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**Reinstating Rohingya: Architecture for the
wellbeing of humanity**

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Abstract

Rohingya refugees are currently residing in the southeast side of Bangladesh, which is near Myanmar border. There have been numerous Rohingya refugees living in that area for a while, and over the time their number steadily increased. However, after the military attack on Rohingya Muslims in August 2017, this number has sharply increased to around half a million. According to the report of UNHCR which was published in June 2019, currently approx. 990,0000 Rohingya refugees are living in a miserable condition who are devoid of many basic human needs. Among the population 52% is women and 55% of them is children.¹

Most of these women and children are suffering from the hygiene problem. As they are living a house which is not more than 150 sft and not having access to bathing or washing facility. They are getting a latrine facility which is separated from their houses and sharing it with other neighbors. As Rohingya Muslim women are very conservative, it is seen that the women feel shy to use the shared latrine. Apart from that, the number of facilities which are empowering, or training women are very low. Rohingya women are mostly traumatized due to the hardship they had to go through while migrating to Bangladesh, it is very important to empower the women and make them self dependent. Also, there is not many facilities which are providing mental health facility. Most the single women or the women who was rapped and went through great trauma need mental counseling daily with a specialized routine checkup that is

¹"Joint Government of Bangladesh - UNHCR Population Factsheet as of 30 April 2020."

personalized based on the need of the individual. The number of health facilities in the camps are lot but then again there is not much which are specifically designed to accommodate a maternity waiting area

for the women. At the end they need a community space for themselves where they can meet other women and have their own time of the day from all the daily chores. In short there should be a women center specialized to fulfill the needs of the Rohingya women and adolescent girls. Also, with a proper design strategy using a sustainable framework for the climate and context of Bangladesh, thereby offering these women center will improve the Rohingya community living conditions in which the whole community can prosper.

Keywords

Women, hygiene, adolescent girls, mental facility, maternity waiting area, culture, social framework, context, connection

Introduction

The world is currently home for more than 7 billion people. Unfortunately, an alarming number of the world communities are evicted from their own homes in a display of severe inhumanity. That is exactly what has happened with the people of Rakhine state in Myanmar, called the Rohingya. With the eviction of Rohingya, the world witnessed burned homes, rape, torture and genocide, and consequently a huge refugee crisis in the neighboring country of Bangladesh.

The Rohingya people are an ethnic group of Indo-Aryan people who are stateless, both

UNHCR The UN Refugee Agency. , April 30, 2020.

now and in the past as well. There were almost around 1 million Rohingya people residing in the Rakhine known as one of the poorest states in Myanmar and homeland of the Rohingya people. They are a Muslim ethnic minority group who have been long oppressed by the Buddhist majority of Myanmar. In August 2017, an

unsparing Myanmar military crackdown forced half a million of them to flee to nearby countries in order to protect their lives. They came to Bangladesh and now there are around half a million Rohingya people living in city named Cox's Bazar, which is in the southeast side of the country. The Bangladesh government has been very generous ever since the crisis began. The government is trying their level best to deal with the outgrown number of this population which is currently 990,000. And 52% of this population is women. However, it is difficult for a developing country like Bangladesh with its limited resources, to accommodate and feed such many displaced people. This has resulted in poor living conditions where there are no proper sanitation facilities, health facilities, training centers, skill development facilities for women.

The United Nations and other world organizations and activist groups are stepping up to try to provide the necessities for Rohingya women which are easing down their problems a bit. In the current condition, how can socio-economic and cultural framework fulfill the needs of Rohingya women? How can better habitats that reuse locally available materials and improved construction methods become a sustainable support for Rohingya women in Bangladesh? Lastly, how can these frameworks fulfill the basic needs of the Rohingya women in such a manner that they can feel safe, secure and empowered?

To find out the answers for these significant questions, some information is necessary - firsthand interviews of people who are working with or for the Rohingya Refugee women in Bangladesh, 5-15 NRO workers and architects who has designed or designing programs specifically for the Rohingya women in Bangladesh, case studies related to existing camps in Cox's bazar, Bangladesh, the housing system of Rohingya people back in Myanmar, Za'atari Refugee Camp, literature reviews related to the history of Rohingya people, their

design a better, more livable community place for Rohingya women that meets their needs.

Methodology

To have a better understanding of the Rohingya crisis firsthand interviews are conducted. Interviews were taken within the camps situated in Cox's Bazar, over the phone and skype calls. Interviewing the Rohingya allows one to understand how life unfolds in the camp. For example, are women having access to latrines? How safe and secure are those latrines? Are they having any kind of privacy issues? Are there enough women friendly spaces for them? Are they having access to maternity waiting areas? what do they want more for their betterment? do they want to live there, or do they want to go back to their country? All the answers of these questions help us to understand about the situation and the community's needs. Interviewing of the people who are directly or indirectly working with Rohingya community in Bangladesh were also taken to know about what they are planning for the community and what type of help they are providing towards the refugee women. Also, interview of 5-15 NRO workers and architects who has designed or designing programs specifically for the Rohingyas in Bangladesh are also taken.

