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RURAL AREAS: POST WAR DEVELOPMENT STRATEGIES

M.Sc. Thesis by

Meryem Aboushala

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Meryem Aboushala

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M.Sc. THESIS EXAMINATION RESULT FORM

We have read the thesis entitled **"RURAL AREAS: POST WAR DEVELOPMENT STRATEGIES"** completed by **MERYEM ABOUSHALA** under the supervision of **ASSOC**. **PROF. DR. SALAH HAJ ISMAIL** and we certify that in our opinion it is fully adequate, in scope and in quality, as a thesis for the degree of Master of Science.

Assoc. Prof. Dr. SALAH HAJ ISMAIL

Supervisor

Assoc. Prof. Dr. MELTEM ŞENOL BALABAN

Jury Member

Asst. Prof. Dr. ABDULLAH DİLSİZ

Jury Member

Prof. Dr. SAADETTEİN ORHAN

Director

Graduate School of Natural and Applied Sciences

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RURAL AREAS: POST WAR DEVELOPMENT STRATEGIES

ABSTRACT

Post-war rural areas in Syria are facing huge challenges. Therefore, comprehensive developmental strategies designed specifically to respond to their problems are needed. Researchers have examined potentials for development through analysing conceptual frameworks and implemented case studies to understand the possible tools.

The concept of resilience belongs to these new tools of strategic diagnosis and monitoring of a given space. Building on existing work of development theories, the research investigates the idea of using the concept of resilience for determining rural development potentials. Moreover, it tackles the efficiency of those studied tools and which lessons can be learnt.

Secondary data were collected and analysed alongside case studies of rural resilience implementation. Furthermore, a pilot zone in Syria was chosen to do a damage assessment and to detect post-war reconstruction and rehabilitation measurements through primary data collection and analysis. The analysis demonstrated strengths and weaknesses and resulted in a conceptual framework for pilot-zone development.

Analysis results were then generalized to the areas sharing the same characteristics as the studied zone. In addition, a conceptual framework was proposed for rural areas of Syria. Finally, further research is needed in the field of post-war context to identify factors that could strengthen the effectiveness of resilience as a development strategy.

Keywords: Rural livelihood, development programmes, community participation, post-war rehabilitation, resilience framework, sustainability, governance.

KIRSAL ALANLAR: SAVAŞ SONRASI GELİŞME STRATEJİLERİ

ÖZ

Suriye'deki savaş sonrası kırsal alanlar büyük zorluklarla karşı karşıyadır. Bu nedenle, onların sorunlarına cevap vermek için özel olarak tasarlanmış kapsamlı gelişim stratejilerine ihtiyaç vardır. Araştırmacılar, kavramsal çerçeveleri analiz ederek ve olası araçları anlamak için vaka çalışmaları uygulayarak geliştirme potansiyellerini incelemişlerdir.

Dayanıklılık kavramı, belirli bir alanın bu yeni stratejik teşhis ve izleme araçlarına aittir. Mevcut kalkınma teorileri çalışmasına dayanan araştırma, kırsal kalkınma potansiyellerini belirlemek için dayanıklılık kavramını kullanma fikrini araştırıyor. Dahası, çalışılan araçların verimliliğinin ve hangi derslerin öğrenilebileceğinin ele alınması.

İkincil veriler, kırsal dayanıklılık uygulamasına ilişkin vaka çalışmalarıyla birlikte toplandı ve analiz edildi. Ayrıca, hasar değerlendirmesi ve savaş sonrası yeniden yapılanma ve rehabilitasyon ölçümlerini birincil veri toplama ve analizi yoluyla tespit etmek için Suriye'de bir pilot bölge seçildi. Analiz, güçlü ve zayıf yönleri ortaya koydu ve pilot bölge geliştirme için kavramsal bir çerçeve ile sonuçlandı.

Analiz sonuçları daha sonra çalışılan bölge ile aynı özellikleri paylaşan alanlara genellenmiştir. Ayrıca Suriye'nin kırsal alanları için kavramsal bir çerçeve önerilmiştir. Son olarak, bir kalkınma stratejisi olarak dayanıklılığın etkinliğini güçlendirebilecek faktörleri belirlemek için savaş sonrası bağlam alanında daha fazla araştırmaya ihtiyaç vardır.

Anahtar Kelimeler: Kırsal geçim, kalkınma programları, toplum katılımı, savaş sonrası rehabilitasyon, dayanıklılık çerçevesi, sürdürülebilirlik, yönetişim.

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LIST OF ABBREVIATIONS

2RP	Rural Resilience Programme
ENRD	European Network for Rural Development
ESHA	Environmental, Safety and Health Affairs
EU	European Union
FAO	Food and Agriculture Organization
GDP	Gross Domestic Products
IDPs	Internally Displaced People
IFAD	International Fund for Agricultural Development
MDGs	Millennium Development Goals
MSMEs	Micro, Small, and Medium Enterprises
RDP	Rural Development Programmes
REACH	Research and Education for Academic Achievement
RNF	Rural Non-Farm
SDGs	Sustainable Development Goals
SEA	Strategic Environment Assessment
SESs	Socio-ecological Systems
UN	United Nations
UNDP	United Nations Development Programme
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNHCR	United Nations High Commissioner for Refugees
UNRISD	United Nations Research Institute for Social Development
USDA	United States Department of Agriculture
WFP	World Food Programme
UNCCD	United Nations Convention to Combat Desertification

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CHAPTER 1

INTRODUCTION

This study, in its chapters, aims at forming national and local regulatory conceptual frameworks that help achieving post-war rural resilience. And the main thesis question is: can achieving resilience lead us to achieve development in post-war rural contexts? The study consists of four main sections and each section is designed to focus on a specific dimension of resilience between theory and practice. Following this introduction, the rationale for action is introduced, including drivers for this study represented in the factual situation of poverty, demographic shift, social conflict, and physical damage. Objectives of the study which were stemmed from 2030 UN goals for development alongside research limitations and obstacles faced by the researcher throughout conducting this study are also illuminated. Then, the methodology is explained as a mixed one combining qualitative method through collecting and analysing secondary data from the literature, and primary data collection and analysis through surveys and interviews for a specific pilot zone. Finally, a literature review of the research body and related work was examined.

The second chapter forms the profound theoretical base to help understanding different aspects and notions of resilience in general and rural resilience in particular. It investigates concepts, definitions, and opportunities for resilience, by examining the core of resilience thinking through its different concepts, approaches, and criticism. Narrowing down the research scale to tackle rural resilience issues, resilience features such as diversity and sustainability are studied. Moreover, different dimensions and pillars of rural resilience are represented in different clusters such as agriculture, rural services, landscape and spatial dimension, governance, and local communities. Furthermore, it demonstrates differences between rural-urban resilience due to their contexts. This is by explaining changing variables of rural-urban resilience and studying data and approaches in distinguishing resilience in both contexts.

