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ECOTOURISM INFLUENCES ON THE LIVELIHOOD OF LOCAL COMMUNITY IN SRILANKA – WITH SPECIAL REFERENCE TO ELLA

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Abstract

Ecotourism is an integrated concept that can practice in developing countries to stimulate the economic level of the state as well as to ensure the conservation of the resources. In the globalized world the developing countries like Sri Lanka, directing its outlook to the vibrant and smooth concept which is ecotourism. Ecotourism can be identified as one of the subcomponents of sustainable tourism. Because, the concept keeps balance in-between economic, environmental, social, cultural, and physical aspects of the destination. Practicing proper eco-tourism concept in every destination is ensuring the sustainable development of the particular place and its surroundings. In the Sri Lankan context, most of the ecotourism destinations are located in a rural eco-sensitive area. Because of that, the local community collaborate with the destination and try to gain from it for their livelihood improvement in a positive manner. Hence, in some ways, it may lead to negative impacts on the community. Therefore, this study attempts to investigate the ecotourism influences in the livelihood of the local community concerning the Ella Grama Niladhari Division. The study focused on identifying the factors of the local community's livelihood as the first objective need to be achieved and selecting the significant factors, investigating the direction of factors separately is the second objective.

The study used a selective sampling method to select 200 samples from 1414 people in the Ella GN division. The community in Ella are low varied in terms of their characteristics. The data collection was done based on primary and secondary data collection methods. Quantitative and qualitative methods were used to analyse the collected data. Bivariate correlation, frequency analysis, and thematic analysis used as the tools to analyse and interpret the data.

The study concludes with the results which depict the significant livelihood factors and the influences of ecotourism impacts on those factors whether it is positively impacting or negatively impacting. Through the study, it has identified ecotourism influences impacting negatively in the livelihood of the local community rather than positive impacts in the Ella GN division. Finally, recommendations are provided to minimize the negative influences and to encourage positive influences.

Keywords: *Sustainability, Ecotourism, local community, livelihood and factors*

Introduction

Tourism is one of the world's prevalent industry. It can persist over the long term because it affects the benefits of socio-economic and environmental systems of a place. Declaration of a place as a tourist destination is directly influencing the economic development of the area. The statistical information, the tourism sector is the 3rd largest foreign exchange earner in 2015 (Annual Statistical Report, 2018). The United Nations World Tourism Organization (UNTWO) estimated that 10% of the GDP is contributing by the tourism sector, at the same time in Sri Lanka it is 4.9% (Annual Statistical Report, 2018). At present, with peace and stability, the government and the business community have identified the tourism sector as a driving force to direct the economy of the state.

The eco-tourism concept is highly blended with the community and most demanding by local and international tourists. Because properly practicing ecotourism resulting financial benefit to the local community while conserving the natural environment (Nuzkiya & Kaldeen, 2019). Based on that as a developing county, the Sri Lankan tourism sector is changing its outlook to sustain concepts like Ecotourism.

When considering Livelihood, is a means of requirement which needed to live in a particular geographic boundary. In 1992 Robert Chambers and Gordon Conway define, "A livelihood comprises the capabilities, assets (stores, resources, claims, and access) and activities required for a means of living: a livelihood is sustainable which can cope with and recover from stress and shocks, maintain or enhance its capabilities and assets, and provide sustainable livelihood opportunities for the next generation; and which contributes net benefits to other livelihoods at the local and global levels and in the short and long term". Through this, it can understand the livelihood of the community depicts the meaning of sustainable living. When considering sustainability, it represents, keeping a balance between economic, social, environmental, and physical components (Mubarak, 2019). Same as to maintain the sustainability of the livelihood it is essential to keep balance within the components.

Local community and ecotourism destinations are joined elements. Because the community will enhance the tourist demand to the destination through their different socio-economic and cultural aspects on the other hand the destination will provide economic benefit to the local community's livelihood.

The Island of Sri Lanka has a wide range of natural resources, a tropical climate with monsoons, rich cultural diversity, and hospitality facilities. "Ecotourism activities using natural resource attractions in remote rural areas can be important sources of economic diversification and livelihood opportunity" (Goodwin, 2008). In Sri Lanka, there can be seen several ecotourism

destinations. The major speciality in most of the Sri Lankan destinations is, services are providing by the surrounding local community using their resources. And the tourists are also highly interested to collaborate with the community and enjoy their trips. Furthermore, these kinds of ecotourism destinations providing employment opportunities in any kind of way to the local community and helping to earn financial benefits too.

