

Socio-economic and Environmental Impact of the Refugees Entrance to the Host Community on the Context of Relevant Aspects of SDGs: A Study from the Influx of Rohingya Refugee from Neighboring Myanmar to Bangladesh

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Abstract:

Purposes: The purposes of this study are to identify the socio-economic and environmental impact of the refugee entrance to the host community through the lenses of Sustainable Development Goals (SDGs) framework of United Nations where 16 goals of SDGs are relevant with this study among 17 goals.

Methods & Materials: Here, the entrance of Rohingya refugees in Bangladesh from Myanmar was the field of this study. Though the entrance of Rohingya is not a new event in Bangladesh but their massive influx in 2017 has posed socio-economic and environmental challenges on Bangladesh specially in the area of Cox's Bazar district. Both exploratory and descriptive research method were used to identify the nature of the problems with supporting statistics. Survey questionnaires were used to collect data for descriptive research and at the same time structured in-depth interviews were taken with open ended questions from the 120 respondents who were selected through purposive sampling.

Results: The results of the research have showed that among 16 relevant goals, attainment the purposes of 15 goals is facing severe hinderance in the local community level due to Rohingya refugee influx. Increasing poverty & hunger, loss of health and quality education facilities, reducing decent work & economic growth opportunities followed by industry and innovation and sustainable cities and communities. Also, scarcity of clean water, clean energy, destruction of forest and water sources followed by climate changing from favorable to extreme weather. Though inequality is rising but gender equality improves little as women get new job opportunities in NGOs. The application of the SDGs framework for analyzing this impact has shown that the aim of achieving SDGs goals by 2030 are severely hampered in the refugee entrance areas.

Application of the findings: The outcome of this study will helpful to governments, policy makers and international community for making decision regarding refugees and host related issues.

Keywords: Rohingya Influx, Refugee Entrance Impact, SDGs Impact, Host Community

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I. INTRODUCTION

The Rohingya people have been forced to flee across border from Myanmar to Bangladesh because of cultural, religious and political persecution since 1970s. For settling them temporary shelters Bangladesh Government has already two registered camps in Kutupalong (Ukhia Upazilla) and Nayapara (Teknaf Upazilla) since 1992. But the influx of Rohingya in 2017 was huge and force Bangladesh to take massive scale work for opening another 27 camps by destroying government forests and private agricultural lands in Ukhia and Teknaf Upazilla of Cox's Bazar district of Bangladesh to arrange temporary settlements for around another 7 lacs Rohingya. The United Nations High Commission for Refugees (UNHCR) has mentioned the cruelty of Myanmar government as 'ethnic cleansing'. According to UNHCR more than one million Rohingya are now living in the camp of Teknaf and Ukhia Upazilla of Cox's Bazar district which are one of the largest refugee population in the world. The number of refugees is increasing day by day. According to the information of Refugee Relief and Repatriation Commissioner office (RRRC) approximately twenty-five thousand Rohingya are already transferred to 'Bhasanchar' (an island of Nouakhali district of Bangladesh) till June, 2021 where the Government of Bangladesh has planned and built facilities to settle nearly 1 lac Rohingyas. But this is not a viable solution as the birth rate among Rohingya are very high and it is not uncommon that every parent has 8 to

10 children which is so alarming for host communities (Khatun 2017). UNHCR has mentioned it as the fastest growing refugee crisis so the anxiety is growing among local people to being 'Outnumbered' by foreigner in own land.

Total population of Ukhiya and Teknaf is around 46 lacs according to BSS (Bangladesh Bureau of Statistics) census 2011 where the number of Rohingyas are living in this area are around 12 lacs according to UNHCR recent reports. That means nearly 58 lacs people are now living in this small area of 1038 sq.km. of Uhiya and Teknaf Upazilla. Besides thousands of people from other part of the country and from foreign country has come to this area for providing supports and services to this Rohingya people.

