

Autonomous Vernacular Transformation in the Resettlements of Fishing Communities: Insights from Nakna Ashrayan in Bangladesh

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Abstract

Transformations of houses and changes of physical appearances of forms in response to climate is a common phenomenon that happens around the world. In southern Bangladesh, similar transformations take place. However, other autonomous vernacular Transformations are also taking place in post-disaster resettlement housing. This is because the top-down approach to design and implementation of post-disaster resettlement programmes are often influenced by spatial factors such as land availability and access to infrastructure facilities, and fail to recognize the socio-economic and cultural sensitivities of the resettling communities.

These transformations indicate a gap between the housing provision process and the needs of the users. They also reflect many unidentified aspects like traditional dwelling patterns, building materials, flexibility, livelihood options, and accommodation of the needs of the future generation, being overlooked. Since these issues are not mutually exclusive from spatial factors, this research develops a framework to assist the design and implementation of migrant resettlement programmes for those affected by disasters through better coordination between spatial factors on the basis of the needs of the people.

In Bangladesh, the government-provided rehabilitation housing, like the Ashrayan projects, often experience these physical transformations. The fishing communities find that their traditional lifestyles and the vernacular settlement layouts are often ignored in government housing. This research examines “Nakna Ashrayan Prokolpo-II” as a case study. It employs both qualitative as well as quantitative approaches. Data has been collected through participant observations, Key Informant Interviews (KII) and Focus Group Discussions (FGD).

The finding show that the users gradually alter the government-provided housing units. Employing a self-help approach without the need for building designs or authorizations, people engage direct labor, use locally available materials, and transform the houses to construct a sense of

attachment. The rigid layouts are thus modified to establish a sense of belonging which meet their deep-seated needs which also help the well-being of the families.

Keywords: Physical transformation, Resettlement, Autonomous, Vernacular settlements.

Introduction

Bangladesh is home to millions of landless and homeless people internally displaced by extreme weather events like tropical cyclones, floods, water surges, and riverbank erosions (Parvin et al. 2022). Recently, due to two back-to-back devastating cyclones in Bangladesh, many people have lost their houses. In fact, millions of landless and homeless people are internally displaced by extreme weather events like tropical cyclones, floods, water surges, and riverbank erosions. Each year, about 8700 hectares of land are lost due to riverbank erosions, displacing about 200,000 people.

The government of Bangladesh along with different organizations have taken several steps to house those large numbers of displaced people through the Ashrayan project. To better understand the effects of these relocations, research has been conducted on the experiences of those who have been resettled in the Ashrayan in the coastal south of Bangladesh. In developing countries like Bangladesh, and especially in the context of its human settlements, policy decisions on the housing sector for the pro-poor (Turner, 1980) is not a straightforward procedure and does not always reflect the inhabitants needs in the process of formulation and implementation. Although the national constitution of Bangladesh recognizes housing as a basic need and the National Housing Policy 1993 assures everybody's right to decent housing, a gap surely exists between the policies and the practices.

Thus, despite numerous policy initiatives to rehabilitate the landless and homeless and to provide them affordable housing, in practice, the inhabitants remain marginalized and often unheard of in the policy making process. The Ashrayan projects are mostly row-housing or barrack-housing and have delivered mostly products rather a process to the dwellers. The main weakness of the Ashrayan projects is that the 'people-space relationship' is missing.

In interpreting similar settings, Gramsci (2001) points out that the top-down developmental policies of such projects are the political instruments of the authorities and the key economic and political institutions of the ruling class to dominate the marginalized and subaltern. Yet in the provided barrack settlements, manifold negotiations in both social and spatial terms are being conducted by both the implementing regimes and once-displaced beneficiaries. As a reaction to this dominion by the ruling elite, it is recognized that the subaltern group involves in complex processes of negotiations over the implication of democracy and development, and in the reorganization and recognition of its social and physical spaces to claim habitation and livelihood. Nevertheless, it has been found that many beneficiaries have fled from such projects after receiving the credits (Islam, 2000).