As a part of the qualitative part, the research studies and analyses several experiences from different global rural areas in the third chapter. It touches upon different aspects of the case studies, strengths, weaknesses, challenges, and potentials. The first experience is the resilience programme in Africa and called (2RP) which is considered a holistic approach. Programme approach, activities such as (capacity building, security, and climate change management) and expected outcomes are investigated and analysed. The second case study is chosen from New Zealand, which focuses on the role of community and collective foundations in resilience. A general overview for the experience is given, alongside a thematic analysis where key pillars impacting rural community resilience, and the role of organizations and agencies in response and recovery, are examined. Third and final implementation is the resilience of socio-ecological systems in rural Europe with giving priority to policy making. The study provides a general assessment for rural resilience policy development and adopted strategies to achieve this goal. This section is ended with learnt lessons concluded from those experiences to be a part of the final recommendations.

In the fourth chapter, research becomes more specific to the rural Syrian context. Building a comprehensive vision for the future of post-war rural areas needs basic knowledge and understanding of rural areas' features, challenges, and hopes. It begins with a general overview of the main characteristics of the region such as social and work structure and natural resources. Challenges and dilemmas facing the region prior and post-war are also discussed and highlighted in this section, including demographic shifts within the area, policy making, poverty, and economic issues. An interesting idea is introduced discussing whether the war as an opportunity to build back better and take advantage of the destruction to develop those originally marginalized areas. The implication part of this research is a town called Bza'ah in the eastern Syrian countryside. The study starts with a geographical and political introduction to the area, followed by an assessment study of the region. Since resilience is an integrated and overlapping process, it requires interventions on many levels and in different fields. It is difficult due to different limitations to include all the aspects in one study. Thus, the study is focusing on the most four affecting

factors according to the researcher, those are built environment, infrastructural services, community participation, and governance. on each scale, the damage is assessed, and later reconstruction measurements are tackled and discussed. Primary data were collected through conducting sixty-seven surveys with the residents of Bza'ah, from different ages, gender, and educational groups. Alongside nine interviews with decision-makers from the authorities in the area. Case study results and analysis demonstrate different conclusions such as the importance of community participation, the efforts made by the authorities in reconstruction, the need to integrate IDPs in the society and the significance of achieving public security. Based on the previous analysis, a set of recommendation and a conceptual framework is suggested for this case study. Capacity building, community rehabilitation, empowering vulnerable categories and building trust between authorities and individuals are among recommendations.

In the final section of the study, holistic results and conclusions are introduced. Conclusions demonstrate the basis on which resilience is built upon, at the same time the absence of official conceptual frameworks that regulate and supervise the process of resilience in post-disaster phases. Lack in the tools of evaluation and assessment is also observed which creates a huge challenge for the process. Local, national, and international NGOs' participation in the process of resilience is promising and effective in many areas and contexts. However, the political, and economic situation of Syrian rural areas is still unstable and suffering in many parts from violent actions until the time of conducting this research. Results stressed the importance of community members' participation. Hence, establishing social networks will help them shape any area's patterns including economic, environmental, social, and progressively governance network dynamics.

Recommendations on both upper and lower scales are proposed. The call for designing flexible conceptual frameworks for post-disaster rural resilience is on the top of the recommendations list. Moreover, developing measurable and replicable resilience evaluation criteria and assessment tools alongside keeping rural resilience on political agendas for as long as possible. Collaboration with national and international NGOs could help achieve resilience and overcome financial issues. In

the same context, building community networks capacity, educating rural societies by offering them adequate training in cultural, social, and political contexts. Furthermore, engaging community members in the process of resilience, by planning and designing measurements based on bottom-up strategies. Attention must be paid to the importance of applying measurements and actions adjacent to specific features of each rural area. It is recommended that future work examines opportunities for policies development, by laying foundations for setting frameworks for post-disaster rural resilience to help governmental institutions mitigate and reduce the impacts of natural hazards or manmade disasters. Finally, it is recommended as future work to focus on other sectors in the region to cover other areas of resilience. Resilience frameworks then must be designed to adjust to each area and its specifications.

1.1 Justification and Context

Post-war rural areas in Syria are facing huge challenges, therefor comprehensive developmental strategies designed pointedly to respond to their problems are needed [1]. Oppressor policies, corruption and inflexibility have all resulted in poverty, unfair resources distribution and migration to urban areas which were the prominent characters labelling the era before the conflict in Syria [2]. Afterwards, the war broke out, causing a variety of urban hazards on environmental, technological and socio-economic levels. That was manifested in the deterioration of the agricultural sector, increasing levels of poverty, demographic shifts, physical damage and messed up the social structure [3].

Poverty: Since the crisis started, water resources have been either damaged or over exploited. Studies show that many lands are depending on rainwater for irrigation, which, alongside the huge number of IDPs settling in the rural regions and limited job opportunities, helped to aggravate the originally existing poverty levels. Moreover, instead of being a source of living for more than 50% of the population as it used to be, the agriculture sector was dramatically affected by warfare [4].

Demographic shift and social conflict*:* The conflict caused a huge wave of immigration. Reports of UNCHR indicated that by the eighth year of the Syrian crisis around 6 million people are considered internally displaced. A million and a

half are returning to their origins. Due to the rapid demographic changes and movement of the inhabitants seeking safety, it is hard to distinguish areas' social features to build any study on. However, it is paramount of importance to document these changes, analyse them, raising questions regarding the challenges, threats, potentials and opportunities [1].

Physical damage*:* On the other hand, the severity of housing damage in some regions is massive in both urban and rural areas, but due to simple rural buildings patterns the damage is incomparable [5]. The infrastructure, as well as other services facilities which had been already poor, was not affected as much as in the cities. Nevertheless, the demographic shifts along with the newly induced patterns of livelihood bring to the surface the need to establish a robust network of infrastructure. Furthermore, delving beneath the surface of the new socio-economic structure may in turn result in brand-new patterns of residential units [6].

All the factors involved in the process of urban resilience whether physical or incorporeal are integrated and overlapped. That means looking at them separately is nonsense. In other words, rural resilience depends on other types of resilience such as financial, ecological, and social resilience. Consequently, programmes that concern-built environment do not achieve overall resilience if addressed separately [5].

Looking at the systems in the targeted areas is the most appropriate way to successfully respond to the effects of economic, social, political, and natural events. It is also the way to avoid displacement, inequity, and overloaded urban services.

Urban resilience should not only be approached scientifically, but also socially and ethically. Notions of sustainability and resilience are reflected through different directions of knowledge, values, norms, and power dynamics across time and space. That is what makes them a linkage between concepts that needs knowledge cooperation between different actors such as researchers, decision-makers and all spectrum of society [7].