There are many types of research done related to the concept of ecotourism in Sri Lanka. When considering about the studies, “Ecotourism practices in Sri Lanka- The case study of rainforest Eco lodge” the study focusing on ecotourism guidelines and practices whether they are properly practising or not (Fernando. S.M.D & Kaluarachchi. K.A.S.P, 2016). Another one, “Community perception on tourism development and its impacts” this study investigating the perception of the community about the tourism development and their community involvement in tourism activity. (Gnanapala. A.C & Karunathilaka. T.P, 2016). As like that following author's Ranga. A.W.A, Mohd. S.A.Y & Ali. K in 2015 did a study on “Ecotourism practices in Sri Lankan Eco resorts: An analysis satisfaction and behavioural intension of Eco tourists” the research tried to find the satisfaction level of eco-tourists in the components of eco-resort practices. Based on the past studies it was able to understand, most of the researchers were studied about the ecotourism practices and the perspectives of the community. Hence, there are limited researches is available about the influences on the livelihood of the local community in Sri Lanka. There is reasonable intention to study the local community because the surrounding local community is the group of people who are immediately influencing by ecotourism activities. Therefore, from this point onwards there is a need began to study ecotourism influences on the livelihood of the local community.

Many positive influences will happen if a community engages in ecotourism activities hence, it may impact negatively too. As Stronza, A & Gordillo, J. explained on 2008 ecotourism sector providing positive and negative impacts, “Ecotourism can be an incentive for conservation and societal building, especially when it triggers positive economic changes, yet it introduces many changes to communities which may positively or negatively impact the social-economic structure of the host community”. According to that, however, the tourism sector providing benefits to the local community in rural areas since it is creating several negative impacts on the livelihood of the local community.

The following motivational problems were considered to do the study such as, in some areas the tourism sector negatively affects the livelihood aspects of the community. This kind of influence may lead to the community's livelihood in the wrong direction. Another one is, the sector does not always travel in a positive direction. Because of several externalities like natural disasters and sudden shocks like terrorist attacks tourism sector facing negative growth. In this kind of situation rather than the hoteliers and other stakeholders, the local community especially those who are depending only on ecotourism activities are highly affecting. For example; After the Easter Sunday terrorist attacks, tourist arrivals fall to 70% in May and 57% in June. Rather than the hoteliers, small workers like boat riders and vendors that they are highly affected by these attacks (‘the beach paradise that wants its tourists back’, Emma Boyle, 2019).

To study the influences according to some criteria Ella GN division was selected. The particular destination attracts international tourists rather than the local tourists. Because of the high flow of international tourists the particular destination changing as a foreign place. As the reason for this generally Ella considering as a different destination from the other ecotourism destinations in Sri Lanka. The destination is a better choice to investigate the ecotourism influences on the livelihood of the local community whether it is influencing negatively or positively as the result of ecotourism. Therefore, the research investigated the influences of ecotourism on the livelihood features (Social, economic, physical, and environmental aspects) of the local community. This study attempts to identify the livelihood factors of the local community which are influencing by ecotourism and to identify the significant factor/s and the direction of influences by ecotourism in the local community.

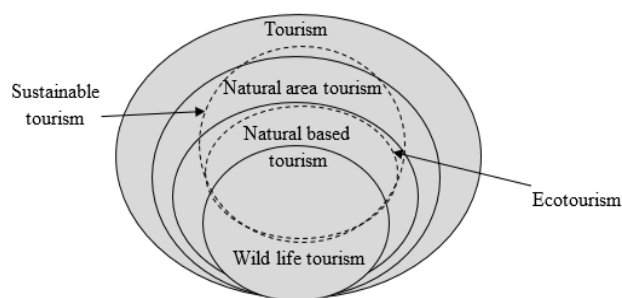
Literature Review

Tourism and Sustainable Tourism

“Tourism may represent a significant source of foreign exchange and being labour incentive a source of direct and indirect employment” (Sharpley & Telfer, 2014). The tourism sector is a major contributor to the economy of the country. The sector earned US\$ 4,000 million in foreign exchange in 2017 (Annual Statistical Report, 2018).

United Nations defined sustainable tourism development as, “meets the needs of the present without compromising the ability of future generations to meet their own needs” (Early, 2011). This definition clearly explaining the idea of sustainable tourism, which is using the resources without making any harm to the resources and it should be handover to the future generation without any effect.

Figure 1: Relationship between sustainable and ecotourism



Source: (Cater, Garrod, & Low, 2015)

In figure 1 it is clearly explaining that Sustainable tourism is a broader concept which having many several components itself. When considering the major scope of sustainable development it should keep the balance in-between, social, economic, and environmental aspects. Therefore, sustainable tourism can be practised in any type of tourism in rural to urban, on a small or large scale. Ecotourism can be identified as a sub-component of sustainable tourism. Because of

being a subcomponent, the salient features of ecotourism described as resource conservation and provide economic benefit to the local community. Through this, it can understand that ecotourism is acting a major role in sustainable tourism.