Its aims is to develop deeply into the nuances of transformations of vernacular housing, particularly for those who have come into being through the resettlement programs. Its objectives are as follows:

1. To explore the transformations resulting from the spatial need of resettlers of fishing communities in study area
2. To examine the transformation process either autonomous or policy guided by the Govt.
3. To form a guideline in aspect of self-help extension or transformation for future resettlement provision

Theoretical Framework

There is a lot of research related to household livelihood patterns, that explore local knowledge and priorities as well as the policies makers of related to coastal zone developments and rural developments. For example, Aduwo & Ibem (2017) and Shiferaw (1998) say that in the global south, transformation of housing has taken place in the form of physical appearances, interior components and spatial orientations, which have been done to reflect socio-cultural and economic needs of the users. Theoretical aspects are house transformations, housing, the sense of home, belonging, and vernacular architecture. These concepts intersect in fascinating ways, shaping our understanding of living spaces and the human experience.

Vernacular Architecture and Identity

Vernacular architecture refers to locally rooted building practices that emerge from cultural traditions, available materials, and environmental conditions. It embodies a sense of place and identity. According to Turner (1977), vernacular architecture gives people an emotional connection to their identity and belonging. It serves as a living reminder of a region's culture and heritage, reflecting its origins. This connection between vernacular architecture and identity extends beyond physical structures. It's about how people inhabit and interact with their built environment.

House Transformations and Socio-Physical Aspects

House transformations occur due to changing needs, cultural shifts, and urban development. Balancing cultural heritage preservation with modern housing is crucial. Habraken (1986) emphasizes the importance of incorporating traditional elements into new developments. This ensures compatibility between house form and lifestyle. In Yazd, Iran, a study compared historical houses with modern homes. Traditional houses offered benefits often missing in modern homes: improved well-being, privacy, stability, and a stronger sense of community. However, rapid modernization can neglect cultural heritage, leading to alienation and socio-economic inequality. Housing transformation refers to a scenario when households make significant renovations, extensions, modifications, or additions to the original forms, extent, patterns, and uses of their buildings, including their surrounding environment, in response to their demands (Peek et al., 2018; Tipple & Ameen, 1999).

Home, Community, and Identity

Ho Hon Leung discusses the intertwining relationship among community, home, and identity. Homes are tightly woven social mosaics, reflecting overlapping fragments of belonging and community. Urban development, mobility, and globalization impact the sense of home and community. Some homes become compressed and isolated, while others adapt and extend using available resources.

Complexity of 'House', 'Home', and 'Dwelling'

The concepts of 'house,' 'home,' and 'dwelling' are multi-faceted and often used interchangeably. Researchers explore these complexities through empirical studies. Understanding how people form communities and establish a sense of home is essential.

Housing Transformations and Contradictions

Bridget Franklin combines social theory with built environment elements to explore why we build places and dwell in spaces. Housing is contradictory, confining, liberating, and illuminating. It reflects our aspirations, constraints, and identities.

Resettlement Programs in Bangladesh

Since independence, the housing provision for marginalized groups in Bangladesh has always been ignored in the National Housing Policy (NHP) as well as in the Five Year Plans of the government of Bangladesh. In fact, Bangladesh has no national policy on housing rehabilitation or resettlement. The National Housing Policy (NHP) 2016 narrowly delineates the term 'resettlement' by mentioning the role of the government as the 'provider' of houses (NHA, 2016).

In this context, the present government of Bangladesh has initiated the Ashrayan rehabilitation program in 1997. During their first tenure, rural housing has been adopted as a strategic instrument for alleviating poverty through resettlements of the landless, homeless and destitute people. Since 2023, the rehabilitation program has resettled almost 5,07,288 families on government owned land. Through the construction of barrack houses, the Ashrayan initiatives have rehabilitated the homeless population (PMO, 2020). The Prime Minister's Office (PMO) deals with and executes these projects directly through the use of different government agencies. The governments have developed a number of resettlement programs to relocate and rehabilitate people, such as Ghore Phera (Return Home), Adarsha Gram Prokolpo (Ideal Village Project), Abashon (Shelter), Guchhogram (Cluster Village), Ashrayan Prokolpo (Sheltering Project), Ashrayan 2 Prokolpo (Sheltering 2 Project), and Mujibborsho. In fact, the prime minister gifted home & Ashrayan 3 Prokolpo (Sheltering 3 Project). The first landless program was launched in 1972, and since then a number of programs and land reform initiatives have focused on the distribution of government khas land to landless families (DS and YPSA report, 2014). Many of the governmental housing projects have tried to ease the pressure on urban areas by relocating or promoting the return to rural areas. These programs include:

