INCREASE IN LAND PRICE AND LAND USE PATTERN CHANGES IN THE POST-DISASTER SITUATION IN AMPARA DISTRICT, SRI LANKA

Journal of Social Review
Volume 3 (1)
December 2014
Department of
Social Sciences

S.M.M.Ismail

Abstract

This field research carried out the subject on "Increase in land price and land use pattern changes in the post-disaster situation in Ampara district". It is one of the major productivities under this project, funded by the NUFU, Norwegian Program for Development Research and Education. In this research, the land use pattern, its changing trend, the increase in land price and its significant causes in the post disaster situation, are key components to understand the real condition of the land usage in the Ampara district. This district has had the misfortune of facing many disasters in the recent past which created severe impacts on its people. This area has suffered a lot as a result of armed conflict and natural disaster. The effects of both disasters have had directed to increase the land price and land use pattern changes in the research area considerably. Therefore, this study is significant as it explores how far post-tsunami and post-war scenarios pilots to increase the land price and land use pattern changes in the area of research. This paper has covered the three major workings as land use pattern changes, increase in land prince and the causes for increasing land price respectively. This paper is found that the land use pattern has been changed and it impact on agriculture and other economical activities. Further, this study reveals that the land price of coastal region of Ampara district has been increased rapidly due to many reasons. So, this recent work tries to assess the level of usage of lands and the trend of land price in different locations, and also these helps to categorize the varies types of land and land use patterns which experienced by the people in Ampara district where natural and human-made disasters were placed in large scale.

Introduction

Land is one of the important necessities of human life. Land use involves the management and modification of natural environment or wilderness in the environ ment such as fields, pastures, and settlements. It has also been defined as ñthe arrangements, activities and inputs people undertake in a certain land cover type to produce, change or maintain itò (Guttenberg, Albert Z. 1959). Land use is an understanding of the use of the land and the management practices within a land use category, provides valuable information about the reasons for change in the condition of our natural resources. This information in turn can be incorporated into strategic planning and development at all levels with the aim of optimizing land use, assessing suitability, enhancing productivity and ultimately achieving sustainable practices.

The increase in population, urban expansion, variations in the demand for local agricultural products, development projects initiated by

the public and the private sectors, and the economic policies followed by the government have caused many changes in the patterns of land use within the Ampara district. And also these series of aspects have created a higher demand for all types of needs such as land for settlement, cultivation, private and other public purposes. This situation increasingly has many socio-economical impacts on the life of the people in the Ampara district.

Background of the study area

When the reverberations of an underwater earthquake sent a tsunami wave hurtling towards countries in South Asia in 2004, one of its biggest victims was Sri Lanka, a country that has been experienced over 3 decades of ethnic conflict. The sheer power of the wall of water have caused the deaths of thousands, destruction of villages, homes and livelihoods, provoking an outpouring of aid and sympathy from countries all around the world. Sri Lanka was the country that was hit severely by the tsunami next to Indonesia, with approximately 36,000 people dead and over one million displaced from their homes. The Northern and Eastern Provinces, were the places that suffered greatly, with over 20,000 dead, also happened to be the home of a long-running separatist struggle.

Ampara is one of the districts situated in the South Eastern Coast of the Eastern Province of Sri Lanka has had the misfortune of facing many disasters in the recent past that have created a severe impacts on its people. The Ampara region was historically known as Digamadulla in the ancient time. It is bordered by the districts of Batticloa and Polannaruwa on the North, Hampantota on the South, Moneragala and Badulla on the west and the Indian Ocean on the East. It covers area of 4431 sq. km. and is situated in the dry zone of the island, receiving rainfall during the northeast monsoon and the inter-monsoon season. The distance between Ampara and Colombo (the capital city) is nearly 350 km, and this is one of the main obstacles standing in the way of economics, social and cultural development of the district.

Amapara is a densely populated district, specially in its northern coastal area it has a population of 6 percent, with an ethnic composition of 44% Muslims, 37.5% Sinhalese, 18.3% Tamils according to the information released for 2007 by the Department of Census and Population. There are other ethnic groups such as Burgers and Malays in negligible numbers scattered around the district. More than 97% of the Muslims and the Tamils live in the coastal area comprising the Divisional Secretariat Divisions of Kalmunai, Sainthamaruthu, Karaitivu, Nintavur, Addalaichenai, Akaraipattu, Alayadivampu, Thirukovil, Potuvil, Sammanthurai, Navithanveli and Irakkamam.

Map 1.1: Map of study area

Source : *Disaster management Plan, 2006, Divisional Secretariat, Kalmunai Muslim and Tamil Division*

The main livelihood of the people in the district is agriculture, fishing and related pursuits. Ampara accounts for 25% of the rice production in the country. Senanayaka Sammuthrarya, located in the western part of the district, supplies water to all irrigation schemes, agricultural and households needs of the entire district. Sandy beaches and lagoons characterized the coastal area. The total extent of Paddy land is nearly 67,500 hectares. Those who live along the coastal area from Panama to Periyaneelavani are engaged in the fishing industry as their main means livelihood. There is a sugar factory, a tile factory, some brick factories, rice mills and garment factories in the district. The indigenous cottage industries are based on the palm trees and the products from these industries can be further improved with the application of modern technology.

Ampara has suffered severely during the past 30 years due to armed conflict. The effects of the conflict include: internal displacement, damage to houses and infrastructure, loss of livelihoods and a high percentage of single-headed households (in particular, women-headed households). As a result, more than half of the populations live below the poverty line. In addition to the conflict, this district had faced a huge disaster of Tsunami for the first time that struck and shattered the eastern coastal belt of Ampara district. In fact it has caused death toll of 10,436, and 75,172 people were injured, and 18,810 houses were damaged (www.statistics.gov.lk).