1.2 Post-war Goals in The Light of UN Agenda for Development

The UN 2030 agenda and Sustainable Development Goals (SDGs) differ from the previous Millennium Development Goals (MDGs) in that they include all the countries and present a vision of global targets that give the communities the right tools and concepts to achieve a universal resilience and sustainability [8].

The new agenda is designed as an action plan for people, the environment and development which seeks global peace and freedom. The 17 Sustainable Development Goals and 169 targets which are included are integrated and aiming to achieve a balance between the main three pillars of sustainable development: society, environment and economy [9].

Due to the limited capacity of the study, we aim to stem a local regulatory framework in rural Syria regrading some of the announced goals of the UN agenda. To be more inclusive, the study builds upon building resilience in post-war rural areas in Syria which in turn will achieve development.

However, the UN agenda seems to mainly focus on urban areas rather than rural areas. In this context, we are going to interpret these goals and adjust the concepts and tools to adapt to the rural areas' conditions and needs. To respond to these three targets the study will be handling the following issues in the research area, which are poverty, policy-making and sustainable infrastructure.

1.3 Statement of Need

Looking at the current alarming numbers on many levels in the rural areas, scholarly endeavours must be made to ensure a way out of the current crisis in every possible aspect. In such turbulent situations, rural areas face an urgent need for using strategic management and monitoring change with specific tools. The concept of urban resilience belongs to these new tools of strategic diagnosis and monitoring of a given area. That is; using the concept of resilience for determining the development potentials of a rural area [10]. The aim of this study is stemming from the UN Habitat's New Urban Agenda's goals; that is:

Forming national and local regulatory conceptual frameworks that help to implement post-war rural resilience to achieve development.

So, the thesis is questioning if achieving resilience will lead us to achieve development in Syria post-war rural contexts

1.4 Study Limitations

There were many challenges experienced when collecting data that responded to the interview questionnaires. Some problems were the difficult access to main local stakeholders due to distant geographical location from the researcher, and sometimes the lack of cooperation from possible interviewees. Shortage in research facilities and electricity limitations were key factors that limited the application part of the research.

Moreover, time was one of the fundamental obstacles in making appointments to contact possible interviewed knowledgeable candidates who are familiar with the rural development issues. Finally, some key respondents who could have contributed relevant information through interviews were hesitant to participate or provide architectural plans due to security concerns. This was an obstacle in the face of completing the last part of this research and other countless constraints which were not mentioned.

1.5 Methodology

Since rural Syria is a huge, diverse, and complex area, a pilot study zone is chosen as a case study to apply the study in. A data collection phase, to define the recent conditions and the actual situation is performed, with a particular focus on reports, frameworks, assessments, and theoretical debates followed by data analysis according to a set of criteria defining the main indicators in the pilot study zone.

A comparative study, as well, was conducted on different cases of effective implementations in rural resilience, in a diverse geographical range. The absence of such previous successful applications in the Middle East region, up to the researcher's knowledge, made it logical to study others' experiences and delve

beneath their affluent results reaching the core of their accomplishments. The comparison aimed to elicit a group of practices and implementations, make them coherent with the area of study, resulting in establishing a set of recommendations as initial guidelines to an effective rural-urban resilience.

As the targeted region, until the date of writing this thesis, is still considered a zone of political conflicts and bombarding, a pilot zone was chosen for damage assessment and to detect post-war reconstruction and rehabilitation measurements. For that, primary data were collected through surveys, interviews with local authorities and areas inhabitants. The analysis was restricted to a set of criteria defined by the researcher in the studied area. The results of the case study analysis were then generalized to the areas sharing the same characteristics as the studied zone. However, a different group of conclusions were stemmed from the results to be recommended for the areas that have different features.

1.6 Review of Literature

Reviewing the studies and research that tackled the topic of post-war rural development leads us to classify them into three main categories. Firstly, those who try to clearly determine the definitions of different terminology used in the field trying to make a clear difference between what is urban and what is rural. Secondly, the studies involved defined development strategies of rural areas, which have been developed for considered a period now. Finally, the studies related to the post-disaster, natural or manmade, recovery and development of rural areas.

In the first category, we find that urbanization has recently become an indicator of rural development in some societies. Accordingly, the thin line between rural and urban areas has been fading with the constant sprawl of urban areas towards the rural and hinterlands, and the last will soon lose its identity. Hence, a new definition of the diffused areas combined of both rural and urban activities was created; that is Rurban centres. The state of Rurbanism was considered disastrous for many researchers, Afrakhteh argued in his study of the case of Robat-Karim[1], that it leads to

[1] The capital of Robat Karim County in Tehran Province, Iran.

environmental and socio-economic crises [11]. On the other hand, many studies were deemed more positive in the same context. They aimed to analyse the new terminology and its ramifications, tackling the challenges, potentials and possibilities in shaping the development framework for this form of urban growth [12]. Other studies, accordingly, focused more on the way decisions are made in such cases which means defining the potency of development strategies brought by those strategies. They also examined the fallouts on the communities and different social strata [13].

New Ruralism, which is considered less known, focuses on maintaining and improving rural areas beyond the boundaries of urban regions. In other words, the emphasis on the supremacy of rural features in rural land. Tisenkopfs is one of the pioneers in touching upon rurality in its mere concept. He investigated in one of his studies the agricultural re-form and its economic, social and political ramifications in the new Latvian countryside; and the three essential orientations of rural development in present-day Latvia [14]. A new study investigated the future of villages and small towns in the unprecedented sprawl of urbanization. In her study, Carlow presented the urban landscape as a definer of rural areas despite the arguments that the rural features are not disappearing rather than being absorbed by urban activities. She also tackled the concepts of ruralism in both European countries and the fast-growing countries of the Middle East [15].

Rural resilience, another modern terminology, was defined by Heijman et al as the ability of a rural territory to cope with changeable conditions, meanwhile maintaining the appropriate living standards. It measures the capacity of a rural area to keep the balance all at once between ecosystem, economic and cultural functions [16]. In fact, rural resilience means the ability to recover from disasters on different levels which makes it an essential core of our study concerning post-war rural development strategies.

On the other hand, the concept of rural development is not considered a recent trend and has been a subject of interest in the last few decades. However, it did not have the same institutional and governmental framework as seen recently, causing some

researchers to be sceptical about the effectiveness of the process. In one of his studies, Ruttan questioned the reasons behind the success of small-scale development projects, while being unable to clearly identify developmental programmes or strategies. He concluded that it is not possible to separate the development process in a present-day rural community from the process in the larger society. Back in the 1950s, the key response for the prevalent poverty in rural areas focused on catalysing the rural communities to take charge of rural capital and assets, to help them improve and enhance life conditions (Ruttan, 1975). By the 1970s, and with the accelerating calls for clear frameworks, two main approaches emerged in the developmental policy; 'integrated rural development' and 'basic needs' focusing both on community and economic empowerment. [18].

