Exploring Resilience in Planned Resettlement: A Case of Sampanna Basti, Biratnagar-12

Shirish Maharjan [a], Jagadish C. Pokharel [b]

a, b *Department of Architecture and Urban Planning, Pulchowk Campus, IOE, Tribhuwan University, Nepal*
✉ a 078msurp017.shirish@pcampus.edu.np, b jagadishcpokharel@gmail.com

Abstract
Nepal has initiated several resettlement initiatives for affected communities to deal the issues of poverty, landlessness, and enhance living standards. However, these projects often tend to neglect the elements of resilience and sustainability, resulting in unsuccessful resettlements. Therefore, it is essential to integrate resilience into the planning process right from the start, ensuring the effectiveness and success of resettlement. This study explores resettlement initiative as applied to marginalized populations, focusing on the case of Sampanna Basti in Biratnagar-12. Field study, observation, questionnaire survey and key-informant interview has been done to understand the approach of resettlement. It studies the real ground issues from the 'Sampanna Basti' resettlement project in Biratnagar-12, initiated by collaboration of local bodies, NGOs and INGOs, by considering factors of resilience such as community engagement, socio-economic considerations, infrastructure development, institutional support, and disaster risk reduction measures. The study also covers the understanding of previous settlement of Malhanwa and Bakhri of Biratnagar-12 to understand the originality, socio-cultural and economic perspective of the resettled population. By analyzing the experiences and outcomes of this specific case, the research contributes to a deeper understanding of how different components of resilience are represented in the resettlement strategy.

Keywords
Resettlement, resilience, strategy, marginalized community

1. Introduction

Nepal, the country of diverse topography and varying climate has over 80% of population at risk of flooding, landslides, droughts, and extremely high temperatures [1]. The construction of large-scale hydropower plants in Nepal, some of which are in highly unstable areas, poses another concern. In order to address these issues, communities in the affected areas are displaced and relocated, which helps to assure their safety and well-being [1]. After the earthquake of 2072 in Nepal, integrated settlements were built with the goal of ensuring future earthquake safety. These communities were created to provide easy access to necessities including water, power, roads, healthcare, and education. In 19 districts, the government constructed integrated model towns with the help of the NRA [2]. Based on different studies, people who were expected to benefit from these housing units, however, still lack homes due to a number of instances where they were not usable. The empty homes in the new community show how much effort has been put into the process yet has been declared ineffective [2]. There are resettlement practices led by different approaches by different agencies leading to different results. However, there still arises question on how to make planned resettlement people friendly that increases acceptability of people. The World Bank's Handbook of Reconstruction after Natural Disasters [3] further examined some of the reasons why relocation is often unsuccessful and noted factors such as the inadequacy of new sites and socially inappropriate settlement layouts. In order to increase the resilience and long-term well-being of the affected people, safer living conditions, better infrastructure, and less exposure to dangers are required. In this scenario, strengthening community resilience and putting appropriate resettlement policies into practice become essential for helping these communities' recovery and sustainable development [4]. It is essential to identify the key elements that enhance community resilience and empower vulnerable communities to continue their livelihoods. Resilience is important for the long-term success and sustainability of resettlement strategies. The prospect of resilience should begin from existing policies and analyzing the existing policies in terms of resilience will help recognize areas for improvement and ensure that resettlement strategies are sustainable and capable of withstanding future uncertainties [5].

There are various concerns regarding the effectiveness of such resettlement efforts in different parts of Nepal as the extent to which these programs are successful in achieving their outcomes is under question. In this study, the case area is the Sampanna Basti in Biratnagar-12, which was designed in cooperation with Biratnagar Metropolitan and development partners. It was intended to resettle squatter settlements, primarily inhabited by marginalized people living along Bakhari and Malhanwa in Biratnagar. The resettlement at Sampanna Basti is an initiative to relocate those marginalized people living in flood prone area, designed to provide housing and land to the landless marginalized community.

2. Objectives

The main objective of the study is to analyze the factors of planned resettlement from a resilience perspective.

1. To understand the components of resilience required in

resettlement planning in order to enhance acceptability of people towards resettlement strategies

2. To examine the experiences and perspectives of marginalized populations in Sampanna Basti, Biratnagar-12 in resettlement process

3. Literature Review

Resettlement is the process by which individuals or a group of individuals leave their original settlement sites voluntarily or involuntarily in order to resettle in new areas where they can start new lifestyle trends by adapting to the biophysical, social, and administrative systems of the new environment [6]. As defined by World Bank, resettlement can be defined as the overall practice of helping displaced individuals and communities rebuild or improve their standard of living at their new settlement [3]. The major causes of displacement can be due to three main reasons, namely, conflict-induced displacement (primarily caused by social-political upheavals), disaster-induced displacement and development- induced displacements [6].