This predominantly low-lying coastal region is characterized by its sandy beaches and lagoons, and is in the countryôs dry zone. Primary land use is shown in the table below:

Table 1.1
Land Use Patten in Amparai District

Category			Area Figures (Ha)	Total (Ha)
Urban Land	Built up Land		40,847	40,847
	Associated			
	Non - Agricultural Land			
Agriculture Land	Homesteads Tree & Other Potential Corps		65,973	65,973
	Corp Land	Paddy	58,984	58,984
		Sparsely-Chena	10,026	10,026
		Corp Land		
		Sugar Cane	5,000	5,000
Forest Land	Natural forest	Dense Forest	99,116	99,116
		Open Forest	75,630	75,630
	Forest Plantation		8,371	8,371
	Nellikelee		1,140	1,140
Range Land	Scrub Land		43,839	43,839
	Gras Land		26,605	26,605
Wet Land	Forested	Mangr - oves	292	292
	Non forested	Marsh	5,667	5,667
Water-bodies Barren land and others			51,698	51,698
Total Area			**493,188**	**493,188**

Source: District Statistical Hand Book

Most of the area has been used for agricultural production with major, minor irrigation and rain fed water and forest conservation is maintained highly in the district. Scarcity of urban land has been utilized for the human settlement and it caused increases in the density.

Based on this information, this paper tries to understand the land use pattern, increase in land price and its causes and impacts on the different levels of socio-economical condition in the district.

Objectives of the study:

This study was carried out based on the following objectives: to explore how far land use pattern changed during post-disaster situation in Ampara district; to find out how far the government and NGOs made use of land for housing and other constructions and; and to examine the reason for increasing land price in the coastal belt of Ampara district.

Research Design/Method:

In this study, various methods were used for data collection- from primary as well as secondary sources. Secondary data was collected from officials such as the Divisional Secretariat and Municipal Council, NGOôs records, previously conducted research and reports, and other relevant documents.

Primary data was collected mainly through questionnaire survey, key informant interviews and Focus Group Discussions (FGDs). As the total number of population of the district is almost 600,000, household data was collected, from 200 households based on stratified sampling method as the district comprised of Muslims, Sinhala and Tamil communities. The distribution of sampling (200 questionnaires) is shown below in table 1.2.

Table 1.2
Distribution of Sampling (200 questionnaires) in Ampara District

GN Divisions	Percentage of the people	Sample
Muslims	42	84
Sinhalese	39	78
Tamils	19	38
Total	**100**	**200**

Primary data was also collected from structured interviews with key informants. 25 people were interviewed, as follows:

Land officers	: 04
Political Leaders	: 02
Social Activists	: 05
Administrators	: 04
Professionals	: 04
NGOs representatives	: 06

In addition to this, at the village level, data was collected through four (4) focus group discussions (FGD) with the participation of tsunami and war affected people, social activists, academics, and religious leaders. These FGDs were conducted using a number of participatory data collection instruments adopted from Participatory Rural Appraisal (PRA).

Three main methods were used (see table 1.3) which consist of six data collection techni ques/ instruments to be used in this study. The following table summarizes the key methods that are used in this study.

Table 1.3: Methods and techniques of data collection

Type of data	Methods	Techniques/instruments
Quantitative and Qualitative	Desk studies	Literature review Secondary data Site visit(observation)
Quantitative	Surveys	Household Questionnaire and Farmers
Qualitative	Interviews, Discussions and Appr aisals(PRA)	Key informant interviews Focus Group Discussion (Rankings,groupdynamics)

Understanding land use and its pattern changes

This study analyses the land price trends and the changes in the land use pattern in order to investigate the causes for the rise in the land price and the consequent changes in the land use pattern in the post-disaster situation in Ampara district. And also it focuses on all the types of changes in the land use pattern while keeping watch on the overall process of rise in the land price in this phase. Land use is an important instrument for sustainable development in this century. Possible use of land can directly influence on land price which is increased in this research area due to the natural as well as human-made disasters. Therefore, this chapter deals with clear understanding the changes in the land use pattern change and the price of land in wider view.

Understanding of the use of the land and the changes of land use pattern within a land use category provides valuable information about the causes for change in the condition of our natural resources. Land use is the function of land - what it is used for. Land use varies from area to area. In rural segment (countryside) land use can include forestry and farming. In urban areas (towns and cities) land use could be housing or industry and other public purposes. The land in Sri Lanka is used for variety of purposes. A part is used for: agriculture, a part for forestry and wildlife conservation and a part for human ements, industry, infrastructure etc. (Percy Silva - 2001).

In the 1980s, major parts of the Northern and Eastern plains were sparsely populated, with scattered villages each huddled around an artificial lake. The Jaffna Peninsula, although a dry area, is densely populated and intensively cultivated. The Southwest of Sri Lanka contains most of the people, and the villages are densely clustered with little unused land. In the Central Highlands around Kandy, villagers faced with limited flat land, have developed intricately terraced hillsides where they grow rice. In the 1970s and 1980s, the wet land cultivation area was expanding rapidly, as the government implemented large-scale irrigation projects to restore the dry zone to agricultural productivity. In the 1980s, the area drained by the Mahaweli Ganga changed from a sparsely inhabited region to a wet rice area similar to the southwest. Through such projects, the government of Sri Lanka has planned to recreate in the dry zone the lush, irrigated landscape associated with the ancient Sinhalese civilization. (http://www.country-data.com/cgi-bin/query/r-13169.html)

The coastal belt, surrounding the island has a different types settlement pattern evolved from ancient fishing and agricultural villages. Separate fishing settlements have come to be expanded laterally along the coast, linked by a coastal highway and a railway. The mobility of the coastal population during colonial times and after independence led to an increase in the size and number of villages, as well as to the development of growing urban centers with the facilitation of outside aspects. In the 1980s, it was possible to drive for many kilometers along the Southwest coast without finding a break in the string of villages and bazaar centers merging into each other and into towns.

The land used by man for different purpose in the Eastern region of study; perhaps the most significant changes in land use in recent years have taken place within Ampara district. Due to the rapidly increasing demand for land for settlement and economic activities, there is a constant struggle going in uses due to the demand. (Ramraj Narasi mhan).

These determine the more significant changes that took place in the patterns of land

use in the country during the period 1982 to 2010. And it has increased in the post tsunami situation and following tables describe the variability, land use patterns in Ampara district can be categorized into built-up area, wetland, agriculture (paddy, coconut and other crops), and marshy land. At present, Ampara faces the threat of the land and environmental degradation due to the unplanned urban system. Due to the influence of various factors of many origins, land cover has undergone dynamic changes. (Namalie Jayasinghe, 2005).