For case studies, existing refugee camps in Cox's bazar Bangladesh, the housing system of Rohingya people back in Myanmar, the Zaatari refugee camp can be investigated. The structure and pattern of the camps should be analyzed to understand the individual housing systems, what type of materials they are commonly used, as well as construction techniques used for habitats.

Through researched articles of the history of the history of Rohingya people, the Rohingya culture, and religion, and the key causes behind this crisis is discussed. In addition to the history, a discussion of the current situation is analyzed. Key to understanding the current condition are the Bangladesh government, United Nations, and NGO's helping the Rohingya community to improve their situation

specially for the women. The analysis will help to determine the feasibility and acceptability of a designed solution for the future of the Rohingya women.

Discussion

Who are Rohingya people?

Since the year 1950, Muslim leaders and students of North Arakan had started to use the term Rohingya. North Arakan has been known as Rakhine State since 1989. They used the term Rohingya to identify them as a distinct ethnoreligious group specifically for that region's Muslim community. The term is used just to classify the Rohingya community on the ongoing process of the formation that created a community of Muslim people in the North Arakan. Though Rohingya people are different based on their religion at the same time have similar diverse historical background and culture. The majority of the Rohingya people are Muslim. They are an ethnic group who are living for centuries in Myanmar, where most of the people are Buddhist. Almost 1 billion Rohingya were living in the southeast Asian Country. Rohingya or Ruaingga is their mother tongue and this language is distinct to others living in Myanmar. 135 official ethnic groups are living in Myanmar but the Rohingya are not recognized as one of them. They have been denied citizenship in Myanmar since 1982 and it caused Rohingya people to become stateless. The Myanmar government considers Rohingya people to be from Bangladesh and thereby living in Myanmar illegally.

Where Rohingya People are from

The western coastal state of Rakhine in Myanmar was the home of almost all the Rohingya. The community is even allowed to leave the country any time without any permission from the government. The Rakhine state lacks proper opportunities and primary services and opportunities for the Rohingya people and thus thought as one of the poorest states in the country.

Rakhine state had been a Muslim province since 12th century as per historians and

Rohingya groups. According to the Arakan Organization, the Rohingya people lived on the Rakhine state since as long as one can remember. Laborers from the current India and Bangladesh migrated to Myanmar during the period of British Rule (1824-1948). Since Myanmar was then a part of Indian province, the migration was not considered illegal rather an internal migration within a country. It became an issue as the natives of the Myanmar did not accept this large migration wholeheartedly and never considered the migrants as their countrymen. Consequently, after the division of the Indian Subcontinent, The Myanmar Government declared the immigrants as illegal and refused to accept them as citizen of the country. The Rohingyas are not even termed as such by native Buddhist community due to its use as political tool rather they are considered as Bengali.²

Culture, Religion and economy of Rohingya People in Myanmar

Rohingya are the major community in Myanmar that follows the religion of Islam, practicing a form called Sunni Islam that maintains a conservative outlook and is based on Hanafi Mazhab (school of thought) and which, in coarse of time and influenced by some groups such as Tablighi Jamaat, has become more orthodox. Rohingya refugees are very sensitive about their religious values and it an integrated part of their identity.

Every Rohingya settlement area had their own mosques and madrasahs (religious school) Mosques were visited by men for daily prayers to pray in congregation and women prayed in their own home. Due to a ban issued in the Muslim majority areas in 2012 that prevented gatherings of more than 10 men, it was difficult for the Muslim Rohingya to pray together in a mosque. Traditionally, Rohingya lives in a community mechanism called "samaj" which maintains a strong sense of solidarity and collectivism in the villages.

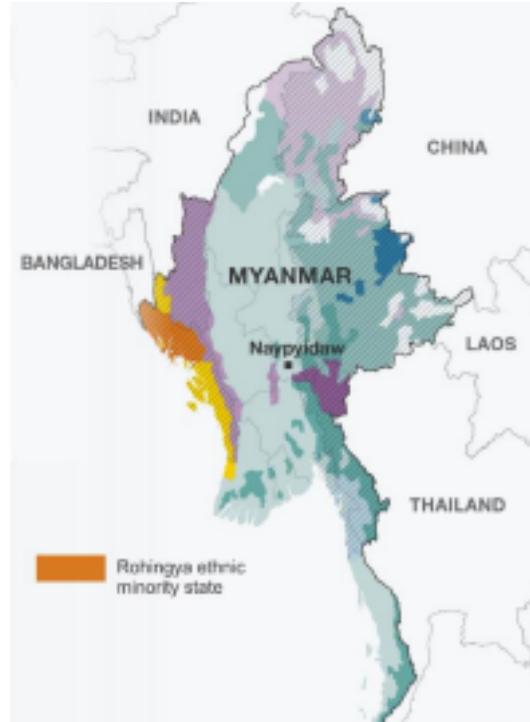
Hindu who are not recognized as an official ethnic group in Myanmar. Although speak the same dialect as the Rohingya Muslim, living in the same state, they are not termed as ethnic group Rohingya.