Resettlement in Nepal

In context of Nepal, planned resettlement officially began in 1954 post the relocation of affected families from the great monsoon flood in Chitwan Valley under the Rapti Valley Development Programme. The Nepal Resettlement Department and the Nepal Resettlement Company oversaw resettlement operations beginning in the 1960s. The Resettlement Company was eventually abolished in 1988 after numerous restructurings of the resettlement agencies over the years, but the Resettlement Department was kept under the Ministry of Housing and Physical Planning [7]. Communities have occasionally needed to be relocated for projects like hydropower plants, road building, and urban expansion. Programs for relocation related to conservation have also been deemed to be primarily challenging. Examples of relocation from Rara National Park to Bardiya exist. Similarly, the Padampur Resettlement was a government-led effort that began in 1995 and took nine years to complete [8]. In addition, communities were relocated as a result of Nepal's internal conflict between the mid-1990s and the mid-2000s because of concerns about security and political unrest. After the conflict, some efforts were made to resettle and reintegrate those displaced communities [9].

There have been community driven reconstructions as well as agency driven resettlements. NRA has enacted a guideline on integrated settlement development since 2073 BS. for those who freely desired to relocate that mobilizes both local government and beneficiaries DLPIU or agency selected by NRA [10]. Numerous resettlement initiatives have been implemented in Nepal in recent years with the goal of reducing poverty, ending homelessness, and enhancing living conditions.

Resettlement: Theories and Concepts

Likewise, resettlement being the global issue, there have been resettlement efforts and practices around the world. Many scholars have derived their theories and models. As per Cernea's Impoverishments Risks and Reconstruction Model (IRR) people who have been resettled may encounter multiple issues of socio-economic and cultural difficulty both during and after their actual relocation. The model suggests that resettled people could go through various socio-economic and cultural impoverishment risks during the physical transfer. It explains the risks of people in terms of their joblessness, homelessness, landlessness, marginalization, food insecurity, loss of access to common property and social disarticulation [11]. Similarly, De Wet's Inadequate Inputs and Inherently Complex Approaches argue that there are two major theories that can be used to explain why resettlement projects frequently fail. The frequent failure of planned resettlement is primarily attributed to its special characteristics, which can impose changes in socioeconomic and political access to resources and accelerated socioeconomic changes that may be beyond people's capacity to cope with. These models reflect the importance of sustainability and resilience in the resettlement programs that help people centric planning approaches and at the same time, assists coping with disturbances created by resettlement. To assist the rehabilitation and sustainable development of these populations in such a setting, it becomes essential to ensure community resilience and undertake successful relocation initiatives [4].

Understanding Resilience in Resettlement

The term "resilience" was used by the United Nations International Strategy for Disaster Reduction (UNISDR) in the Hyogo Framework of Action (HFA, 2005-2015), which emphasizes "building resilience of nations and communities to disasters". Since then, there have been various theories and dimensions of resilience that have been explored. The confusion still exists between the concept of DRR and resilience despite their conceptual distinctions. DRR focuses on minimizing "vulnerabilities" and recognizing disaster risks, whereas resilience looks at a system's capacity to maintain its fundamental structure and functions despite going through systemic changes as a result of disturbances [12].

Resilience looks beyond the physical aspect and seeks for inclusion of different aspects like economic, social and livelihood generation. The relationship between resettlement and livelihood generation is defined by various scholars. Mc Dowell demands for such a theoretical fusion as well as the necessity to determine the function of institutions, associations, and other types of interactions in mediating their power over the resources required to reconstruct livelihoods [13]. Framework for praticipatory resettlement is shown in Figure 1 The sustainability of a way of life includes three primary elements: ecological sustainability; long-term resilience; and a sustainable improvement in livelihood as assessed by the reduction in poverty and livelihood enhancement [13].

Many studies identified a model for assessing societal risks after the resettlement of the displaced population and presented guidelines and checklist for community participation in the resettlement process witnessing the involvement of people as key aspect to restoring resilience. The framework for participatory resettlement have identified five major components [14] as shown in Figure 1.
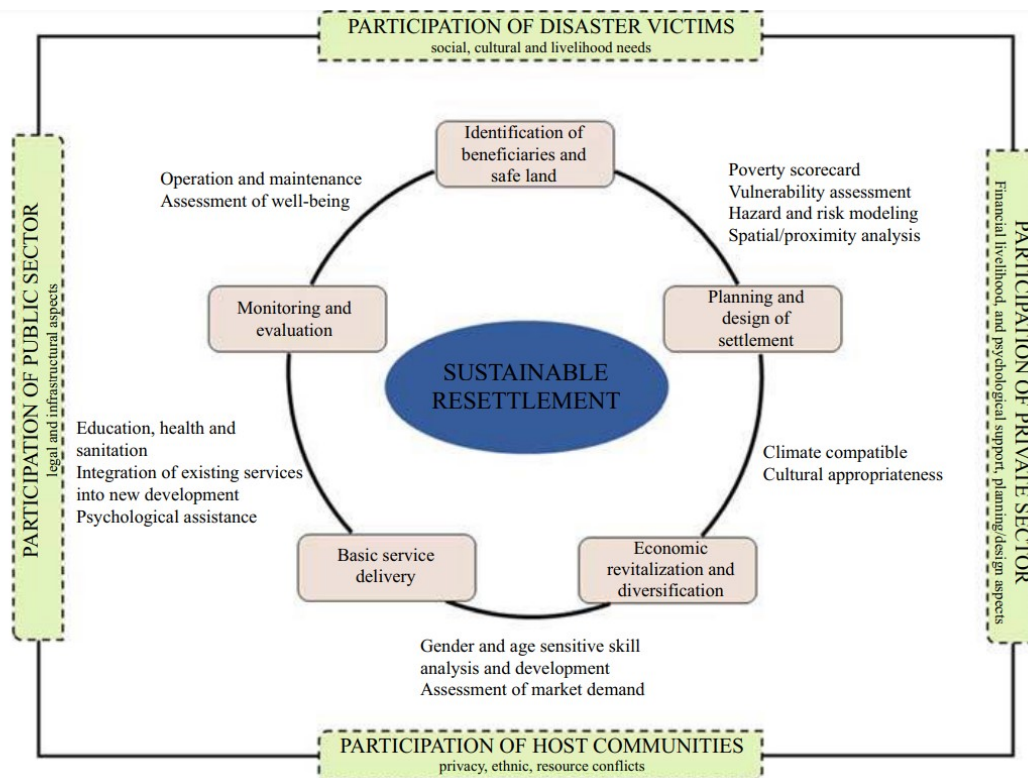
Figure 1: Framework for Participatory resettlement

