



Environmental Cost: Rohingya Mass Exodus into Bangladesh

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Rohingya, one of the most persecuted ethnic minorities of the world had fled from Myanmar into Bangladesh after having experienced ethnic and religious tensions and state persecution. UN termed the Myanmar military campaign on Rohingya as the text book example of ethnic cleansing. The influx of the Rohingya exodus in Bangladesh has reached at 1.1 million according to the government. Such huge mobilizations of Rohingya have installed their inhabitants mainly in Teknaf, and Ukhiya areas. According to UNHCR, 9 million refugees are staying at camps in Bangladesh. Therefore, a large population of Rohingva also stays with the local community as their relatives came here for long time ago. Therefore the large area of forest, hill forest area, and cultivable land had been occupied by Rohingya for their settlement. In terms of the forest office of Cox's bazar, at least 2000 acres forest areas have been barren since the last influx of Rohingya in 2017. The report from UNHCR indicates at least half of the hill forest had been cleared by Rohingya mainly for facilitating the way, collecting fuel and making house as well as others furniture. The decreasing flow of forest area has produced landslide and soil erosion across the area.Wild elephant had been barren and infiltrated into local area contributed casualties at least 13 people killed. The existence of biodiversity is also fallen under threat because of over pressure from Rohingya on forest and hill forest area. Excessive extraction of ground water through tube well across the Rohingya camp has been downing the level of ground water. Smoke from the burning firewood and vehicle, and discharge wastages from Rohingya camp attributed the air pollution. This article mainly articulated the environmental effects on Cox's Bazar in face of large Rohingya exodus.

Rohingya:

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Rohingya is an ethnic minority of Myanmar's Rakhine state among 135 ethnicities. This ethnic community since the independence of Myanmar from British colonial era has been struggling for autonomy had been

denied in 1982. Rohingya Muslim subjected to ethnic cleansing by Myanmar military force. The and political tensions have also featured this population mostly Buddhist community.

Rohingya exodus:

The movement between Rohingya neighboring Muslim area Chattogong were evidenced from historical age of 15th century. denotes a large move of Muslim



Burmese majority area Arakan after the assassination of a Mughal prince Shah Shuja by then ruling monarch. The aggrieved Muslim from across the Indian subcontinent went there to retaliate and later settled down. As well as for seeking better livelihood, meeting with the relatives and business purpose the people

from Chittagong went there as history witnessed that. Therefore the first Rohingya exodus had been mainly initiated with the decision of Myanmar junta regime in 1962. Military began an operation named "Operation Dragon King" and targeted the ethnicities who were mainly yet recognized by the state. The decision escalated the massive migration of Rohingya. The military started military crackdown on Rohingya such indiscriminant killing, gang rape, torture as well burning down the houses of Rohingya. The move became so acute in 1978, 1991, 2012 and the last 2017 that has been going on till date. Rohigya were denied to get citizenship even the recognition the ethnic minority status, while the government declared the Citizenship Law 1982.

Deforestation:

Rohingya had mainly settled down in Ukhiya and Teknaf area, two sub district area of Cox's Bazar. But those camps are mainly constituted in the forest area. Subsequently a large number, in accordance of Cox's Bazar forest office at least 6125 acres have been already barren. Rohingya are indiscriminately cutting down the tress to clear the forest area for their living, for creating way of passage, and for making residence. As well as they continue this deforestation for making furniture, collecting firewood as well as for meeting others daily needs. Per day the 650 tons fire wood is needed to serve the necessity of Rohingya camps. The deforestation level subsequently has been reached at alarming stage that poses threat to the Cox's Bazar environment, as well as tourism of Cox's Bazar. The forest office of Cox's Bazar estimated the cost will be 788 crore TK.

