate of the people aged 10 years and above in the district is 90.6 percent whilst the literacy rate of males is 92 percent and of females is 88.9 percent. The labour force participation rate in the district is 51 percent. However, the female labour force participation rate (32 percent) is significantly low compared with that for the males (69.6 percent). The rate of employment in the district is 94.8 percent with a majority engaged in agriculture (54.9 percent). An estimated 58.7 percent of the employed males and 53 percent of their female counterparts are engaged in agriculture and forestry related activities.

The people in the villages adjacent to the conflict zone in the Anuradhapura district had encountered incessant attacks by the terrorist elements involved in the separatist war and their productive resources and production infrastructure have been largely destroyed. Due to the fear of being attacked and killed, the people in such villages had abandoned their original settlements, major means of production like the agricultural lands, irrigation infrastructure and livestock. Besides, the conflict curtailed their traditional livelihood activities and their access to the markets and restricted their access to basic services. Anecdotal evidence indicates that some villagers were compelled to spend the nights in the forests with no food mostly jeopardizing the lives of the infants, the aged, the children, the sick and the women. As all three study villages are located to the north of the Anuradhapura district they can be defined as communities living adjacent to the conflict zone (CLACZs).

As transpired by such evidence, the brunt of the war was much severe on CLACZs because the people therein were struggling to survive a nightmarish ordeal. From one fifth to one fourth of the population in the Anuradhapura district had survived under impoverished circumstances in the last decade. It is likely that poverty in the borderline communities worsened during the conflict period. CLACZs were located in remote areas and many of the State provided services and infrastructures were scanty or non-existent in such areas. The following account aims at providing the physical and environmental conditions governing the livelihoods of people in the rural areas of the Anuradhapura district.

Map Number 01: Divisional Secretariat Divisions in the Anuradhapura District.



2.3 Physical and Environmental Factors Governing the Livelihoods of People

The district is located on international coordinate longitudes 80.16 to 80.57 and latitude 7.50 to 8.56. Being one of the nine dry zone districts in the island, the Anuradhapura district is characterized by semi arid to arid conditions. The mean annual air temperature in the district is around $28C^0$. The average rainfall in the district varies as shown in Table Number 2.1. However, much of the rainfall occur during the m*aha* season with an average of about 900 mm and in the y*ala* season the corresponding figure is about 550 mm. *Yala* rains are sporadic and not adequate for producing crops. Hence, the crop cultivation on highlands in the *yala* season is limited to a few drought resistent or short-term crop varieties. Crops are also grown under irrigated conditions during this season where irrigation is available as in the Mahaweli "H" area that encompasses a part of the Anuradhapura district.

Table Number 2.1: Annual Rainfall in the Anuradhapura District

Year	Annual Total (mm)
1951-80 (average)	1358.4
1998	1206.6
1999	1192.7
2000	1245.9
2001	1262.4
2002	1260.4

Source: Statistical Abstract – 2003, Dept. of Census and Statistics

In spite of the irregularity of rainfall and its skewed pattern of distribution, the Anuradhapura district is endowed with five river basins of which Aruvi Aru (Malwatu Oya) basin has been the natural resource base of the ancient hydraulics civilization of Sri Lanka. Yan Oya, Mee Oya, Ma Oya, Kal Aru, Modaragam Aru and Kala Oya are the rest of the rivers that traverse through the district. There are 2,333 irrigation tanks in the Anuradhapura district including seven major irrigation schemes. In areas where the Accelerated Mahaweli Development Project provides irrigation water, the year round, the cultivation in the district, growing of paddy during both *maha* and y*ala* is widespread. Under the irrigation tanks in operation, an estimated 4,729 hectares are cultivated by 3,414 farmer families. The area irrigated under the Mahaweli Project within the district consists of 224 hamlets in Galnewa, Meegalawa, Madatugama, Galkiriyagama, Eppawela, Tambuttegama, Talawa, and Nochchiyagama with a total farmed area of about 38,050 hectares. Benefited by Mahaweli waters and the rivers that flow through the

district and the ancient minor irrigation schemes, Anuradhapura is one of the major paddy producing districts in the country. The paddy cultivation, *chena* farming, home gardening and livestock are the main components of the farming system in the district.

2.4 Medawachchiya Divisional Secretariat Division

Medawachchiya Divisional Secretariat Division (MDSD) is one of the twenty three Divisional Secretariat Divisions (DSD) here. MDSD is bounded by the Vavuniya district in the north, making it a boundary to the conflict zone of the northern province. Other boundaries of MDSD include the Rambewa DSD in the south, Kebethigollewa DSD in the east, Nuwaragampalatha and Central in the west. The MDSD covers a total geographical area of 418.79 square kilometers. The Anuradhapura–Vavuniya, Medawachchiya-Mannar, Medawachchiya–Horowpatha main roads traverse through the MDSD

Table Number 2.2: Land Use types in the Medawachchiya Divisional Secretariat Division

Land Category	Sq Acres	Percentage of the total
High Lands	28,575	27.29
Paddy Lands	15,698	14.99
Chena Lands	14,663	14.00
Watersheds	1,895	1.80
Reservation forests	14,015	13.38
Inland water area	12,630	12.06
Forest	8,910	8.51
Urban area	2,240	2.13
Roads and buildings	3,874	3.70
Rocks and degraded lands	2,198	2.09
Total	**104,698**	**100.00**

Source: Piyawara, Madawachchiya Divisional Secretariat Division Office

Map Number 02: Grama Niladhari divisions in Medawachchiya Divisional Secretariat Division

The MDSD consists of 37 GNDs and 104 villages (see map 1.2). It had a population of 45,922 persons in the year 2003 with a density of 109 persons per square kilometer (Piyawara, 2003). In terms of ethnic distribution, Sinhalese account for 92.6 percent of the population. The next largest population by ethnicity in the MDSD are Sri Lankan Moors (5.98 percent) and Sri Lanka Tamils (1.75 percent). As far as the education is concerned, there were one national school and 39 other schools employing 510 teachers with a student population of 9,450 and the teacher-student ratio was 1:18 in the MDSD in 2002. The division also has one district hospital and two rural hospitals with one doctor per 5,000 people. 7,504 households are Samurdhi beneficiaries. The MDSD has 118 working irrigation tanks and 16 abandoned tanks.

2.5 Study Villages

All study villages are located in the MDSD and have the basic natural agro climatic characteristics spelled out in the description of the district. However, these villages differ from the district characteristics in a number of ways. First, they are remotely located close to the conflict zone. Secondly, irrigation water in the villages is obtained from minor tanks, but not from the major irrigation schemes or from the Mahaweli Project. Agricultural production depending on minor tanks is severely constrained as the little water available in the tanks is hardly enough for the farmers to pursue their cultivation on a year round basis. Thus, there is some uncertainty involved in irrigated farming in the villages. Both Thammannakulama and Mahakoongaskada were constantly under terrorist attacks. Mahakoongaskada for instance, suffered a serious onslaught in 1989 which claimed 45 lives. Thereafter, the villagers resettled themselves in another location close by, deemed to be relatively safer.

Chapter Three

Impact of CFA on Agricultural Production and Consumption

3.1 Introduction

As noted in the chapter one, the major focus of the present study is to examine and assess the impact of the CFA on agricultural production in the sample villages located next to the conflict zone district of Vavuniya. This chapter examines the changes that occurred after the CFA in the study villages in terms of agricultural production and the extent to which the observed changes can be attributed to the peaceful environment that followed the peace process. The chapter mainly focuses on such changes as the extent of land brought under agriculture, land use patterns, crop diversification, technology adoption, animal husbandry and production orientation. In an appraisal of the impact of the CFA on agriculture, many other factors that influence the agricultural production have to be given due consideration. For instance, changes or otherwise in the production spheres are influenced by the access to inputs and output market, technologies, vagaries of weather conditions and farmer perception and values. However, it should be expected that if the conflict affected the agricultural production in the communities living adjacent to the conflict zone (CLACZ), radical changes should have taken place in the two study villages so affected namely Thammannakulama and Mahakoongaskada. On the other hand, similar changes could not be expected to have occurred in the Pul Eliya village, which was not interfered with, by the warring parties. The conflict impact on the Pul Eliya village seemed more likely to be parallel to that in the other villages in the Anuradhapura district.

At the outset some discernible changes that have occurred in the study villages following the CFA can be observed. This is in spite of the fact that the CFA had been in operation for about two and half years by the time, the study was completed. The conflict has had not only a restricting effect on expansion and diversification of agriculture, but also led to an abandonment of land already under cultivation, in the Thammannakulama and Mahakoongaskada villages, where agriculture was the mainstay of the people. However, with access to alternative employment opportunities expanding due to the peaceful environment, the CFA seemed to have weaned away some of the villagers from farming as a livelihood or a source of employment, in the two villages. Nevertheless, agricultural production and diversification occurred in these locations after the CFA and the subsequent peaceful environment that followed. This chapter analyses the major changes

that ensued in agricultural production in the study villages and linkages these changes have with the CFA.

3.2 Changes in Agricultural Land Use Patterns

Thammannakulama village has a total of 198 acres of agricultural lands: 82.6 acres of highlands, 73.5 acres of lowlands and 42.2 acres of *chena* lands. The total extent of the cultivated area in Thammannakulama increased from 124.95 acres before the CFA to 182.20 acres after the CFA. This increase could be attributed to the CFA. Mahakoongaskada village has a total extent of 357 acres of agricultural lands consisting of 71.2 acres of highlands, 141.8 acres of lowlands and 144 acres of *chena* lands. The total extent of land cultivated in Mahakoongaskada increased from 249.4 acres before the CFA to 289.6 acres after the CFA for the same reason. Of the three study villages, the largest extent of land under agriculture was in the Pul-Eliya village. It had 902 acres of agricultural land of which 450 acres were used as highlands; 200 acres as lowlands and 252 acres as *chena* lands. However, at no time this total extent was cultivated. In Pul-eliya too, the total extent cultivated increased from 317.8 acres before the CFA to 379.25 acres after the CFA. This increase is mainly attributable to an increase in highland farming. The drought affected the cultivation of *chena* lands, but farmers kept on cultivating highlands using agro wells. It should be noted that a dramatic decline in the area cultivated under paddy (lowlands) had also occurred in Pul-Eliya. The drought affected agriculture in all the three study villages, but its impact was more apparent in Pul -Eliya and Mahakoongaskada than in Thammannakulama

In farming the area asweddumized for paddy cultivation in the Pul-Eliya and the Mahakoongaskada villages, the CFA had no significant impact except for prolonged drought that prevailed in the area from 2003 to 2004. Droughts usually affect the Dry Zone areas in Sri Lanka in a cycle of every four years or so, but the drought in the north central province in 2003 prevailed for about two years. Water in the irrigation tanks drastically dropped to a level making it difficult to farm the asweddumized paddy lands. *Chena* lands too suffered the same fate in such dry spells. Thus, droughts have a restricting effect on the livelihoods of people, in the study sites.