Frameworks of Resilience in Resettlement

Based on the literature reviews of different frameworks of sustainability, livelihood and resilience of the communities and cities, a framework has been developed. It presents the areas of analysis of the resettlement process based on the components described as social capital resilience, economic resilience, infrastructure and disaster resilience and institutional aspects [13, 15, 16].

Table 1: Framework of Resilience in resettlement planning

Components	Sub-components	Sources
Social capital resilience	Community participation	**People framework [15],**
	Place attachment and social cohesion	
	Socio-Cultural sensitivity	**Baseline Resilience Indicators for Communities (BRIC) [16],**
Economic Resilience	Accessibility	
	Livelihood Support	
	Capacity Building	
	Inclusivity	
Infrastructure and Disaster Resilience	Disaster Risk Reduction	**Sustainable livelihood framework [13]**
	Social Connectivity	
	Critical Infrastructures	
	Housing types and needs	
Institutional Aspect	Advocacy and Policy support	
	Engagement of stakeholders	
	Land tenure and land ownership	

Reviewed Cases:

Kirtipur Samriddha Awash: Active mobilization of different agencies like Kathmandu Metropolitan including Lumanti Support group for Shelter, Nepal Basobas Basti Samrakshan Samaj to form Urban Community Support Fund (UCSF) helped to overcome economic challenges. Socially, the community has developed a strong sense of unity over time. the community also has enough utilities and infrastructure in place.

Duhabi Municipality-"Nagarpramukh Awash Yojana": The initiative has not yet been put into action because the recipients of the houses have not yet been chosen. Some potential beneficiaries have expressed concerns about how the housing program will affect their ability to support themselves in addition to the implementation that is still to come. The major focus is on infrastructure and disaster resilience whereas no specific concerns for institutionalization, and economic and social resilience.

Integrated resettlement at Panipokhari, Bosimpa: The majority of beneficiaries of the housing programmes have decided to live in old settlement in Bosimpa rather than relocating to the integrated settlement initiated by NRA at Panipokhari, Dolakha as people donot want to live their lifestyle behind which raises the concerns of housing satisfaction and sustainability incorporated in planning and process [17, 18].

There have been noticeable differences in the planning and implementation of resettlement initiatives in the relevant cases. In a similar context, the study of Sampanna Basti in Biratnagar-12 to learn more about the methods it has used to address these issues of resilience.

4. Methodology

The research falls under pragmatic paradigm as it employs both qualitative and quantitative research methods to generate knowledge that is rooted mostly to human

experience. The research adopts case study approach and aims to explore dimensions of resilience in planned resettlement of Biratnagar-12. The study focuses on understanding the specific issues and constraints faced by marginalized population in Biratnagar's resettlement initiatives in exploring strategies to enhance the resilience of these efforts. The review of selected cases of national and international cases was carried out to understand the practice of resettlement approaches. Based on the revied cases, it focuses on single case of Biratnagar that aims to understand complex phenomena, such as individual experiences, social processes, organizational practices by examining them in their real-life context.

Qualitative data is gathered through interviews or focus group discussions with the resettled population and relevant stakeholders while quantitative data is collected through surveys and GIS maps. The unstructured questionnaire was developed for the key informants of the area. Some unstructured interviews were also taken from the local residents. The data were triangulated with the different views obtained from the users, local committee representatives and relevant stakeholders. Of the approximately 145 plots in the case area, 49 had houses built in them. And most of the houses were being used. Of these 49 houses, sample of 21 houses were taken at random with consideration to cover diverse cases. The respondent's willingness to participate was also taken into serious consideration for the interview. Accordingly data analysis was done through content and thematic analysis using atlas.ti tool to obtain the result.