In such a way, Ampara district also had received a vital attention on land use pattern and its changes consequently. In this research, the land use pattern during different period (from 1980 to 1990 and from 2000 to 2010) can be measured as computed in the table 1.4:

The urban land is 7.41% and agricultural land is 32.74% as calculated during the 1980s period, because lack of urbanization and demand was in the period and people used the land for the settlement and agriculture. And the mega development project was not initiated by the government in time and the people used the land for their ordinary needs based on the traditional system and cultivation and other practices.

But, it has been changed in the following period of 1990s due to the demand and settlement purposes for the victims of civil war. So, table 1.5 illustrates the land use pattern prevailed during the period of 1990s.

The use of urban land was augmented by 8.55% in this time and agricultural land usage had been reduced to certain percentage during this period, because such land had been used for settlement and other construction purposes. Meanwhile, the disparity had been increased in the land use pattern in the context of the millennium development goal. The subsequently table1.6 shows the land use pattern in the millennium phase

In the 3rd stage, the use of build up land has increased in addition to the used land in the early period. And agricultural land has been abridged because it has been used for the human settlement, particularly in this research area. So, the change in the land use pattern has reached to a new era because the tsunami disaster has affected the demography of the area which has made the decisive mark on the land to accommodate the peopleôs demands in the region of research.

The table 1.7 gives the details of the current land use pattern in Ampara district. This table is very important to understand the real condition of land use pattern changes after tsunami disaster, especially in the coastal belt of Ampara district.

The table 1.7 describes the changes of land use pattern in the area. In this phase, the new demand for the land may seriously effect on the agricultural and wet land. The area of human influence has drastically increased during the study period in the research area. Reductions of paddy land and wetland also have taken in to account during the period of study. The trend of the changes shows that the area is getting transformed from natural environment to man-made environment.

In this study, urban land and agriculture land were given priority to understand the land use pattern in Ampara district during the post disaster situation. Prior to the tsunami and conflict, people have used urban lands to build houses and commercial buildings for their various activities. Further, government built several public buildings such as hospitals, schools, parks, playgrounds and other all kind of administrative offices and civil service buildings for the commercial, administrative, and individual enterprise and for the betterment of the people in the district.

Even Ampara is one of the most densely populated districts in Sri Lanka and its population growth rate is more than 2%. In fact, thousands of people, mostly the fishermen, lived and settled down in the coastal area; close to the sea-shore. These people were the severely affected as they settled down close to the sea shore, by the tsunami disaster in 2004 which devastated their lives, houses, belongings and other public buildings.

Moreover, protracted conflict and civil war that held over the 3 decades in Sri Lanka that contributed immensely to the loss of lands of civilians in the Ampara District. More than 3883 acres of paddy lands belonging to Muslims in the Vaddamadu and other areas have been forcibly taken by the military groups (CCE report).

Government and NGOs were engaged in post-tsunami reconstruction since 2005. The GOSL initially declared 200 m as buffer zone from sea shore for this purpose, and then it was brought down to 60 m. This, in fact, this policy change contributed to the replacement of the construction of public buildings, Kovils and Mosques in safe areas- away from buffer zone 60 m limit. The government and NGOs were able to locate empty land quite easily for reconstruction and relocation in some villages, but it was not the case in some other area where they were compelled to purchase private paddy lands belonging to individuals for this purpose.

Thus, GOSL and INGOs were able to locate and settle the tsunami victims, who lived within the buffer zone prior to tsunami, in the new housing scheme under the reconstruction and relocation system. Furthermore, affected people who lived outside the buffer zone area and non-affected people of tsunami were also engaged in purchasing paddy lands and empty lands away from buffer zone to construct houses and other purposes which resulted in a sudden increase of the land price and usage in the district.

However, paddy cultivation, after the civil war and tsunami, has been productive for the farmers in the Ampara District. As farmers had easiest access to engage in cultivation in all the areas in the aftermath of LTTEôs regime, their production and cultivation had risen considerably. Total cultivable land, prior to the tsunami, was 55,000 hectares producing 250,000 metric tons per season. But the latest study shows a marginal, if not considerable, increase after the tsunami. According to the latest report, both the production rate of paddy and the extent of paddy lands have been increased. At present (after the tsunami), the total cultivable area under paddy is around 65,000 hectares and the average production is 341,000 metric tons per season.

In this sense, the types of land and land use patterns in the research area in the post-tsunami situation are given in the following view points:

Urban	Agriculture
Residential	Paddy
Industrial	Home garden
Institutional	Other crops
Recreational	
Transportation & Infrastructure	

And urban land utilization has increased by 30% after tsunami disaster and the agricultural land area is reduced by 1% in the study area because such land have been developed in to build up pattern.

Increase in land price in the post-disaster situation in Ampara district, Sri Lanka

This chapter analysis the reason or causes for increasing land price and its socio-economical impacts on the activities of the people in post-disaster situation in Ampara district. There are some evidence that land prices have the potential for use as indicator, especially during post-disaster period in order to evaluate the socio, economic condition and its future possibilities in the region. The land prices have been changed significantly. More research studies are also needed to estimate the value of the land and the causes reflecting the price of land. This study only provides a partial treatment of land price, since it focuses on land use pattern changes, after the disasters.

Land value is the total monetary worth of a piece of land. This includes upgrades or improvements that were made to the property. The landôs value is important if we are trying to sell our property. It can also be useful if we need to calculate our capital gains. According to the Henry George Organization, there are three approaches that are used to determine the value of a piece of land. These include the cost approach, the sales comparison approach and the income capitalization approach. The cost approach says an informed buyer would pay no more for a piece of land than he would a similar property with a same attributes. The sales comparison approach uses the actual prices other buyers have paid for similar properties to determine land value. The income capitalization approach takes into account any future income a buyer could make from the property, and determines the land and value based on current market values and expected expense increases in the land ownerôs business. (Henry George Organization, from http://www.ehow.com/facts_5942534_definition-land-value_.html)

According to this understanding the land price (value) was decided due to the Demand for the land and it is drawn closer to two dimensions as *face* and *area*. Normally we can divide the build up land in to *three faces* as urban, semi urban, and rural. This category is classified as of the centre and periphery approaches, the urban is denoted Kalmunai municipal area, the semi urban symbolizes Karaitivu, Nintavur, Addalaichenai, Akkaraipattu, Sammanthurai, Pottuvil and Rural refer to Alayadivampu, Thirukovil, Navithanveli and Irakkamam in the scope of study. The ôareaô is partitioned in to three categories in each face: coastal or border, middle and main area based on the goods and services accessibilities in the region.