To overcome such difficult circumstances resulting from natural calamites, the Dry Zone villagers adopt a few different coping strategies. One such major strategy traditionally practiced by the villagers is the *bethma* system, under which the villagers owning paddy lands within the command areas of a given irrigation tank demarcate a small proportion of the lands earmarked for paddy cultivation to be farmed with little water available in the tank. The area selected in this manner is close to the tank bund or top end of the distributory channel. The extent demarcated to be cultivated under the *bethma* system

depends on the availability of water in the tank not only for paddy cultivation but also for animal husbandry and other household purposes. In the area to be cultivated on a *bethma* basis, every household owning paddy lands under the given tanks is entitled to cultivate a small proportion of land so that each participating household can produce at least a part of its consumption needs. The Dry Zone villagers also cultivate the other crops like *kurakkan* (finger millets), green grams and corns etc on highlands and *chena* lands, the harvest of which is stored to be used against a rainy day. A more recent practice the villagers resort to during a spell of drought has been to work as hired labourers or taking up other self-employment opportunities outside the villages. In such instances villagers usually participate in activities of road and irrigation construction and maintenance works or petty trades.

The practice of *bethma* system necessitates an effective social organization at the farmer community level. Backed up by institutional forms as kinship, such social organizations have existed and have worked effectively in the past. Leach (1954) shows how the *varige* system operated to manage limited agricultural resources like land and water in the Pul - Eliya village in the past. The *varige* system was used basically to exclude outsiders from controlling the claims of the villagers to the ownership of the natural productive resources like land and water. The system of social organization that existed in the past in Pul-Eliya has largely disintegrated by now. Instead, it appears that the people are now grouped in terms of their political affiliations. It was revealed during the survey that due to the village level divisions or lack of a viable social organization, the Pul-Eliya paddy farmers could not adopt the *bethma* system. Therefore, in the face of the water scarcities in 2003 and 2004, the entire extent of paddy lands had to be abandoned in Pul-Eliya. Fortunately, the greater dependence of the Pul-Eliya villagers on paddy farming as the major source of livelihood has diminished consequent on the diversification of agriculture livelihoods.

Another discernible change after the CFA, in the Thammannakulama and Mahakoongaskada villages is the tendency to use previously abandoned lands. The lands in the two villages had been abandoned for security reasons or because of threats by the terrorist groups. After the signing of the CFA, the abandoned agricultural land area decreased from 91.5 acres in Thammannakulama to 17.5 acres and in Mahakoongaskada from 113.38 acres to 73.13 acres. However, Pul-Eliya being the village with little impact from the conflict, extent of the abandoned land used after the CFA increased from 8.25 acres to 22.75 acres. Explaining the reason for the abandonment of land, 47 percent of the sample households in Thammannakulama and 67 percent in Mahakoongaskada

explained that the insecure situation was the major cause. Divisions among the villagers also had a similar effect in Mahakoongaskada where paddy cultivation in *yala* in the years 2003 and 2004 had to be given up.

3.2 The Impact of the CFA on Cropping Pattern

In terms of the number of households engaged, the main source of agricultural income in the study villages is paddy farming. According to the data provided in Table Number 3.1, there has been only a little change in the cropping pattern or crop diversification after the CFA. Same applies to such crops as coconut, mainly because coconut is mostly a perennial home garden crop. In spite of the effect of the drought on extent of land brought under paddy production, the percentage of households engaged in paddy cultivation increased from 66 percent to 96 percent in Thammannakulama and from 78 to 95 percent in Mahakoongaskada. The data in Table Number 3.1 also show a similar pattern in respect of the cultivation of mixed crops and non-paddy grains, reflecting an increase in the number of households engaged in agriculture in Thammannakulama and Mahakoongaskada after the CFA. The change in trend surfaced, as most of the agricultural land users were keen to enjoy the benefits of the peaceful environment resulting from the CFA to expand their livelihood opportunities.

Table Number 3.1: Percentages of Families Engaged in Agricultural Crop Production in Three Study Villages

Crop	Thammannakulama (n=58)		Mahakoongaskada (n=62)		Pul-Eliya (n=61)	
	Before CFA	After CFA	Before CFA	After CFA	Before CFA	After CFA
Paddy	65.7	95.5	78.1	95.3	96.8	95.2
Coconut	3.0	0.0	0.0	0.6	1.3	1.4
Mixed crops	62.7	91.0	65.6	71.9	93.7	90.5
Perennial crops	3.0	3.0	17.2	15.6	14.3	15.8
Non paddy grains	1.4	14.9	50.0	54.7	30.1	28.6

Source: Socio Economic Survey Data, 2004, HARTI.

As could be seen from the data in Table Number 3.1, most perceptible change in the sphere of agriculture after the CFA is observable in the Thammannakulama village. One

major change that has taken place in this village is an upward trend in market-oriented production. Though produced on a *chena*-farming basis, most of the crops such as long beans, brinjal and big onion produced after the CFA, in the Thammannakulama village were meant for the Dambulla Dedicated Economic Center (DDEC). Taking into account the crops that were cultivated over quarter of an acre or more, about 50 farmers cultivated cash crops in the Thammannakulama village following the signing of the CFA. This reflects about a 35 percent increase from that during the pre-CFA situation. The total number of families engaged in cash crop agriculture after the CFA, increased from 32 households to 50 households in Thammannakulama. In the Mahakoongaskada village, most important cash crops were black gram, *kurakkan* (finger millet), cowpea and *meneri,* produced mainly on a *chena* basis. In the Pul-Eliya village too, the farmers produced cash crops such as vegetables on a *chena* basis, but their main source of agricultural income was vegetables grown on irrigated highlands.

3.4 Impacts on Technology Adoption

Improved safety and transportation after the CFA could be expected to result in an increase in the adoption of productivity increasing technologies. Therefore, the types of technologies adopted and the changes that have taken place after the CFA were tested in the questionnaire survey. In terms of draught power used for land preparation, there has been only a little change after the CFA in all the study villages as revealed by data in Table Number 3.2. Pul-Eliya being the only village that has had some commercial orientation and uninterrupted agricultural production during the warring period amongst all three study villages, much of the land preparation work in Pul-Eliya was done using tractors. In the Pul-Eliya, only one quarter of the farming households used manual labour for land preparation. However, between 40 to 45 percent of the work related to land preparation were done with manual labour in Thammannakulama and Mahakoongaskada and this situation remained unchanged during the pre and post CFA periods. A small number of four-wheel tractor users have changed over to two wheel tractors for land preparation in these villages too, with the increased availability of two wheel tractors in the area after the CFA.

Table Number 3.2 Methods of Land Preparation for Paddy Cultivation

Method	Thammannakulama		Mahakoongaskada		Pul-Eliya	
	Before CFA (n=44)	After CFA (n=58)	Before CFA (n=50)	After CFA (n=62)	Before CFA (n=60)	After CFA (n=58)
4 wheeler tractor	41.9	38.8	29.9	23.4	43.3	43.3
2 wheeler tractor	10.5	16.4	28.7	35.7	28.0	31.5
Buffalo	1.9	0.0	0.0	0.0	1.3	0.0
Labour	45.7	44.8	41.5	40.9	27.4	25.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Socio Economic Survey Data, 2004, HARTI.

Paddy farming being the main agricultural pursuit, more farmers in Thammannakulama and Mahakoongaskada went for improved seed paddy varieties after the CFA as revealed by data in Table Number3.3.This change was more discernible in the Thammannakulama village, as it was more benefited from the improved security situation and had better natural agricultural resources in its command, which are similar to those available in the Pul-Eliya village. For instance, Thammannakulama has an irrigation tank that could hold water for cultivation of some of the paddy lands during the *Yala* season too. Like in the Pul-Eliya village, the water in the tank replenishes ground water in Thammannakulama creating conditions conducive for maintaining home gardens and rearing livestock.

Table Number 3.3: Percentage Distribution of the Sample Households by Variety of Paddy Seeds Used for Cultivation

Varity of seeds	Thammannakulama		Mahakoongaskada		Pul-Eliya	
	Before CFA (n=44)	After CFA (n=58)	Before CFA (n=50)	After CFA (n=62)	Before CFA (n=60)	After CFA (n=58)
Improved seeds from local producers	37.5	50.0	32.9	36.7	30.5	30.9
Improved seeds from own farm	60.6	46.3	67.1	63.3	64.9	64.4
Certified seed by Dept. of Agriculture	1.9	3.7	0.0	0.0	4.6	4.7
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Socio Economic Survey Data, 2004, HARTI.

The range of application of certified seed paddy in the country differs from 5 to 10 percent and is comparable with the situation in Pul-Eliya. However, Thammannakulama and Mahakoongaskada villages lacked facilities for the purchase of seed paddy. Mahakoongaskada village comes under the area of authority of the Punewa Agrarian Services Center (PASC), but this center had been taken over by the Sri Lankan Army at the early stages of the conflict. Hence, the farmers of this village had to depend on the Medawachchiya Agrarian Service Center (MASC), about 15 km away, for services like extension and production inputs. On their visits to the MASC, the farmers from Mahakoongaskada were constantly haunted by the fear of being attacked by the terrorists. At the time of the survey, the Sri Lankan Army had transferred the PASC back to the Department of Agrarian Services.

Weed control methods have witnessed no change in the study villages before or after the CFA. From one-third to a half of the paddy farmers did not use any weed control methods in the study villages. In all the three villages, about half of the paddy-cultivating households have been using chemicals for weed control before the CFA, a practice that has remained unchanged even after the CFA as the data in Table Number 3.4 transpires. Changes in such practices as the application of improved seed varieties are linked to a number of factors like the degree of commercial orientation of the farmers and the

availability of improved or certified seed varieties locally. Except in the Pul-Eliya village, which was not directly affected by the conflict, commercial orientation of agriculture was low. In spite of this fact, most of the farmers from all three villages used improved seed paddy varieties produced in their own farms or that were available locally. However, in a bid to improve the productivity, some of the Thammannakulama sample farmers appear to have taken the opportunity to seek out for improved seed varieties. About 12 percent or more used seed paddy obtained locally and 2 percent used certified seed paddy varieties.

Table Number 3.4: Methods of Weed Control on Paddy Lands

Method	Thammannakulama		Mahakoongaskada		Pul-Eliya	
	Before CFA (n=44)	After CFA (n=58)	Before CFA (n=50)	After CFA (n=62)	Before CFA (n=60)	After CFA (n=58)
By hand	12.2	20.6	6.1	6.4	0.0	0.9
By weeder	0.0	0.0	1.7	1.6	0.0	0.0
By use of chemical	52.4	49.0	47.0	48.0	51.3	51.3
Do not weed control	35.4	30.4	45.2	44.0	48.7	47.8
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Socio Economic Survey Data, 2004, HARTI.