5. Case Area

Biratnagar-12 often experiences disasters frequently, upsetting the lives of its residents and harming their environment. In response, the community would provide temporary housing in a communal facility for a few weeks with the assistance of the local government and several NGOs. However, this approach left the already disadvantaged underprivileged groups living in deteriorating conditions in improvised shelters. After the devastating flooding in 2074 BS, a joint endeavor between the local government, NGOs, and INGO was started in an effort to assist these disadvantaged populations.

Before actually planning for Sampanna Basti, the local government had built resettlement in ward no. 19 to house 32 landless households that experienced yearly flooding as a result of their low-lying location. Sahara Nepal and Habitat for Humanity worked together on this project, and each household contributed labor. With this experience, the households did not acquire landownership, however, and continued to be landless because the municipality lacked land ownership, and thus, impeding process of the progressive community and no specific change in livelihood of people. Taking lessons from the past, the municipality with the previous partners brought a new scheme and teamed up with Jiban Bikash Samaj to offer loans to families so they could buy their own land.

5.1 Case Area Study And Observation

Most of the People residing at resettlement site, i.e. Sampanna basti- Biratnagar-12 have been relocated from Bakhari and Malhanwa (old settlements). It is important to acquire a basic idea of their way of life in their previous settlement before comprehending the resettlement process at Sampanna Basti.
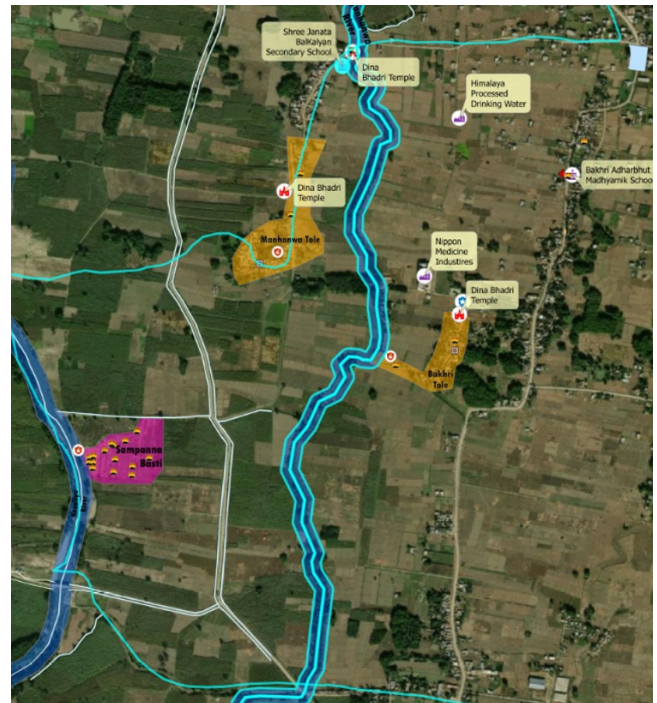

Figure 2: Connection of Old settlement to Sampanna Basti (Resettlement)

5.1.1 Context of Old Settlement

The majority of those who benefit from the new settlement are from Bakhari and Malhanawa, which are located in BMC-12. The Kesaliya River causes the areas near these communities to frequently flood on a yearly basis. The Tharus, Kamats, and Rajbansis are just a few of the many ethnic groups that make up this area's population. The majority of these are Musahars, who live in regions that are referred to as "ailani." In the past, many Musahars from Rangeli in India moved to this region to work as workers for local landowners. Even though the Musahar group has continued to live there, the landowners have sold off various sections of land throughout time. Due to this circumstance, marginalized community of the society now lives next to rivers and along the streets, rendering them particularly vulnerable to the yearly flooding. They have very limited access to resources and are routinely denied social, economic, and political chances.

Social Aspects: The houses are primarily made of wood and straw with bamboo mesh walls that have been plastered with mud on both sides. Each dwelling unit typically has no more than two rooms, with a total area of about 15 feet by 10 feet that may fit at least three family members. People continue to live in dilapidated dwellings in some parts of Malhanawa. These homes are routinely destroyed by yearly floods. Although some people have moved to Sampanna basti, many homes in the old settlement still face difficult circumstances. Due to difficulties with correct documentation and financial

instability, they are unable to make it to the new settlement and unable to repair their dilapidated dwellings. Access to education has been made better in recent years for the Musahar community due to presence of the government school nearby, like Bakhari Adharbhut Bidhyalaya and Janata Adharbhut Bidhyalaya. There are basic health services available through local health posts and Koshi hospital situated near by. The roads are good enough for ambulances, in case of emergencies.

Livelihood and Economic Opportunities: The major source of income for the communities is working as a labor in agriculture, industry, or workers at government offices. Men are mostly engaged in hard labor, while women take part in easier jobs in agriculture. However, there seems to be a lack of long term thinking about economic development and improvement in living standard. The people earn for a few days, leave their employment, spend the money- survive on what has been earned and search for new employment. The cycle continues.