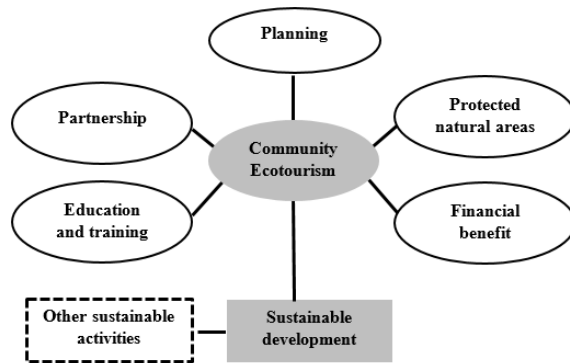
Ecotourism concept

Ecotourism is a large industry because it has a massive trend. It depicts, nowadays most of the people in the world try to enjoy their lives with the natural environment. To fulfil the need they spend more money. Ecotourism considers as one of the components of sustainable tourism. Because in many ways ecotourism and sustainable development having the interrelationship in-between them. United Nations World Tourism Organization (UNWTO, 2002) defines, ecotourism is natural-based tourism which is mainly driving the tourists to the observation and appreciation of natural areas as well as encouraging the traditions and cultural aspects of the particular area. Similarly, the International Ecotourism Society (TIES, 2006) explaining ecotourism means travelling to nature while conserving the natural resources and creating welfare to the local communities. Therefore, the major prominent elements of ecotourism are to provide financial benefit to the local community as well as conserving the natural resources. According to that, the International Ecotourism Society made guidelines which should be followed by every ecotourism destination in the world listed as below,

- Minimize impacts
- Build environmental and cultural awareness and respect
- Provide positive experiences for both visitors and hosts.
- Provide direct financial benefits for conservation
- Provide financial benefits and empowerment for local people
- Raise sensitivity to host countries' political, environmental, and social climate.

In Sri Lanka, Ecotourism has a huge trend because of the available resources. There is a case study which is explaining “Ecotourism is identified as one of the tools for sustainable rural community development and natural resources in Tonal Sap Biosphere Reserve” (Baromey, 2008). The study tried to investigate the potentials and challenges of ecotourism. The success of ecotourism will depend on whether they are physically and ecologically sustainable and economically pertinent. The below figure 2 representing the sections that should be considered to get the participation of the community in ecotourism sustainable development.

Figure 2: Essential elements for ecotourism in a community setting



Source: (Drumm & Moore, n.d.).

Community based ecotourism

Community based ecotourism is a form of tourism that highlights the development of the local community.

“Now known that community based ecotourism development can become an important factor in the sustainable development of the country, providing additional foreign exchange and new jobs, as well as a vital instrument for the conservation and rural development. However, ecotourism is a relatively recent phenomenon” (Kamel, n.d.).

Hence in the context of Sri Lanka, all these aspects have not been tried. Because the community indicates the local population living in a specific entity who are in doubt whether they are benefited from the prevailing tourism in the region. At this point, it is essential to get an idea about the influences of ecotourism in-between the local community.

When simply explaining the situation, people that they are depending on this ecotourism destination more for their income generation in many ways. Such as vendors, providing accommodation services, safari services, foods, and beverages, etc. however, directly or indirectly communities getting benefit from the destinations.

The concept livelihood of the local community

The local community is a community living in a particular geographical boundary while sharing the resources as common. When thinking about the livelihood of the local community, it contains the competencies, assets (which include material and social aspects), and actions that need for a means of living. “A livelihood is sustainable when it can cope with and recover from stress and shocks and maintain or enhance its capabilities and assets both now and in the future, while not undermining the natural resource base” (Chambers & Conway, 1991). Livelihood is a concept which needs multiple factors to understand the clear form of livelihood. According to the study of Lasse. K on 2001 livelihood has five components (Table 1) such as Vulnerability context, Livelihood assets, Policies institutions and processes, livelihood strategies, and livelihood outcomes. FAO in 2001 explaining clearly the components as below showed.

Table 1: Description of the components of livelihood

Components of livelihood	Description	Examples
Vulnerability context	It represents the risk and adverse situations that may face by the community	Land degradation, climate change, HIV, natural disaster, etc.
Livelihood assets	It depicts the requirements of the community that they need to achieve a positive living condition	Human assets: Education and ability Social assets: Social networks and culture Natural assets: Land, forest, Water Physical assets: Road, Electricity shelter Financial assets: Income, savings
Policies, institution, and processes	This is an important set of man-made factors that people need to consider in their living	Rules and regulations and policies
Livelihood strategies	It is a combination of activities that the people choose, peaceful time and choice to achieve their life goals	Investment way, productive activities, and reproductive choices
Livelihood outcomes	The better outcomes from the proper way of living	Mortality rate, income and economic outcome

Source: Compiled by the author through the literature review

Through the understanding of the literature, livelihood of the local community having multiple components such as economic, social, environmental, cultural, and physical aspects. Therefore, investigation of the livelihood is a critical task.