The percentage of farmers who grow other food crops but do not apply weed control practices varies from 14 percent in Thammannakulama to 25 percent in Mahakoongaskada. As could be seen from the data in Table Number 3.5, the farmers in the study villages resorted to neither hand-weeding nor chemicals in weed control. Most of the farmers used the mammoty for this purpose. It was noted that agricultural production or production practices did not improve in Mahakoongaskada to the extent in Thammannakulama. This is reflected in Mahakoongaskada weed control practices, the major method of which was burning.

Table Number 3.5: Method of Weed Control on Lands Cultivated with Other Food Crops

Method	Thammannakulama (n=58)		Mahakoongaskada (n=63)		Pul-Eliya (n=59)	
	Before CFA	After CFA	Before CFA	After CFA	Before CFA	After CFA
By hand	8.0	10.7	5.4	5.8	2.9	2.8
By use of chemical	23.0	19.6	20.2	19.6	24.3	24.1
By mammoting	50.6	42.9	19.4	18.8	22.9	22.0
By burning	1.1	12.5	29.5	30.4	30.0	31.2
Do not weed control	17.3	14.3	25.5	25.4	19.9	19.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Socio Economic Survey Data, 2004, HARTI.

In terms of adoption of technologies, most discernible change in the study villages after the CFA, appears to be the enhanced application of fertilizer. The application of all three types of fertilizer (straight, surface and TDM) increased after the CFA in Thammannakulama and Mahakoongaskada. However, Pul-Eliya unaffected by the impact of the conflict, seems to have had little or no impact on this practice.

3.5 Changes in Production Levels after the CFA

The impact of the CFA on agricultural production and productivity cannot be gauged accurately since the drought in the 2003/2004 *maha* season also wielded its impact. The drought damaged much of the area cultivated under paddy in the study villages: 133.5 acres in Thammannakulama, 43.5 acres in Mahakoongaskada and 95 acres in Pul-Eliya. Similarly, 46.25 acres and 41 acres of lands under *chena* cultivation were adversely affected in the Thammannakulama and Pul-Eliya villages respectively. Another 39.5 acres under highland cultivation in Pul-Eliya also suffered the same fate.

Total paddy production in Thammannakulama had increased from 3,321 bushels in the 2000/01 *maha* season to 3,958 bushels in the 2003/04 *maha* season. However, the production in the other two villages has dropped drastically. As shown in Table Number

3.6, production decreased from 9,621 bushels in the 2000/01 m*aha* to 568 bushels in 2003/04 *maha* in Mahakoongaskada and from 8,058 to 527 in Pul-Eliya.

Table Number 3.6: Total Paddy Production (bushels) in the Study Villages from 2000/01 *Maha* to 2003/04 *Maha*

Village	2000/01 *maha*	2003/04 *maha*
Thammannakulama	3321	3958
Mahakoongaskada	9621	568
Pul-Eliya	8058	527

Source: Socio Economic Survey Data, 2004, HARTI.

Animal husbandry has been a more important economic activity in Mahakoongaskada than in the other two study villages. Nearly 50 percent of the households in Mahakoongaskada are engaged in animal husbandry compared with 8.9 percent and 33 percent respectively in Thammannakulama and Pul-Eliya. No significant change is seen in the animal husbandry practices after the CFA, except in the case of dairy farming. As shown in Table Number 3.7, the milk production increased from 350 liters before the CFA to 459 liters after the CFA in Thammannakulama. Milk production in Mahakoongaskada had a three-fold increase from 827 liters a month before the CFA to 2,400 liters a month after the CFA. The major reason for this increase was the improved security situation allowing the farmers to graze the cattle in a large area and the increased opportunities they had for collecting and selling the milk. After the CFA, a milk-collecting center has been established in Mahakoongaskada. Milk collection declined in Pul-Eliya, mainly due to the decline in the availability of pasture lands caused by the prolonged drought.

Table Number 3.7: Total Milk Production (liters) for a month in the Study Villages Before and After the CFA

Village	Before CFA	After CFA
Thammannakulama	350	459
Mahakoongaskada	827	2400
Pul-Eliya	1625	965

Source: Socio Economic Survey Data, 2004, HARTI.

In considering the overall impact on the agricultural production frontiers, some discernible changes can be observed after the CFA in Thammannakulama and Mahakoongaskada. Pul-Eliya spared of any significant direct impact of the conflict, witnessed no such changes following the signing of the CFA. Most of the changes that occurred in the sphere of agriculture in the other two villages are more extensive than intensive. Not that the farming households did farm new lands, but they resumed cultivating the abandoned lands.

Chapter Four

Effects of the CFA on Food Security and Consumption

4.1 Introduction

It has been already noted that the agricultural production in both Mahakoongaskada and Pul-Eliya was affected by a prolonged drought that hit the North Central Province from 2003 for two years. The total paddy production fell from 9,621 bushels in 2000/2001 *maha* to 568 bushels in 2003/2004 *maha* in Mahakoongaskada alone. The drought devastated an estimated extent of 133.5 acres in the Mahakoongaskada in 2003/2004 *maha*. The Mahakoongaskada farmers also experienced significant losses in extents of crop production; 46.25 acres of highland and *chena* lands.

Pul-Eliya too experienced similar losses. For instance, 95 acres of lowland cultivated with paddy and 39.5 acres of highland with vegetables were lost in the drought stricken 2003/2004 *maha*. As noted in the chapter three, the farmers of Mahakoongaskada and Pul-Eliya were also unable to cultivate at least a part of the land under *bethma* system as a result of factions among them and the inability to come to a consensus on using the available water. In contrast, the farmers in Thammannakulama had a better paddy harvest that increased from 3321 bushels in 2000/2001 *maha* to 3,958 bushels in 2003/2004 *maha*. However, 43.5 acres of cultivated paddy lands in this village too suffered losses.

4.2 Changing Food Situation

Key informant interviews in all three villages revealed that the conflict had indirectly increased the vulnerability of the households to the drought. For instance, in Mahakoongaskada, there were five village irrigation tanks (Kahagollewa, Mahawewa, Gulpathwewa, Lulgaskada, and Ethawetunuwewa) of which four tanks had not been repaired over a long period. With the assistance of the Food and Agriculture Organization (FAO), two sluice gates had been repaired in Mahakoongaskada. But, the villagers claimed that these works were not completed properly rendering the repairs virtually effortless.

The conflict also has had other indirect and negative impacts in the Mahakoongaskada village, affecting agricultural production. Constant threats by the terrorist elements necessitated the relocation of the people of Mahakoongaskada to a nearby area. This affected the maintenance of the irrigation infrastructure of the village. By the time the

CFA came into operation, such institutional arrangements of people like donating of labour *(shramadana)* for village level infrastructure improvement as well as other forms of collective actions such as *yaya* production systems had dissipated. One clear impact of the conflict appears to be the disintegration of communities, emanating from the displacement of households as well as factioning of community members in line with their political affiliations. It appeared that at the time of the study, this political factor was affecting the agricultural production in a significant way. Access to irrigation water is a major factor influencing food security in almost all the smallholder farming communities in the Dry Zone. Both Thammannakulama and Pul-Eliya have relatively large village irrigation tanks that could hold water for assured *maha* crops.

Apart from the vagaries of weather, food security situation in Thammannakulama and Mahakoongaskada has been affected by the insecurity conditions created by the conflict in two different ways. First, agricultural persuits under normal weather conditions were hampered by the insecurity situation and the threats of the terrorists. The people were afraid of reaching out their farmlands for fear of being attacked by the terrorists whose hideout was the surrounding forests.[3] As already noted, households in Mahakoongaskada had to be relocated in an area deemed to be more secure than their own place of origin. The questionnaire survey revealed that 57 percent of the sample households in Thammannakulama experienced food insecurity conditions from 1997 to 2000. Similarly, 9 percent of the households in Mahakoongaskada faced a similar situation during the corresponding period. People claimed that either they did not cultivate or could not harvest the crops due to threat by the terrorists. At times, they suffered crop failures during periods of adverse weather conditions like drought or floods.[4] When the agricultural incomes were in short supply, the people lacked cereal grains for year round consumption or money to purchase their food requirements.

The situation did not improve even after the CFA in these villages consequent to the prolonged droughts. Of all the sample households, 34, 50, 59 percent in Thammannakulama, Mahakoongaskada and Pul-Eliya respectively faced food scarcities during 2001-2004.

Second, about 12 percent of the families in both Thammannakulama and Mahakoongaskada reported that they could manage only one meal a day before the CFA. This number decreased to 7 percent in Thammannakulama and 3 percent in

[3] It appeared that terrorists hid in the forest in the day time and made their traveling in the night.

[4] Food production in the Dry Zone farming villages also occurs at time of heavy rains.

Mahakoongaskada after the CFA. This shows that the food consumption in most vulnerable families has improved after the CFA. In Thammannakulama, those households having only two meals a day reduced from over two third to just 7 percent and in Mahakoongaskada 45 percent of the sample households having two meals a day dropped to 3 percent after the CFA. This shows an incremental improvement towards having three meals a day. Only 3 percent in Pul-Eliya had only two meals a day and this proportion too decreased to 1.6 percent after the CFA showing that food security situation had been better in Pul Eliya even before the benefits of the CFA began to surface. Overall effect of the post-CFA has been an increase in the number of families taking three meals a day. The number increased from 5.4 percent to 92.9 percent in Thammannakulama, from 42.2 percent to 96.9 percent in Mahakoongaskada and 96.7 percent to 98.4 percent in Pul-Eliya. This trend appears to be a remarkable improvement concerning household level food security situation in the study communities. This is especially so as the observed gain is irrespective of the prolonged drought experienced in the area.

In terms of the qualitative changes in the food basket used, there seems to be an improvement after the CFA. For instance, sample respondents from Thammannakulama and Mahakoongaskada reported that following the CFA, the composition of the average diet of the people noted an improvement. For example, they explained that they now consume more vegetables, fish, dried fish and meat and drink a little more milk compared with the situation before the CFA. Most expressed that this improvement was the outcome of several factors like the improved availability of food, increased production of varieties of vegetables and increased incomes. The villagers were of the opinion that the availability of vegetables and other food items for sale marked an increase after the CFA. The sample respondents informed of their improved mobility to markets after the CFA for purchasing foods as the threat of attacks dropped to a great extent. Improved security environment has been conducive for the vegetable sellers and fish vendors from Vavuniya to visit Mahakoongaskada.