5.1.2 Site Study Area: Sampanna Basti (New Settlement)

The new settlement is situated in Biratnagar ward no. 12. The total land area of 3 bigha and 16 kattha has been segregated for the settlement to accommodate housing for 145 households. Each household gets an area of 10 dhur among which house is constructed in 7 dhur and 3 dhur is segregated for road. The additional facilities to be incorporated in the plan includes health centre, child development centre and a community building. There are also provisions of training activities to enhance income generating activities in the new settlement.
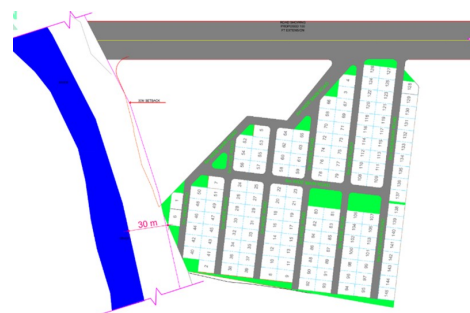

Figure 3: Houses in Sampanna Basti

Planning of the Resettlement
There are 145 equally distributed plot sizes in the planning. A 6 m wide main road and 5 m wide side roads are present. A 30 meter buffer setback is seggregated from the planning. On the property, a common area has been suggested that would house all communal activities.

Plan of Houses: There are two rooms each of area 10'x10'7" as habitable spaces while there is a small kitchen attached to Varanda. The outdoor space also acts as semi public space. A toilet has been proposed at the back of each building plot.

Drawings of the Houses:

Figure 4: Site plan of Sampanna Basti
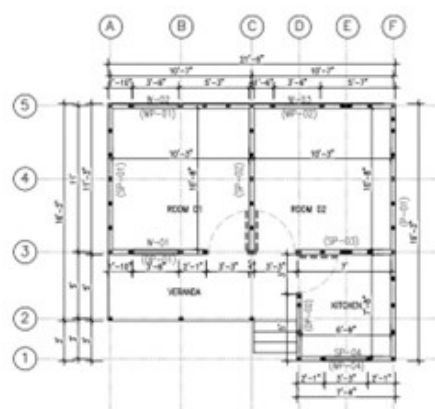
Figure 5: Plan of the individual House

Process of Resettlement
A. Preparation of Guidance Strategy Paper and development of forms: A document was prepared by BMC based on the guidelines prepared in 2075, BMC. Based on the context, the guidelines document for this particular project was prepared in collaboration with HfH that led to further proceedings of the project and signing of tri-party agreement among BMC, Habitat for Humanity and Province member Kedar Karki.

B. Technical input by Habitat for Humanity-Nepal (HFH-N): Considering that dwellings have traditionally been built using bamboo, HfH-N has created the efficient building method utilizing treated bamboo. Cement Bamboo Frame technology is used as innovative building material.

Figure 6: Bamboo frame structure used in houses

C. Purchase of land for the proposed resettlement: BMC in collaboration with finance, Jiban Bikash Samaj which had been working actively for marginalized communities bought the land for people. The land is under ownership of all residents, but they have to pay monthly installments of Rs. 7000 for 5 years of time. Through this the area of 3 bigha-16 katha land was selected and purchased.

D. Development of a process to identify the beneficiaries: It was planned for a specific group of people from ward number 12 who experienced landlessness, hardship from flooding, marginalization, and economic difficulties audience. Priority was given to those belonging to marginalized groups who were in true need and lived close to a road or were otherwise adversely impacted by flooding. Their financial situation and provided documentation were taken into consideration during the selection process.

E. Finalization of design for the shelter model: The design for the shelter model was finalized after consulting with HfH-N technical personnel. The design was also shown to the partners in order to secure their approval and move on with creating the implementation-ready materials. In addition, demonstrations of actual house models were carried out for the beneficiaries so they could fully envision their homes.

F. Inclusion of NGOs as the local partner: SAHARA-Nepal was chosen as an implementing partner to emphasize the significance of the implementation and community involvement.

5.1.3 Role of Beneficiaries

The recipients of the houses and beneficiaries actively participated in every stage of the procedure, including planning, design, and consultation, to promote a sense of ownership. They had to independently purchase the land and pay a monthly installment of Rs. 7000 while the residences were being built for them. The partners started masonry training programs to educate the community about bamboo technology. To encourage neighborhood involvement and provide a strong feeling of community engagement, a user committee was developed. This strategy reduced labor expenses because locals donated their own labor in addition to encouraging active engagement. One family member from each household was required to provide labor for the building, while the other members received payment for their assistance. This strategy not only facilitated the construction process but also created a fair and inclusive approach to labor distribution within the community.