The demand is variable in every face and area periodically based on the development of goods and services delivery; it has been tented due to conflict and tsunami disaster. And these may causes to change the land use Patten and increase the land price in the district. The table 3.1 describes the land price based on *'face'* and *'area'*.

According to the data the land price valuated in a higher range in the post disaster situation than before and there was a variable based on area such coastal/ border, middle and main in both situation.

Here every price indicators has been calculated by the mean value of the data in order to the proposed category and the results is articulated that land price is higher in the urban area than semi urban and rural faces, the land price is in the 2nd range in the semi urban face than rural face and land price has abridged in the coastal area in all face excluding Pottuvil and the border areaôs land price is increased such Sammanthurai and Alayadivempu area because the demand was increased in the area due to the tsunami. The development of tourism may lead to the increase in land price in Pottuvil area. When

we compare the data of the disaster causes with the increase in the land price in all over the area with some certain exclusion.

Why the price of land is increased?

There are many factors that influence on land price in the research area. In the post-war scenario, government had formulated the buffer zone policy which is highly considered in this paper as an important measure to understand the factor of land price. Meantime, population growth, higher demand for the urban land, end of civil war and peace initiatives, development of tourism industry, expansion of local industries, higher educational facilities, mega development projects of the government and other social factors that are key influential and powerful indicators to determine the land price in post-disaster era. These factors are taken up for discussion in detail.

Higher population growth

Our research in this area shows that this has been the one and only investment opportunity with a highest investment return and a zero risk. The result of our random survey conducted in Ampara will give a clear picture of the future trend of real prices of the land. The main reason for this increase in the rate of prices is the high population density in some areas in the region and the demand for lands in some other remote villages. Even Ampara is one of the most densely populated districts in Sri Lanka and its population growth rate is more than 2%. So in comparison with other regions in Sri Lanka, population density in Ampara district is so high that it forces land price to go up continuously.

Kalmunai, Sainthamaruthu are higher densely populated areas in the district. Therefore, availability of land is not enough for the need of the people to build houses and other buildings. So, scarcity of land in these areas is generated the demand of land price consequently. As a result of this people want to buy urban land (closed to the main road) at higher prices for their several purposes. According to the questionnaire survey, in Kalmunai municipality areas, it costs Rs. 1,000,000.00 to buy a perch of land, and we need Rs. 800,000.00 to buy a perch of land in Sainthamaruthu as well. This higher demand of land price is pathetically making economical impacts on the life of the people.

Clear demarcation of buffer zone

After Tsunami, the Government of Sri Lanka (GOSL) initially declared 200 m as buffer zone from sea shore. Then it was decreased to 100 m and, finally the GOSL has been demarcated 60 m as buffer zone for many purposes. This demarcation is the key reason of increase of the land price. Because, soon after the tsunami, people who lived in the buffer zone area were homeless, and they were compelled to move to some other areas away from the buffer zone in order to purchase the land for their lives.

After the buffer zone policy of the government, the price of the land which is away from the buffer zone area has increased due to the demand for land and the lack of settlement land. As a result of this, government and the NGOs have resettled the Tsunami victims away from the buffer zone area such as Ismail Puram in Sammanthurai, Pace village in Addappallam, hosing scheme in Karaithivu, Maruthamunai and in Islamabath (Kalmunaikkudy). Meantime, people who were affected by the Tsunami have built the houses and commercial buildings in some other areas. Because of this practice, the land price has been increasing more and more in such locations comparing with earlier rate.

Higher demand for urban land in post-disaster period

The price of urban land has already become very high due to the commercial and other business enterprises in some areas namely Kalmunai and Sainthamaruthu. And people who lived near the buffer zone liked to move to some semi urban areas in order to purchase a land for various purposes. This kind of move brought the land price in a higher rate. In this circumstance, people were compelled to purchase the land in urban, semi urban and other suburb areas. And also most of the people like to live in the urban areas away from buffer coastal areas in fear of Tsunami.

After 2004, several commercial and other public buildings were constructed by the government and the NGOs for many public purposes. In addition to this, many private banks and other institutions were also established in the urban and the semi urban areas in the coastal parts of Ampara district. Government built markets, factories, hospitals and other service centers in the main part of the towns for the public wellbeing. These short of constructions were the causes for the increase in the land price, especially in the case of urban and the semi urban land in the region.

On the other hand, many agricultural lands were used for the public and private construction needs. For instant, hospital project in Sainthamaruthu, market complex in Karaithuvi and Nintavur and many private and government banks etc. can be cited. This creation also piloted to increase the land price continuously in the research area.

End of civil war and potential for peace

Before the end of civil war the land price was very low compared with the present situation. During the civil war, people had no freedom to purchase the land due to the unsafe security situations. And most of the lands were not utilized for the cultivation. But after end of the civil war, people were free to move everywhere and live peacefully. Lands are being opened for cultivation, settlement, construction and more. So, end of the civil war and peace initiatives brought the land price very high.

People from Ampara district were feared to do the cultivation in many areas such as Akkaraipattu (bordered land), Pottuvil (Komari) and in Thirukkovil before the terrorism was defeated. But, at present people are given freedom for purchasing land, cultivating, establishing industries and living together without any fear and tension. This peaceful environment gives opportunities to live anywhere, and to buy anything in any region of the country, especially in the area of research. So, price of land has been increased repeatedly.

Income from foreign employment

The foreign employment is the huge source of income of the people in order to meet their needs for their livelihoods and face the challenges in their way of life existed in the past. This foreign employment has become a potential wealth and source of income for their survival. There are youths, female, male and the professionals have gone abroad and improved their living conditions and also interested in purchasing land as their future assets for their generation.