4.3 General Improvements in Condition of Living

What characterized most in the life of the residents in Thammannakulama and Mahakoongaskada could be identified as a positive change in their psychological dispositions. The people have been spared of the fear psychosis of being attacked, killed or their belongings being destroyed by the terrorists. Before the CFA, the threat of being attacked was real as well as presumptuous. For instance, Mahakoongaskada villagers could not get over the ordeal they experienced when 45 of the villagers were killed. Thus traumatic experience impacted the people in such a way that at the slightest warning or doubt they tended to act in panic. The following discourse by K.B.Yasawathi (42 years)

of Thammannakulama is a good example of the frightening experience the people constantly underwent before the CFA was signed:

> "It was in the latter part of 1990. One day I was preparing the lunch and rice pot was just boiling on the hearth. Somebody was shouting...."terrorists... terrorists". I spent no time to ascertain who alarmed us. I grabbed my child and jumped over the barbed wire fence of my own compound. Even now, I just do not know how I managed, but I had jumped over the fence with the child and I was running towards the forest. Then, I saw in front of me and behind me my neighbors running in the same direction I was running-towards the thickest of the forest. We all ran and hid in the forest until it was dark on that day with no lunch. It was a false alarm...! "

Many villagers in Thammannakulama and Mahakoongaskada often spent the night in the forest with their families in fear of being attacked by the terrorists before the CFA was signed. On such occasions, they had a meagre supper before dark and left for the forest. Once in the forest, they hid in thick shrubs or in a large hollow space on the land. Everybody, including the children, took care to maintain silence to keep off the terrorists hiding in the forest. The villagers made the forest their hide out as the terrorist usually targeted villages in the night. Even in the hours of daylight, villagers ran the risk of terror onslaughts since the terrorists roamed the forest at that time. The CFA created an environment much safer for personal security of the people, who were spared of the need to seek refuge in the forest.

4.4 Coping Strategies

Coping strategies are an important aspect of day-to-day survival in the Dry Zone villages in times of economic crisis. As already noted, one major debacle the Dry Zone villagers often experience is the crop failures or the inability to pursue farming, in view of heavy rainfalls or spells of drought. On the other hand, the conflict disturbed the farming of land on which the villagers depended for their subsistence. Concerning the study villages, the mostly hit was the Mahakoongaskada community both in terms of loss of lives and households' ability to cultivate the land.

Most villagers were depending on food subsidies at times of hardships. Some 47 percent of Thammannakulama households depended on food subsidies before the CFA. However, with the improved food production and incomes after the CFA, the situation changed drastically reducing the number of food subsidy recipients to 15 percent. During the warring period, the villagers in Thammannakulama had reduced the number of meals they consumed daily to cope with the adverse food situation at the household level. As

revealed by the survey, those depended on food subsidies increased both in Mahakoongaskada and Pul-Eliya. However, this had nothing to do with the CFA, but the prolonged drought. Besides the food subsidies provided by the government, the families affected by the food shortages also dependended on assistance provided by other organizations and relatives. Another major coping strategy used by the villagers at times of economic hardships is the sale of household items. This strategy is often adopted by the poor, especially the poor households in the Dry Zone at times of crop failures or in other major emergencies like sicknesses or death of a family member etc.

4.5 Agricultural Production and Marketing

Farming being the major livelihood in all the three study villages before the conflict began, paddy and other food crops production for household consumption as well as for the market continued during the conflict period and after the CFA, but produced only a little surplus for the market in the conflict period. The conflict had adversely affected the volume produced for the market and for consumption for different reasons. One major reason was the abandonment of the cultivated area, both in the Thammannakulama and Mahakoongaskada villages. But, the majority of Mahakoongaskada households had to abandon their agricultural lands and their agricultural economy received a severe blow. In effect, Mahakoongaskada community en-masse was displaced, depriving them of the production infrastructure like the asweddumized paddy fields, small irrigation reservoirs and canals in the process. Thammannakulama community had their original village settlement in tact, but they were compelled to curtail the production on lowlands, highlands and *chena* lands in fear of attacks.

There was hardly any evidence of negative impact of the conflict on agricultural production and marketing in the Pul-Eliya village. In effect, agriculture in Pul-Eliya has expanded both at intensive and extensive levels from the early 1950's. The area under paddy in the Pul-Eliya village had expanded from 135 acres to 200 acres by 2004[5]. Similarly, the area under highland crops has expanded from an estimated 13 compound groups *(vatta)* in the 1950s to 450 acres by 2004, supported by the introduction of the pump irrigation system in the 1980s. According to the account provided by Leach (1954), the major restriction to agricultural development in the village has been the limitation imposed on gravity irrigation water. The village had an ancient irrigation tank, which could hold water for paddy cultivation on existing paddy lands. Some innovative farmers in early 1970s had sunk wells to irrigate highland crops like manioc and chillies. Before

[5] The extent of acreage cultivated under a compound group is not known. But, it could be presumed that the area under all 13 compound groups could have been between 20 to 30 acres. The *chena* land is not included in this category.

that, cultivation of such crops was largely dependent on rainfall. The increase of the extent under highlands for cash crop production was a consequence of such factors as the burgeoning population and the mounting needs and aspirations of the people. Encouraged by this situation, a few villagers have started using diesel-operated pumps for watering the cash crops grown on highlands. Now there are many agro wells for this purpose in the Pul-Eliya village.

Partly influenced by the conflict, Dambulla vegetable market located in the Matale district about 95 km off Pul-Eliya (presently DDEC), started to thrive in the early 1980s. With the help of new technology and pump irrigation, some innovative villagers from Pul-Eliya started to grow vegetables such as brinjal and capsicum for the DDEC during the conflict period. New crop production orientation was accompanied by the use of improved seed varieties, application of fertilizer and chemicals. Dambulla market was a typical link market, especially marketing consumable items between non-conflict zone areas and conflict zone areas.

In effect, the conflict did not have a net negative impact on the production and marketing of agricultural products in the Pul-Eliya village. It possibly had an indirect impact on market orientation of Pul-Eliya farmers via DDEC with its growth of the latter as a center for trading between the conflict zone and the non-conflict areas of the country. According to the pioneering farmers who initiated cash crop cultivation in the village, many farmers in Pul-Eliya now cultivate brinjal, long beans, big onion, and capsicum to the DDEC and the Pettah market in Colombo. In an average season, villagers bring about 100 acres under brinjal cultivation and sell from 7,500-8,500 kilograms of brinjal daily at the Dambulla market. Such sales usually would bring into the village an income between Rs 150,000 to Rs.200,000 daily. Thus, cash crop orientation in the Pul-Eliya village has been a major factor in the economic development in the village reflected by such factors as the growth in housing construction.

The most important factor is that the potential for growth in agriculture, like in Pul-Eliya, has been existing in Thammannakulama too. The major sources of agricultural innovation in Pul-Eliya have been the availability of irrigation and ground water, the market (ex. DDEC) and a few local innovative farmers who pioneered the use of agro wells and started producing for the market. Thammannakulama village also had an irrigation tank with much similar capacity as that in the Pul-Eliya village. The farmers in Thammannakulama too were relatively innovative as demonstrated by the fact they seized the earliest opportunity for cash crop cultivation after the CFA. With the re-orientation of production, a relatively high surplus of cash crops like vegetables prevailed in Thammannakulama creating a need for exploration of new markets and prompting the

cash crop farmers in Thammannakulama to establish linkages with the DDEC for marketing.

Therefore, it could be argued that the conflict has had a restricting effect on the realization of agricultural potential in Thammannakulama. By stretching the argument a little further, it could be postulated that one of the most significant impacts the conflict has had on the CACZ is a restraint on realization of the agricultural production potential. In contrast in the absence of such direct impact like in Pul-Eliya, such potential has been realized. For instance, extensification and intensification of agriculture brought a significantly large amount of money into the economy of the Pul-Eliya village. On an average, an acre of brinjal fetches about Rs.100 000 after deducting the inputs and labour costs.

As already noted, the paddy production declined both in Mahakoongaskada and Pul-Eliya after the CFA and this is largely attributable to the prolonged drought experienced in the area. This has had a certain impact on marketing channels as was observed during the fieldwork. Observations indicated that the Co-operative was the major purchaser of paddy in Mahakoongaskada and Pul-Eliya. Thammannakulama, registered about a 50 percent increase in paddy purchased by the local collectors, while the purchases by outside traders seemed to have continued unchanged or had a little drop after the CFA. There was little evidence to show a significant change in the paddy marketing pattern as a result of the CFA.

During the time of the conflict, the marketing linkages the villagers had with traders from mainly Tamil speaking areas like the Vavuniya district had severed due to insecurity as well as mutual mistrust. The curtailed demand from these areas seriously affected the prices received by the producers. The survey in Thammannakulama and Mahakoongaskada revealed that the traders concerned have started to come back to purchase their cash crops and now the producers get increased prices compared with the prices before the CFA was signed.

Chapter Five

Impact of the CFA on Access to Basic Facilities and Services

5.1 Introduction

Access to public services and facilities in Sri Lanka are greatly determined by the physical location of the communities. In the urban sector, the communities have easy access to facilities and services in the form of vehicular transportation and the schools, health care institutions and markets too are located in close proximity. Relatively higher population densities influence the location of such facilities and there is also an urban bias in the provision of services and facilities influencing the location of these facilities in urban centers.

In contrast, the services and facilities in the rural sector are located in considerably away from where the people reside. However, the most important factor in accessing services and facilities in rural areas is not the proximity of location alone, but the quality of the services provided. Coupled with the distance factor, both road infrastructure and public transportation systems in those areas leave much to be desired and the rural masses have limited access to such facilities. Thus, with or without the impact of the conflict, both quantity and quality of services provided in the remote rural areas are quite inadequate. The villages which form the focus of the present study were remote villages located in close proximity to the former conflict zone and the access to services and facilities was much less here than in the rest of the rural villages in the country.

Access to public services and facilities is important, not only from the production and marketing perspectives, but also for improving the quality of life and employment in the study communities. Therefore, an attempt was made in the present analysis to make an assessment of the implications, if any, in terms of access to services and facilities, the study communities had, consequent to the peace process that followed the CFA. The rest of this chapter examines that aspect, particularly in the spheres of transport and health care services, schooling and so on.

5.2 Access to Public Transportation

Table Number 5.1: Perception of Changes in Transportation after the CFA by the Respondents.

Perception	Thammannakulama N=58	Mahakoongaskada N=63	Pul-Eliya N=61
Improved	31.7	19.3	1.6
Not improved	68.3	80.7	98.4
Total	**100.0**	**100.0**	**100.0**

Source: Socio Economic Survey Data, 2004, HARTI .

Responses of the sample respondents summarized in Table Number 5.1, reveal a little improvement in the access to public transportation in Thammannakulama and Mahakoongaskada. While the same applies to the transportation in the Pul-Eliya, relatively more respondents in Thammannakulama were of the view that the transportation improved after the CFA, which they attributed to the commencement of a private bus service that operated from Neriyakulama to Medawachchiya through their village. There had been a public bus service through Thammannakulama before the CFA, which had seized to function in the year 2000. This was not due to the conflict but for lack of profitability. However, the peaceful environment that followed the CFA was instrumental in enhancing the social and economic activities in the village by paving the way to resume the bus service by a private entrepreneur this time round. It is interesting to note that the entrepreneur concerned is a Tamil person from the Vavuniya district reflecting to some extent, a rebuilding of confidence between the two ethnic groups (i.e., Sinhalese and Tamils) after the CFA.