6. Analysis and Findings

The selected households and interviewees were asked the structured and semi structured questionnaires respectively. Various cases of households under different circumstances have been taken to understand ground reality of the planning process. The cases and the findings are explained as follows:

6.1 Qualitative Analysis: Stories of Hope and Hindrances

Case I: One who has been living in the new settlement

- The long commute to school and workplace poses challenges in accessibility in new settlement
- Seasonal livelihood presents financial instability, making consistent payments challenging.
- Biased employment practices in nearby industries contribute to local residents' joblessness.
- Active participation in housing decisions has empowered residents and improves satisfaction.
- Changes in housing plans and materials could create confusion and undermine confidence in the project and residents.

Case II: One who has started her own business in the new settlement

- The potential effectiveness of well-executed resettlement initiatives and transformative power of resettlement strategies.
- The respondent's entrepreneurial initiative illustrates adaptability and resilience in securing her family's future.

Case III: One who doesn't want to leave the old settlement

- The new settlement's distance presents challenges for work and education, making it an impractical choice for the family.
- The costs of land purchase and monthly installments are financially unfeasible, making the new settlement unaffordable for them.
- Their deep attachment to their old way of life and concerns about moving, livestock, finances, and perceived inequality drive their decision.

Case IV: One who is living in old settlement and did not get house in new settlement

- Economic instability affects the eligibility, and documentation barriers contribute to exclusion from support, highlighting systemic challenges.
- Unsafe living conditions emphasize the urgent need for better housing solutions.
- Financial constraints further exacerbate the difficulties faced by her family.
- The story underlines the challenges posed by program limitations and eligibility criteria.

Case V: One who could not pay monthly installments and had to move back to old settlement

- Unemployment contributes to financial instability and difficulties in meeting financial obligations. Irregular loan repayments reveal challenges posed by fluctuating income and seasonal work.

- Challenges in implementing programs intended to help marginalized families underscore the need for comprehensive and well-executed strategies and raise questions about the effectiveness in providing tangible benefits to those in need.

Case VI: One who arrived midway in new settlement taking place of another household

- The respondent's partial involvement in construction may have impacted her connection to the house and settlement.

- Lack of property preview raises concerns about transparency and informed decision-making.

- Previous occupants' experiences indicate evidence of financial instability for payment of installments.

- Location of the house near the river highlights potential safety issues and underscores the importance of careful site selection.

6.2 Descriptive Analysis

House modifications to analyze socio-cultural sensitivity and adaptive capacity of households
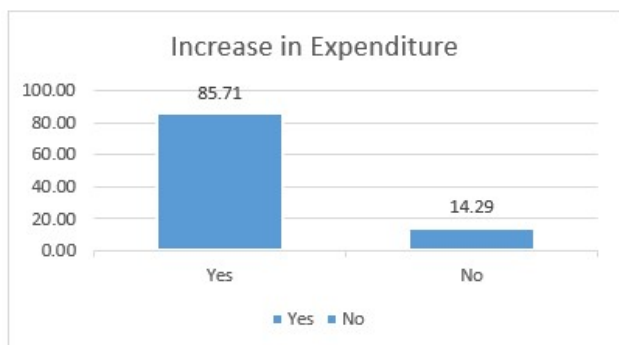

Figure 7: Bar graph showing house modifications in resettlement

As shown in the graph, 71% of respondents have made changes to the original house planning. The fact that house owners are taking the initiative to modify their houses suggests that the original housing designs did not sufficiently consider the diverse family needs of beneficiaries. Besides, the modifications also signifies the resourcefulness of the beneficiaries as they have taken matters into their own hands, showcasing their determination to create their inhabitation that are better suited to their daily lives. This adaptability indicates their the sense of ownership and empowerment to the settlement. **Comparison of Previous Occupation and Present Occupation**
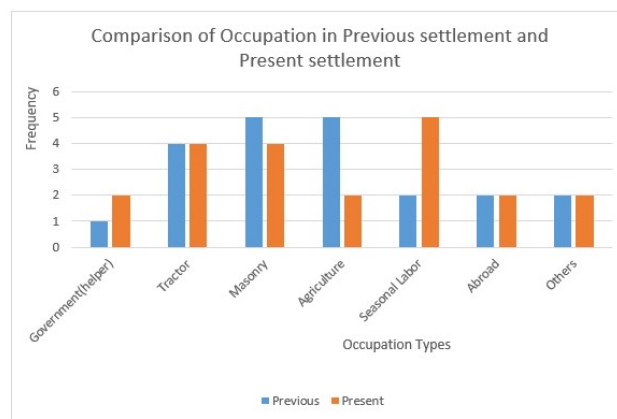

Figure 8: Bar graph showing comparision of previous and present occupation after resettlement

When asked about their occupations in both the old and new settlements, a significant number of responses were related to agriculture. However, upon relocating to the new settlement, there has been a decline in agricultural activities, accompanied by an increase in seasonal labor work. This shift suggests a transition from stable agricultural jobs to more seasonal employment opportunities, highlighting the current lack of consistent and stable employment options for the community members in the new settlement.