Upazila	Land acquired	Lost forest	Created forest	Daily firewood
		assets	asset lost	nee (in camps)
Teknaf	125 acres	Tk. 50 core	Tk. 3 crore	50 tons
		US\$ 6.0 million	US\$ 0.36 million	
Ukhiya	5000 acres	TK. 500 crore	Tk. 235 crore	650 tons
		US\$ 60.2 million	US\$ 28.3 million	

Digging the hill forest:

Cox's Bazar's the hill forest areas are also highly affected by the Rohingya influx. Recently published UNDP report 2018 on the environmental consequences of cox' bazar in face of Rohingya, estimated more than half of hill forest area of Ukhiya and Teknaf area had been cleared by the Rohingya. Rohingya are settling down on the hill area mainly push them to clear the forest for residence, dig the hills for facilitating the way, and cut down the trees for gathering the fire woods. These destructions of hills eventually have a backlash on the whole environment of Cox's Bazaar. Landslide, soil erosion as well as resistance from natural calamities like cyclone and storm have been diminishing. So it became very common and took many lives of Cox's Bazar.

Biodiversity:

As the consequences of the clearing of large acres of forest area, the biodiversity has been fallen in threat. UNDP identified 28 factors that are created by Rohingya threatening the biodiversity alongside of local community. Wild elephant has been barren into local area attributed mainly for wild destruction. It reported more than 13 people had lost their life, as get attacked by this. Therefore many unknown species are also being disappeared from Cox's Bazar forest area because of unrestrained deforestation. It subsequently creates an imbalance huge backlashon the environment.

Water Resource:

Thousands of tube well has been set inside Rohingya camp to meet the needs of Rohingya people. Subsequently the over extraction of water had continued the level of aquifer down. Then the effects have been appeared on the surface. The moisture of the soil has been diminishing that continued the area be barren. As well smoke produced from excessive traffic, the firewood and sometimes from the burning forest by Rohingya makes the whole environment polluted. Excessive particles of the air, intolerable stench alongside of dense peoples gathering in a constraint area make the whole environment inhabitable. Thus continued air pollution breeds many air borne disease at their mainly cancer, influenza, chickenpox, tuberculosis TB, diptheria, bronchitis and etc. Recent data published by WHO in 2019, at least 306 people had been confirmed of Diphtheria disease. This number is growing up.

Waste Management:

Around 1.1 million people live in a small area of Ukhiya and Teknaf. The solid waste management of this large population, mainly the collection, disposal and recycle of solid waste materials are posing a challenge to health of the local community people. The problem is becoming graver while several challenges aroused on the scenario. Jeopardized and congested settlements, inadequate space for communal pit, poor connectivity, unregulated dumping, poor infrastructure and technology, low level of sanitation knowledge and adjustment as well as excessive rainfall make the whole waste management system fragile. Consequently various diseases like diphtheria, diarrhea, and dengue have been already out broken.

Acoustic air (Sound pollution):

Large number of vehicle, alongside of huge chaotic crowd mainly produced the high amount of noise, that is above of normal acoustic level. The sound became so acute during the distribution of relief. Bangladesh Military force recently has tried to curb the sound and keep it tolerable. But it is still at high level that can damage the hearing ability of human being.

Conclusion:

The number of Rohingya refugees has been reached 1.1 million in Cox's Bazar highly impacted the local environmental condition. This article is mainly dedicated to examine the environmental consequences of such Rohinga large movement in Cox's Bazar. The first concern is about deforestation that has been already in danger position. Rohingya also cut down the hill forest and dig the hill area to make their road also attributed to landslide and soil erosion. As result of landslide, many lives had been lost. The biodiversity of the forest area is still waiting to be extinct as indiscriminant clearance of forest area. The climate change is also contributed by this destructive cutting down of forest. Wild elephants has been barren into local area and resulted casualties of several people. Excessive extraction of ground water decreases the storage of

aquifer and contributes it to be downed. That affected the surface by being dire, and infertile. Smokes, acute stench, particles, as well as massive gathering of human being pollute the air. Several diseases like diphtheria, diarrhea, dengue and bronchitis had been widespread as the consequences of air and water pollution. With the mounting pressure form large number of people makes the fragile waste management. That subsequently contributed to break out several diseases among inside camps and local communities. The overall environmental backlash can be summed up as the indication of human catastrophes. It is suggested to be mitigated lest it went out of control.

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