Though the government of Bangladesh opened its boundary and become one of the major refugee-hosting countries in the world but as a developing country it is tough to maintain this refugee so long. The government of Bangladesh has already taken different initiatives and also did bilateral agreement with Myanmar government on repatriation of Rohingya but there have not much progress of this process because of unwillingness of Myanmar Government. The saddest part of this events is now it's nearly impossible to repatriate this Rohingya in Myanmar as through a recent coup d'état in 1st February 2021, the Army of Myanmar (the Junta) has taken national power again by withdrawing the democratically elected government of Myanmar. Besides the internal political situation of Myanmar is worsening because of the strict actions of Junta Government against the protestants and civilians on the streets. According to the New York times till 11th April of 2021 the total numbers of protestants death has crossed 700 among which lots of children are included. So, it can be easily concluded from the recent political turmoil and nationwide resistance of Myanmar that the Rohingya problems solution light is fainting day by day. There is rarely any hope for Bangladesh in near future to solve this problem completely.

Most of the impact of this crisis are facing by the people of Cox's Bazar district of Bangladesh. At first the local people of Teknaf and Ukhiya were eager to help the refugees but now they are feeling risk and concentrated. The host communities are facing different socio-economic and environment related problems.

1.1 Significance of the Study: The Government of Bangladesh and host community people were very eager to help those Rohingyas since the start of this crisis in early of 1970s. Though at the time of the starting of the influx the crisis drew attention of international community but the crisis did not solve over the decades. In fact, the massive influx of Rohingya refugee in August, 2017 has worked as overburden to host community as well as for the whole country. The local people now fear that they become outnumbered in their own land because of this massive refugee influx. The entrance has loaded large chunk of problems on local population like drug smuggling, hijacking, stealing, robbing, kidnapping, prostitution, deforestation, sexual harassment, frequent violence and what's not. Though the Government of Bangladesh has taken enormous initiatives to solve permanently the Rohingya issue by repatriating them in Myanmar but here needs the support of international organizations like United Nations and the leading countries.

Further motivation of this study comes from the fact, that since Rohingya Refugee influx is an international issue so measuring the impact on host communities through the framework of Sustainable Development Goals (SDGs) declared by United Nations in 2015 may capable to provide some insightful outcome. The Government and policy makers will capable to use these results for drawing the attention of international organizations and countries to help solving this issue urgently.

1.2 Objective of the Study: The objective of this research is to identify the socio-economic and environmental impact of the influx of refugees on host communities on the context of relevant aspects of Sustainable Development Goals (SDGs) through studying the influx of Rohingya refugee from Myanmar to Bangladesh.

II. BACKGROUND LITERATURE AND CONCEPTUAL FRAMEWORK

1.1 Review of the Literature: The Rohingyas are among the world's most vulnerable populations that are neglected and oppressed. In the three townships of Myanmar's North Rakhine State-Maungdaw, Buthidaing and Rathedaung, approximately 1 to 1.5 million Rohingyas were concentrated (Patterson, and Kelleher, 2005). The torture against the Rakhine Muslim also termed as Rohingya got its ultimate image while violence erupted between the Rakhine Buddhists and Rohingya Muslims in 25th August 2017 and about 71 people died (Htusan, 2017).

A refugee is increasingly perceived as a burden and creates bad refugee host-relationship at receiving area because the process of settlement in camps and outside the camps will give further impetus to the depletion of forest and other resources. Moreover, finally the poorer hosts can lose from competition for food, work, wages, services and common property resources, which already started at Teknaf and Ukhiya where the Rohingya refugees are staying in refugee camps (Choudury, and Fazlulkader, 2019). According to Lee (2005, p.76) refugees pose a threat to internal stability of host country through conflict with local population.

The Rohingyas are ruining Bangladeshi images internationally by collecting Bangladeshi passports illegally and using them to go Middle East for works and thus they are involving there in various criminal's activities, documented by few studies and covered media news (Imran & Mian, 2014). In order to seek revenge

toward Myanmar, the Rohingya refugees may join in various religious extreme group like Rohingya Solidarity Organization (RSO), Al-Qaeda and JMB or Harkat-*ui*-Jihad-al Islam, which may subsequently pose security threats national & regionally (Wolf,2017).

The Rohingya crisis has created vulnerabilities towards the Cox'baazar tourism industry as the place is now known as the place of refugee camps with enormous security crisis (Lewis,2018). The refugee's influx put security crisis for the social life of local groups due to an increase incidence of assassination, robbery, prostitution and drug smuggling (Gomez &Christensen,2010)

It is very common that most of the Rohingya family has 8-10 children on average and they are not aware of family planning at all. Due to this high birth rate the number of Rohingyas in the camps will increasing in the up-coming days, which will create pressure on basic human needs in this area (Khatun, 2017). In a study by Kobia and Cranfield (2009) concludes that unemployed refugees are worked as burden while if they are employed, they create pressure on local job markets.