Different strategies and approaches have been brought under light since then, in constant endeavours to set a framework of the development process for rural areas. Some took the back seat to others depending on the area of study and the time of application, whether a transitional phase as post-war eras or in more stable conditions.

Since poverty has always been one of the most prominent features of rural areas in developing and underdeveloped countries, there was a general consensus that economic prosperity is a key factor in the rural development process. An early study suggested industrialization-led growth as a means to overcome poverty in the third world rural areas, as a base for restructuring the development strategies by prioritizing agrarian demands [19]. Another study in the same context suggested fostering entrepreneurship as a part of an integrated approach towards inclusive economic development [20]. Others suggested rural tourism as a route towards development. Briedenhann & Wickens argued that reviving afflicted rural areas by encouraging local tourism, could be the panacea for a prosperous economy; assuming the great potentials in those parts, as they propose an authentic experience for the tourists being unexploited natural and cultural riches. That in turn would stimulate the interrelations between local authorities, community individuals and public sectors [21]. However, previously mentioned studies were sometimes opposed by the calls of delving deeper into the rural identity. Wheeler in analysing the case of

Askam-in-Furness[2] raised the issue of maintaining the balance between urbanising and preserving the heritage [22].

Recently, more comprehensive frameworks were proposed, where the light was shed on the role of other components such as community, education, and society rather than focusing on the mere economy. Zekeri indicated that communities' actions in small towns and rural areas take a major part in economic prosperity. The conceptual framework proposed multi aspects from both ecological and local social cooperation as main factors in the process of development [23]. The UNRISD published three volumes that brought together an immense collection of analytical work created since the 1960s. The main rubric was the social change role in sustainable development. What concerns us the most in this body of literature is the part related to the rural areas. In their work, Barraclough et. al. presented a complicated cluster of integrated social participants, policy-making, technology and ecosystem as main pillars of rural development strategies. However, they argued that decisions affecting rural society are basically taken in remote cities and countries by official authorities to whom these people have no effect. They concluded that national and international measurements to assure rural livelihood well-being and environment will not become adequate unless they deal with the social issues. The key is in achieving the balance between reforming the rural livelihood and meanwhile preserving the environment for today and tomorrow [24]. Cavaye focused in the same direction on the importance for the rural communities to have adequate infrastructure, better services and just policies to foster resources, as means of rural development. He proposed a more comprehensive approach involving community enhancement and strengthening their relationships with the agencies and services [25]. Better schools and education systems lead to economic growth, better earning and diminishing the outmigration as a part of rural development strategies, as some researchers argued [26]. Whereas, Bruckmeier and Tovey suggested that transforming knowledge from its theoretical entity into a process will lead to sustainable rural development by understanding the policies and exploiting them into a fair resource management [27].

[2] A former mining village in Cumbria, UK

The issue of rural development was increasingly grabbing more attention. Many countries started to have their own rural development national framework and models, such as the UK, Latin America, and many African countries. Furthermore, related terms have become more familiar and trendier, such as resilience and sustainability. The 1990s have witnessed academic endeavours to achieve rural sustainability through enhancing livelihood, some tackled upon analysing a framework for sustainable rural livelihood [28], others examined in her book different approaches to deal with rural societies. However, the concept of sustainability crystallized and took a more comprehensive form in the years to follow [29].

Rural development programmes were introduced in both theoretical and practical frameworks. For instance, the European network for rural development proposed multi-discipline measures aiming to enhance living conditions in the rural sector. The process first addressed the needs, then went through a series of interventions touching upon services and infrastructure, heritage conservation, information measures for economic actors and implementing local development strategies (*ENRD)*. Setting the conceptual framework of rural development, heartened researchers to conduct studies to assess those strategies on local and national levels. Spaziante & Murano elaborated in their studies the RDP (Rural Development Programmes) of Italy at that time, accompanied by a strategic environment assessment (SEA). They discussed the power of this assessment to induce region-based development strategies where the sustainability of the rural sector and the neo-urbane extent that owns the changes, can be achieved [31]. In the same context, another group of researchers discussed the main drivers for rural sustainable development after analysing and comparing domestic and international experiences on many levels. They approached different aspects including society, ecology, economy, and administration with subcategories for each. They concluded that rural sustainability is not steady and varies depending on the different inputs marking each territory and era [32].

Studies on integrated rural development strategies as seen above are considered extensive, and those related to post-natural disasters are also sufficiently approached.

However, when it comes to post-war customised strategies the literature becomes less abundant and more recent. In this manner, some literature focused on the concept of land tenure in post-war eras, where armed conflict and its ramifications reshaped the social relations on which the system of land tenure relies. It used a sustainable livelihood framework to examine the reconstitution of the land tenure system based on justice. It also aimed to set new laws to support post-war recovery [33]. Post-war rural Africa had a good share of the literature. Brück in his article debated differently from the common literature by focusing on the long-term consequences of war on farm households creating options in Mozambique. He argued that those procedures differ between pre-war to mid-crisis and the time that the study tackles [34]. Another paper introduced the influence of institutions on socio-economy and poverty reduction in post-war rural Cambodia, focusing on protecting property rights and collective measures as means for recovery [35]. Post-war rural Guatemala was presented as a case study of a war-torn up territory, in a debate to apply the "Agriculture for Development" framework suggested by the World Bank Group. The study touched upon the existing gaps between the group's vision and the factual production capabilities of the studied areas, analysing the reasons behind them. The case of post-war rural Rwanda was also a focus of interest, where a group of researchers analysed the different factors affecting the rural non-farm (RNF) sector in Rwanda. The article then concludes the key elements for developmental policies in the area on multi-levels including education and settlements (Hitayezu et al., 2014). In the same rubric of post-war rural African developments, some researchers argued that African states should duplicate the Asian strategies, that is; being export-oriented industrialization. They concluded that poor-friendly agricultural development should become first in the governments' pursue of sustainable growth [36].

Apart from studies related to Africa, European countries as well contributed to the literature. A study touched upon what was called the "silent revolution" which transformed the French countryside economically and socially in the thirty years right after the Second World War, declaring the end of the peasantry. The study analysed in analogy the situation in the rural UK which developed a modern

agricultural model and became domestically powerful. Today, however, both countries are facing the sprawl of urbanization drifting the countryside away from its identity [37]. More recent studies investigated the rural livelihood enhancement in Japan post- Second World War when the area was cruelly affected on all levels. The two main themes of development were the elimination of poverty and achieving democratization [38]. Another literature analysed the consequences of war on rural households in Kosovo. The paper examined the influence of war legacy on the activities of the livelihood, and the decrease in welfare in general [39]. The issues and challenges induced by the demographic change and the change of demand in west German post-war rural and suburban areas were addressed by a group of researchers. They presented in their article a strategic framework for action and some municipal plans, by reviving the concept of single-family home neighbourhoods [40]. Speaking of which, rural Andalusia, Spain had its share of studies after the recent economic crisis that hit the area. One study investigated the different levels of resilience incorporating the highest rate of recovery in the territory. The drawn results provided valuable data to help the decision-makers in making policies for the area and the EU in the 2020 development vision [41].