- **The Ghore Phera Program:** Launched in 1999, this program has encouraged people to return to their villages by offering loans for income generating activities in the rural areas.
- **The 'Guchhogram' or Climate Victims Resettlement Project'** has been launched in 2009 and run till June 2014. In 1987, the Government formed Guccha Grams (clustered villages) for landless people. Several NGOs took the opportunity to cooperate the Government in the land distribution tasks. This cooperation has continued, furthermore, with NGOs assisting the government in its program of Adarsha Gram (ideal villages) which aims to provide comfort by constructing houses for the distressed poor (Manzurul, 2013). NGOs have also resettled the displaced and landless people establishing Guchhogram (cluster village) by purchasing land with financial support from the donors. In addition to the resettlement of displaced people by establishing cluster villages, the NGOs of Bangladesh have been using a number of strategies and processes to recover and distribute the Khas land among the landless poor; including, mobilization, identification and redistribution of Khas land, legal aid, lobbying and advocacy (Barkat, Zaman and Raihan, 2001).
- **The Ashrayan Project:** This project, started in the coastal areas of Bangladesh in 1996, included the construction of basic housing in a barrack style.
- **The Adarsha Gram Prokolpo (Ideal Village Project):** Completed in 1998, it offered credit for relocation from cities to the rural areas.
- **The Ashrayan-I & Ashrayan-II Project:** The government implemented a resettlement program 'Ashrayan-I Project' from 1997 to 2010. After the completion of Ashrayan-1, the government established Ashrayan-II, to run from 2012 to 2017. The project is sponsored and coordinated by the Prime Minister's office and supported by the Ashrayan Project Central Advisory Council.

The aim of the project is to relocate the victims of climate disasters, the landless, and the homeless. It was expected to address people affected by disaster or climate on khas or donated land, providing them with living accommodation and deeds of title. The Project is sponsored by the Ministry of Land and covers all of Bangladesh, excluding the Chittagong Hill Tracts (CHTs). It is to improve the security of tenure of landless people who are informally occupying Char land by providing them with legal titles over the land, as well as to improve the quality of their lives on Char land by developing infrastructure and providing essential services such as healthcare, education and livelihood training. Project Provisions: In detail the provisions of Ashrayan project are as follows:

- I. A homestead with a size of 0.08 acres with dwelling space (01 room) and kitchen, 02(two) block latrines for 10(ten) families, 01(one) tube-well for each barrack and 01(one) community center for social purpose.
- II. Agricultural land at adjacent area, a pond and grazing ground for beneficiaries. (House and land are handed over to the beneficiaries through registered deeds and mutation of records. Construction of the barrack houses is conducted by Armed Forces Division and community center is by LGED.)
- III. Imparting training and skill development for income generation activities with focus on women empowerment.
- IV. A credit provision to facilitate income generation activities in line with trainings provided. The credit disbursement is conducted by govt. and semi-govt. organizations.
- V. Co-operative formation to raise economic activities through group savings.
- VI. Primary education and adult literacy.
- VII. Health and family planning services to ensure population control and maternal and child health.
- VIII. Encouraging and facilitating social forestation and vegetable cultivation in project area (PP, Ashrayon, 2000).

The Socio-spatial Character of the Coastal Area of Southern Khulna

Bangladesh is a country located in the deltaic land of the Bay of Bengal, making it a coastal nation. The region is home to a large number of marginalized communities, including fisher folk, farmers, and other ethnic minorities (Hossain et al., 2020). According to Hossain and Ahsan (2019), Bangladesh has the world's largest delta system, which creates unique spatial patterns in its coastal region. The coastal areas of Bangladesh have a high population density, with around 28% of the country's population living in this region (Shamsuddoha 2020). In keeping with the characteristics of other regions, southern Khulna also has the characteristics of the coastal regions of Bangladesh.

Moreover, the Sundarbans play a vital role in their economy and livelihood. The primary livelihoods of the coastal people of Khulna are fishing, agriculture and aquaculture, which are highly dependent on the ecological and environmental conditions of the region (Rahman et al., 2019). However, these areas are also vulnerable to various natural disasters, including cyclones, floods, and sea-level rise (Islam and Huq 2018). The analysis reveals that the socio-spatial pattern of the coastal areas of Bangladesh is complex and multi-dimensional. The spatial distribution of economic activities and infrastructure in the coastal area of Southern Khulna is highly uneven. As the community and inhabitants of coastal regions are highly dependent on the coastal river and the water based economy, they use backyard or open courtyards of their homestead as their storage.