This foreign employment has also given opportunities for saving money out of their foreign income. As it always make them possible to have balance in their income, because of this saving ability of foreign employees they try to purchase land for paddy cultivation, and putting up their house for living and keep the land for their future purposes.

Good price for local production

At present the price of local products also increasing, so the people want to get involve in developing cottage industries and produce more goods. For putting up building for cottage industries they need extra land for utility and run their business in the market places where there are competitors for purchasing land because of this they have to pay more and buy the land which trend makes price rising in the urban and rural areas in the region.

Expanding local industries and investment opportunities

People in the research area are engaged in many local and cottage industries and small scale entrepreneurial activities. After tsunami disaster, many NGOs have provided facilities and opportunities for self employment in order to promote their livelihoods. Some organizations have established farms, waste management centers, fertilizer and paddy seeds stores, and training centers for preparing village people with skill for self employment.

Booming of local industries in the coastal area of Ampara district with the support of INGOs in order to promote the self employment opportunities of the local people.

On the other hand many private banks and insurance corporations also were established to provide opportunities to invest in income generating enterprises and to get loan in order to initiate and produce the local manufacturing goods and services. As the land is an essential natural resource so in order to establish these kinds of activities of man all organizations, public and the private sectors have tried their best to control the increasing price of the land, but couldn't.

Development of tourism industry

As the tourism is one the main source of income to a county, the government of Sri Lanka has taken up many steps to develop the tourism industry in various regions in the island, especially in the coastal areas of the Ampara district. After civil war, the coastal areas in Ampara are being attracted the tourists by the development of the tourism, especially Arugambay area in Pottuvil. In Ampara district, Pottuvil is one of the eminent tourist places where numbers of tourist are visiting from all over the world.

Arugambay is one of the famous tourist place in Sri Lanka where number of tourists are arriving from several parts of the universe.

The Arugambay was extremely affected by the tidal wave of the Tsunami. Now it is rebuilt by the government and owners of the private restaurants. Arugambay is now

facilitated with scenic beauty for the local and international tourists and visitors. At the same time, after the end of civil war, the number of tourist arrival has been increased due to the existing peaceful environment in Pottuvil-Arugambay area. Therefore, people are very competitive in purchasing land in the tourist areas in order to build the hotels and restaurants for generating income.

The development of tourism has caused the situation to have the land price increased up to 800,000.00 rupees per perch (at present) in the coastal and the main area in Pottuvil Divisional Secretariat. So, the land price is also affected by the development of tourism.

University and higher educational institutions

In the research area, there are many higher educational institutions, vocational training centers and technical colleges such as South Eastern University of Sri Lanka, National College of education, Government teacherôs training college, two technical colleges (in Sammanthurai and Akkaraipattu), Vocational training centre and international colleges. These educational and vocational institutions are playing vital role in imparting education and training to the community to uplift the standard of their educational and living conditions in this area.

South Eastern University of Sri Lanka is playing vital role in higher educational process.

Therefore, the coastal belt of Ampara district is becoming an important haven of the Eastern province, and this phenomenon has directed the demand for the land and the increase in land price significantly.

Mega Development Projects

Government have initiated some mega development projects with the aims to provide infrastructural facilities such as harbor, water treatment plant, tourism, electricity, telecommunication and high way network etc. These mega development activities have created higher demand for the land in all the villages in Ampara district. These projects can be considered under the following view points.

A. Infrastructure development

In Ampara district, the infrastructure is being developed with the support of foreign countries and nongovernmental organiza tions. In this way, the houses for resettlement, electricity, water supply and tele communi cation are in the process of develop ment in Ampara district, especially after Tsunami and the end of LTTE regime. On the other hand, road network also is developed covering and connecting all highways routes. It helps all the people for an easy accessibility, especially transportation can be made easily from other district to Ampara and from Ampara to other regions.

Water supply is the key indicator of the infrastructure development progress in post-disaster situation in Ampara district

This post-disaster development activities and easy accessibility have given opportunities to the outside people to come and live in this district permanently. This situation has directly influenced on the price of land for purchasing.

B. Harbor project in Oluvil

Oluvil area was ones a rural village but now with the implementation of harbor project and the establishment of South Eastern University of Sri Lanka, it is becoming the urban environment. The government of Sri Lanka has purchased many hectares of land for the construction of harbor to promote the national development to make Sri Lanka a wonder of Asia. For this purpose, many acres of land used by the people in Oluvil areas were taken up for the above project.

Master plane of Oluvil harbor which is the bench mark of the regional and the national development of Sri Lanka.

Oluvil Port project is under construction

Therefore, the people had to move to some other areas away from their residential places. So, they had to buy land for settling down in the new places. in this circumstance they had to spend more to buy the land to meet their requirement or needs, because of this higher demand for lands automatically become necessary. Now the surrounding of Oluvil is becoming an important base for business, education and other essential needs. So, people are interested in purchasing the land before the price increased. This competitive land purchasing was a main cause for increasing land price.

Resettlement plan

Government and Non governmental organizations have used the agricultural land for the resettlement practices, especially in Kalmunai (Tamil and Muslim divisions), Sainthamaruthu, Akkaraipattu and Thirukovil areas. And they constructed the public buildings such as hospitals, schools, child care centers, town halls, technical college, health centers and so on. Before that the agricultural land had already been used for public utility services such as play ground, fertilizer store, Children Park and cultural centre.

Housing scheme located in Oluvil for displaced people due to the harbor project.

This reconstruction programs have made huge mark on the price of the agricultural as well as non-agricultural lands in the Ampara district.

Sacred place for religious and traditional heritage

Deegawapiya is a sacred place in the ancient time under the Kings rules. But, now also it is respected and regarded by the Sinhalese as well as other communities as sacred and important centre famous for ancient architectures and Buddhist temple.

Deegawapiya is one of the sacred places in Sri Lanka and the heritage of Buddhism.

After rehabilitation works of the government, the Deegawapiya became an important place for worship. And also it collects people together in order to make ethnic cohesion among all communities in the region. Moving of the people towards this place is consequently increased. As a result of this; the demands for the land and its price also have been increasing rapidly in the coastal belt of the district.