Derived livelihood factors of the local community which influenced by ecotourism activities

Livelihood development of the local community is identified as one of the crucial factors of ecotourism. Studying the influences in the real ground is not easy without any assumptions and criteria. This section is going to focus on the identification of the most suitable factors which will help to examine the ecotourism influences in the livelihood of the local community.

Based on the earlier mentioned literature review it has identified that the term ‘livelihood’ is a “means of making living” which means every people have their own needs of living in economic, socio-cultural, environmental, and physical aspects which are categorized as components of livelihood. Hence, these components are broader components therefore through the literature review and screening survey the major components are further subdivided into

sub-components to make the study easier as specified below. These factors are the major key elements of the study.

Table 2: Description of the selected factors

Factors	Description
Socio-economic factors	
Employment opportunity	Providing job opportunities for people to earn income. Creating more employment opportunities is directly influencing the financial benefit of the local community. Therefore, more employment opportunity positively impacting on the local community
Job security	It is a probability of an individual will keep his/her job without losing it. More job security is indicating the positive impact
Cost of living	The amount of money that should need to sustain a certain standard of living by affording particular expenses. Such as food, healthcare, etc. The high cost of living will indicate the poor living standard and marginalization of the minority community
Income disparity	The level of income is not equally distributed in-between the community. Income disparity will clearly show that all the community is not living in an equal standard of living
Economic dependency	The term representing economic agents depends on a variety of economic activities. Depending in particular economic function will have more probability of risk
Average monthly income	The amount of money earning by a person or family through involvement in various economic activities or assets in a particular month. Earning more monthly income will make the good living condition
Working hours	The number of hours that a person spends to work in her/his working unit. More working hours will increase the level of stress and reduce the family bond
Migration	The term migration influencing two types such as in-migration and out-migration. In migration means the movement of people towards the geographical boundary for several reasons hence out-migration indicates the movement to another geographical location. More out-migration negatively impact on the livelihood of the local community
Real estate value	The value of a property determining by the market forces. High real estate value is negatively influencing to the local community
Socio-cultural factors	
Local culture	The term local culture representing the local community's feelings believes norms which are following by them in everyday life. Some areas the culture consider as their social asset of the community
Nighttime functions	The term expressing the entertainment functions happening during night time in tourism destinations to attract the tourists

Crime level	An action that constitutes an offense and punished by law. Robbery, burglary, and sexual assault consider as a crime. Crime will critically affect the general livelihood of the community
Local product industry	The products and functions which are preparing and marketing by the local community are called as local product industry. Sri Lanka is one of the famous countries for this local product industry.
Illegal activities	The activities not according to authorized law can be considered as illegal activities
Physical factors	
Transportation network	The transportation network is a spatial network which helps the movement of the people and commodity from a geographical location to another.
Housing standard	The term describing the adequate facilities of housing units
Building arrangements	The special arrangements of the building
Public facilities	The term representing the facilities and services providing by the state government to the community. Such as health services, sanitation, entertainment facilities, etc. The public facilities included below elements such as,
Environmental factors	
Disaster resilience	Disaster resilience is an ability of the community or group of people or individuals or state or organizations to face and recover from the shocks, hazards, and risks
Level of pollution	The level of contamination of environment resources is considered as the level of pollution
Level of congestion	The traffic congestion is representing here. When the users of the road network increasing in a particular time the traffic congestion is happening
Conservation of natural resources	The process of using the resource in a proper way and handing over the resources to the next generation with the minimum impacts consider as conservation

Source: Compiled by the author through the literature review

Methodology

Factors are identified in the literature review. The case study area is Ella which is a famous destination in Sri Lanka. November to April is the seasonal period of the particular destination. Annually, 6% of Sri Lankan tourists visiting Ella to be with nature. The destination Ella is a unique destination in Sri Lanka based on its characteristics and services. The empirical study of the research was selected based on the following benchmarks,

- Major Ecotourism destination in Uva province: The area surrounded by rich biodiversity, dense with a variety of flora and fauna. Ella is covered with cooler cloud forest and tea plantations. More tourists attract by this destination to get pure oxygen.
- A significant amount of tourist flow can be seen in the area: The destination is very popular in every season because of the climate. At the same time, in Ella, there are many special destinations which are dense in a walking distance to see such as, Dhowa temple, Bambaragala peak, Ella rock, Little Adam's peak, Ravana Ella Falls, and nine arch bridge. Those attractions are very significant tourist destinations that are not available in other Sri Lankan tourism destinations. As a result of this potential, 6% (SLTDA, 2016) of Sri Lankan tourists visiting Ella.
- The trend of more local businesses and community involvement: Rather than the past era, in a few years the community involvement in Ella is increasing. Like souvenir shops, homestays, safari, etc. And the tourist also wishes to collaborate with the local community to enjoy the vacation. There are many newspapers writers that they are describing Ella as a mini Hikkaduwa because of this more community involvement.
- The trend of more night functions: Night functions are the reason to keep the area always sleepless. In Sri Lankan tourism destinations night functions are limited. Hence, in Ella night functions are the popular activities in - between the tourists.