Reportedly, following a Rohingya attack in 2017, relation between the two communities deteriorated immensely. On their request, a few hundred Hindu refugees were accommodated in separate refugee settlements in Bangladesh.³

Rakhine state is one of the poorest states in Myanmar where the 69% of the population lives under the poverty line. Farming and Agriculture production land provides the demands of a year for almost the whole population of the Rakhine state. Since the ancient age, they are using the method of primitive agriculture for their production process. 85% of the total agricultural land is used to grow rice making it the main crop of the state. Apart from farming, the next major industry is fishing. Nipa palm and coconut plantation also provides livelihood for some. Few also work in mountain collecting bamboo, timber and firewood.⁴

Housing system of Rohingya Villages in Myanmar

Before coming to Bangladesh, the Rakhine state of Myanmar was the home of Rohingya community. They represented a part Muslim minority in the Buddhist majority population of Myanmar that was refused citizenship and due to this very reason, they had difficulties living on that state as well even though it was their home.



³Tay, A.K., Islam, R., Riley, A., Welton, Mitchell, C., Duchesne, B., Waters, V., Varner, A., Silove, D., Ventevogel, P. Culture, Context and Mental Health of Rohingya Refugees: A review for staff in mental health and

Figure 1: Location of Rakhine state (Aljazeera)

Their housing pattern followed the usual vernacular methods and forms of the region, with gabled roofs, double-storied houses with the lower one only stands on pilasters, so that it can be used to store local materials. This system reduced construction cost and was more suitable for the environment.

Figure 2: Typical Housing pattern (Alamy)

roofing system, consisting of multiple stories of pitched roofing. The materials used were stucco, wood, corrugated iron sheets, brick etc. that were locally available. Exterior clapboard siding wooden shingles or clapboards were used in the housings that had indigenous techniques and vernacular expressions. The houses surrounded by fences of bamboo, which enables the practice of purdah (strict gender segregation) preventing women to be seen by outsiders.⁵ The households also had double-hung windows, with upper sashes and louvers often broken up into smaller planes and outlet for side lights

psychosocial support programmes for Rohingya refugees. UNHCR. 2018

⁴"Geography and Political Status." AHRDO. August 3, 2019.

⁵Tay, A.K., Islam, R., Riley, A., Welton Mitchell, C., Duchesne, B., Waters, V., Varner, A., Silove, D., Ventevogel, P. Culture, Context and Mental Health of Rohingya Refugees: A review for staff in mental health and

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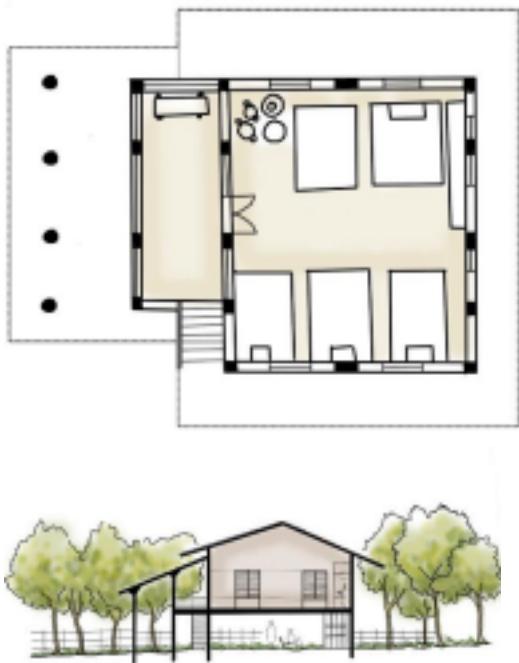


Figure 3: Section And plan of a Rakhine House
Houses had sweeping eaves and offset porches. Most of the houses were made of vertical pieces of split timber. The roofing system is commonly the hipped gable roof where the gable is used as a clerestory. Some houses also had low pitched gable roofs often with front-facing gables or hip roofs and had exposed rafters and roof brackets. The temples had a different

around the front door. Those also followed the traditional features such as Gable venting, decorative shingle work and battered posts or stylized columns.⁶



Figure 4: Typical Housing Pattern Before the fire (independent.co.uk)

After the genocide, the Rohingya had no other option but to stay in Bangladesh. Unfortunately, the massive population taking shelter in the country meant that issues were just as big. The government decided to shift them to a remote island, but the decision was disapproved by human right activist and UNHCR.

Why Rohingya People do not have and identity?

After their liberation, the Myanmar government passed the Union Citizenship

Act, which outlined the ethnicities that would be given citizenship, The Rohingya were not among that list. A few exceptions were made, for those who had settled in Myanmar at least two generations prior.

before this incident the group killed an immigration officer but were easily driven off by police officers firing automatic weapons and killing approx. seventeen people from the group.⁸

Initially, most Rohingya were given identification. Some even gained citizenship under a general provision, with select few even being able to serve in government sectors and parliament. The Rohingya were, however, only issued foreign identity cards, so they had limited scope for employment and education.