Refugee–host relationships are a sensitive matter from multiple perspectives including survival, economic, moral, as well as sociopolitical (Jerin, and Mozumder, 2019). As Rohingyas have been living in Bangladesh since 1991-1992, a long-term impact over the host community has already been visible (HRW, 2017). There are religious similarities between the local communities and Rohingyas, many local considered them as uneducated, rough and possibly represent a criminal threat to residents (Mia, 2020). Movement of thousands of people and the establishment of refugee camps can have a serious impact on local ecology, as well as on the welfare of nearby communities (Lynch, 2002). Moreover, continues competition regarding the share of agricultural and forest land, common water points, toilets and other facilities regularly create clash and conflicts between local community people and refugees (Tani,et al. 2014,pp 25.-27).

Forests and trees are important in supporting community resilience and decreasing forests work as vulnerabilities to climate related stresses in different ways (Fedele et al., 2016). Due to the size of recent Rohingya influx, it is difficult to accommodate them within refugee camps. The major issues related to environmental challenges are situations of unhygienic living conditions in camp, water pollution, deforestation, and over exploitation of natural resources that affect the lives of local population (Datta, 2015). During the period of 1989-2009 the local population and Rohingya refugees have been using the natural resources of the forest excessively which has decreased the Teknaf Wildlife Sanctuary area about 45% (Asik & Masakazu 2017, p.230). Reforestation projects should cover at least the 5,530 acres of forest already destroyed, along with support to host community planters who have suffered damage to private or leased forest lands (UNDP, 2018).

Most of the Bangladeshi people are deeply concerned whether the Rohingya refugees can ever return to their homeland. Although it is difficult to predict, given the strong international pressure on Myanmar, and the bilateral agreement signed by Bangladesh and Myanmar, it is viewed by some that a segment of the Rohingya population may be taken back in the near future (Choudhury, 2018).

So, from the above literature it is seen that lots of studies have been conducted on Rohingya entrance impact on host community separately but no research has been conducted combinedly applying on the relevant aspects of SDGs socio-economic and environmental impact of refugee's entrance to the host country. So, this research has taken the SDGs framework to identify the Socio-economic and environmental impact of the Refugees Entrance to the host country on the context of relevant aspects of SDGs.

2.1Conceptual Framework: The socio-economic and environmental impact of the Rohingya population are analyzing based on the relevant aspects of Sustainable Development Goals (SDGs) which is set by the United Nations General Assembly in 2015 which is also known as global goals. There are seventeen goals of SDGs which are designed to attain a better and sustainable future for all. Every goal of SDGs is interrelated. The goals which are relevant with this research objectives are briefly describing here:

These 17 SDGs goals are classified in three categories according to its nature which are relevant will use to conduct this research. These categories of goals are:

Socio-economic areas	Environmental areas	Other's areas
1. No poverty (1) 2. Zero hunger (2) 3. Good health & well-being (3) 4. Quality education (4) 5. Gender equality (5) 6. Decent work & economic growth (8) 7. Industry, innovation and infrastructure (9) 8. Reducing inequality (10) 9. Sustainable cities and communities (11) 10. Responsible consumption & production (12)	1. Clean water & Sanitation (6) 2. Affordable and clean energy (7) 3. Climate Action (13) 4. Life below water (14) 5. Life on land (15)	1. Partnership for the goals (17)

Source: United Nations 17 goals on SDGs, 2015

*Numerical words inside the first bracket represents particular goal own serial number declared by UN General Assembly.

III. METHODOLOGY

3.1. Research Approach: The purpose of this analysis was to identify the socio-economic and environmental impact of the influx of Rohingya population in host community according to the relevant aspects of SDGs. This study also wants to analyze different problems which is created by the refugee entrance in host community with view to giving probable recommendations so that different conflict of interest can be solved.

3.2 Research Method: This study has adopted both descriptive and exploratory research method. Survey questionnaires were used to collect data for descriptive research and at the same time structured in-depth interviews were taken with open ended questions from the respondents separately to explore the nature of problems in details. Numerical data were classified and analyzed statistically and in-depth interviews results was compiled and analyzed to identify the specific socio-economic and environmental impacts of Rohingya influx on local communities. The results of descriptive research have used to well explained the exploratory research results which has produced a strong result from the study.