By narrowing down the research to the Middle East region, literature of post-war rural development becomes more destitute. This can be attributed to many reasons including partial newness of some incidents, poor potentials, and national and international indifference. Rural Iran, for instance, was touched upon in a study through the twenty years following the revolution, where the agrarian sector still seemed to be underdeveloped and facing many challenges. The study aimed to analyse the historical, economic and social causes of this deficiency, and comparing the situation before and after the revolution [42]. Other studies went through the past measurements of urban planning and development in the Middle East, to take into consideration while reconstructing Syria. The study analysed in general the phases of planning in different countries pre- and post-conflict [43]. In addition, stability and economic recovery after the current regime were studied, and keys for the transitional phase were proposed to develop post-war Syria [44]. Delving deeper into the Syrian context brings about a few academic endeavours towards sustainable

growth and development. Ghosn analysed the current and further situation in proxy battlefield Syria. She shed light on the looming challenges facing the national and local development strategies and suggested different approaches in handling the post-war reconstruction phase [45]. In a similar post-conflict Syria related study, the researchers focused mainly on the environmental situation before and after the conflict. They questioned the role of both community and planning in mitigating war influences on the environment, ending up with suggested measurements in the same context [46]. Others argued that the path to a comprehensive development strategy in post-war Syria goes through understanding tangible and intangible outcomes of the last few years [47]. In essence, the aforementioned studies approached mainly the post-war development issue in urban areas, rather than dealing with the rural sector in particular.

Notwithstanding the above, some serious research was conducted regarding the post-war Syrian rural areas tackling the issue of the housing sector. A study argued that traditional rural habitants in Syria and their architecture play a significant role in the process of reconstruction [1]. In the same sense, a group of researchers proposed some alternative housing solutions, compatible with rural post-war potentials and challenges. The study aimed to produce modular housing units to be substituted for the tents in the refugees camp, and guarantee a transitional phase with appropriate living standards [48]. Some studies tended to analyse practices that were applied in post Second World War, trying to apply them in post-war urban and rural Syria. West Germany, among other countries which undergone the war, was subjected to comparison with the Syrian case regarding social housing [49]. In fact, few alternative housing strategies became more popular considering formal apathy, such as self-construction and family housing, argued some researchers. They concluded that the war aggravated housing poverty and took part in dividing strata on a socio-economic basis [50].

In conclusion, the literature related to post-war developmental strategies for urban areas is myriad and comprehensive in many countries. We also have many good practices and successful case studies regarding post-war rural areas in developed regions, as in the UK, Italy, and Latin America. Per contra, the research body

becomes less copious in many contexts when it comes to developing and underdeveloped rural areas, the Middle East in general and Syria in particular. The studies related to post-war rural areas are little after the second world war. Hence, the need to conduct more studies and research in that field becomes more urgent and essential in the light of current circumstances as a strategy to achieve development.

CHAPTER 2

RURAL RESILIENCE: DEFINITION, CONCEPTS AND OPPORTUNITIES:

2.1 Key Terminology and Concept

2.1.1 Resilience Definition

Resilience is the ability to adjust to changing circumstances, environment, protection and confronting with risky factors, meanwhile keeping the functions, systems and structures [51]. Originally, this terminology had been first proposed in the field of Ecology systems. Resilience has been studied in the literature on psychology, ecology, and social and economic contexts [10].

However, little was known as to how far this concept can emerge in rural development. Even though rural areas are struggling with fast and uncertain changes and challenges on many levels that could dramatically alter their destiny, poor attention was paid to the concept of resilience in rural contexts. There are as mentioned before in the literature review a body of research concerning rural resilience as individual systems rather than one complex. Yet, to our knowledge, the implication of resilience principles in particular rural issues has not been studied enough.

2.1.2 The core of Resilience Thinking

2.1.2.1 Concepts*:* As explained so far, the concept of resilience has a wide range of disciplinary approaches. Even though there might be slight differences in resilience aspects that may cause a conflict when trying to achieve resilience, but they all share the same thoughts. Looking at a phenomenon in the context of resilience means understanding it from a complexity and systems perspective.

The system consists of the whole and the details, the relation with the surrounding environment and the time and place context and that is what gives the system its

meaning. This inclusive and holistic comprehension when dealing with incidents focuses on gathering the main factors in charge of boosting a system rather than understanding each component individually.

The aforementioned comprehension and the design of guiding models in the context of resilience research lead to a better understanding of the complexity, multidisciplinary and overlapping nature of present and future challenges and dilemmas [52].

2.1.2.2 Approaches: There are different approaches to define the concept of resilience:

Dynamic process: where involved stockholders learn both risk and crisis management, handle technological challenges and learn positive adaptation to changes.

Durability*:* we can explain this as the capability of a system to face difficult circumstances and achieving different levels of development, which in turn resulted in positive economic, social, and environmental transformations.

Flexibility: after facing internal or external disturbances, systems return to the primary state or adopt a new one after working on solving issues on common values, mobilization, and effective communication.

Based on the previous approaches, resilience can be presented in different processes:
Preventive, as a result of replacing traditional solutions with new suitable ones, measurements to reduce the risk of different internal or external hazards and disturbances, the prevention of environmental change. For example, substituting traditional energy systems with more advanced ones [10].

Reduction in the result of targeted systems by territorial units to maintain the durability of the nature of spatial, social, and environmental systems. For example, increasing green areas, revitalization projects. etc.[10].

Some scholars developed a model of resilience to show the post-crisis development of the systems, it has three interacted stages: generation, adaptation, and transformation. Both the concepts of resilience and mitigation are connected even though the latter is less focused on in the literature. To assess and measure the resilience process some values are being referred to such as diversity, adaptability, cooperation, and interdependence [53].

2.1.3 Criticism of Resilience Notion

Resilience is looked upon as one of the controversial fields. The reason according to some scholars is that the vast range of terms and implications become rapidly more like a trend. For those scholars, it is categorized as a "fuzzy concept" especially where resilience has not yet gained the status of being a theory [54].

Moreover, the concept of resilience has become impeded by the shortage of important tools of detection, measurement, and assessment. In other words, resilience is a process of constant change and not a situation that can be accomplished and then be shelved. Thus, it is pointless to try to assess a system resilience in strict terms but needs to be placed related to a wider system [55].