Sometimes, the gendered space or multiple use of space fulfill their functional needs. The lack of adequate infrastructure and services exacerbates social and economic inequalities, making it difficult for the marginalized communities to access and benefit from development opportunities. Moreover, women in these areas face additional challenges, such as limited

mobility and social norms that restrict their participation in the decision-making processes (Sultana, 2008).

The traditional style of the built form are rural architecture, which is characterized by the low-rise buildings made of locally sourced materials such as mud, bamboo and thatch. The extreme salinity tends the inhabitants to build raw brick homestead and semi-permanent structure. However, the clusters of homesteads make the community bonding more intensive. This is also featured in the community spaces such as the courtyards and open-air markets, which are an essential part of the social and cultural fabric of the region. The public buildings of the coastal area, such as schools, health centers, and government offices are designed to provide essential services to the people living in the region. The public buildings are also designed to withstand the natural disasters that are common in the coastal areas of Bangladesh. The religious structures in this region are diversified and intensive, in terms of availability of religious built forms and various religious occasions.

Typical Settlement Patterns and Resettlement Transformation in the Coastal Region

The settlement pattern has a density of around 10 households per acre. The settlements are intricately integrated with the landscape and waterscape. The homesteads are arranged linearly along the river and scattered in clusters within the agricultural land. About 2–3 homesteads form a linear or clustered neighborhood. The socio-spatial-morphological layouts of houses and homesteads are shaped by three major determinants: landscape, waterscape and the livelihood activity patterns. A typical homestead is formed with the main house(s) on the North facing a semi-enclosed, open-to-sky courtyard on the South. The kitchen, fire-wood-storage, tube-well, cattle shelter, and toilet with bathing space etc. are detached from the main house, arranged on the West/East side of the court. The homestead is surrounded by various local trees with pond(s) at the back or by the side of the house and a small chunk of vegetable plants by the side of the courtyard (Parvin et al., 2022)

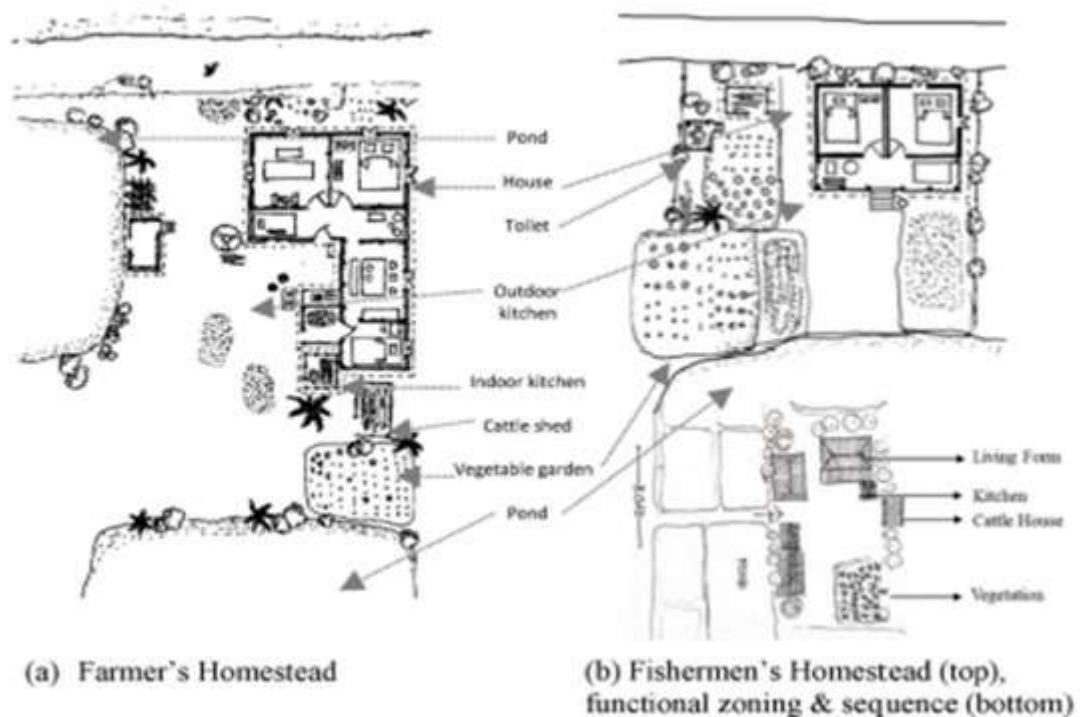


Fig 1: Typical settlement pattern.