The sample size is desired by the pilot survey which is used to screen the area. To understand the ecotourism influences in local community livelihood, it is crucial to understand the types of the community who are living there. According to that through the pilot survey, it has identified two types of the community such as, people who are involving in ecotourism activities and people who are not involving in ecotourism activities. For the study, the community who are involving fully or partially in the ecotourism activities has selected to narrow down the study. The study was carried out based on the selective sampling method. The major reason to select the selective sampling is, the population has low variation in-between them in the real ground. The selective population is the group of people who are involving in ecotourism activities for their livelihood. With the intension of achieving the objectives, the research uses the SPSS to analyze the factors influenced by ecotourism in the local community. The study considering the main three analysis methods, bivariate correlation, frequency analysis, and thematic analysis.

Bivariate Correlation

Bivariate correlation analysis helps to study the significant level of two variables. Through this study, it can be able to identify that to what extent and which direction the selected variable impact by the independent variable.

The method will provide a positive and negative relationship. Positive relationships representing, if one variable increases other variables also will increase and negative relationship means if one variable increase another variable will decrease. The correlation coefficient varies from 0 to 1. The relationship is, No relationship – 0, Perfect linear

relationship – 1, Perfect linear negative relationship – (-1), Weak relationship – 0.1, Moderate relationship – 0.3, and Strong relationship – 0.5.

Using a bivariate correlation, the livelihood factors taken from the literature review had correlated with the ecotourism influences. Among 23 factors 12 factors were selected as the significant factors which are influenced by ecotourism in the Ella GN division.

According to the bivariate correlation it has identified employment opportunity, average monthly income, economic dependency, transportation network, local product industry, non-communicable diseases, building arrangements, in-migration, real estate value, illegal activities, level of pollution, and local culture are selected as the significant factors which are influence by eco-tourism actions.

Table 3: Description of the relationship between livelihood factors and ecotourism influences

Factors	Correlation	Significant value	Relationship interpretation
Employment Opportunity	.673**	.000	Positive strong
Economic dependency	.413**	.003	Positive moderate
Average monthly income	.505**	.000	Positive strong
In migration	.317*	.028	Positive weak
Real estate value	.300*	.036	Positive weak
Local culture	-.413**	.003	Negative moderate
Local product industry	.421**	.003	Positive moderate
Illegal activities	.267	.063	Positive weak
Non comm diseases	.540**	.000	Positive moderate
Building arrangements	.412**	.003	Positive moderate
Level of pollution	.263	.067	Positive weak
Transportation network	.302*	.037	Positive weak
Level of congestion	-.126	.386	Negative very weak
Job security	.179	.216	Positive very weak
Working hours	.125	.390	Negative very weak
Cost of living	.075	.603	Positive very weak
Income disparity	.127	.385	Positive very weak
Out migration	-.123	.393	Negative very weak
Night time functions	.163	.266	Positive very weak
Housing standard	-.187	.200	Negative very weak
Public facilities	.090	.539	Positive very weak
Disaster resilience	.087	.558	Positive very weak
Conservation level	.038	.792	Positive very weak

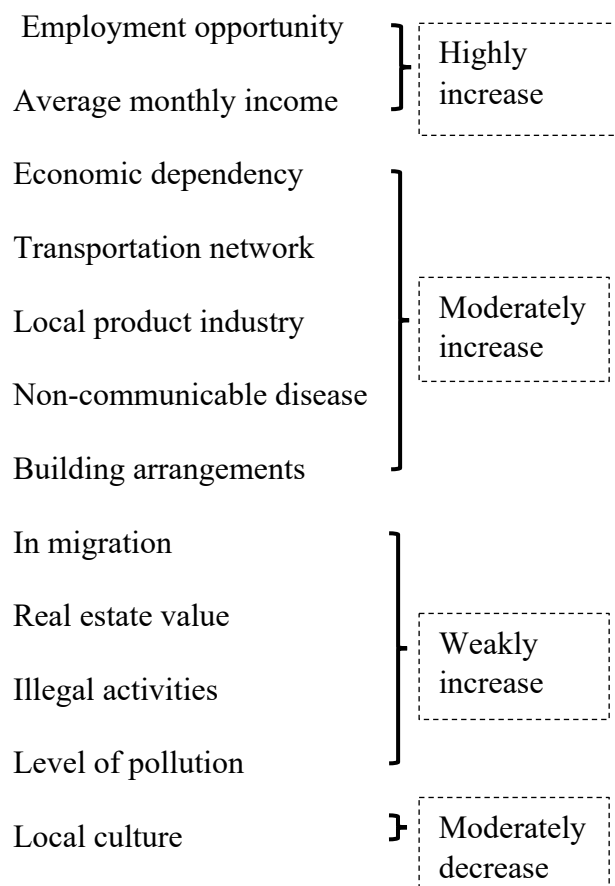
Source: Result from SPSS

** Correlation is significant at the 0.01 level (2-tailed).

* Correlation is significant at the 0.05 level (2-tailed).