This changed in 1982, when new legislation passed which once again did not

According to Medecins Sans Frontieres (MSF) at least 6,700 Rohingya, were killed in that month after the violence broke out and among them at least 730 were children under the age of five. The violence escalated when local Buddhist mobs burned their villages and killed civilians. Analysis of satellite imagery by Human Rights showed that approx. 288 villages were partially or fully destroyed by the outburst. It is also said that the Myanmar military also raped and abused Rohingya

psychosocial support programmes for Rohingya refugees. UNHCR. 2018

⁶Muztafa, Majid. "The Rakhines." May 2005

acknowledge the Rohingya as ethnic group. Citizenship was reworked into three tiers. The most basic tier, naturalized citizenship, had two major requirements. Applicants had to prove that their family had been a resident of Myanmar from before 1948. They also had to provide proof of fluency in at least one recognized national language. These requirements were difficult to fulfill for many of the Rohingya, as these papers hadn't been provided to them.

With the new laws in place, the Rohingya faced severe restrictions on education, employment, travel, marriage, healthcare and religious practices. They did not have a right to vote, nor work in government, law offices or medical services. The rare few who were able to secure citizenship would have to identify as "Naturalized", and not as a Rohingya.⁷

What was the reason behind the genocide?

Arakan Rohingya Salvation Army known as Arsa is a terrorist group by the Myanmar government. It all started when Attaullah Abu Ammar Jununi, commander in chief of Arsa lead an attack on 30 police and army posts in Alel Than Kyaw in the year 2017. Later the village was burnt down by the Myanmar military where Rohingya people used to live. Even

⁷"Who Are the Rohingya?" Al Jazeera News. April 18, 2018.

⁸"Myanmar Rohingya: What You Need to Know about the Crisis." BBC NEWS. April 24, 2018.

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women and girls. These incidents made them flee to nearby countries. But the Myanmar government denies all the allegations and concludes by saying that only 400 people died in the violence.⁹

Arsa is not supported by the Rohingya people in general. According to Ata Ullah who is Pakistani born Rohingya man, described their attacks as a defensive action. He wanted to stop the genocide against the Rohingya, and they had no choice rather than attack the Burmese army. He even asked for international help by appealing to make Arakan a rightful state only for the Rohingya. He couldn't even manage solidarity from other Muslims. On the other hand, Myanmar military portrayed them as a foreign backed conspiracy to the Myanmar population

The Bangladesh Response

Bangladesh has allowed provisional camps for more than half a million Rohingya refugees. Most of them are unspecified or unlisted. The refugees who went beyond its borders and living outside of camps are considered to have "illegally

"infiltrated" the country. Bangladesh has Bangladesh often tried to fend off Rohingya refugees from crossing its border.

In late January, under a plan which was of the camps are managed both by the originally initiated in 2015, the government and a coordination body of government of the country wanted to the Inter Sector Coordination Group relocate tens of thousands of Rohingya (ISCG) which is an international refugees to an remote island, Thengar organization. According to a report Char in the Bay of Bengal, which is prone published by ISCG in 2018, it is to flood and is thought as "uninhabitable" mentioned that around 12,200 metric by rights groups. The proposal wastons of food and 16m liters of water is denounced by rights groups, stating the needed per month for the refugee reason to be because island completely population.

goes under water during monsoon

season. And after some time, the UN The crisis happened suddenly, and stated the relocation, which occurred Bangladesh government had to invest a lot involuntarily, "very complex and initially to provide all the aids. Whereas controversial". The forceful, cruel and the Rohingya refugees are trying to live violent eviction of the Rohingya at their lives by earning by themselves but community from Myanmar in recent time still they are a great burden to the was termed as "genocide" by the foreign government of Bangladesh. There are almost 2,000 government officials who are continuously involved to support the refugees in the camps. The annual cost of is US \$15.2 m which is being supported by the Bangladesh government. But on the other

⁹Jason Motlagh. "An Investigation into Myanmar's State-orchestrated Murder of Thousands of Rohingya Muslims — and the Second Tragedy Unfolding in the Refugee Camps." Rolling Stone. August 08, 2018.

minister of Bangladesh. Not only that but also the National community for Human Rights declared they are thinking of pressing charges of genocide against Myanmar and its army and held them for trial at the international tribunal.

After visiting the Rohingya refugee camp in September, the Prime Minister of Bangladesh appealed to the UN and the international community to support her and make the Myanmar government to take back the refugees in their country where they rightfully belong. She agreed to provide the Rohingya people with aid and shelter, but it would be temporary and this hundreds of thousands of citizens should be allowed back to their own country. The refugees are restricted within the areas near the border which are now overpopulated. To prevent the refugees from spreading into other areas, surveillance have been tightened with police check posts along the transit points.¹⁰

The effects of the Rohingya Crisis on

Rohingya Refugees are living in more than 14 refugee camps in the Cox's Bazar. Most

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¹⁰ Who Are the Rohingya?" Al Jazeera News. April 18, 2018.