Neriyakulama was the nearest town for the people of Thammannakulama. However, this township was located in the Vavuniya district where the Tamil population predominates. Because the Neriyakulama town was not easily accessible to the Sinhala people of Thammannakulama during the conflict-torn period for safety reasons, they tended to use the next nearest township - Medawachchiya, for their urban-based basic services and facilities.These villagers and the others in the surrounding villages visited Medawachchiya for their needs such as health care, schools with secondary education facilities, administrative needs etc. However, in the absence of a bus service, the people from Thammannakulama had to walk about 3.5 kilometers to Yakawewa junction for a bus to the Medawachchiya town. A bus plies four trips a day from the Medawachchiya town to Ulukkulama through the Mahakoongaskada village which is hardly adequate to meet the public transportation needs of the people of this village.

5.3 Access to Educational Facilities

A school in the Pul-Eliya village provides schooling from grade one to ten. In contrast, the Mahakoongaskada village school has classes only up to grade five requiring those pupils intending to proceed beyond primary education to seek schools elsewhere. Therefore, after the primary schooling, the pupils from Mahakoongaskada go to Ulukkulama, Punewa or Medawachchiya about 4 km, 4.5 km and 15 km away respectively. Thammannakulama had a school until mid 90's providing primary education, which, was closed in keeping with the educational policy of the Government that stipulates a minimum number of students per school to be kept open. These students were transferred to a school in Periyakulama, located some 2 km away from Thammannakulama.

These facts bring to light the absence of proper educational facilities in all the three study villages. The school in the Pul-Eliya village provided education up to the G.C.E. (Ordinary Level) Exam, irrespective of the fact that the school lacked trained teachers to teach students in the mathematics and science streams, for the last few years as the sample respondents observed. As already noted, educational facilities in the other two study villages suffered a worse fate. On the other hand, students performance at the G.C.E (Ordinary Level) Exam was only a bare minimum. For instance, in Pul Eliya only 04 students had passed the Ordinary Level Exam during the past 23 years.

However, the sample respondents expressed their satisfaction with the educational facilities provided. 14 percent in Thammannakulama and 50 percent in Mahakoongaskada opined that such facilities in the village before the CFA was quite adequate. When inquired about the post-CFA situation, 26 percent of the Thammannakulama and 26 percent of the Mahakoongaskada respondents observed that access to educational facilities witnessed an improvement as a result of the peace process. No such changes were reported in the Pul-Eliya village after the CFA.

Most discernible development reported by the respondents so far as the educational facilities were concerned in the study villages after the CFA was the improved access for the children to better schools in the nearby areas or in town centers. 7 percent of the respondents in Thammannakulama and 12 percent in Mahakoongaskada and 3 percent in Pul-Eliya reported that their children could now attend the schools outside the village like the Medawachchiya Central Collage, Ulukkulama Siri Sumana Vidyalaya and Vavuniya Central College. It should be noted that the schools in the Vavuniya district were not accessible for the pupils from the study villages before the CFA.

In terms of the access to educational facilities, another major change that was reported was the presence of additional teachers after the CFA. Due to the adverse security situation, both schools in Pul-Eliya and Mahakoongaskada were under-staffed before the CFA. After the CFA, the situation has turned the corner with the teachers expressing their readiness to report for duty in these schools. Nonetheless, the schools still experienced the paucity of trained staff in such subject areas as mathematics and English. Teachers' attendance also marked a progress with the improvement of the security and transportation situations. Before the CFA, the attendance of the teachers was irregular. Now, with the conducive environment, the situation has improved; the teachers stick to the specified time schedules increasing the contact time they have with the pupils.

5.4 Access to Health Care

The nearest hospitals to the study villages are located in the Medawachchiya and Vavuniya towns. Closer to Mahakoongaskada, there is a rural hospital at Punewa, and also a Base Hospital at Ulukkulama which is relatively closer to the Thammannakulama and Mahakoongaskada villagers than to those at Pul Eliya. However, the people from the study villages did not seek medical care from such institutions regularly because of the potential security threat before the CFA. However, after the CFA, the situation has changed with more villagers visiting these hospitals now. After the CFA the people of Thammannakulama have the services of a new dispensary in a nearby village - Neriyakulama.

Table Number 5.2: Sample Respondents' Perception of Changes in Health Care Facilities after the CFA

Perception	Thammannakulama N=58	Mahakoongaskada N=63	Pul-Eliya N=61
Improved	61.4	83.8	6.6
Not improved	38.6	16.2	93.4
Total	**100.0**	**100.0**	**100.0**

Source: Socio Economic Survey Data, 2004, HARTI.

In concluding this chapter on access to basic facilities and services like transportation, schooling and health care in the three study villages, it may be noted that some improvements seems to have occurred both in Thammannakulama and Mahakoongaskada. As expected, the Pul-Eliya village has not witnessed much of a change as it was the least affected by the conflict. On the contrary, even the positive changes that have ensued are so minuscule that these cannot have a significant effect on

improving the living conditions of the people except for the improved transportation. The conclusion that one can draw is that the interior rural villages in Sri Lanka confront the debacle of the inadequacy of social and community infrastructural facilities partly paving the way for their continued poverty. Conversely, the conflict has jeopardized even their existing conditions which now have prospects for improvement with the conducive atmosphere following the CFA.

Chapter Six

Socio Economic Conditions in the Study Villages before and after the CFA

6.1 Introduction

Certain positive changes in socio-economic conditions have taken place in the study villages after the CFA. In the present chapter, the major changes in the socio-economic conditions of the sample households are examined.

6.2 Housing Conditions

The majority of the sample households were living in their own houses at the time of the study: Percentages being 100, 96.9 and 98.4 in Thammannakulama, Mahakoongaskada and Pul-Eliya respectively. The situation is typical with the commonly perceived scenario in rural areas, where a great majority of the families have their own dwelling units. About 4 percent of the houses in Mahakoongaskada and 1.6 percent houses in Pul-Eliya were not owned, but were occupied free of rent.

Data in Table Number 6.1 show that after the signing of the CFA, the housing conditions of the sample households have improved. Houses with clay floor have decreased by 15.8 percent in Thammannakulama, by 4.7 percent in Mahakoongaskada and by 11.5 percent in Pul- Eliya. This data also disclose that there is a parallel increase of houses with cement floors. After the CFA, the housing conditions have changed for the better in the study locations. For instance, the houses built with clay walls have decreased in Thammannakulama by 15 percent and in Pul Eliya by 16 percent. No such change is observed in Mahakoongaskada. Data in Table Number 6.1 show an increase in the number of houses with bricks and plastered walls, after the signing of the CFA in Thammannakulama. During this period, the villagers have also been inclined towards adding new wings to their dwelling places, thus expanding the floor area.

Table Number. 6.1 Housing Conditions of Selected Villages before and after the CFA

Housing Condition	Thammannakulama		Mahakoongaskada		Pul-Eliya	
	Before CFA	After CFA	Before CFA	After CFA	Before CFA	After CFA
Type of roof						
Tiles	65.0	78.9	57.1	63.5	52.5	62.3
Asbestos	12.2	12.3	7.9	6.3	6.6	9.8
Metal sheets	15.8	5.3	17.5	17.5	11.5	16.4
Cadjans/ Straw/ Eluck	7.0	3.5	17.5	12.7	29.5	11.5
Type of floor						
Clay	45.6	29.8	44.4	39.7	45.9	34.4
Cement	54.4	70.2	55.6	60.3	54.1	65.6
Type of wall						
Clay	22.8	7.0	22.2	22.2	39.3	23.0
Bricks & non plastered	49.1	52.6	54.0	50.8	19.7	29.5
Bricks & plastered	28.1	40.4	23.8	27.0	41.0	47.5
Number of Rooms in a House						
1	15.1	7.3	4.8	3.2	1.6	1.6
2	28.3	27.2	38.1	36.5	32.8	27.0
3	39.6	47.3	25.4	25.4	24.6	21.3
4	15.2	16.4	28.6	30.1	27.9	31.1
5	0.0	0.0	3.2	3.2	9.8	14.1
6	1.8	1.8	0.0	1.6	3.3	4.9

Source: Socio Economic Survey Data, 2004, HARTI.

It was noted that the housing conditions were improving after the CFA in the study area, especially in Thammannakulama and Mahakoongaskada. The sample respondents from

these villages adduced various reasons for such changes and this information is summarized in the Table Number 6.2. Farm income from highland cultivation and home gardening has improved after the CFA and a part of this income has gone into housing development. Possibly the better access to the markets too was a contributory factor for the increased income. Another reason for housing improvement could have been the changes in the mindset resulting from the peaceful environment influencing the people to invest in housing.

Table Number 6.2: Reasons for Changes in Condition of Houses after the CFA (percent)

Reasons	Village		
	Thammannakulama	**Mahakoongaskada**	**Pul – Eliya**
Increase of income	75.6	54.5	81.8
Donations	17.1	22.7	0.0
New income sources	7.3	13.6	11.8
Create a permanent residence as there is no fear of terrorism	0.0	9.1	5.9
Total	**100.0**	**100.0**	**100.0**

Source: Socio Economic Survey Data, 2004, HARTI.

6.3 Transport and Telecommunication

Nearly all households in the study villages had roads that are motorable. In terms of the availability of telephone facilities at household level, 1.8 percent in Thammannakulama, 6.3 percent in Mahakoongaskada and 5.0 percent in Pul- Eliya reported having telephone facilities. However, in terms of the telephone ratio (land telephones and mobile telephones per 100 people), all three villages fall far behind the national ratio, which was 12.1 in the year 2003. For instance, telephone ratio in Thammannakulama was 0.5, in Mahakoongaskada was 1.6 and in Pul-Eliya was 1.1.

With the improved security, the CFA also has paved the way for outside agencies to enter the villages for various business purposes.[6] For instance, seizing the opportunity provided by the improved security situation, the Selco Solar Private Limited, a private company

[6] Ex-Chairman of the Madawachchiya Pradeshiya Sabha attributed the arrival of the company in the village to retuning of peace.

started business in Mahakoongaskada. The company introduced solar energy (Sun-tech Power System), while a private telecommunication company introduced wireless telephones to the village.

6.4 Cooking Energy

All households in Thammannakulama used firewood for cooking and there was no change after the CFA. Despite the fact that the situation was the same in the Mahakoongaskada sample households before the signing of the CFA, this rate reduced to 98.4 percent after the signing of the CFA. In the Pul- Eliya village, 98.4 percent used firewood for cooking and 1.6 percent used both firewood and gas and no change was observed after the CFA. In contrast, 91.7 percent of the district population used firewood for cooking. The observed conditions are typical of rural households in Sri Lanka where biomass is the major source of cooking energy. On the other hand, household economies have not improved much to afford the commercially provided energy like the liquid petroleum gas.

6.5 Method of Lighting the Households

Data in Table Number 6.3 show the method of lighting homes in the sample households before and after the CFA. Data indicate that the source of energy for lighting households has changed significantly after the signing of the CFA. Most striking change could be seen in the Mahakoongaskada village, where 30 percent of the households shifted from kerosene lamps to a solar power based lighting system. The village was supplied with solar-power by Selco- Solar (Pvt) Ltd and the peace process that accompanied the CFA enabled the company to work in the village.