Source: Parvin et al., 2022

The government is bound to ensure civilian rights to get their basic needs, particularly food, cloth, shelter, education and health-care facilities. In disaster or emergency periods, vulnerable people seek help from the government. Usually, Government provides relief/assistance for different disaster victims as well as resettles them by the local authority. These assistances or relief programs and resettlement programs depend on various social, economic, political, cultural and locational factors. The top-down government housing rehabilitation initiatives in Bangladesh were not socially sustainable or spatially livable for the targeted population (Choguill, 1988; Rahman, 2017; Ray, 2016). As a result, the targeted people attempt to fulfill their needs through self-initiated or autonomous housing transformation. These self-initiated transformations also indicate a knowledge gap for the design professionals, policy makers and government agencies in the design and construction stages of rehabilitation programs (De Paris & Lopes, 2018; Makachia, 2015). Most of the literature on the physical transformation of housing from the global south shows that often, the targeted people are not consulted about their housing preferences and their socio-physical livability during pre-rehabilitation stages (Aduwo & Ibem, 2017; Carrasco et al., 2016; Danquah et al., 2015). In most of the rehabilitation projects, the so-called higher life standards are achieved with modern building materials and planning that diverges from the traditional architectural typology relating to the years of experience of the users (Büyüksahin, 2020; Yanbo et al., 2018). Therefore, context and case-specific experiences can be helpful in the design development and construction phases of government-provided housing projects. A thorough examination of the housing transformation phenomenon is required to comprehend the actual needs of the inhabitants and to address their own homemaking process.

Autonomous Vernacular Transformation of Resettlements

The two types of housing transformations that are frequently seen in the global south are exterior transformations and interior transformations (Mallick & Mostafa, 2022). These two types of housing transformations are based on the primary physical components of the built form, such as the base/floor, boundary/wall, and cover/roof planes. However, extensions of built forms like, extra rooms, kitchens, baths or toilet spaces, storage spaces, small shops, and transformed courtyards are also common scenarios in different cases of rehabilitation projects (Asante & Ehwi, 2022; Elahi & Ameen, 2012; Inançoğlu & Uzunoglu, 2020; Rashid, 2019; Tipple, 1992). These transformations are a result of a number of factors, including environmental factors like local climate, socio-cultural factors like local lifestyle, economic factors like income generation, and demographic factors like density (Abed et al., 2022; Al-Naim & Mahmud, 2007; Carrasco et al., 2016; Danquah et al., 2015; Mahmud, 2013; Tipple & Ameen, 1999).

Majority of these transformations have used local building materials and local construction techniques. Physical transformations of housing and user-initiated transformation are some of the most important phenomena in most of the developing countries (Mallick, & Mostafa, 2022). Those transformations are prominent in government-provided housing because these programs offer limited opportunities for the users and, result in uniform and monotonous appearances without any flexibility (De Paris & Lopes, 2018; Tamés, 2004).

As Hamdi (1995) and Wagemann (2017) point out, variety and flexibility are necessary conditions for efficient, affordable, and quantifiable production that enables the virtues of housing as a decentralized and incremental process. During the theoretical framework development, the differentiating priorities of viewpoints of policy makers and resettling the viewpoints of communities have been established as key theoretical constructs, within the emergency, transitional, and potential development phases of post-disaster resettlement programs. Further, spatial analysis has been identified as an effective technique that can be used to investigate the interdependencies between the spatial, socio-economic and cultural factors within the post-disaster resettlement programs.

Within this context, the findings of this research are expected to help develop a framework that can be used by the authorities and the policy makers who are designing and implementing the resettlement programmes to evaluate how the spatial design of a programme can be used to minimize socio-economic and cultural issues of settling communities.

Research Methods

This research employed qualitative approaches. It engaged the following data gathering techniques.

- (a) Observations via a transcend walk through the settlement.
- (b) Focus Group Discussions (FGD).
- (c) A questionnaire survey with the sample of 92 households out of 100 units.
- (d) Graphic documentation, which included photographs and mapping of the settlement. This mapping shows the transformed condition varied from the given one.