¹¹"Rohingya Refugees Remain a Heavy Burden on Bangladesh." The Conversation. Accessed August 08, 2018.

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hand, per capita annual GPD of Bangladesh is only US\$1,700.

But before Bangladesh government supported, the Rohingya people with aids, local people were there to support them. This also affected the local communities. This also include their local job market and price of daily necessary goods.¹¹

The total area of the camp is about 6,000 acres which includes poor quality shelters, delivery clinics and latrines. The site is also flood prone, vulnerable to fire, cyclones, landslides, and rain. The population of the camp is 33,956 people where a person gets approx. 8 square meters of space to live in.¹²

Living condition of Rohingya Refugee Camps in Bangladesh

Figure 5: Population increase from June October, 2017 (Satellite Image)

Cox's bazar is a hilly area and the placement of the camps follow the organic shape of the landscape. None of the camps in that region are built making the land flat. Kutupalong is also situated in Cox's Bazar. Before it was a camp, it used to stand as a protected forest. Now due to the settlement there are no trees in the camp or surrounding the camp. Not only this camp but most of the camps which are residing in Cox's Bazar are made destroying the natural forest of that area. Many local Bangladeshi people used to depend on the forests as they used to collect dead branches, leaves, firewood and collect honey.

¹²"Rohingya Refugees Remain a Heavy Burden on Bangladesh." The Conversation. Accessed August 08, 2018.

These forests used to be local habitat for many animals. There were around 40 elephants living in the forest but now as the forest is mostly destroyed, they are trapped in a small portion of the remaining forest.

The total area of the camp is about 6,000 acres which includes poor quality shelters, delivery clinics and latrines. Movement in the camps is very restricted. The housing needs major changes and maintenance to make it a better place to live in for them. The site is also flood prone, vulnerable to fire, cyclones, landslides and rain. The population of the camp is 33,956 people where a person gets approx. 8 square meters of space to live in.¹³



Figure 6: Location of Kutupalong Refugee camp (Aljazeera)



Figure 7: Kutupalong camp at Cox's Bazar, Bangladesh (The conversation)

Each house only has space for sleeping in. There is a small place for them to cook and the bathroom is separated from the house. It can also be seen that most of the houses don't have a latrine. In most cases a latrine

¹³"Rohingya Refugees Remain a Heavy Burden on Bangladesh." The Conversation. Accessed August 08, 2018.

¹⁴Jason Motlagh. "An Investigation into Myanmar's State-orchestrated Murder of

can be seen between many houses and everyone living around that latrine has to share it.¹⁴ The roofs leak regularly, so they often need to put buckets and jars out to collect the drips.



Figure 8: Kutupalong camp at Cox's Bazar, Bangladesh (Forbes)

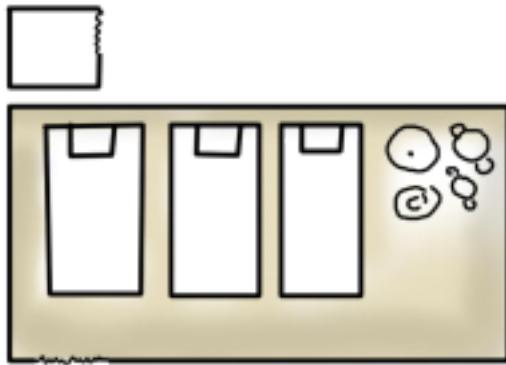


Figure 9: Typical plan of each of the housing units. But on a very positive note Rohingya Refugees are very comfortable and far freer to express their own culture in the camps. In Myanmar there were severe restrictions on Rohingya community by the government. They could not travel, express their ethnicity, and gather in groups. A group of 10 people could not form. On the other hand, in the camps they are gathering, singing, and expressing their culture and tradition. They are even performing in the weddings that are taking places in the camps, which could never be thought of if Rohingya people were still living in Myanmar.¹⁵ There is no obligation

Thousands of Rohingya Muslims — and the Second Tragedy Unfolding in the Refugee Camps." Rolling Stone. August 08,

¹⁵ "Rohingya Culture Reviving in Refugee Camps, but Songs and Music Carry a

they can also pray and at the same time kids are taught in Rohingya language but also in Bengali, Arabic, Urdu and English.¹⁶

After coming from Myanmar Rohingyas refugees were feeling traumatized as they have suffered a lot. There are number of health facilities in the camp which are working for the mental health of these refugees. Though the number of facilities providing mental health counseling to the women are very low. As many of them were rape victims or even lost immediate family member. So, the only way to console them is with the help counseling. There are only very few women friendly spaces which are providing them those type of facilities. When they came to Bangladesh in the year 2017, it was seen that in every 4 women 3 women were pregnant.¹⁷ Till now there is no maternity waiting area for women who are pregnant. There are health clinics which help treat the sick and injured, as well as provide basic health needs for mothers-to-be and children. But the number of help centers are very low and even if there are some it is far away from each camp.¹⁸ Not only that it is seen that there are 16% of the population who are single women.¹⁹ They do not have a place to go or they don't even know how to support themselves and their children. The very few women friendly centers (WFS) which are currently existing in the camps are sort of providing some training to these women. But the numbers are very low. There are only 1 or 2 WFS which are providing them knowledge on life skills and training them to become independent. But more training centers are needed to empower them. It is seen that 65% of the women do not even know their nearest safest place. As a result, they are still facing domestic violence and still the rate of rape victim is very high. Nearly 52%

Bittersweet Touch." South China Morning Post. May 2019.