Table Number 6.3: Main Source of Household Lightning (percentage of changes)

Type of fuel	Percent of Changes		
	Thammannakulama	Mahakoongaskada	Pul-Eliya
Kerosene	-17.6	-30.1	-9.8
Solar power	0.0	+30.1	+6.6
Electricity	+17.5	0.0	+1.6
Generator	+1.8	0.0	+1.6

Source: Socio Economic Survey Data, 2004, HARTI.

Similarly, in the Thammannakulama village 17.5 percent changed over to electricity after the CFA was signed. The Kelasiyambalawa village located in the Vavuniya district but adjacent to the Thammannakulama village has a grid connected electricity line. The peaceful environment that followed the CFA had facilitated the extension of this electricity line to about ¼ km to provide electricity supply to the Thammannakulama village. This extension enabled providing 13 households with power supply. The kerosene use, as a source of lighting in all study villages is higher than that in the district (49.1 percent). The use of solar power in the Mahakoongaskada and Pul-Eliya villages is higher than that of the district rate, which is 0.3 percent; but it reflects the fact that access to basic services in the study locations is minimal.

6.6 Property Ownership

There are three types of land use patterns in the study villages: low land, highland and *chena*. Lowlands usually are prepared for paddy farming and highlands for home gardening, especially for the cultivation of other food crops. Lands under *chena* are usually cultivated with seasonal crops during the rainy season both for household consumption and for sale. Lands brought under the *chena* cultivation typically come from land reserves of the Government or forested lands in the vicinity.

In terms of the ownership of lowlands, 86.4 percent in Pul-Eliya, 76.5 percent in Mahakoongaskada and 59 percent in Thammannakulama were individually held freeholds. According to the data in the Table Number 6.4, in Thammannakulama 70 percent of the highlands are singly owned. Corresponding figures for Mahakoongaskada and Pul-Eliya are 94 and 97 percent respectively. As far as the lowlands under the single ownership are concerned, the percentage of farmers owning lowlands singly is 69 in Mahakoongaskada, 89 in Pul-Eliya and 63 in Thammannakulama.

Table Number 6.4: Distribution of Sample Households by Type of Ownership of Land

Type of ownership	Thammannakulama			Mahakoongaskada			Pul-Eliya		
	Low land	High land	*Chena*	Low land	High land	*Chena*	Low land	High land	*Chena*
Singly owned	63.1	70.3	22.2	68.5	93.3	63.6	88.5	96.8	61.3
Jointly owned	16.9	7.8	3.7	9.6	1.5	0.0	8.2	3.2	0.0
Crown land/ *Jayaboomi*	10.8	15.6	0.0	0.0	1.5	0.0	1.6	0.0	0.0
Govt. owned land on temporary permit	0.0	6.3	22.2	0.0	0.0	6.8	0.0	0.0	0.0
Encroached (Govt.)	3.1	0.0	51.8	0.0	1.5	25.0	1.6	0.0	38.8
Taken on *Ande*	1.5	0.0	0.0	11.0	0.0	2.3	0.0	0.0	0.0
Leased/ Pawned/ Rental	4.6	0.0	0.0	11.0	1.5	2.3	0.0	0.0	0.0
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Socio Economic Survey Data, 2004, HARTI.

After the terrorist attack the Mahakoongaskada, villagers abandoned their traditional village and resettled in a new area adjacent to the former. This displacement has resulted not only in loss of their traditional houses and land assets, but also the neighborhoods and social networks. Some of the displaced families used their traditional land in the old village for *chena* cultivation, while the majority of the plots including the lowland plots were just abandoned. Landowners feared the terrorists would unleash their violence on them if they approached the original village to access the land for cultivation. However, the peaceful environment that emerged after the CFA prompted the Mahakoongaskada villagers to reclaim the land or return to the old village. This is the major reason for the Mahakoongaskada villagers to report a relatively high rate of singly owned *chena* land. As shown in the Table Number 6.4, the highest portion of the encroached *chena* lands (51.8 percent) are in Thammannakulama and lowest in Mahakoongaskada (25 percent).

Of the lowlands, 88.5 percent in Pul-Eliya, 69 percent in Mahakoongaskada and 63 percent in Thammannakulama are singly owned.

6.7 Vehicle Ownership

With regard to the vehicle ownership, including the ownership of non-motorable transport means like the bicycles, the study villages had vehicle densities from 35 to 40. As the data in the Table Number 6.5 show, between 22 to 25 percent of the vehicles owned by the households were bicycles; a typical means of transportation in the interior villages in Sri Lanka, particularly in the Anuradhapura district. However, bicycle is less popular amongst females due to social constraints.

Table Number 6.5: Vehicle Density in the Study Area by Type of Vehicles

Type of vehicle	Village		
	Thammannakulama	**Mahakoongaskada**	**Pul-Eliya**
Bicycle	24.5	22.5	22.7
Motor cycle	10.3	7.4	10.6
Motor car	1.0	1.2	0.8
Lorry	0.5	0.4	1.1
2 wheel tractor	1.0	2.7	3.8
4 wheel tractor	0.5	0.4	0.6
Three -wheeler	0.5	0.4	0.0
Car	0.5	0.0	0.0
Total	**38.7**	**34.9**	**39.8**

Source: Socio Economic Survey Data, 2004, HARTI.

The study findings show that in the three study villages, the vehicle ownership has increased after the CFA. For instance, vehicle ownership increased from 11.8 percent to 15.9 percent in Thammannakulama, 15 percent to 18.2 percent in Mahakoongaskada and 11.8 percent to 23.4 percent in Pul-Eliya after the CFA. The vehicle ownership in Pul-Eliya has more than doubled, and this increase is more likely in line with the general trend in the country than to a direct impact of the CFA. Better incomes from increased agricultural production coupled with wages from enhanced non-farm employment

opportunities might have resulted in the increased vehicle densities in Thammannakulama and Mahakoongaskada.

6.8 Sources of Drinking Water

As could be observed from the data in the Table Number 6.6, the access to drinking water in the study locations appears to have bettered after the CFA. For instance, the numbers of those who have their own wells have increased both in the Thammannakulama and Mahakoongaskada villages. In other words, those who depended on the neighbours' wells and public tube wells mark a decrease. In Pul-Eliya, the percentage of households which obtained water from own or neighboru's wells has dropped after the CFA. However, the data in the Table Number 6.6, point to a slightly different scenario-taking place in Pul Eliya. This village has been benefited from an Asian Development Bank assisted project to establish 97 rainwater collection tanks and some of them have started using the water collected in this manner for drinking purposes. There are a few major reasons associated with the observed shift in sources of drinking water in Thammannakulama and Mahakoongaskada. These include factors like construction of new houses along with new wells and rainwater collection tanks.

It was revealed during the fieldwork that the Mahakoongaskada villagers were seriously inconvenienced in accessing drinking water after the terrorist onslaughts, which threw them out of their traditional village. At their new place of occupation, this problem surfaced. This was mainly because the ground water resources at the new place were meagre and the rock layers underneath the surface soils would not permit sinking wells using traditional technologies that the villagers had access to.

Table Number 6.6: Sources of Drinking Water before and after the CFA

Source	Village					
	Thammannakulama		Mahakoongaskada		Pul-Eliya	
	Before CFA	After CFA	Before CFA	After CFA	Before CFA	After CFA
Owned well	33.9	51.8	27.4	30.6	70.5	63.9
Neighbors well	37.5	26.8	48.4	46.8	19.7	18.0
Tube well	28.6	21.4	19.4	17.7	4.9	4.9
Tank	0.0	0.0	0.0	0.0	4.9	6.6
Public well	0.0	0.0	4.8	4.8	0.0	0.0
Rain water tank	0.0	0.0	0.0	0.0	0.0	8.2
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

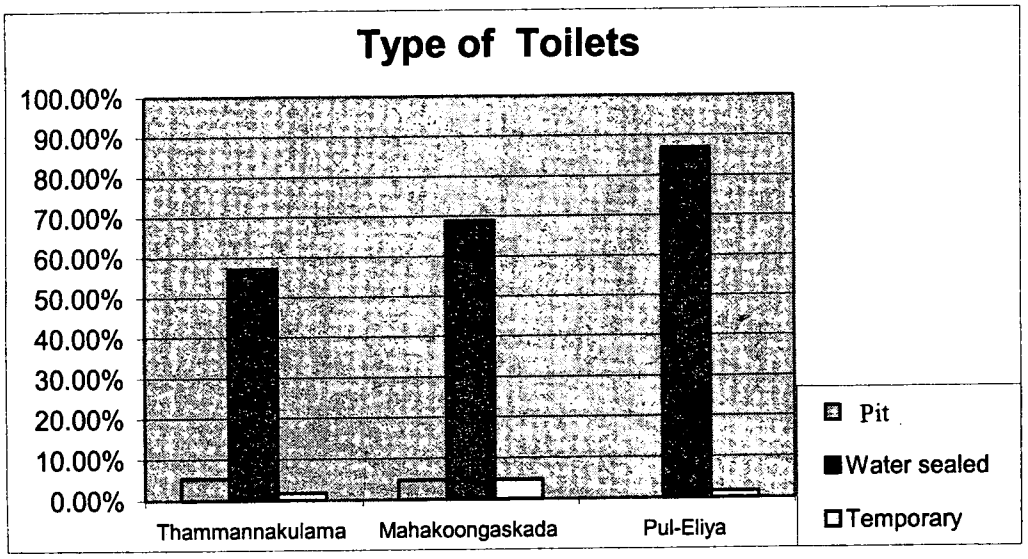
Source: Socio Economic Survey Data, 2004 HARTI

6.9 Sanitary Facilities

Eighty eight percent of Pul-Eliya, 78 percent of Mahakoongaskada and 64 percent of Thammannakulama sample households have access to toilets. However, the percentage of population with access to toilets in the three study villages is lower than that of the national percentage, which was 93.9 percent in the year 2000. Most of the toilets used by the sample households were water-sealed type. For instance, 57 percent in Thammannakulama, 69 percent in Mahakoongaskada and 87 percent in Pul-Eliya used such a type of toilets. The rates of water sealed type toilets revealed by the HARTI survey in the three villages are higher than the rate recorded for the Anuradhapura district, which is 48 percent. With regard to water sources, accessibility to water and sanitation facilities in Pul-Eliya is ahead amongst the study villages.

Those households, which resort to jungle or forest for excretion (35.7 percent in Thammannakulama, 21.9 percent in Mahakoongaskada and 11.5 percent of Pul-Eliya) do so for reasons like the attitudes/habits, scarcity of water in the own compound, lack of knowledge of proper sanitation practices and lack of income to construct toilets (See, the Graph Number 6.1).

Graph Number 6.1: Distribution of Sample Household by Type of Toilet Used



Source: Socio Economic Survey Data, 2004, HARTI.