Social factors

Some social factors also determine the land price in the post-disaster situation in Ampara district. There are two social aspects taken into the account for discussion about the increase in land price.

A. Saving lands for future generation

The aspiration of the people is to save the property for their future generation in order to avoid higher rate for the land in future potentiality. In addition to this, many of the people are willing to purchase the lands for their business purposes. As they have come to know the real situation about the increase in land price and the scarcity of land, they purchased the land in advanced in order to sell them at higher rate. This mentality or the business attitude gradually steers for increasing land price in the present circumstances.

B. The practice of dowry system

Dowry system is the common phenomenon which is followed by the people in the research area, particularly in the coastal belt of Ampara district. In many families, during the time of the proposal for the marriage both parties used to come to compromise to share some kind of elements of dowry such as money, vehicle, land and the separated house, for bride-groom based on the professional level. So, the land will be a considerable item for dowry. In this region, if a woman wants to get married she wants to buy a land and buildup a house for her life. Therefore, this system robotically led to increase the land price in terms of demand for the land.

The following charts highlight the deferent opinion of Tamil, Sinhalese and the Muslim community on the causes for increasing the land price in the post-disaster scenarios in the Ampara district.

The chart (Chart - I) shows Muslims opinion on fourteen (14) reasons for the land price increasing in the Ampara district of Sri Lanka. 80 people said that the practice of the dowry system is a major cause for rapid increasing of land price in the post-disaster situation. It can be clear seen that resettlement plan is ranked in second (78), while saving land for future generation, mega development project and clear demarcation of buffer zone are mentioned by equal number of people (77). Higher population

growth is classified (75) as another important cause for increasing the price of land. Moreover, end of civil war and potential for peace is expressed by 67 people among the sample. Higher demand for urban land has identified by 59 persons. Interestingly, University and higher educational institutions (42) and good price for local production (41) are almost similar. The chart indicates almost equal number of people mentioned causes such as development of tourism industry and foreign employment. The next two reasons, sacred place for religious and traditional heritage and booming of local industries and investment opportunities are explained in very close numbers, 27 and 28 respectively.

The chart (Chart ï II) illustrates Sinhalese opinion on fourteen (14) reasons for the land price increasing in the Ampara district of Sri Lanka. It can be clear seen that resettlement plan is ranked in first (74), while sacred place for religious and traditional heritage (65), clear demarcation of buffer zone (62) and mega development project (61) are indicated, approximately by the equal number of people. The chart shows 50 people reason out the end of civil war and potential for peace as a cause for land price increasing. Higher demand for urban land and saving land for future generation are marked, 41 and 45 people respectively. Interestingly, higher population growth (35) and good price for local production (36) are almost similar number. Average people are mentioned following causes; development of tourism industry, university and higher educational institutions and booming of local industries and investment opportunities. Lastly, less number of Sinhalese (16) is stated foreign employment and the practice of dowry system (12) as a reason for increasing of land price.

The chart (Chart - III) describes Tamil peopleôs opinion for increasement of the land price in the research area. It express clearly that higher demand for urban land (31) and the practice of dowry system (31) are mentioned in high and equal number. The reasosns, saving land for future generation (30) and end of civil war and potential for peace (29) are marked almost in very close number, while university and higher educational insitutions (28) and resttlement plan (28) have shown equal numbers. 24 People have ticked on higher population growth and development of tuorism industry as reasons for land price increasment. Although, mage development projects have also marked by 23 people as an another influancing factor, neverthless equal number of people (20) reason out high demand for urban land and good price for local production. Further, the chart provides another two less influencing factors, sacred place for relgious and traditional heritage and foreign employment. Booming of local industries and investment opportunities (13) are pointed out by very smaller amount of people.

Conclusion

Land use is an understanding of the use of the land and the management practices within a land use category, provides valuable information about the reasons for change in the condition of our natural resources. The total land area of Amparai district is 493,188 hectares which is used for a variety of purposes. In this study urban and agriculture land were given priority to understand the land use pattern in Ampara district during the post-disaster period. Prior to the tsunami and violent conflict, people used urban land for building houses and commercial complexes for their purposes. The land was used for different purposes in the region; perhaps the most significant changes in land use in recent years have taken place within the district.

In this study, it can be concluded that the land use pattern has changed due to many causes in the post-disaster situation. People willing to move some other places away from the buffer zone, and the demand for the urban land also directed the people to accommodate their land in agricultural and other land closed to the bordered villages. Demand for agricultural land also rapidly increased, because the many hectares of agricultural land is situated closed to the main highway roads in the area and it is better for the people to have easy accessibility and other service delivery.

The land price of Ampara district has been increased rapidly in the post-disaster period. This study has merged with many factors that influence on land price in the area of research. As a result, it can be given that the population growth, clear demarcation of buffer zone, higher demand for urban land, end of civil war and peace initiatives, income from foreign employment, good price for local productions, Expanding local industries and investment opportunities, development of tourism industry, higher educational facilities, mega development projects of the Sri Lanka government, resettlement plans Sacred place for religious and traditional heritage and other social factors that are key influential figures to determine the land price in post-disaster scenarios in the Ampara district.

Reference

Guttenberg, Albert Z.1959.*'A Multiple Land Use Classification System'*, Journal of the American Planning Association, 25: 3,

Ramraj Narasimhan, *Assessment of the Tsunami Recovery Implementation*,

Namalie Jayasinghe, 2005, *Post-tsunami Sri Lanka and the Ethnic Conflict* Heywood, I, Cornelius , S. and Carver, S. (1998). *Introduction to Geographical Information Systems*, Logman, UK.

Wilson Gnanadass, *Ampara Success story in Pluralism?*, The Nation , News online.

Ampara District, Peopleôs Consolation on Post-Tsunami Relief, Recovery & Reconstruction in Sri Lanka 2005. UNDP & Community Extension Center , University of Colombo,

Planning division, 2010, Kachcheri, Amapra.

District Statistical Hand Book, 2004, District Secretariat, Ampara.