Based on that employment opportunity and average monthly income has a positive strong relationship. Economic dependency, transportation network, local product industry, non-

communicable disease, and building arrangements have a positive moderate relationship. In migration, real estate value, illegal activities, and level of pollution have a positive very weak relationship and the local culture has a negative moderate relationship with ecotourism activities (Table 3). When trying to explain the relationship results simply in between ecotourism and significant livelihood factors, if ecotourism influences increase the factors will change as specified below,



Frequency Analysis

Frequency analysis is a statistical analysis method that tries to explain the frequency of the same response among the multiple outcomes as the result of one or more factors. Simply

frequency analysis helps to reduce the large data set into smaller data set which is more manageable and more understandable. A 'factor' is a set of observed response patterns.

Identified significant factors through the correlation, again examined using the frequency analysis in-between the community to get the direction of the influences of ecotourism activities in the factors. The responses gathered from the survey used to analyze frequency analysis to get positive negative percentages.

Through the frequency analysis, it has identified 5 factors that positively influenced more and 7 factors negatively influenced by the ecotourism activities. The factors positively impacted as follows, employment opportunity, average monthly income, economic dependency level, local product market, and in-migration impacted positively and at the same time, transportation network, non-communicable diseases, building arrangements, real estate value, Illegal activities, level of pollution and local culture.

Positive impacts of ecotourism

There are five factors which influenced positively by ecotourism influences. The greater percentage of people (58%) responded that the ecotourism provides more **employment opportunity** to the community because of that it increases the average monthly income.

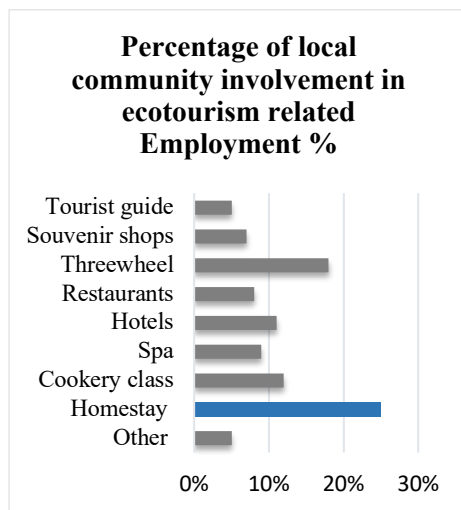
Table 4: Direction of ecotourism influences

Livelihood factors	Positive influence %	Negative influence %
Employment opportunity	58	42
Average monthly income	53	47
Economic dependency	45	55
Transportation network	46	54
Local product industry	59	41
Non-communicable diseases	-	100
Building arrangements	17	83
In migration	52	48
Real estate value	14	86
Illegal activities	11	89
Level of pollution	9	91
Local culture	15	85

Source: Result from SPSS

In Ella GN division ecotourism related jobs are the major income generator of the area. From 2010 onwards Ella began to be a famous destination for ecotourism. From the point onwards local community involving in the eco-tourism related activities. The employments are three-wheel, Spa, Souvenir shops, Homestays, Tourist guides, Hotels, Restaurants, Cookery classes, etc. Those are the jobs the local community involving.

Figure 3: Percentage of local community involvement in Ecotourism related employment



Source: Field survey

According to the data gathered from the survey, homestay is the most famous job in Ella GN division. Hence, cookery classes are the high income generating job in the study area rather than other activities (refer figure 3). According to the data gathered from the survey it has depicted the average monthly income of cookery class during the seasonal period is around more than 50,000 LKR. Hence, during the offseason, they are temporarily stopping the classes.

More than 85% **economic dependency** of the community is ecotourism activities. Hence, during the offseason and adverse situation of the country the community facing some negative impacts on their livelihood. 20% of the survey population recently changed their job from other sectors to the tourism sector because it creates more income. **The average monthly income** of a person is 35,000 LKR from the ecotourism sector. From the sample population, 85% population is highly satisfied with their ecotourism related job. Many people are **migrating** to Ella GN division for employment. Especially, Tamil young males are working as waiters and hotel helpers in hotels and restaurants. This increases the in-migration of the people to Ella.