6.10 Educational Attainments

In terms of the basic educational facilities, both Pul-Eliya and Mahakoongaskada villages have a school each, where the former school has classes from grade one to ten, whilst the school in Mahakoongaskada village has classes only up to grade five. Thammannakulama village had a school in the early 1990s, but it was closed in mid 1990's, mainly due to lack of sufficient number of students on roll. Thereafter, the children of the Thammannakulama village have been attending schools in Periyakulama, Yakawewa or Sirisumana Vidyalaya in Ulukkulama (Vavuniya district) travelling between 2.5 to 3 kilometers.

In spite of sub-standard school facilities, literacy rate of persons of 10 years and over in all three villages was impressive. For example, the data given in the Table Number 6.7 reveal that literacy rate in Thammannakulama was 98.4 percent, in Mahakoongaskada was 99.2 percent and in Pul-Eliya was 100 percent, higher than that of the national rate which was 96.4 in the year 2003.

Table Number 6.7: Literacy Rate of Persons 10 Years and Over in the Three Study Villages

Gender	Thammannakulama	Mahakoongaskada	Pul-Eliya
Male	100.0	99.2	100.0
Female	96.7	99.1	99.2
Both	98.4	99.2	99.6

Source: Socio Economic Survey Data, 2004, HARTI

Between 22 to 32 percent of the members of the sample households have had formal schooling from grade 1 to 6. However, a great majority of the household members in the Pul-Eliya village had schooling up to secondary level (63.3%). The corresponding figures for Mahakoongaskada and Thammannakulama were 52.2% and 47.6% respectively. As for success at the G.C.E. (O/L) and the A/L in the study villages, Pul-Eliya had the lowest rate, despite the fact that the Pul-Eliya village community has had little direct impact of the conflict and had relatively better economic standing. The number of students who have achieved success at the respective exams in Pul-Eliya also have declined over time. In contrast, the peaceful environment brought about by the CFA has had a more positive impact in this context in the other two villages, Thammannakulama and Mahakoongaskada where the parents sent their children to schools with better facilities, located outside.

The school enrolment in Thammannakulama and Mahakoongaskada also showed some improvement after the signing of the CFA. For instance, school attendance of the school going population was not regular during the time of the conflict, mainly due to the insecure situation and fear of being attacked by terrorist elements. Apart from the improved mental and physical environment motivating the children to attend schools more regularly, the parents were also encouraged by the improved education and other supporting facilities in the village schools after the CFA. The Thammannakulama sample population reported the best performance emerging from the better educational facilities after the CFA, when two young men from the village received admission to the university for the first time after 30 years.

Table Number 6.8: Distribution of Sample Population by Level of Education in the Study Villages

Level of educational attainment	Village		
	Thammannakulama	Mahakoongaskada	Pul-Eliya
Primary	32.1	30.6	22.7
Secondary	47.6	52.6	63.3
Passed G.C.E. (O/L)	10.2	12.9	9.0
Passed G.C.E. (A/L)	4.8	2.6	2.0
Undergraduate	0.5	0.0	0.4
Graduate	0.0	0.9	0.4
Never attended a school (but can read / write)	1.6	0.0	0.0
Never attended a school (cannot read or write)	3.2	0.9	0.4
Total	**100.0**	**100.0**	**100.0**

Source: Socio Economic Survey Data, 2004, HARTI.

6.11 Changes in Labour Force Participation and Economic Activities

If the labour force is defined as those in the age group between 10 to 65 years of age, 71 percent in Thammannakulama, 71 percent in Mahakoongaskada and 75 in Pul-Eliya were in the labour force at the time of the field study. Likewise, taking unemployment rate to mean, the percentage of the jobless persons in the labour force, 12 percent in Thammannakulama, 6 percent in Mahakoongaskada and 7 percent in Pul-Eliya were unemployed. The unemployment rate in Thammannakulama was higher than that in the Anuradhapura district (5 percent) as a whole and the national rate (9.2 percent) in 2003. Two major factors have led to this situation. One is the sluggish growth of the local economy during the conflict period which acted as an impasse in realizing its potential for diversification of economic activities and the potentials for growth. As noted elsewhere in this report, Thammannakulama had similar potential for growth as that of Pul Eliya but for the disasterous conflict impact. Second, as noted in the section on

Agriculture has been the mainstay of the economy in all the three study villages before, during and after the CFA. Heavy dependence on agriculture is a common scenario in most of the remote rural villages in major parts of the Dry Zone in Sri Lanka, particularly in Anuradhapura district. The economies of both Thammannakulama and Mahakoongaskada villages were severely hit by the conflict. Agriculture remained the mainstay of the economy during the conflict period in the two villages and the decline in the alternative avenues of livelihoods resulting from the unsafe environment had pushed the farming activities more into prominence. Agricultural sector itself had experienced much contraction in Thammannakulama and Mahakoongaskada villages. However, the peaceful environment resulted from the institution of the CFA had been conducive not only for the expansion of agricultural pursuits in these two villages, but also has given rise to a tendency for seeking out employment opportunities in off-farm and non-farm sectors. After the CFA, a slight drop was observed amongst those engaged in agriculture for employment (4 percent in Thammannakulama, 8 percent in Mahakoongaskada and 3 percent in Pul-Eliya) mainly due to the increases in waged employment in the private sector and self employment. Another significant cause for the observed shift is the better mobility enabled by the improved security conditions.

Table Number 6.9: Mobilization of the Main Occupation after the CFA

Job category	Thammannakulama	Mahakoongaskada	Pul- Eliya
Cultivator	+0.3	-3.1	-1.7
Farm helper/ Agriculture labourer	-3.3	-5.0	-1.1
Private sector	+2.7	+7.5	+2.6
Self employed	+2.6	+1.1	+1.9
Skilled worker	0.0	-0.2	-0.1
Non agricultural labourer	+1.8	0.0	0.0
Foreign employment	+0.9	0.0	+0.7
Home guard	-3.7	-0.3	-1.2
Armed Force	+0.8	+2.5	0.0
Other government jobs	-1.2	-2.3	-1.2

Source: Socio Economic Survey Data, 2004, HARTI.

Before the signing of the CFA in Thammannakulama, the number of those engaged in animal husbandry, cultivation of paddy and other crops was low as their cash crops like

long beans, brinjal and big onions found a market at the DDEC. Signing of the CFA created a conducive environment.As such the farmers in this village returned to their abandoned *chenas* and paddy lands and they expanded the area planting with banana and mango. However, the slight decline in the number of these farmers (about 4 percent) was a result of some of them taking alternative employment in the waged and the self-employment sectors. This shows some trend towards diversification and expansion of employment opportunities in the village. The discussions the researchers had with Periyakulama Grama Niladhari revealed that before the terrorists started attacking the villagers, they used to cultivate between 300 to 400 acres with gingelly *(thala)* and 300 to 400 acres with black gram (*undu*) under *chena* conditions in the *maha* season. Such practices like growing cash crops under rainfed conditions had to be largely abandoned after the terrorist attacks, but this trend had changed after the CFA enabling the farmers to return to their *chena* lands.

This is the same process perceived in Mahakoongaskada before and after the CFA. Before the CFA, about 72 percent of the employed population in the village were engaged in agriculture or related occupations. After the signing of the CFA, this rate declined to 54 percent, largely due to the drought that had lasted for about two years coinciding with the signing of the CFA. After the CFA, the farmers cultivated paddy in their lowlands and vegetables like *thibbotu*, long beans, okra, brinjal etc on *chena* lands and banana, mangoes etc on other highlands.

In Pul-Eliya, 76 percent of the employed people were engaged in agriculture before the CFA and the percentage drop was 73 after the CFA. Being a village that has had a commercial orientation in crop production for about two decades, the Pul-Eliya farmers have almost had done away with *chena* cultivation. Now the Pul-Eliya farmers cultivate beans, long beans, brinjal, capsicum chillies, big onion, pumpkin etc on highlands mainly for sale at the DDEC. They also grow paddy on lowlands, a major part of which is consumed in the village itself.

Of the many villages in the MDSD, Pul-Eliya is unique for its water resources. First, it has a village irrigation tank with a sufficient inflow. The water in the tank is used for irrigated paddy farming, household purposes like bathing and washing and for water needed for cattle rearing. Second, Pul-Eliya has fairly a rich water table replenished by the water in the irrigation tank. In recent times, the farmers have tapped the ground water resources by constructing agro wells for irrigating cash crop farming on highlands. Third, it was spared of the terrorist attacks in the recent past unlike the other two study villages.

Under these favourable conditions, the Pul Eliya farmers have been able to cultivate their paddy lands without any human-caused disturbances. However, during two years before the field work for this study was undertaken, the paddy lands in this village could not be cultivated due to the prolonged drought.

Rearing neat cattle has been a major source of livelihood in the Mahakoongaskada village where almost every household breed some cattle. The villagers sold their milk to the Nestle Private Limited, which established a collecting center in the village for the locally produced milk. The center collects between 100 to 120 liters of milk a day. Milk sales bring about Rs 100, 000 per month in to the village.

6.12 Income

The data in the Table Number 6.10 show the trends in levels of annul incomes of the sample households in the study villages before and after the CFA. The data reveal that the percentage of people in higher income brackets have increased in all the three villages, whilst the percentage of the people in lower income groups have decreased in Thammannakulama and Mahakoongaskada after the CFA. In Pul-Eliya, those earning Rs.200,000 or more per annum are increasing. Though inflation should account for the observed increase in annual income levels in the villages after the CFA, a significant proportion of this increase could be attributed to expansion of economic and employment opportunities that occurred as a result of the peace that followed the CFA.