3.3 Data Collection: As one of the researchers of this study is currently working as an assigned authority of Bangladesh Government to directly work on overall Rohingya camps management issues as an Assistant Secretary and Executive Magistrate at Refugee Relief and Repatriation Commissioner office (RRRC), so most of the data which were used here are primary data and all data are collected from the host community areas through direct interviews answering both questionnaires and in-depth open ended questions basis. Some data were collected from different INGO officials like UNHCR, WFP and some from NGO's which origin is in Bangladesh via direct interviews by the two researchers. Some secondary data from peer-reviewed journal articles, books, NGOs & INGOs reports and some electronic media published news and article are used by authors in this study for proceedings (Levy & Ellis, 2006).

3.4 Sampling Design: As the district Cox's Bazar is nearby from Bangladesh-Myanmar border so the people of this district, especially people of Ukhiya and Teknaf Upazilla as well as the various officials who are currently living there to provide supports and services to Rohingya people are included in the sample. mainly the Upazilla Teknaf and Ukhiya. The duration of the study was almost six months and total number of samples was 120 where purposive sampling method was used to select the respondents.

3.5 Data Analysis Framework: The collected data were analyzed under the framework of relevant aspects of Sustainable Development Goals (SDGs) and prepared percentage distribution table with quantitative data to identify the socio-economic and environmental impact of the influx of Refugees population in host community, more precisely Rohingya entrance in Bangladesh.

IV. DISCUSSION AND ANALYSIS

As the number of Rohingya refugees are increasing day by day, the host community are facing different socio-economic problems and environmental challenges. This are analyzed below-

4.1 Socio-economic impacts of Rohingya influx:

The socio-economic impact of the influx of Rohingya population are describing below briefly in the context of relevant aspects of SDGs:

4.1.1 No Poverty: According to the Policy Research Institute (PRI), the poverty rate in Teknaf and Ukha Upazilla is 24% higher than the national average. The people of Cox’s Bazar district are the direct sufferer because of Rohingya Refugees entrance. By compiling the data of in-depth interviews, it is seen that daily essentials prices are rising high in this area day by day as the local production and supply are not enough to support the population of this area along with the 12 lacs Rohingyas. The responded complained that availability of cheap Rohingya labor has decreased the wages of local labor. Some of the local people lost their private cultivable lands which were near to the Refugee camps. According to the respondents many more families of this area fell below poverty line because of this Refugee entrance and because of the restriction on fishing in Naf River some 3500 fisherman are facing hardship, as their largest income source has decreased.

Table 1: Percentage distribution table of Rohingya entrance impact on poverty

Impact	frequency	percentage
Rohingya entrance increases poverty	99	82.5%
Rohingya entrance decreases poverty	20	16.67%
No impact	1	0.84%
Total	120	100%

Field Survey,2021

The descriptive statistics of this study also supports the results of exploratory studies that almost 82.5% host community people think that Rohingya entrance worsening the poverty of this area. Only 16.67% people think the poverty has decreased little as some of the local people have gotten job in different NGOs which are providing supports and services to this Rohingya Refugees.

4.1.2. Zero Hunger: The result of in-depth interviews found that local people often think that hunger in these areas have increased due to Rohingya entrance as some basic essentials supplies need to share with them which cannot bring from outside this area due to the essentials perishable nature. Though the Rohingya has gotten nearly many aids from different NGOs and INGOs but local poor people do not get any aids from them. Some respondents also shared their anxiety regarding the increasing high living costs of this area as lots of people from others part of the country and from foreign countries have come here for jobs thus their temporary settlements create extra pressure on local people as they both are in competition of sharing necessary items.

Table 2: Percentage distribution table of Rohingya entrance impact on Hunger

Impact	frequency	percentage
Rohingya entrance increases hunger	80	66.67%
Rohingya entrance decreases hunger	32	26.67%
No impact	08	6.67%
Total	120	100%

Source: Field survey,2021

The descriptive statistics also shows that a large number of people (66.67%) think that foods and basic necessities price has increased because of Rohingya entrance, though some people (26.67%) think that hunger decreases because of generating new works scope regarding services to Rohingya.