Study Area

Selected study area is the resettlement community of “Gokulnagar and Nakna” villages at the protapnagor union. Three coastal zones of Bangladesh have been divided into three categories such as Western, Central and Eastern. Western area begins from the Satkhira to Patuakhali district, while the central area covers the Patuakhali to Feni districts. The Eastern area includes the Feni to Cox's Bazar district respectively (Ali, 1999 & Islam, 2001). The research was conducted in the selected area of Nakna in the Western distinct coastal zone situated in Ashashuni Upazila in Satkhira (figure 2). Selected study area is the resettlement community of “Gokulnagar and Nakna” villages at the protapnagor union in the sub district of “Assasuni” of Satkhira district which is 114 km away from Khulna. Assasuni upazila was flooded as the embankments of Kholpetua River and the Kapotakkho River has been damaged by the following cyclone like “Amphan” “Sidr” & “Aila”. The government provided resettlement housing for the landless who are displaced by the climatic vulnerability and situated on the embankment of the Kopotakkho River. Although displaced people were going to different places around the whole country, this area is occupied by most of the migrants who have been displaced from the surrounding coastal area of Ashashuni upazila. The coastal community is mainly the fishing community which tend to rely mainly or partially on Sundarban and the surrounding.



Fig 2: Location of the study area (Nakna)

Source: Author

Respondents' Demographic Profiles

The demographic profile of the respondents constitute a number of 100 households in barrack layout. In the study area, the proportion of females is greater than the males. In

terms of educational background, almost half of the respondents were illiterate. The resettlers are mainly or partially relying on fishing economy (62%). Some have remained in their old profession like crab catching, fishing or firming. Most of the families have 3 or 4 members and this accounts for 30% and 33% respectively. 18% of the respondents have families of 2 people and 12% have families of 5. They have to manage with the provided small living areas.

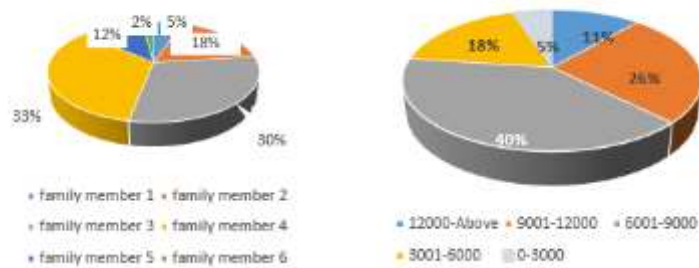


Fig 3: Income range of the resettlers of the three Ashrayan

Findings and the Discussion

Due to the sea level rise, the Southern Khulna faces an era of transformations. The location of the resettlement also has the emerging issue of sea level rise. However, the post disaster coastal migrants have to resettle within the government-provided resettlement program in Nakna. The resettlers tends to raise their built forms as the sea level rises. Another motive is the location of the resettlement as it is situated alongside the river and the bazar. The source of income of the local community is fishing (62%) as stated before. Thus, the lifestyles of the displaced people mainly or partially depended on fishing and fish farming.

The traditional settlement pattern of the coastal people means areas without boundaries, non-specificity. These do not correspond with the displaced people and their livelihood areas. In fact, the government-provided units have failed to fulfill the users' needs for space. Every barrack room is given to a large family comprised of 3 to 5 members which require larger spaces.

There are also numerous negative aspects such as the absence of opportunities for future generation, lack of indigenoussness in respect of living patterns, cultural dis-orientation. Moreover, the spatial character of living need extra spaces as they lived in a fishing or farming community. There is a need for space for fishing, net-drying, and making nets. They also need extra spaces for storing fishing nets called "Aton". In Nakna, resettlers first use their provided kitchen area as a living space and create an extra space for their cooking. In fact, their cooking practice is more vernacular including the use of fuel. Therefore the kitchens provided are unsuitable for the purpose (Figure 4).



Fig 4: The cooking space and temporary boundary created by the resettlers in Nakna.

Source: Author

It has been observed that every community of each barrack has chosen to redraw the boundaries of the backyard as each household has been allocated a portion of the backyard. Negotiations among the barrack members have led to this alteration. Nevertheless, there exists a common space for circulation between each of the two barracks of the Ashrayan. They have also created a vegetation space in front or the backyard of their housing unit. It was noted that



Fig 5: The vegetation space created by the occupants
Source: Author

some spaces have been cultivated with vegetables. The space has been enclosed by a temporary boundary fence by the occupants (Figure 5).