Other scholars debated that resilience in its conceptual understanding is subject to standardizing and steady discourse that should be examined on a socio-critical basis. The concept is a neutral social build-up, unlike the traditional explanation, there is no need to interpret weakness always as negative and flexibility always as positive [56].

As a start, it depends on the subjectivity evaluation and assessment. Furthermore, it does not exist as separate procedures; but is embedded in the already existing social and political systems. Deficiencies were spotted in the literature when it comes to adopting the social approach that focuses on the natural processes in the socio-ecological systems. Finally, more concern should be given to the risks of adapting self-reliance or self-regulation while designing a resilience conceptual framework [54].

Moreover, the expectations related to the responsibility for resilience taken by local communities and their risk management are positively increasing. With the new

increasing wave of neoliberal discourse, this movement can justify the shift in responsibilities from the control of the state and hand it to the communities [57].

In some cases, implementing a resilience conceptual framework can lead to human-induced climate change and as a result, the crises produced by world incidents will be soon considered normal and natural. Therefore, it is paramount of importance to focus on the right levels of scales for actions and procedures regulating the resilience process. A load of resilience adoption should not all be laid on the local communities. In this context, politics and regulations should step up for the shared responsibility, do not overestimate the impact of the communities and not assume that those communities can handle the upcoming changes on their own [58].

2.2 Rural Resilience: Concepts and Challenges

2.2.1 Concepts of Rural Resilience

The concept of rural resilience was studied by scholars from different points of view; however, the common definition of this concept is the capability of a rural territory to adjust to internally or externally different conditions while maintaining acceptable standards of living. Moreover, this includes the ability to recover from governance or management failures as well. As in urban resilience, rural resilience defines to which extent a specific rural region can handle adjustment after changes before establishing a new set of processes and structures.

It can also be measured by the extent that rural areas can synchronously achieve stability between ecosystem, economic and cultural systems. In other words, the rural resilience perspective relies on the capability of a rural region to cohere to its deep-rooted economic, cultural, and ecological weaknesses and strengths.

To achieve this, the three mentioned systems should be integrated and the interaction between them is increasing in intensity and scale. Hence, we need to think of them as overlapping contents rather than separate.

Thus, it is no surprise to know that resilience in rural areas is dependent on the collaboration among other types of resilience.

The author developed figure 2.1 that shows the interrelations between the different systems in any resilience process.



Figure 2.1 The Interrelation Between Main Systems in The Process of Resilience

Basically, any change in one of those fields will have an impact on resilience. If an area is not financially resilient, individuals would step by step leave the region, and vulnerability will be increased. Consequently, that will cause increasing traumas when facing crisis and confusion in all systems. In the same context, if the area is not environmentally resilient, suitable circumstances for agriculture would worsen and the whole sector starts to deteriorate. Finally, since it guarantees the availability of adequate human resources in the region, rural resilience should include a resilient cultural environment. A reduction in cultural resilience thus leads to the rural system's vulnerability. Decreasing resilience raises vulnerability rates, placing rural dynamics and systems at higher jeopardy of confusion and shocks. Consequently, building resilience should be a part of rural-urban planning and design [59].

Multifunctionality is one of the indicators of rural resilience endurance, that is; the ability to act on several aspects accordingly in society, agrarian sector, public services. Moreover, services that are not included in the agricultural category such as rural tourism, cultural heritage and nature management [60].

According to Wilson, rural resilience means community adaptation to the dynamic changes through different eras, alongside community awareness and the eagerness to be held responsible for improving and developing their regions. In this context,

resilience depends profoundly on the insistence, durability, and preparation of a rural community so it can address different changes successfully [61].

Consequently, the most valuable capital from the point of view of resilience is human and social capital where the feeling of belonging to a place and community presents the ground of rural communities and in turn contributes to resilience. Other scholars defined rural resilience as the presence, growth, and participation of community members' resources in enhancing the preparations to face any unprecedented, unexpected, or unsure circumstances. Thriving personal and collective capacity by the members of the community to respond to any conditions, by maintaining good conditions and develop the community for the future [62].

2.2.2 Features of Rural Resilience

There are several features that distinguish the rural resilience concept, which are needed alongside some theoretical notions to better understand the concept and its outcomes. It is worth mentioning that the chapter emphasis only some of the ideas which are considered by the researcher newly adapted and under experiment, rather than narrating the traditional ideas.

2.2.2.1 Diversity and Rural Resilience

Recent ecological studies emphasised the deep connection between diversity and resilience [63]. In other words, many ecological studies debate that any escalation in species affluence means increasing complexity alongside deep implications not only for the productivity of the ecosystem but also for the steadiness and resilience in facing environmental challenges and hazards [64, 65].

More precisely, ecology scholars acknowledge that the richer the species are in a system, the higher possibility of resilience is. Garmestani focused in one of his studies on the connection between the "richness" of firm size and the capability of industries to step up successfully to the economic changes. They indicate that productive industries with larger operational wealth experience less change in the

staff. The results tend to meet the expectations which suggest that the more functions spread across the facility size the more resilience will those industries achieve [66].[3]

The question posed by the former results is whether a similar assumption can be discussed about the connection between diversity and rural resilience. Does a great rural diversity grant a strong rural resilience? To have an actual answer we first need to well understand what the phrase "rural diversity" means the way to measure it. For instance, it can be signified as the number of various styles of farms in a specific rural territory, or production among different farms categories.

Understanding that resilience is basically a term related to a specific context, is very important. That means, building resilience involves procedures that might perfectly fit one approach but not the others to the same extent. As will be seen later in this paper closely related to this notion, the idea of observing and understanding resilience at different spatial scales [59].

2.2.2.2 Sustainability and Rural Resilience

The resilience concept, for some scholars it is not yet considered a theory, offers from a practical point of view a conceptual ground for achieving sustainability [67]. In fact, if we agreed on the definition of sustainability as a system capacity to preserve functioning in the face of shocks that might be caused by stress or worries, we then can spot the strong resemblance between sustainability and resilience [68].

Resilience and sustainability are both concerned with the future. One of the key factors to achieve future sustainability is to thoroughly explore a system resilience since the opportunities are often unforeseen, and shocks are possible.

Rural resilience is a key factor in achieving sustainability since it spreads the idea of different balances possibilities within a rural area. After any type of disturbance, stakeholders try to preserve productivity in the same system or seek a new balance between economics and ecology by altering the system. In this context, we can

[3] The way to estimate firm diversity is by measuring the amount of different firm's types in different size classes.

achieve sustainability by applying changes in the system. The capacity of the systems to handle changes or shift to a new set of measurements and acts where we can reach sustainability is called rural resilience [69].

2.2.3 Dimensions of Rural Resilience

All aspects and dimensions of rural resilience are needed and integrated, and it is nonsense to try to think of each separately. In this section, we will try to talk about some of the most important components of the resilience framework, yet in the following chapters, we will be only focusing on the part related to rural services and infrastructure.