4.1.3. Good Health & Well-being: According to the respondents before the influx of the Rohingya many local and international NGOs was worked for the development of the rural people of the Cox’s Bazar region. The local people used to have free healthcare service from different international NGOs. As the NGOs are now providing their services by concentrating on the camp so rural people are not having free health care facility. Besides many Rohingya women are engaging in prostitution thus spread sexually transmitted diseases (STD). According to their information local people are now in a competition with Rohingya for getting the healthcare facilities even from government hospitals of this area. Many international NGOs are providing healthcare to the rural people as subsidiary project through the local NGOs.

Table 3: Percentage distribution table of Rohingya entrance impact on good health & well-being

Impact	frequency	percentage
Rohingya entrance increases good health and well-being facilities.	10	8.33%
Rohingya entrance decreases good health and well-being facilities.	101	84.17%
No impact	9	7.5%
Total	120	100%

Source: Field survey,2021

From the above table it is seen that almost 85% local people believe that influx of Rohingya rob their good health facilities.

4.1.4. Quality Education: Exploratory research reveals that the process of quality education is having interrupted in the local communities. Since the arriving of the Rohingya many schools converted into barracks to house military official, local children are facing problem to receive education. As the language of the Rohingya are similar with the local people so the NGOs are recruiting a high number of local people. Many students are avoiding school and colleges for the easy earning source. The respondents also express their fear that if it continues then it'll create an uneducated & values free future generation, which will put a dangerous impact on this community in the long run.

Table 4: Percentage distribution table of Rohingya entrance impact on quality education

Impact	frequency	percentage
Rohingya entrance increases scope of quality education	2	1.67%
Rohingya entrance decreases scope of quality education	117	97.5%
No impact	1	0.84%
Total	120	100%

Source: Field survey,2021

Above data shows that almost 98% people are worry about quality education of this area.

4.1.5. Gender Equality: Some interviewees (25%) think that Rohingya entrance has created opportunity for some local women to engage in various jobs like work with NGOs thus they are contributing economically in their families. But a large number think (58.33%) that because of this Refugee entrance insecurity has risen here, i.e., kidnapping, sexual harassment, robbing, stealing, that's why many families are unwilling to send women at outside work anymore. A minor portion (16.67%) thinks their entrance has no impact on gender equality.

Table 5: Percentage distribution table of Rohingya entrance impact on gender equality

Impact	frequency	percentage
Rohingya entrance increases gender equality	30	25%
Rohingya entrance decreases gender equality	70	58.33%
No impact	20	16.67%
Total	120	100%

Source: Field survey,2021

4.1.6. Decent Work and Economic Growth The respondent's answers are combination of negative and positive impact here. They have expressed that the reducing opportunity of agriculture and fishing, and decreasing of labor wage are substituted by the opportunity of working with more than hundred local and international NGOs which have been operating in the camps with different projects. Many unemployed local students are now working with different government, non-government and development partner in various projects. The day labors are having the job opportunity to the camp so that they are switching to work in the camp with different aid agencies. But this is making a shortage in the local labor market and affecting the local farmers. Some host people expressed grief that the culture of this area changing so quickly because of staying of so many diversified people here from different parts of the world for job purposes that the local fear that their original values and culture will vanish soon.

Table 6: Percentage distribution table of Rohingya entrance impact on decent work and economic growth

Impact	frequency	percentage
Rohingya entrance increases decent work facilities & economic growth	70	58.33%
Rohingya entrance decreases decent work facilities & economic growth	40	33.33%
No impact	10	8.33%
Total	120	100

Source: Field survey,2021

It is seen that 58.33% believe that decent work and economic growth is enhanced while other 33.33% think Rohingya entrance has deteriorated the situations.

4.1.7. Industry, Innovation and Infrastructure: The analyses show that 83.33% host people think that the Rohingya entrance has been destroying the tourism industry, which is the most promising industry of Cox's

Bazar. As some activities of Rohingya's like human trafficking, smuggling, prostitution, robing, stealing create enormous insecurities here. Tourist don't feel safe after evening thus growth of this industry has almost stopped as well as foreign tourists visit has declined due to security issues. Extra pressure on existing infrastructures like roads, bridges conditions are getting worsen. No visible development is occurred in this area except few unplanned buildings made by locals for renting NGOs workers.