¹⁶ Khanna, Chandan. "Madrasas a Place of Prayer and Peace for Rohingya Kid." October 7, 2018.

¹⁷ "3 In 4 Rohingya Refugee Babies Are Born in Unsanitary Bamboo Shelter." Relief Web. Save the Children, June 3, 2019.

for them pray and practice their beliefs. Though the number of madrasas is more than mosque. Some of the madrassas are attached to prominent mosques and large enough for 400 students. In the madrasas,

of the whole population is women and empowering them is a must for their

survival.



Figure 10: Aerial View of Kutupalong Camp (the United idealect)

to it. Not only giving access towards these facilities but also guide them and properly train them to use the latrines is a must. Women should be the first target who can be given this training. In this way they will be able to convey this to their other family member.

United Nation

The United Nation and several human rights groups are currently trying their level best to improve the living conditions of the Rohingya refugee camps in Cox's Bazar, Bangladesh. According to the United Nation, the Rohingya community currently are the most persecuted minority in the world. The international

One of the major problems the women are facing is with hygiene. As their house been criticizing the inhuman treatment doesn't have any attach toilet for them, towards them by the Myanmar they need to travel a long way to have government.

access to it. According to some data

published by UNHCR 19% of the latrines are not separated for women and men, At the same time, the Rohingya refugee camp needs much planning and 37% of the women have no access to organization to face the current crisis, to bathing place or washing place, 18% of provide the inhabitants with a safe, the latrines are not secure at night, 17% secure, proper environment to try to oof them are in unsafe places, 13% have begin their life afresh. It is important to no privacy.²⁰ So, it can be easily seen that address their mental and physical trauma, they need latrine facilities that can be only especially for the women and children, shared by other women or immediate faced in the Rakhine state, and the poor family members.

living conditions that they now face as refugees.

Safe drinking water is also insufficient in the existing camps and in new camps along the western edge of the Kutupalong Balukhali expansion site, which increases the vulnerability of the people living there. Not only for the women but also for all the people living in the camps it is a must to have access to water, sanitation and hygiene. Though the number of water dispensers in every camp is increasing day by day. Without the access to these basic humans need communicable disease outbreaks are likely to occur and creates a

Various organizations are already working to improve their condition and helping them with aid for their better future. UNICEF is working for the children, as they are at a high risk of being trafficked or losing their future opportunities due to them being illiterate. UNHCR is also working with them by looking after their basic rights and needs.²¹ A joint verification exercise for Rohingya refugees is being conducted since the end of June, 2018 by The Government of Bangladesh and UNHCR, the UN Refugee Agency. The goal of the exercise is to create a complete database of the refugees.²² Other organization such as Burma Task Force

¹⁸ "Improving Condition in Cox's Bazar." UNOPS. 2019

¹⁹ "Crisis Update: Nearly One Million Rohingya Refugees Are in Bangladesh Now." UN Women, August 14, 2018.

²⁰ "Rohingya Refugee Response Gender Analysis." Relief Web, August 2018.

²¹ "Joint Bangladesh/UNHCR Verification of Rohingya Refugees Gets Underway." UNHCR. Accessed July 2018.

²² "Rohingya Emergency." UNHCR. August 15, 2018

USA, Life USA, Muslim Aid, Islamic Relief USA, Human Rights Watch along with local

NGOs such as JAAGO and the government plans are an absolute necessity to be able is helping the refugees with donations, to provide a comfortable shelter, while supply drops, education, building homes.²³ causing minimum damage to the environment for accommodating such a

The donor have helped the refugees to massive population in this densely packed face the crisis with new shelters on safe region which means an accurate estimate ,level ground where 37400 refugee have is needed of the population and rate of its shifted and distributed 84584 shelter increase.²⁶ After conducting the data, the upgrade kits including tarpaulin, bamboo, refugees will be given identity cards which, rope, sandbags and tools as well as core for many refugees, are the first ever relief item kits, comprising kitchen sets, documents validating their identity and the plastic sheeting, buckets, blankets, solar refugees are also eager to go through the lights, jerry cans, sleeping mats and dried process that would state their origin and food and 72520 shelter tie down kits so help them return home which they fled that the other shelters can survive the due to arson, murder and rape against heavy rainfall during monsoon. Healthcare them. ²⁷ The representative leaders of the facilities and nutrition centers have been Rohingya acts as communication channels established that serves 250000 refugees. between the refugee and other agencies 431000 children have been immunized. which had a big impact in the speed of the Well, water pumps, latrines are works undergoing in the camp.²⁸

constructed to take care of safe and

hygienic water and sanitization and 40 per cent of the population are under drainage channels, road and culverts are the age of 12 and many refugee women being repaired. UNHCR ensures that safe are pregnant. Vast majority of the refugee learning spaces are provide to the are women, children and elderly requiring children who makes up a good proportion addition facilities and protection. The of the total refugee population.²⁴ refugees came in with bare hands and

need even the most basic of necessities.