Increase in incomes could be attributed to the effect of the CFA for the following reasons:

1. Extension of the cultivated area. This was largely due to the resumption of cultivation of abandoned lands in Thammannakulama and Mahakoongaskada. This positive effect could have been higher if not for the prolonged drought in the area.
2. Increasing opportunities for alternative employment, including increased avenues for self-employment.
3. Improved marketing opportunities due to the access to the DDEC and the increased arrival of produce collectors in the villages.
4. More systematic cultivation of land due to the improved security situation

Table Number 6.10: Percentages of Households on Different Income Brackets (Annual) Before and After the CFA

Income Range	Thammannakulama		Mahakoongaskada		Pul-Eliya	
	Before CFA	After CFA	Before CFA	After CFA	Before CFA	After CFA
0<-<5,000	25.4	16.7	14.7	14.5	7.0	11.7
5,000=-<10,000	19.0	18.7	12.7	17.5	8.8	11.0
10,000=-<20,000	18.2	18.7	26.9	24.7	18.7	16.9
20,000=-<30,000	7.9	8.4	6.1	9.6	19.9	8.4
30,000=-<40,000	10.3	9.0	8.1	2.4	10.6	8.1
40,000=-<50,000	4.8	3.8	5.6	1.8	7.6	2.9
50,000=-<60,000	4.8	1.9	8.6	4.8	9.9	5.1
60,000=-<70,000	0.8	1.3	3.5	3.6	3.5	2.9
70,000=-<80,000	3.2	2.5	2.5	3.0	2.9	5.1
80,000=-<90,000	2.4	1.3	1.5	0.6	1.8	0.7
90,000=-<100,000	1.6	12.2	2.5	7.8	2.3	5.8
100,000=-<125,000	1.6	1.3	2.0	4.2	2.3	2.9
125,000=-<150,000	0.0	0.6	2.5	0.6	2.3	2.2
150,000=-<175,000	0.0	1.3	1.0	2.4	1.2	2.2
175,000=-<200,000	0.0	1.9	0.0	0.6	0.6	0.7
>200,000	0.0	0.0	1.5	1.8	0.6	2.9
Total	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**	**100.0**

Source: Socio Economic Survey Data, 2004, HARTI

Table Number 6.11: Effects of the CFA on Changing Working Hours

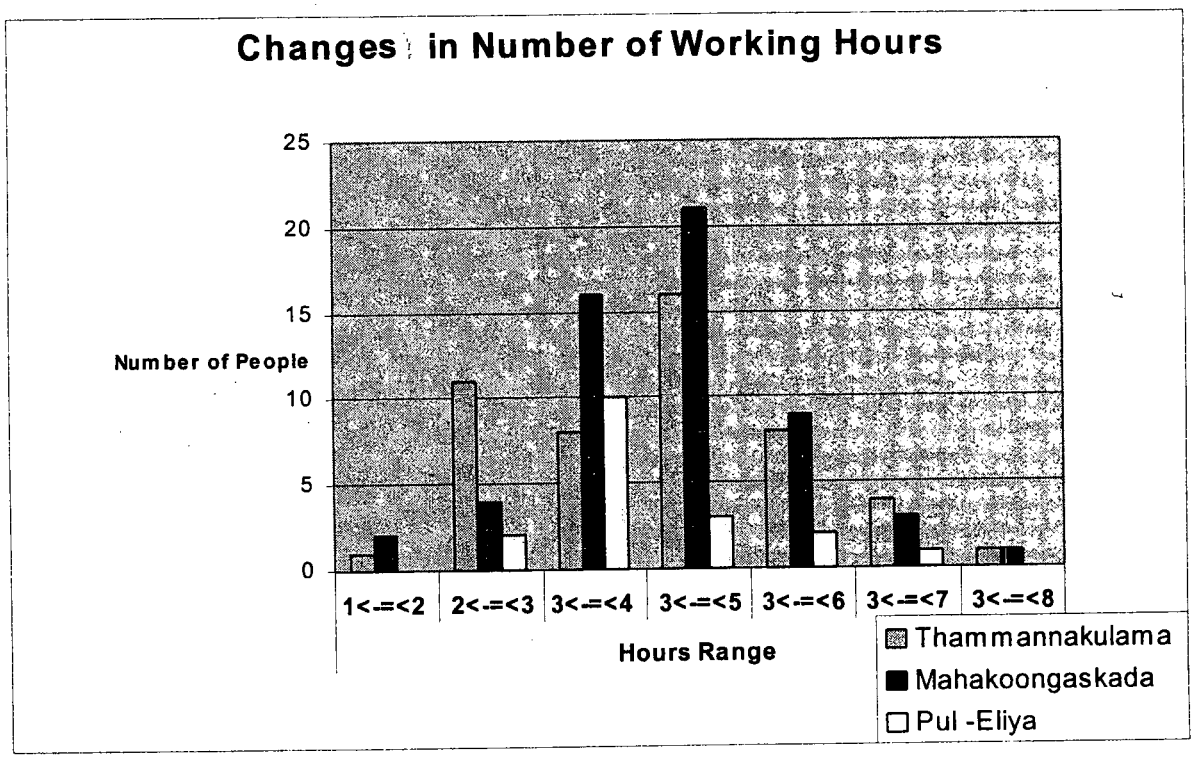
Village	Directly affected	Not affected
Thammannakulama	87.5	12.5
Mahakoongaskada	85.9	14.1
Pul- Eliya	29.5	70.5

Source: Socio Economic Survey Data, 2004, HARTI

The peaceful environment resulting from the CFA gave the sample households more time to engage in economically and socially productive activities. Security concerns curtailed the working hours of the people in both Thammannakulama and Mahakoongaskada. For example, in the afternoon, most of the people in the two villages did not travel far from home in fear of terrorist attacks or because of their apprehension about coming back before dark. They were reluctant to work on lands located far away from home in the evenings. Social activities and religious functions needing assembly of people had also been curtailed. In the night they also used to have their dinner early and put off the kerosene lamps and sleep early as the lights and voices could attract terrorists.

As shown by data in the Graph Number 6.2, the peaceful environment that resulted with the implementation of the CFA gave more working time for the household members in Thammannakulama and Mahakoongaskada. As expected, such effects could not be readily apparent in the Pul-Eliya . In Thammannakulama and Mahakoongaskada, the gain in mean number of working time was over 4 hours.

Graph Number 6.2



Source: Socio Economic Survey Data, 2004, HARTI,

6.13 Effects on Saving and Investment

Recent changes in income levels have had a positive impact on disposable income at household level in Thammannakulama (59 percent) and Mahakoongaskada (31 percent).

As shown by data in the Table Number Number 6.12, three factors have contributed to the increase in incomes.

Table Number 6.12: Reasons for Changes in Savings

Reason for increasing disposable incomes	Village		
	Thammannakulama	Mahakoongaskada	Pul-Eliya
More income due to cultivation after the CFA	48.5	18.4	11.8
Better price for the products	7.6	5.7	0.0
Hiring of agricultural equipment	3.0	0.0	0.0
No change	0.0	3.4	13.2

Source: HARTI Socio-economic survey 2004

Note: Figures do not add up to hundreds as the respondents gave multiple answers.

Only a few households had started new investments with the improvement of the disposable income after the CFA. For instance, only 10 percent in Thammannakulama, 5 percent in Mahakoongaskada and 3 in Pul-Eliya had started a new investment after the CFA. The type of new investments included small trading, purchase of a three wheeler and agriculture machinery for hiring.

Chapter Seven

Conclusion and Recommendations

7.1 Conclusion

Three villages in the Anuradhapura district located adjacent to the conflict affected Vavuniya district were studied to make an impact assessment of the conflict and the peace process resulting from the signing of the CFA in 2002, on work, livelihood (especially on agricultural production and consumption), income, living conditions and physical mobility. One of the villages, namely Pul Eliya which experienced no direct impact was studied as a "control" to asses these factors. Of the other two study villages, Mahakoongaskada had been attacked and 45 persons killed by the terrorists during the conflict period. The community in this village had been displaced altogether and was relocated in a nearby area. The remaining village, i.e., Thammannakulama, which had a significant potential for agriculture based growth had been largely constrained by the impact of the conflict.

A significant proportion of the agricultural lands in Thammannakulama and Mahakoongaskada had been abandoned due to the unsafe environment created by the conflict. Benefitting from peaceful environment that resulted with the signing of the CFA, the villagers of Mahakoongaskada had come back to their original village and had started cultivation though a prolonged drought affected its paddy cultivation. However, the people of Thammannakulama seized the opportunity of the conducive atmosphere and started crop diversification and producing for the market. Nonetheless, agriculture in the two conflict affected villages did not expand much in terms of intensive margin. The peaceful environment that resulted from the signing of the CFA also enabled the people to find alternative livelihoods other than agriculture.

There is an observable upward trend in income in the two conflict affected villages after the CFA. This fact is reflected not only in reported incomes, but also in food consumption, housing improvement and investment in transportation and alternative livelihoods. Improvements in access to health care, schools, telecommunication and electricity were also reported in the study villages which can be largely attributed to the peaceful environment created as a result of the signing of the CFA.

7.2 Findings

One would contest the nature of conclusions in a report as the present study. Obviously, its focus should go beyond its direct findings and pivot on fundamental policy issues that it sheds light on. In Sri Lanka, about a quarter of the people have been living in poverty over the last two decades. Of the poor, over four-fifth are living in rural areas and a great majority of them are in the agrarian sector and live in marginal rural environments like in the Dry Zone. The conflict has claimed many lives and has disabled thousands of people, depriving many of their livelihoods and homes. Poverty in remotely located Dry Zone communities is relatively high and this is especially so in those communities adjacent to the conflict zone. This situation results from the curtailed social and economic activities either due to the direct attacks by the terrorist elements or indirect impact of the conflict.

As much of the survey information on income, employment, living conditions and access to services indicates, many of the sample households in the sample study communities are living in poverty or on the edge of poverty. Some villagers have been experiencing long-term poverty or have become chronically poor due to the combined effect of the conflict and the marginal environmental they live in and the meagre physical resources available to them. The people living in the CLACZ are not in any way a party to the conflict, but a section of them severely suffered there from. However, when the agenda of policy was set in motion, the plight of such communities has been taken hardly into account. Putting an end to the violent conflict between the two warring parties has been one major objectives of the CFA. However, the extent to which the ground reality of CLACZ influenced the signing of CFA is not known. Indeed, the CFA as revealed by the present study has had a net positive effect on production, employment, income and living conditions in the CLACZ. However, the existing conditions in such communities has been so deplorable, even with the peace process around the corner, they could not reap most of its benefits due to prevailing marginal conditions like the poor access to production resources and marginality of the environment itself.

7.3 Recommendations

Findings in this study necessitate directing the policy attention to following matters:

- Rehabilitation or reconstruction of physical infrastructure and productive resources in the area on an urgent basis. In particular, attention should be paid to the rehabilitation of irrigation and road infrastructure.

- Being marginal villages in the Dry Zone, the CLACZ have suffered the paucity of basic facilities and services like good quality schools, health care facilities, electricity, communication, transportation etc. Even some of the existing services have not been maintained properly because of the conflict situation. One area which needs urgent attention is improving the transportation networks so that the villagers can have access to the basic services and facilities located outside the villages. Of prime importance in this regard is the provision of incentives provided to induce some of the existing town centers to develop as viable service supply centers. For example, the DDEC has been fulfilling a service as an agricultural market center with great benefits to distantly located agricultural villages such as Pul Eliya.

- There is a need for promoting social integration and harmony both within and outside the village communities. Social disintegration within communities has occurred in the recent past due to the psychological impact of the conflict, displacement and wider processes like community getting divided based on political party lines. Developing linkages between the Tamil communities living in the conflict zone areas and those of the CLACZ can be mooted. Such processes should be encouraged through statutory actions like providing better transportation between the Sinhala and Tamil villages and access to common schools. When establishing service centers, villagers ability to gain access across boundaries alone the conflict zone and the non-conflict-zone areas should be considered.

- Traumatic impact of the conflict in such villages like Mahakoongaskada has been severe. Some incidences reported by the members of sample households clearly indicate the need for psycho-social attention to the affected families.

- Given the limitation imposed by the marginality of environment for taking off agriculture on a satisfactory scale in the villages concerned, a clear need for livelihood diversification could be identified. Pul Eliya has already reaped much of its agricultural potential, but the living conditions in the village leave much to be desired. For this reason, agriculture alone in these villages cannot be expected to contribute to their taking off to a sounder economic basis.

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