2.2.3.1 Agrarian clusters

In fact, it does not matter to which extent agriculture production contributes to the total GDP of different countries. For example, agriculture participation in the EU total GDP is relatively small and decreasing [70]. Yet, agrarian business and production are part of regional agro-clusters. By agro-business, we mean the different fields of food and goods fabrication. Agricultural clusters practices result in better production [71].

Cluster establishment is a phenomenon that might be fostered by the government but can never be generated. According to the new economic geography of some scholars, the cost reduction and innovation created by knowledge sharing form the basis of cluster development. Agro-clusters become global actors in the world agriculture market [72].

Increased rural resources can inhibit the growth of regional agro-clusters in some areas, and vice versa, especially in areas where population density is high. On the one hand, agriculture appears to be excessive in those areas in which other rural services are strong. Due to competing priorities regarding rural land use, geographic specialization should be considered either in agro-cluster operations or in rural resources with poor organic consideration. These competing interests will usually be settled in the market, but they do not have a market price since a substantial percentage of rural resources are public in nature [59].

2.2.3.2 Rural Services Clusters

Economic development can be improved by developing rural services which can be activated by both public organisations and private sectors (non- farmers and farmers). Agro-tourism has a huge impact on the rural economy. In this context, if the farmers are handling the agriculture function, different parties like nature conservation entities, or non-farming inhabitants can manage other rural services. Thus, rural services manifest themselves in two basic categories, services of agriculture supported by farmers; and non-agricultural rural services, which are supported by non-farmers [73].

Since those lands are considered limited resources and different parties have different interests, which boost competition in the same space and puts constant pressure on some rural areas. Based on this fact, further categories can be observed for rural services, which are private rural services, public rural services. As long as private services are taken care of, farmers are ahead of the non-farmers since they have the priority to control spatial dimension whether agriculture or construction. Hence, they can provide those services at good offers.

A close correlation between public services and private rural services can be proclaimed, and neither the first nor the second can occur alone. Both rural services cluster and agro-cluster should be looked at as a whole of public and private provincial rural services. A shortage of funding and supply of such facilities is expected to arise due to the public disposition of a substantial percentage of rural services. This suggests that the state should strive to find the cheapest way to provide it [59].

Surviving rural communities need a respectful level of infrastructure and basic public services. However, establishing a connection between rural communities and the global depends on both built environment such as roads and other aspects such as affordable housing, access to health and education services, justice, and cultural activities. Preserving an acceptable degree of public services and available spaces for people to meet and practice their events is a key element for development and a higher possibility for resilience. The author tried to show the way of a system

thinking where all main aspects integrate and complete each other to achieve resilience by creating figure 2.2.

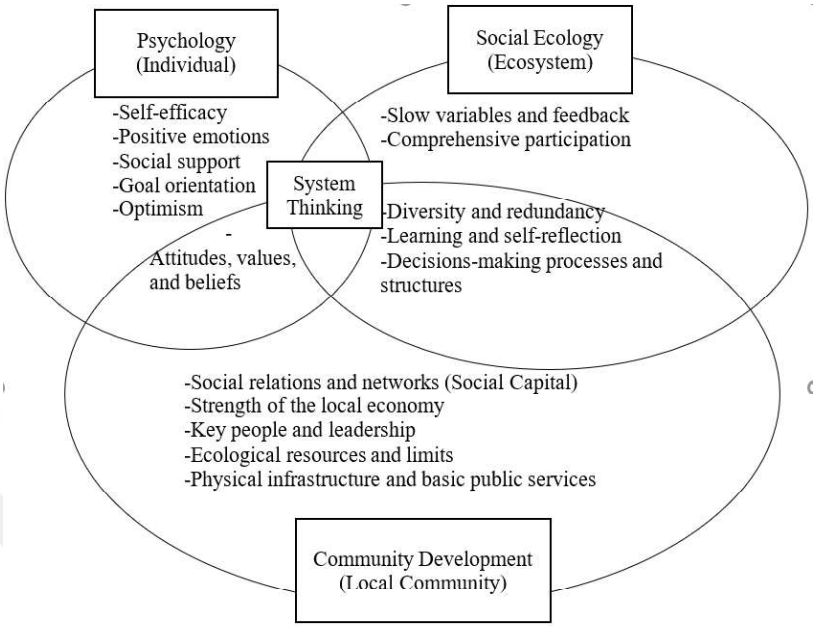


Figure 2.2 A diagram showing the system thinking during the process of resilience where all components are integrated

2.2.3.3 Landscape and Spatial Dimension

Different kinds of the landscape are required for different types of economic clusters. When a specific rural area depends mainly on agriculture production, the spatial patterns become a completely different type of landscape in an area that relies primarily on non-agro rural services. Opportunity and need are the main channels that create the spatial pattern in a rural area. Building up rural resilience to external challenges can be achieved by designing and planning the landscape. In this context, organising spaces defines and affect system resilience on different scales, starting from a farm passing communities and reaching regions. Hence, choosing the correct design of a landscape is of paramount importance, because it has a huge impact on the adaptation between different dimensions and domains of rural resilience, i.e., cultural domain and economic structure.

Therefore, to recognize the right design we need to understand some principles. In a traditional perspective, the understanding of “landscape experts” was considered fair and unbiased so they were thought of as landscape composition and structure developers on an objective basis.

It is broadly admitted these days that there are lots of thoughts and inspirations in society on how the perfect landscape can be designed because it is a subjective procedure to plan landscapes. In other words, it internally involves subjective decisions. If we asked different individuals about the suitable landscape design, they would likely answer differently due to their motivations, personal purposes, economic and social experiences. In rural spatial design from the perspective of rural resilience, the interactive character of the spatial design is encouraged, even though those conflicting and different demands in the process of resilience may affect spatial design. Individuals and organizations express those demands by representing the domain/domains of resilience [59].

That is why, defining problems and developing solutions taking into consideration attitudes, thoughts and preferences of people depending on the countryside, can positively alter spatial design and planning. In some regions, there is a growing awareness that the responsibility of public affairs is not due to the government alone, but also the private and social entities must take part in the public cause [73].

Several methods, such as deliberative valuation, have contributed to the need to subjectively include rural individuals in planning and designing rural areas. Stakeholder-oriented approaches and policy making in a participatory way. Although these methods have their strengths and disadvantages, at Wageningen University, a developing system called RITA, is considered a promising spatial planning system. This approach is simply based on involving community members in both decision-making and spatial design processes. Moreover, it depends on the correlations among different components of spatial design, as preserving nature, space configuration and the number of bike routes. This template is naturally interdisciplinary; that is, ecological and economic knowledge is integrated.