E-sources

www.statistics.gov.lk

http://www.dpi.vic.gov.au/dpi/vro/vrosite.nsf/pages/landuse-home

http://www.country-data.com/cgi-bin/query/r-13169.html

"What is definition of land value?", Available at: http://www.ehow.com/facts_5942534_definition-land-value_.html, Accessed on 07th December 2010

Table 1.4
Land Use Patten in Amparai District in 1980

Category			Area Figures (ha)	Total	Perce-ntage (%)
Urban Land	Build up Land		32,927	32,927	7.41
	Non - Agricultural Land				
Agricultural Land	Homesteads				
	Trees and Other Potential Crops	Coconut	10,184	10,184	2.29
		Mixed Tree & Other Perennial Crop			
		Paddy	56,441	56,441	12.70
		Sparsely - Chena	65,783	65,783	14.80
		Crop Land			
		High Land Crop	13,097	13,097	2.95
Forest Land	Natural Forest	Dense Forest	98,375	98,375	22.13
		Open Forest	29,262	29,262	6.58
	Forest Plantation		12,274	12,274	2.76
	Sparse Forest		51,672	51,672	11.63
	Revering Dry Forest		10,160	10,160	2.29
	Nellikelee		1,140	1,140	0.26
Range Land	Scrub Land		31,307	31,307	7.04
	Grass Land		18,374	18,374	4.13
Wet Land	Forested	Mangroves	292	292	0.07
	Non Forested	Marsh	5,667	5,667	1.28
	Sparse Forest				
Water Bodies			7,490	7,490	1.69
Baren Land					
Other					
Total Area			**444,445**	**444,445**	**100.00**

Source: Planning division, Kachcheri, Ampara - 2010

Table 1.5
Land Use Patten in Amparai District in 1990

Category			Area Figures (ha)	Total	Perce-ntage (%)
Urban Land	Build up Land		37,981	37,981	8.55
	Non - Agricultural Land				
Agricultural Land	Homesteads				
	Trees and Other Potential Crops	Coconut	8,813	8,813	1.98
		Mixed Tree & Other Perennial Crop			
		Paddy	56,441	56,441	12.70
		Sparsely - Chena	63,382	63,382	14.26
		Crop Land			
		High Land Crop	11,891	11,891	2.68
Forest Land	Natural Forest	Dense Forest	98,375	98,375	22.13
		Open Forest	29,186	29,186	6.57
	Forest Plantation		12,274	12,274	2.76
	Sparse Forest		51,672	51,672	11.63
	Revering Dry Forest		10,160	10,160	2.29
	Nellikelee		1,140	1,140	0.26
Range Land	Scrub Land		31,307	31,307	7.04
	Grass Land		18,374	18,374	4.13
Wet Land	Forested	Mangroves	292	292	0.07
	Non Forested	Marsh	5,667	5,667	1.28
	Sparse Forest				
Water Bodies			7,490	7,490	1.69
Baren Land					
Other					
Total Area			**444,445**	**444,445**	**100.00**

Source: Planning division, Kachcheri, Ampara - 2010

Table 1.6
Land Use Patten in Amparai District in 2000

Category			Area Figures (ha)	Total	Perce-ntage (%)
Urban Land	Build up Land		42,317	42,317	9.52
	Non - Agricultural Land				
Agricultural Land	Homesteads				
	Trees and Other Potential Crops	Coconut	8,173	8,173	1.84
		Mixed Tree & Other Perennial Crop			
		Paddy	56,441	56,441	12.70
		Sparsely - Chena	59,717	59,717	13.44
		Crop Land			
		High Land Crop	9,128	9,128	2.05
Forest Land	Natural Forest	Dense Forest	99,053	99,053	22.29
		Open Forest	31,745	31,745	7.14
	Forest Plantation		12,274	12,274	2.76
	Sparse Forest		47,763	47,763	10.75
	Revering Dry Forest		10,160	10,160	2.29
	Nellikelee		1,140	1,140	0.26
Range Land	Scrub Land		31,307	31,307	7.04
	Grass Land		21,778	21,778	4.90
Wet Land	Forested	Mangroves	292	292	0.07
	Non Forested	Marsh	5,667	5,667	1.28
	Sparse Forest				
Water Bodies			7,490	7,490	1.69
Baren Land					
Other					
Total Area			**444,445**	**444,445**	**100.00**

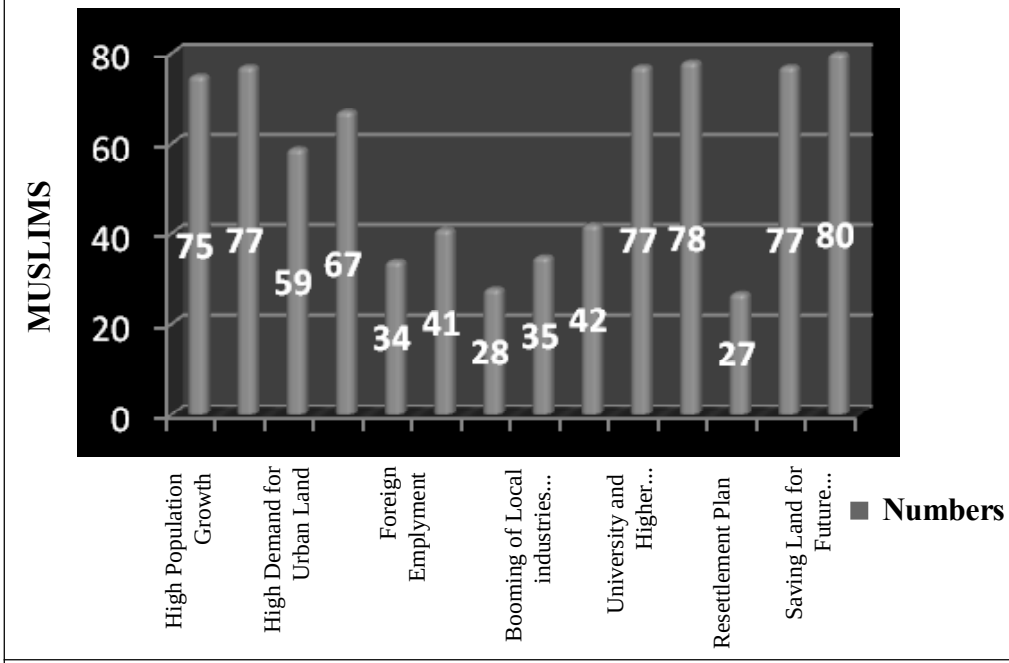
Source: Planning division, Kachcheri, Ampara - 2010