7. Discussion

Research discussion is carried out on the basis of the frameworks of resilience as the areas of analysis:

7.1 Social Capital Resilience

The resettled community has actively participated by providing labor for the project and are actively involved in decision-making because they are members of users 'committees. The place shows shared ethnicity that unites most residents. In terms of the resettlement's socio-cultural resilience, it is significant that most of the residents come from the 'Rishidev' group, who share similar values and a way of life. Although the housing constructions meet the basic demands for shelter, it is still debatable how much they consider social and cultural concerns. People who live in the Sampanna Basti, nonetheless frequently visit their old homes to visit family, demonstrating a persistent attachment to their old social networks. In contrast to their previous lifestyle, when animals played a vital role in their way of life and cultural rituals, the current resettlement lacks provisions for maintaining cattle. Their social dynamics and customs are affected by this transformation. However, The ongoing modifications to the homes illustrate how adaptable the planning process is and how well the community is able to meet its changing demands in the new surroundings.

7.2 Economic Resilience

The challenges of economic resilience are evident in the resettled community's circumstances. The workplace's remote location and poor road connectivity create a considerable

barrier to appropriate road access. This not only makes commuting difficult but also reduces the prospects for stable employment. However, the majority of households have bicycles for daily commuting. The first is that they have few options for a living, which may limit their capacity to earn a living and raise their financial well-being. Their marginalized status, which repeatedly prevents access to a wide variety of possibilities, worsens this limitation. Furthermore, a financial obstacle is presented by the obligation to pay large monthly installments. The increasing costs associated with these payments put a burden on their financial resources. The training initiative's underutilization raises concerns about its long-term economic effects and contribution to the community's economic resilience. There is lack of further training initiatives that can generate income. Without the chance to learn new skills or look into alternate sources of income, the community's economic resilience is still limited. Consequently, a more complete strategy to training and skill development is required, which goes beyond house construction and incorporates wider livelihood enhancement techniques. Men in the community have inconsistent work schedules, which has an impact on their financial security. Contrarily, women work in seasonal agricultural, which generates some income. The fact that locals are not getting jobs in surrounding companies makes one wonder if everyone in the neighborhood is getting a fair shot. In terms of inclusion, because it confines their access to a variety of income sources, this lack of inclusivity may have an influence on their capacity for economic resilience.

7.3 Infrastructure and Disaster Resilience

The area is vulnerable to flooding during times of heavy rain or rising water levels because of its proximity to Kesalya river. The property has been designated as a crucial area for flooding by Biratnagar's Risk Sensitive Land Use Plan (RSLUP), suggesting a high potential for flood-related risks and hazards. Although retaining walls have been built, the region's essential vulnerability to flooding still requires caution. Because there are no physical boundaries, the reestablished village is vulnerable to wildlife, which could endanger people's safety, livestock, and crops. This risk has interfered with people's everyday lives, means of support, and general wellbeing. The individual houses are resilient enough to withstand any stress, however, the settlement itself is located in a high-risk area. The settlement's location within a high-risk area suggests that it may be vulnerable to a variety of unfavorable occurrences, such as floods, landslides, or other potential dangers that could endanger the community's infrastructure and safety. Regarding social connectivity, the old settlement is located around 25 minutes' walk from Sampanna Basti. Due to the high number of people who still have relatives in their original community, the resettlement maintains strong social ties. People are still dependent on the facilities and services close to the old settlement. The settlement lacks sufficient access to road networks. The results of medical emergencies have been worse as people take longer to get to health services. Lack of timely access to emergency services reduces the community's resilience and its ability to deal with unforeseen disasters.

7.4 Institutional Aspect

The community takes a positive stance in building institutional resilience by establishing partnerships with NGOs and INGOs like Sahara Nepal and Habitat for Humanity. The creation of a user's committee strengthens their institutional capacity and enables them to take an active part in lobbying and engagement campaigns. Through the legal protection, the communities' capacity for economic resilience is significantly increased. With a stable land tenure, they can securely engage in economic activities, invest in other resources and build long-term plannings. Stakeholders like HfH, SAHARA-Nepal, and JBS have helped build a network of support that encourages information sharing, collaborative projects, and well-coordinated projects through their active engagement and collaboration. The project's success has been greatly enhanced by this collaborative approach. For the construction of various relief distribution programs like "Food for Shelter" and cash distribution initiatives, there have been regular presentations that highlight the real results of these cooperative efforts. Stakeholders can respond to urgent needs and deliver support in a timely manner during emergencies or natural disasters by combining their resources and expertise. The community's capacity to tolerate shocks and recover more quickly is improved by this collective reaction.

8. Conclusion and Recommendation

The resilience perspective on the resettlement of marginalized communities includes recognizing and addressing the unique vulnerabilities and challenges faced by these communities during the relocation process [19]. On the contrary to the cases of resettlements, where there is consideration of mere physical resilience with minimum consideration for social and economic perspectives, the positive outlook is seen in planning and resettlement of Sampanna Basti in its attempt to encompass social aspects as well. This adds to the instances that the programs guided by joint efforts of national and international agencies are better able to pull off the strategies while the cases led by government agencies are lagging far behind. The community of Sampanna Basti represents strong physical resilience from individual housing perspective. However, when it is viewed from settlement standpoint, the community lags at different aspects. Despite the attempt, issues related to accessibility, economic stability, and higher installment amounts to be paid by poor people pose challenges regarding social and economic resilience. It is imperative that planners include factors of economic and social resilience into their planning strategy. The study shows that adopting a resilience-oriented strategies incorporates sense of attachment and long term well being of the resettled community.