One of the prominent problems is the The scale of the influx is stretching the monsoon season during which there is limit on the host country and existing huge risk of landslide and floods. services and facilities provided.

Makeshift shelters could be washed away

and water system can be damages and The UN and several human rights groups polluted, consequently spreading disease are currently trying their level best to in an epidemic scale.²⁵ Moreover, with the improve the living conditions of the sudden incoming refugees, many Rohingya refugee camps in Cox's Bazar, settlements were built overnight without Bangladesh. According to the UN, the any planning or preparation and concerns Rohingya community currently are the were raised regarding inadequate facilities most persecuted minority in the world. The that were incapable of providing to such international community and other NGOs huge burst of population. The have always been criticizing the inhuman infrastructure of the settlement was under treatment towards them by the Myanmar immense pressure while housing 600000 government.

people in an area of 13 square kilometer.

The host government, with the help of At the same time, the Rohingya refugee other organization, are trying to relocate camp needs much planning and the refugees in a safer accommodation organization to face the current crisis, to with roads, better site planning, latrines provide the inhabitants with a safe, and wells. Proper guidance and housing

secure, proper environment to try to begin their life afresh. It is important to address their mental and physical trauma, especially for the women and children, faced in the

²³ "Joint Bangladesh/UNHCR Verification of Rohingya Refugees Gets Underway." UNHCR. Accessed July 2018.

²⁴"Rohingya Emergency." UNHCR. August 15, 2018.

²⁵ "Rohingya Emergency." UNHCR. August 15,

²⁶ "Joint Bangladesh/UNHCR Verification of Rohingya Refugees Gets Underway." UNHCR. Accessed July 2018.

²⁷ "Rohingya Emergency." UNHCR. August 15, 2018.

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A similar refugee camp, Zaatari Refugee Camp in Jordan can be observed to see how

²⁸ "Rohingya Refugee Crisis: The Facts." UNHCR. August 2018.

²⁹"Joint Bangladesh/UNHCR Verification of Rohingya Refugees Gets Underway." UNHCR. Accessed July 2018.

Rakhine state, and also the poor living conditions that they now face as refugees.

UNHCR is working very hard to make safe they found out a temporary emergency and secure places for the women. They solution.

have set certain standard for the Women Friendly Spaces (WFS). They are trying to build as much as WFS possible to empower the women living in the camps. For women there is no community places where they can go and have a time for themselves. UNHCR is trying their level best to educate this women and train them life skills. The number of WFS is growing day by day though it's still low compare to the population it is serving. Also, they are building new separate latrines for women. Though still women feel uncomfortable using them as they are far from the house. Usually at night they feel very unsafe and due to privacy concern, they are unable to use them.

Various organizations are already working to improve their condition and helping them with aid for their better future. UNICEF is working for the children, as they are at a high risk of being trafficked or losing their future opportunities due to them being illiterate. UNHCR is also working with them by looking after their basic rights and needs. Other organization such as Burma Task Force USA, Life USA, Muslim Aid, Islamic Relief USA, Human Rights Watch along with local NGOs such as JAAGO and the government is helping the refugees with donations, supply drops, education, building homes. Proper guidance and infrastructures are an absolute necessity to be able to provide a comfortable living standard for the women and children living in the camps, while causing minimum damage to the environment for accommodating such a massive population in this densely packed region.²⁹



Figure 11: Location of Zaatari Refugee Camp (NYTimes)

Za'atari refugee camp, established in July 2012, has given shelter to over 400,000 refugees from Syria. At present, around 80,000 refugees inhabit the area. As the refugees are continuously on the move in and out of the camp, as well as within, the infrastructure of the camp and its master plan went through subsequent changes.



Figure 12: Housing pattern in Zaatari Refugee Camp (UNHCR)

How the United Nation and World Organization are helping other refugee camps?



Figure 13: Inside Zaatari Refugee Camp (UNHCR)

A few new donors, such as Saudi National Campaign (SNC) initially gave their assistance in providing the shelter with a new design. The new prefabs are facilitated with wastewater, water supply and construction of service roads. It has considered the issue of more living space and private wash and hygiene facilities that the refugees requested for. The project also attended to the efforts to restructure the camp and improve refugees' access to services and facilities. The inhabitants, especially women and children, feel safer

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For better infrastructure of the camp, the UNHCR has maintained a grid system that define streets with specific blocks. The camp also has an integrated community structure that improves communication among the residents. A settlement restructuring plan has been implemented by site planning unit, were the households are arranged as such to have better accessibility to facilities of wastewater, water supply, road and electricity networks. The grid system allows every household to have an address that can be easily marked on master plan and found later.