Table 1.7
Land Use Patten in Amparai District in 2010

Category			Area Figures (ha)	Total	Perce-ntage (%)
Urban Land	Build up Land		43,576	43,576	9.80
	Non - Agricultural Land				
Agricultural Land	Homesteads				
	Trees and Other Potential Crops	Coconut	8,298	8,298	1.87
		Mixed Tree & Other Perennial Crop			
		Paddy	56,441	56,441	12.70
		Sparsely - Chena	58,498	58,498	13.16
		Crop Land			
		High Land Crop	8,963	8,963	2.02
Forest Land	Natural Forest	Dense Forest	99,053	99,053	22.29
		Open Forest	31,745	31,745	7.14
	Forest Plantation		12,274	12,274	2.76
	Sparse Forest		47,763	47,763	10.75
	Revering Dry Forest		10,160	10,160	2.29
	Nellikelee		1,140	1,140	0.26
Range Land	Scrub Land				
	Grass Land				
Wet Land	Forested	Mangroves	292	292	0.07
	Non Forested	Marsh	5,667	5,667	1.28
	Sparse Forest				
Water Bodies			7,490	7,490	1.69
Baren Land					
Other					
Total Area			**444,445**	**444,445**	**100.00**

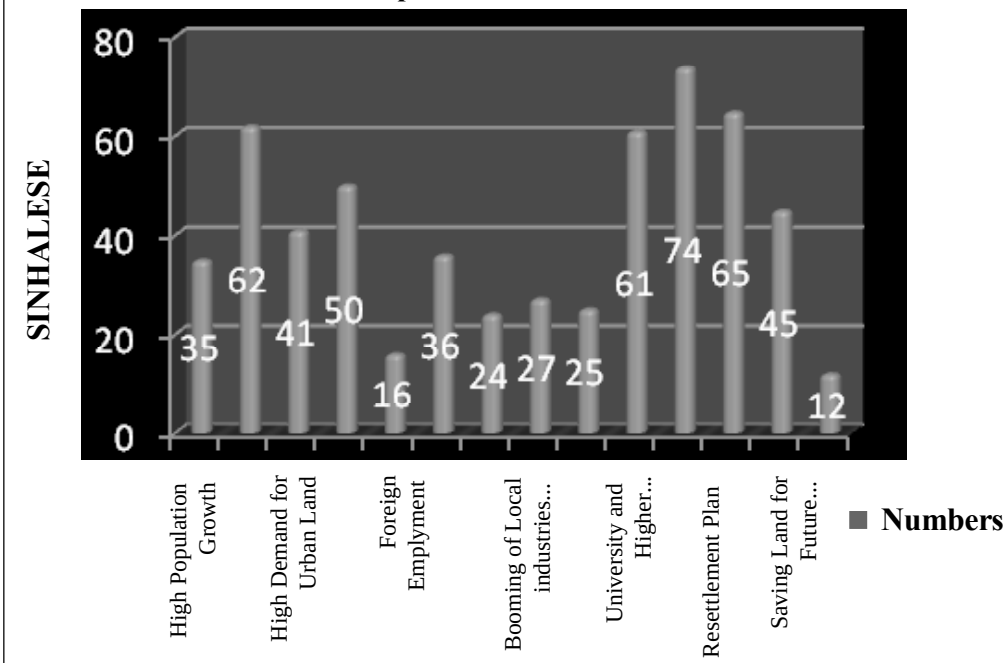
Source: Planning division, Kachcheri, Ampara - 2010

Chart – I
Opinion of Muslim community



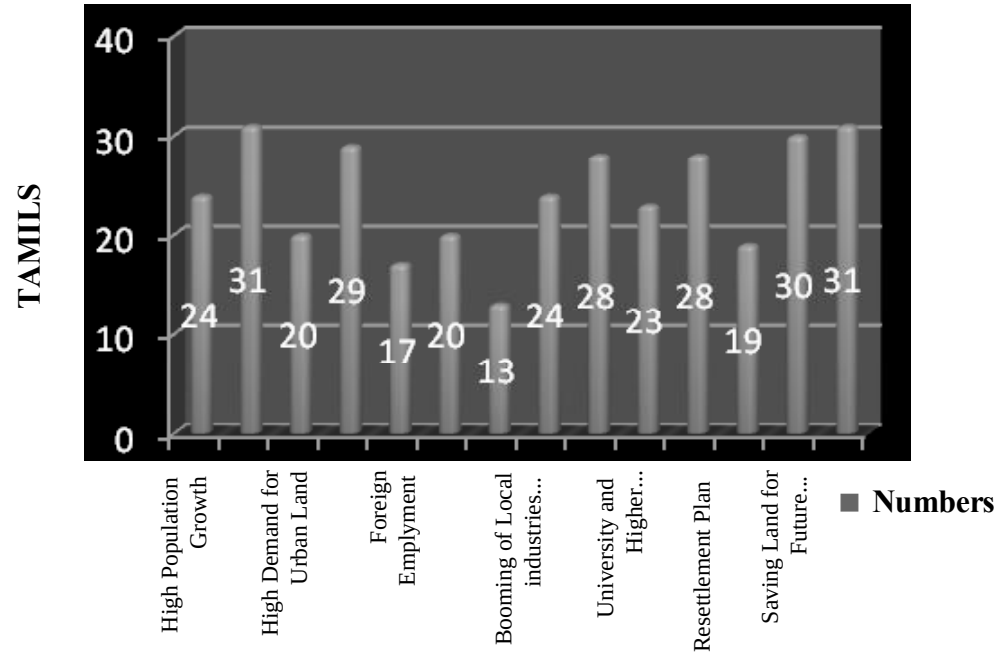
Questionnaire survey

Chart – II
Opinion of Sinhalese



Questionnaire survey

Chart – III
Opinion of Tamil community



Questionnaire survey