Table 7: Percentage distribution table of Rohingya entrance impact on Industry, innovation and infrastructure

Impact	frequency	percentage
Rohingya entrance increases facilities of industry, innovation and infrastructure	11	9.17%
Rohingya entrance decreases facilities of industry, innovation and infrastructure	100	83.33%
No impact	9	7.5%
Total	120	100%

Source: Field survey,2021

4.1.8. Reducing Inequality: According to respondents (83.33%) inequality is increasing as few people get benefitted by getting jobs in NGOs while major portions remain excluded, which creates the rich and poor gap bigger. This benefitted host people are capable to match with the rising living expenses, while major portions are struggling to cope up with the rising expenses.

Table 8: Percentage distribution table of Rohingya entrance impact on reducing inequality

Impact	frequency	percentage
Rohingya entrance increases inequality	100	83.33%
Rohingya entrance decreases inequality	9	7.5%
No impact	11	9.17%
Total	120	100%

Source: Field survey,2021

4.1.9. Sustainable Cities & Communities: Almost 96% host think that no sustainable development has occurred here after Rohingya entrance, whatever development has occurred on private level are unplanned and this development has happened at the expenses of destroying natural environment. And communal harmony is almost on the edge of ruin. Now the host has taken Rohingya as their competitor which ultimately create animosity between them. It is not uncommon that 1or 2 murder occurred inside the Refugee camps in every week from the clash of various Rohingya groups, which creates fear in host people minds. The teenagers are taking drugs and leaving school is not uncommon here. One interviewee said that the uneducated Rohingyas are so violent that they can kill even a person for some money.

Table 9: Percentage distribution table of Rohingya entrance impact on sustainable cities & communities

Impact	frequency	percentage
Rohingya entrance facilitates sustainable cities & communities	2	1.67%
Rohingya entrance hinders the creation of sustainable cities & communities	115	95.83%
No impact	3	2.5%
Total	120	100%

Source: Field survey,2021

4.1.10. Responsible Consumption & Production: From the study it is found that there is no eco-friendly waste management system here The Naf river portion which flows through Kutupalong camp area of Ukhiya is disposed by toxic waste and pollutants as well as few local water reservoirs are already damaged because of unplanned throwing of wastes in it. Lots of agricultural lands are occupied by Rohingyas creating land shortages for farming. The roof of the house of Rohingya camps are made of Tarpaulin, which is not disposable naturally, misbalancing the environment. The various aids provide by agencies in plastics packets destroyed the soils of camp areas.

Table 10: Percentage distribution table of Rohingya entrance impact on responsible consumption and production

Impact	frequency	percentage
Rohingya entrance increases facilities of responsible consumption & production	10	8.33%
Rohingya entrance decreases facilities of responsible consumption	107	89.17%

&production		
No impact	3	2.5%
Total	120	100%

Source: Field survey,2021

Almost 90% people said that sustainable production and consumption pattern is not following here at all.

4.1.11. Peace & Justice: According to the replied of the respondents the local people are facing security problem because of the illiteracy and desperate character of the Rohingya. Because of the language, religious and facial similarities with local it is easy for them to collect local identity illegally and involving with different crimes. Drug smuggling, prostitution, hijacking, robbery, rape, human trafficking poses serious threats to this area and are spreading all over the country. To earn money illegally many local people are helping the Rohingya to get local identity card, local sim card and also passport of Bangladesh.

Table 11: Percentage distribution table of Rohingya entrance impact on peace & justice

Impact	frequency	percentage
Rohingya entrance enhances scope of peace & justice	9	7.5%
Rohingya entrance cutting down scope of peace & justice	108	90%
No impact	3	2.5%
Total	120	100%

Source: Field survey,2021

From the above table it is seen that 90% people of this study expressed that social law and order system of this area is breakdown already. Only few (7.5%) said that it creates scope for peace and justice because of the presence of INGOs like UNHCR, WFP, IRC, WHO etc.

4.2 Environmental impacts of Rohingya influx:

4.2.1. Clean Water and Sanitation: According to the interviews it is found that the area is going through water scarcity. It is getting tough to get safe drinking water as the water level is depleting by access demand. According to the Policy Research Institute (PRI), there have additional 13.8 million liters demand of drinking water per day in the post influx period. And the sanitation and water management process are not good in the camps. Because of coastal area the water level is close to the land, so different types of waste are easily mixing with the water. Both the local and refugee people are getting the polluted water by tube well to use for drinking water and household activities. This is increasing the threats of different water related diseases.