Furthermore, In Sri Lanka, **local products** are the main things which are requiring by the tourist. According to that, Ella is famous for handmade ornaments and treacle. In Ella rather than other shops like clothes and other items, these handmade ornaments are highly available.

Figure 4: Ella GN division minimum standard homestay



Figure 5: Famous local product shop in ella



Source: Captured during field visit

Negative impacts of ecotourism

In every action, there are positive and negative impacts. According to that, 7 factors are critically influenced by ecotourism negatively. **The transportation network** is a major infrastructure facility for people and goods transportation. In Ella, the roads and railway are the modes of transportation. Based on the railway it is in a good condition hence, occasionally it gets damage. But, when considering the road network, and especially the internal road network is in a very worst situation. Damaged roads, no parking spaces, and no sidewalks. Because of these people facing much trouble to use. During the seasonal (November to April) period more tourists visiting the area. At that time because of the poor road condition, traffic congestion, and accidents are happening. Last seasonal period it more than 15 accident cases reported in the police station.

Figure 6: Improper road condition in Ella



Source: Captured during a field visit

In Ella as **illegal activities** prostitution, drug selling, and usage are happening. To gathering data, based on particular aspects are very difficult. Hence, according to the police officer statement, prostitution and drug selling cases are reporting around 3-7 per month. Hence, some cases can be handle by police officers easily and some cases are difficult to control.

As **non – communicable diseases** HIV is the major issue in the Ella GN division. MOH office is the responsible party that dealing with this issue. According to their statement up to now, 2 females reported this particular disease in MOH office. More people are having this issue who are getting the treatment from India. Ella MOH office very confidentially treating those people.

In Ella GN division there are not any regulations following by the community in construction. The **arrangements for the building** in the town area is very compacted arrangements. Many people that they are saying, tourists mainly coming to Ella for pure oxygen hence because of these building arrangements after some years the pure oxygen will be reduced in the air. Currently, Ella is declared as UDA declared area. Therefore, the community should follow the building construction regulations of UDA.

Figure 7: Compacted building arrangements in Ella town Centre

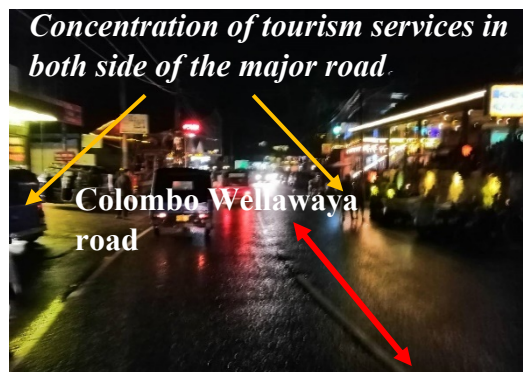


Source: Captured during a field visit

Ecotourism impacting the **real estate value** of Ella. The tourism services are mostly concentrated on both sides of the Colombo Wellawaya road (Figure 8) and a few activities can observe in Passyala road. Therefore, the per perch price in town area 1 – 1.5 million. When the

distance is deviating from the major road the amount per perch is lesser than 0.9 million. The major reason for the differences in the value of perch is ecotourism. Because along the main road the demand for accommodation and restaurant is high and this will help to earn more income. Hence when it is deviating from the road the tourist needs to walk and climb the hills to reach their accommodation places.

Figure 8: Spatial concentration of tourism services



Source: Captured during the field visit

The community saying many hotels and restaurants are informally discharging the wastewater into one of the water bodies. Recently Environmental authorities checked and reported there is a collapse in the pH value of the water because of this informal waste discharge. This caused water pollution in the area.

Local culture is a valuable aspect that preserves the local community. Hence more than 65% of the community saying ecotourism spoiling the local culture through dress abuse and night time functions. Nighttime activities are one of the main activity which makes the city always alive. According to that rather than other tourism destination in Sri Lanka Ella town is the major destination which concentrated with more night time functions. Hence, the local community except hoteliers and three wheel, others are discouraging the night time functions. Because it creating issues in the local culture of the community.

Thematic Analysis

When studying the community it is essential to include the own impressions and the perceptions of the community. Therefore, thematic analysis was used to interpret the narratives of the community about their perceptions on the ecotourism influences in the livelihood factors.

Theme 1: Economic impacts

In Ella ecotourism becomes major livelihood employment because all other jobs are directly or indirectly interconnecting with tourism activities. Cookery class and homestay are the famous income generator to the local community in Ella. As said by the community,

“I am working in DS office, I am the breadwinner of the family hence my mother doing homestay who is earning more than me” Namal Development officer in Ella DS office (Date: 02.10.2019).