At the end it can be said that no one wants to be stateless and live without an identity. It is a basic right to have an identity of one's own, own's freedom, own's own existence. But for now, the Rohingya people have none of that. Maybe it is not possible to provide the community with permanent shelter, but it is at least sufferings less miserable and provide a better solution which will be beneficial for their future also. Analyzing the Rohingya culture, living conditions and the problems that women are facing daily while living inside the camps, it is must to create a safer environment for the women. As they uphold a major portion of the population there, their safety and security are a must.

Conclusion

Ensuring their security will ensure the security of their children which is the future generation. Generating a framework for women centers in a way which will be suitable for the current context will provide them a better place to live in. Not only this, upholding their culture and heritage while generating this framework and empowering them with training centers will also make them feel confident. Gradually, once they start to believe in themselves will make them think that they are at home away from their homes.



Figure 14: Zoning Map (UNHCR)

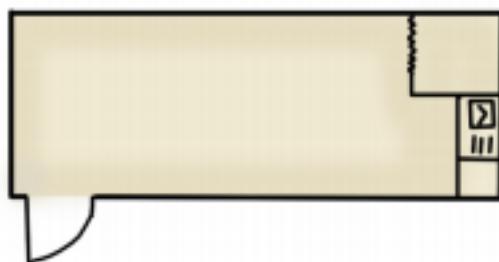


Figure 15: Example of a housing unit

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Addendum

14

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Written thesis to design transition

Through the written part of my thesis I was focusing more on the data provided by UNHCR. Those date helped me to identify the problem that the Rohingya refugees are facing. After analyzing their problem and how my architecture intervention can ease their life, I decided to design a women center for the Rohingya women living in the camps. My women center will act as a prototype which with the help of a sustainable framework will be placed to other places where the women need it the most. I investigated the demographic report and compared the ratio of other facility to the population, those facilities were serving. This helped me develop the size of the women center and how much women it should serve. My main concern while designing it was, how I can give them enough privacy so that they do not hesitate to come to the center. Once they feel safe and secure, they can come out of their shell, they can come to the center without any hesitation. My design approach was in a way so that it helps them to be in a safe and secure place. The program was developed in a way that

will empower them, train them well and in the long run it will be beneficial for their life. Finding a site location was also a challenge as the whole camp is overly populated. The location needed to be in a way so that it provides privacy to the women coming inside the center. So, I choose one of the highest lands in Camp 7, where they will have better privacy, safety, and security. Additionally, I considered the socio economic and cultural impact of the center as well.

Design review reflection

During my review, a few critical comments were made which is to an extent relevant to my thesis outcome. As the topic was very sensitive and also, I was working for

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a community who doesn't have any permanent place to live or they can't call a place their home. So, with the help of architecture intervention how their life can be improved was greatly appreciated.

There was a comment about how I have approached. I had very good comments chosen my materials. As I used all the available resources for the facades, roof graphics and diagram from my course and structure but one comment came out about the pavement material. According to the jurors the plinth looked a bit

heavy as I have used concrete pavement, **Conclusion**
so according to the comments, I could

have experimented with the material of the pavements. Though according to UNHCR it is a must for all the structures in the camp to have concrete pavements as most of the cases refugees use the floor for sleeping area.

Another concern was developed about how the rainwater drainage was done for my project. I have selected a high land for my project and the topography has its natural slope. So, rainwater could pass down to the nearby drainage system with the help of the natural slope. Not only this, with the help of UN funds the camps are developing day by day. There roads, pedestrian access and drainage systems are gradually developing. So, there were already plenty of drainage facility around my site. As a result, I really did not have

to design anything specifically for this problem.

At the end, the overall review went very well. They appreciated my design approaches and my sensitivity. Specially they loved how a small intervention can change their life. Not only this, jurors were also impressed as I have developed a scheme for building my structure while considering the existing structures on the side. My process diagram shows how people will be migrated from my site to a new place and only based on the availability of the structure, new structure will be built and replace the old one. So, I believe it is very important how anyone demonstrates the process of their thesis work with the help of diagrams and graphics. sustainability. It needs lot of hard work to document and prepare everything so that it can be presented well in one shot. Also, I had amazing reviews, they were kind and compassionate while understanding each of the logic behind my

In conclusion, I would say that I have received generously amazing comments for my work. This thesis project also made

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existence. I believe we should work strongly for mankind and their survival. We should come forward in life in whatever position we are from to help mankind in need in whatever way we are capable of.

At the end I would say, as an architect it is our duty to do betterment for the humanity. This motivates me to work more for the people in need. Even if my contribution is very small, I will always try to work for the betterment of the people.

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