Table 12: Percentage distribution table of Rohingya entrance impact on clean water & sanitation

Impact	frequency	percentage
Rohingya entrance increases facilities of clean water & sanitation	10	8.33%
Rohingya entrance decreases facilities of clean water & sanitation	108	90%
No impact	2	1.67%
Total	120	100%

Source: Field survey,2021

The survey reports also supports the interviews that 90% people think that Rohingya entrance has created this clean water and sanitation problems.

4.2.2. Affordable & Clean Energy: According to the respondents answer the research has found that there is scarcity of utilities (electricity, gas, water) in this area because of the pressure put by the excessive refugee population and thousands of jobholders who are working here to provide services to refugee camps. Renewable energy production and supply is not ample as the government and private organization are busy to provide services to Rohingya's. So far, the local people think they are somewhat neglected in their own land because of the presence of the Rohingya. The below table shows that 89.17% respondents believe Rohingya entrance has decreased their facilities of access to affordable and clean energy. While few (9.17%) believe the facilities has increased because the Rohingya's sell their surplus gas cylinder with relatively lower price to the local.

Table 13: Percentage distribution table of Rohingya entrance impact on affordable and clean energy

Impact	frequency	percentage
Rohingya entrance increases facilities of clean energy	11	9.17%
Rohingya entrance decreases facilities of clean energy	107	89.17%
No impact	2	1.67%
Total	120	120%

Source: Field survey,2021

4.2.3. Climate Change: The study found that the overburden of population in this small area are causing soil erosion, hills sliding, deforestation as a result draught, rainfall runoff, heavy storm, flash floods are already started its visibility. Because of climate changes water scarcity already in peak in the summer time and the temperature is rising day by day creating a short length winter and longest summer.

Table 14: Percentage distribution table of Rohingya entrance impact on climate change

Impact	frequency	percentage
Rohingya entrance aggravates the effects of climate change	115	95.83%
Rohingya entrance decreases the effects of climate change	0	0%
No impact	5	4.17%
Total	120	100%

Source: Field survey,2021

Almost 96% inhabitants think that the climate of Cox’ Bazar district has already started to change from favorable climate to extreme climate.

4.2.4. Life Below Water: The qualitative data of the interviews have revealed that life under water also in danger. The portion of Naf river which flows through the Kutupalong camps areas has already filled with garbage’s of the Rohingya camps and almost dried. Few natural lakes, canals and ponds which belong to the camps areas were destroyed severely by filling with toxic and non-disposable wastages of the camps. Fish and other species of this river, canals and lakes are mostly extinct and water flows look like black muds.

Table 15: Percentage distribution table of Rohingya entrance impact on rivers & canals

Impact	frequency	percentage
Rohingya entrance improves the quality of underwater species	0	0%
Rohingya entrance destroys underwater species	108	90%
No impact	12	10%
Total	120	100%

Source: Field survey,2021

The descriptive statistics shows that 90% host community people believe that Rohingya entrance has put a major threat on under water life which will ultimately destroy the natural balance of this area.

4.2.5. Life on Land: According to the Forest Department of Cox’s Bazar 5500 acres of reserve forest have already destroyed by the refugee camp which worth approximately USD555 million. UNEP report has showed that large number of wildlife are facing threat because of the makeshift camps. It has a significant impact and mostly the elephants are suffering from habitat loss and fragmentation. If this continues then elephants may become locally extinct. According to Alom (2014) the exploitation of forest resources by local population and Rohingya refugee poses a threat to the Teknaf Wildlife Sanctuary which area is 28,688 acres. Because of these activities local wild species are on the threat to extinct and biodiversity is changing. Because of human waste, contamination and pollution cultivating the nearby land of camp is not possible. The refugees are cutting hill to make house nut this are causing landslides.

Table 16: Percentage distribution table of Rohingya entrance impact on forestland

Impact	frequency	percentage
Rohingya entrance increases forestation and wild species	0	0%
Rohingya entrance promotes deforestation and destroyed wild life	120	100%
No impact	0	0%
Total	120	100%

Source: Field survey,2021

The survey result is shown that 100% people of host community think that Rohingya Refugee entrance has destroyed the forestland and wild life balances of Teknaf and Ukhia Uapazilla on a large scale.