“Ecotourism survived my life from death. After the death of my husband, with two children I was staying as a beggar hence, cookery class and homestay paved me a path to continue my life” Shirani, Homestay and cookery class (Date: 02.10.2019).

Both statements are depicting that the ecotourism providing path in many ways to the local community in a positive way. Hence, another group of people discussed below,

“We have some limited shops to buy foods as locals because more than 80% of shops are unaffordable by locals” Hiran three-wheel driver (05.10.2019).

“There are some restaurants which discouraging the locals' presence to the restaurant. I don't know why it is happening” Kumari Spa worker (09.10.2019).

“I have visited nine arch bridges in the last few months ago. My daughter slipped down and she got injured on her leg. Then I ask the three-wheel driver to get her down from the place to the starting point. The driver asks 2500LKR to drive only around 1km” Haran Local visitor (17.10.2019).

These statements are representing there is a marginalization in the accessibility of the local community to the tourist services.

Theme 2: Socio-cultural impacts

In this theme, more than 75% of the people discussed dress abused and nighttime activities.

“I should encourage night time functions because it providing income to my work hence, as a father of two children I discouraging the activities. Because it encouraging prostitution and drug usage in the society” Weerasignhe three-wheel driver (10.10.2019).

Theme 3: Physical impacts

In the theme, most of the community discussed building regulations. Because until now in Ella no building regulations are following by the people. People identified homestay as a good income generator and they expanding the houses without any consultations. Therefore, many stakeholders said this will lost the pure oxygen in Ella which is a key element of tourist attraction.

A statement mentioned by Kumudhi Assistant divisional secretariat (Date: 05.11.2019) “Ella now declared as UDA declared area. Therefore we checked the standards of the currently available building using UDA building regulations. It seems more than 75% of the buildings fail to reach at least minimum regulations. In the future, this will be a big issue for the area”. This statement depicts the construction of more buildings without any regulation in the Ella will become a threat in the future to ecotourism activities.

Theme 4: Environment impacts

More than 50% of the community said after Ella became as an ecotourism destination, the state awareness about the disaster resilience is high. A religious priest said “Because of tourism only more disaster resilience activities are happening. It is no need to search for the reason for the good impacts. I know it is happening because of tourist flow but, it is creating positive impacts on the local community too”. Through the statement, it can understand ecotourism providing positive impacts to the local community.

Through the section, it has identified Ella community is a community which is depending on ecotourism as their major livelihood. Because of ecotourism the community getting benefits at the same time, it affects negatively to the community. Through the study, has to identify ecotourism negatively impacting in the local culture and environment of the area. Therefore, it is essential to decide to limit these negative impacts and encouraging the positive influences of the area.

When going through the thematic analysis it seems most of the local community that they are having at least a little bit of idea about the negative and positive impacts of ecotourism. Because in the Sri Lankan context as earlier mentioned there is a rural community that they don't know whether they are benefited or not. Therefore this kind of deep community analysis will help the local community's livelihood.

Conclusions & Recommendations

The study shows as objectives, to identify the livelihood factors of the local community which are influencing by ecotourism as well as identifying the significant factor/s and the direction of the influences by ecotourism. To achieve the first objective several livelihood factors were gathered from the various literature review and pilot surveys. Because many literature review factors are different in the empirical study. Collected factors were developed as Likert scale questionnaires to test the empirical context of the Ella GN division. According to the literature the factors categorized as socio-economic, socio-cultural, physical, and environmental factors that have been used as livelihood factors to examine the influences of ecotourism in the livelihood of the local community. After the selection of the factors to explore the second objective following methods were used namely, bivariate correlation to identify the significant factors which are suitable to the actual situation of the Ella GN division. And frequency analysis to investigate the impacts whether is it positively influencing or negatively influencing ecotourism. The major intension of these both objectives is, Ella is an area that has ecotourism as its major livelihood employment. So, if tourism collapse the total community's livelihood also will be interrupted. Therefore, in this kind of destination, a study of influence is essential to keep survive community and destination for the long term.

Considering the analysis it has identified ecotourism providing several positive impacts on employment, income, local product market, etc. Hence, as negatively it is impacting local culture and other environmental aspects. This may lead to the reduction of eco-tourists to Ella.

Because more people visiting Ella to collaborate with the environment and local culture hence if those are impacting negatively it will be direct the livelihood of the local community in a downwards direction.

Limitations and Recommendations

The major limitations of the study, there are a small number of factors were selected to explore a broader concept and only 200 sample population were considered to study. Further, the factors are more deeply analyzable hence because of the limiting factors like the time the factors just analyzed as overall. It is recommendable to select more factors in future researches. And it is more important and interesting to do the study in the tourism destination because the subject development and planning are essential in this kind of destination. This kind of study will help the institutions in the tourism sector can enhance to minimize negative and upgrade positive factors. For further research, the same research can usable for another destination.

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