The government has implemented a plot allocation policy that tends to restrict them from extending the households or creating any permanent transformations. However, despite all the restrictions, the resettlers have made their verandas as living spaces with temporary partitions (Figure 6). It was observed that the kitchen space and the temporary living space in the verandah create climatic issues making them uncomfortable to live in. Through self-help, the adjacent backsides and the front sides of the units have produced alterations in response to the needs of the individual households. In all circumstances, the occupants of the units have been the primary decision-makers over the types of extensions they have wanted although they have not been assigned the front and back areas of the units next to them.

The second phase of transformations have taken place when some occupants have created temporary or semi-permanent shaded spaces as their family living, sometimes merely constructing a new platform or a plinth (the *vita*) for domestic activities of the family. As “Nakna” is the center of a union and the resettlement is situated alongside a bazar, some people tend to extend their household spaces for selling goods and vegetables. Sometimes the fishing community use the amenity space like a field for net-drying and boat-repairing (Figure 6).



Fig 6: The veranda space transformed as living space or income generating space.
Source: Author

The analysis shows that from the first phase of the transformation in the settlement level, people use the space like a platform, which is usually open-air or sometimes shaded. However, in the Figure 7 it has been shown their settlement level transformation. The resettlers have constructed an enclosed space for their daily work. It was noted the occupants have decided that the variety of changes in their units were essential for their daily activities. Sometimes people have also decided to use the internal doors as false ceiling layers. That's why they could use the hanging space for their storage.



Fig 7: The autonomous transformed spaces.

Source: Author

The construction techniques and materials are indigenous. They often use “golpata”, “Khar” and bamboo as the materials. These materials are inexpensive and locally available. Often, temporary construction technologies have been used. The study revealed that mud from the surrounding yard has been manually processed for the plinths and the walls. Other local materials like bamboo, timber, golpata (extracted from sundarban) and wood have also been

used for the wall surfaces. Overall housing alterations have been carried out employing self-help in collaboration with the community, relatives, and sometimes with the help of the local construction experts .

In summary, the findings show that this resettled community produce alterations to establish bonds among the community by recreating their livelihood patterns. It thus copes up with the typical settlement patterns produced by the state which are incompatible with the coastal community. The bazar helps to create income generation opportunities in the center of the village. The river also offers opportunities for producing a riverine economy. The pattern of their indigenous alterations tend to create coastal village with less boundaries to provide a settlement that caters to the needs of the community which is absent in many other government provided resettlement programs.

Conclusion and the Recommendations

Climate displacement is not an issue of future in Bangladesh. It is already happening in Bangladesh. However, the absence of good programs or the implementation of ‘ill-conceived’ resettlement programs are forcing the displaced people to move away from their localities. In fact, the current resettlement programs create many difficulties in their areas of implementation like “Lack of opportunities for future extensions”, “Absence of the use of vernacular materials”, “Incompatibility with traditional livelihood patterns” and “Lack of government provision to achieve the specific resettlers need in coastal region”. This research also shows that the extensions are based on people’s motivations and result from their needs and local conditions that have not been considered in the resettlement policies as see in Ashrayan (no such policies were presented to make this claim).

In this context, following recommendations are proposed based on the study findings which can help introduce proper management of displacement issues.

1. Government should ensure the scope in the process from the top-down to a self-help or autonomous rehabilitation approach for the future. The government also should ensure policy concerning landscape-waterscape-environmental issues on resettlements.
2. It is argued that ‘a resettlement layout that arises from the vernacular could ensure not only their permanent settlement, but also dignity, future life, sense of locality, culture, society and wisdom. It is also recommended to ensure good governance and proper coordination among the government with displaced people in disaster prone areas.
3. A relocation/rehabilitation program should be an effective, transparent and just program from the selection to the allocation of housing and land for the displaced people. Government should ensure opportunities for people to design their own houses according to traditional homemaking process with local building materials and technologies.
4. The local level rehabilitation program can control the migration of displaced people to the slum in the urban area, where people have lived without the basic needs and rights. The government should address this in rehabilitation program through ensuring alternative livelihood scope.

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