V. CRITICAL ANALYSIS AND FINDINGS

Though after the arrival of Rohingya Refugees there has created small number of new job opportunity but few of the jobs belongs to local people and rest of the jobs have captured by people from different regions and it’s at the costs of local population former means of livelihood like fishing, farming & collecting natural resources. That why 82.5% host people think that Refugees entrance has worsen the poverty here and only few (16.67%) think that their entrance minimizes poverty in little bit. Because of increasing the prices of daily essentials and living costs almost 67% host think that hunger has increased here and only (26.67%) think that

hunger decreases because of generating new works scope regarding services to Rohingya. Nearly 85% people think that good health and well-being facilities has decreased for local people as both parties are in competition of taking health care facilities from limited care & treatment providers, besides Rohingya women are engaging in prostitution thus spread sexually transmitted diseases (STD). the analysis shows that nearly 98% people worry about the quality education of this area as students are avoiding school and colleges for the easy earning sources and for the conversion of the schools and colleges into shelter center for emergency crisis. Though few women (25% views) get job opportunity in different NGOs after Refugees entrance, major segments (58.33%) remain excluded because of security issues in the working area. The opportunity of working with more than hundreds national and international NGOs which have been operating in the camps foster decent work and economic growth opinions of 58.88% sample while 33.33% think it's decreases the facilities. The criminals activities of Rohingyas inside and outside the camps areas has created insecurities here thus tourism industry of Cox,s Baazar is on the verge of ruin and others development is far question here think by around 84% people. The Rohingya refugees' entrance has increased the inequality as few people get benefitted by getting jobs in NGOs while major portions remain excluded, which creates the rich and poor gap bigger views of around 84% people. Almost 96% host think that no sustainable development has occurred here after Rohingya entrance, whatever development has occurred on private level are unplanned and this development has happened at the expenses of destroying natural environment. Around 90% host people has expressed that no sustainable production and consumption pattern is not following here at all, example are available like use of plastics and tarpaulin, destruction of forest, river, canals and agricultural lands. Increase of various illegals activities like, drug smuggling, prostitution, hijacking, robbery, sexual harassment, rape, human trafficking poses serious threats to this area and are spreading all over the country think by 90% host community people.

The study has found that 90% people has expressed grief that Rohingya entrance has created the clean water and sanitation problems. The scarcity of electricity and renewable energy is the creation of Rohingya entrance believed by 89.17% respondents. Almost 96% inhabitants think that the climate of Cox'Bazar district has already started to change from favorable climate to extreme climate followed by draught, rainfall runoff, heavy storm, flash floods. Fish and other species of this river, canals and lakes are mostly extinct and water of river and canals have flown like black muds with full of non-disposable garbage's said by 90% respondents.it is seen that 100% people of host community think that Rohingya Refugee entrance has destroyed the forestland and wild life balances of Teknaf and Ukhia Uapazilla on a large scale.

High level of deforestation is going to be a big threat for the coastal areas. Though the registered Rohingyas are having LNG which is helpful to save the natural resources but there have many non-registered refugees who are still using the natural resources. There have some bad people among the Rohingya who were engaged with criminal activities in their own country. So, after having shelter here in camps they are often doing criminal activities inside and outside the camps. As the local government cannot enforce law towards the refugee camps directly so they are using this loophole.

So, from the study it is seen that refugee's entrance has thrown challenging impact on the host communities socio-economic and environmental sectors. The application of the SDGs framework for analyzing this impact has shown that the aim of achieving SDGs goals by 2030 are severely hampered in the refugee entrance areas.

VI. CONCLUSION

Since Rohingya refugee entrance has created multi-dimensional problems for Bangladesh so it is necessary to repatriate the Rohingya as soon as possible to their own land. The increasing socio-economic impacts are affecting both the host communities and the refugee population also. To protect the biodiversity proper implementation of environmental law is necessary. Though many aids are coming for the refugees but Bangladesh government has to expense a big amount for this Rohingya issue. As a developing country it is tough for Bangladesh so by having dialogue with different international authority, if it possible, to engage the refugees in economic activity then it'll be helpful for both parties. To solve the matter Bangladesh should have ask concern from the major global players.

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