Based on the research, there should be development of initiatives for community consultation, participation, decision making and contribution from the beginning of planning phase to provide them sense of ownership. This should be followed by community-driven projects which demand collective effort and teamwork. Designers should conduct the study of socio-cultural aspects of the community before initiating the design of identical modules. In order to enhance economic resilience, it is essential to provide financial literacy

materials in local language and establish certain groups where members pool savings and earn collectively. There should be prioritization of bio engineering and nature-based solutions for flood management. Besides, design of proper emergency route and development of community-based insurance scheme against Disaster Risks should be done as risk sharing mechanism for resettled population. Likewise, there should be development of conditional land tenure (lease hold tenure/ communal tenure) that helps to ease land ownership for resettled communities so that it can minimize possibility of unwanted land transactions among the beneficiaries. Private investors should be encouraged to invest in the projects that benefit such communities. Moreover, government should develop proper relocation guidelines to relocate settlements existing along the rivers to safer location as they are always at risk of flooding during monsoon season.

Acknowledgments

References

[1] K. Rieger. Multi-hazards, displaced people's vulnerability and resettlement: Post-earthquake experiences from rasuwa district in nepal and their connections to policy loopholes and reconstruction practices. *Progress in Disaster Science*, 11, October 2021.

[2] Nagarik News. Mukta haliyaka ghar bane, basna kohi aayenan, March 2023.

[3] Abhas K Jha. *Safer homes, stronger communities: a handbook for reconstructing after natural disasters*. World Bank Publications, 2010.

[4] Fran H Norris, Susan P Stevens, Betty Pfefferbaum, Karen F Wyche, and Rose L Pfefferbaum. Community resilience as a metaphor, theory, set of capacities, and strategy for disaster readiness. *American journal of community psychology*, 41:127–150, 2008.

[5] Suniya S Luthar and Dante Cicchetti. The construct of resilience: Implications for interventions and social policies. *Development and psychopathology*, 12(4):857–885, 2000.

[6] Mengistu Woube. *Effects of resettlement schemes on the biophysical and human environments: The case of the Gambela Region, Ethiopia*. Universal Publishers, 2005.

[7] T. Fast. *Another Dam Development Project? Development-forced displacement and resettlement in Nepal*. Lund University, 2015.

[8] Narayan P Dhakal. *Assessment of residents' social and economic wellbeing in conservation resettlement: A case study of Padampur, Chitwan National Park, Nepal*. University of Minnesota, 2011.

[9] Padma P Khatiwada. *Conflict induced migration in Nepal (a social inclusion perspective)*. PhD thesis, Faculty of Humanities and Social Sciences, 2010.

[10] Chandra Bahadur Shrestha and Lekh Prasad Bhatta. Articulating strategies for developing disaster resilient settlements from the experience of the tadi rural municipality of nuwakot district. *Progress in Disaster Science*, 10:100160, 2021.

[11] M. M. Cernea. *Impoverishment Risks, Risk Management, and Reconstruction: A Model of Population Displacement and Resettlement*. The World Bank, 2000.

[12] M. Subba, B. Chitrakar, B. Shrestha Advisor, and P. Sharma. *Policy Brief on Resilient City and Settlements Technical Team*. 2020.

[13] C. McDowell. Involuntary resettlement, impoverishment risks, and sustainable livelihoods. *The Australasian Journal of Disaster*, 2002.

[14] A. Jamshed, I. A. Rana, M. A. Khan, N. Agarwal, A. Ali, and M. Ostwal. Community participation framework for post-disaster resettlement and its practical application in pakistan. *Disaster Prevention and Management: An International Journal*, 27(5):604–622, October 2018.

[15] Melissa De Iuliis, Omar Kammouh, and Gian Paolo Cimellaro. Measuring and improving community resilience: A fuzzy logic approach. *International Journal of Disaster Risk Reduction*, 78:103118, 2022.

[16] Christine Camacho, Peter Bower, Roger T Webb, and Luke Munford. Measurement of community resilience using the baseline resilience indicator for communities (bric) framework: A systematic review. *International Journal of Disaster Risk Reduction*, 95:103870, 2023.

[17] Barsha Shrestha, Sanjaya Uprety, and Jiba Raj Pokharel. Factors influencing housing satisfaction in post-disaster resettlement: A case of nepal. *Sustainability*, 15(17):12755, 2023.

[18] The Kathmandu Post. No takers for houses at dolakha integrated settlement, September 2021.

[19] Tuan Pah Rokiah Syed Hussain, Devamany S Krishnasamy, and Asan Ali Golam Hassan. Resettlement of the orang asli and development plan for orang asli community in malaysia. *Journal of Techno-Social*, 9(1), 2017.