2.2.3.4 Governance

Involving stakeholders and decision-making leads to the governance concept, and the core of this concept is the coherence and collaboration between several parties of administration, citizens, firms and organizations [74].

Embedding this understanding in rural resilience poses many questions, such as the strategic opportunities of developing rural areas and who the involved stakeholders in the policy network are. Building knowledge and learning opportunities in an academic governance institution will conduct successful management of local, national, and international ecosystems. However, involving stakeholders in different roles is a major challenge, and this applies to rural resilience [69].

Private and public stakeholders are dealing with the problems in the public domain. All parties participate based on their field of interest, knowledge, and resources which results in a composition of existing opportunities shared by them. Rural resilience is a complex policy object due to the multi-aspects knowledge needed to understand this policy object. Not only this, but also the conflict of interests, norms, and values of the actors themselves. Thus, a higher problem-solving capacity is needed to confront such complexity, to define policy questions, to interfere and make decisions by increasing general consensus among the actors. In other words, a single governmental authority cannot control rural resilience, but it needs other public and private performers as well [75].

Rural resilience as stated before can manifest itself in different balances between ecology and economy, for example, stakeholders can develop traditional agriculture or adapt a new ecological agro-cluster. In the second choice, ecology values govern land usage and can be combined by a wider range of rural services and that might add a greater value than agriculture production. The environmental and economic potential of these decisions depends on them. Consequently, if the rural area configuration moves from a conventional agricultural alternative to an ecological agro-cluster, the network of stakeholders, and their priorities, would also need to adjust [59].

Another important consideration for a higher degree of resilience is the facilitation of well-functioning collective measures and decision-making. These systems could be better controlled if there is a balance of collaboration and reliance between actors on various scales. It will also be important for rural resilience to guarantee the standard of democracy at local and regional levels [52].

2.2.3.5 Local Communities

The community field promotes different social aspects and becomes an interactive process driven by the community interest as a whole. In other words, it is the interaction between different components that creates the holistic comprehension of the local community where people live and interact. The field constantly reorganises those integrations and connections as a constantly changing process rather than a stable and balanced system [76].

In a resilient system, it is important for the decision-making process to involve individuals with social responsibilities for the best connection of the actors. This could be achieved in rural contexts by key members who can deal with conflict and achieve social harmony. Hence, acting against the limitation of power in few individuals is strongly advised by creating “choral” leadership with representative and capable leadership. This can be accomplished by fostering young talents in different ways of management. Successful leadership has further dimensions as competence, determination, and vision.

Furthermore, the diversity of the rural population and different resources could achieve better resilience. The diversity here means the age, background, education, experiences, and culture which provides the base for labour and specialisation division. This in turn will offer a spill over of options and potentials in the face of challenges in the rural areas.

However, in intense situations, this diversity might cause resilience to decrease when

there is a conflict of interests, which might cause a division into losers and winners. Thus, the real positive contribution to resilience lies in the capacity of inhabitants to show tolerance of their diversity and achieve added values [77]. Figure 2.3 indicates the basic principles of the conceptual framework for village resilience as seen by Cinderby [77].

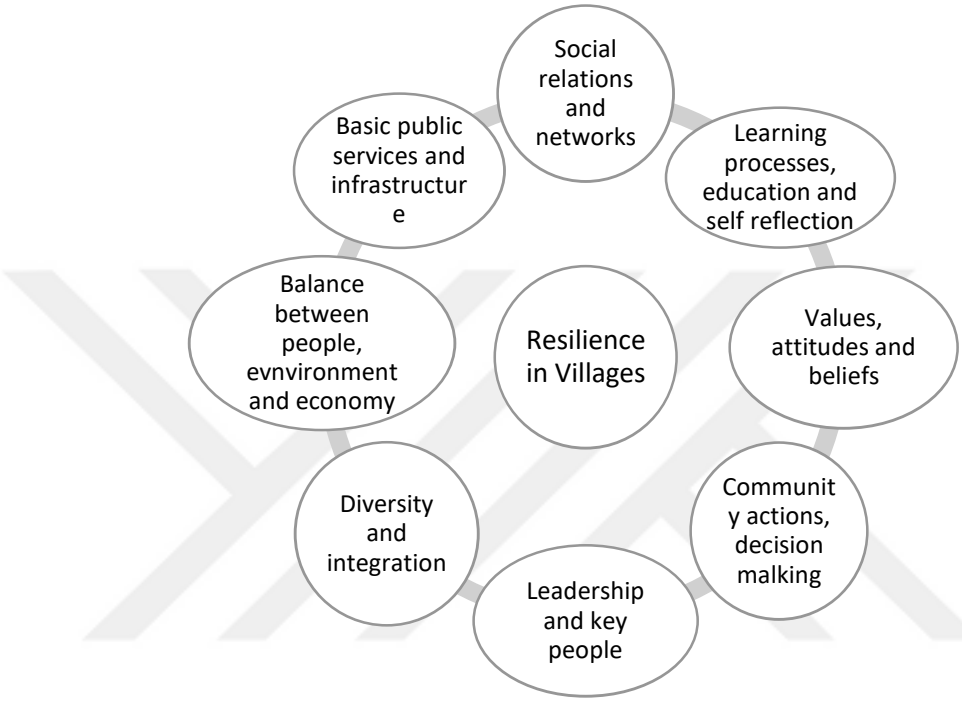


Figure 2.3 Basic principles of the conceptual framework for village resilience

All measures strengthening human satisfaction in the rural areas affect the economy. When an area is more resilient it will own good economic activities profound in the region with a great sense of belonging to their region. Therefore, decisions made from outside of the area should be finite. Above all, social connections and rural livelihood is the most important factor in the whole framework for rural resilience. Job opportunities, public services, security, and recreational facilities have a huge impact on community resilience [52].

Values and beliefs such as self-effectiveness, desire to change, positivity, vision, or drive, form a clear way to the punitive approach of psychology. Resilient rural societies offer their population's positive emotions through activities such as communal attraction or festivities. People there live in a supportive environment and

characteristics such as solid goal orientation and self-efficiency would label the population [78].

Finally, applying an all-inclusive and interactional framework based on community, thoughts of resilience and the role of belonging are key factors in achieving resilience alongside other aspects and levels.

2.3 Rural-Urban Resilience: Differences and Opportunities

Scholars argued that there are clear differences between post-disaster resilience of rural and urban areas. This is mainly because the drivers of resilience differ due to the local context and characteristics of each type of area and that cannot be applied everywhere even in places with the same contexts (rural or urban). Financial, social, and ecological processes are the patterns of disaster resilience, which are unique and diverse among geographical regions.

However, the literature focused mainly on distinguishing differences between rural and urban contexts in post-natural hazards resilience rather than post-war resilience. In this section, we will try to conclude the part concerned with this research, which is post-war context, based on the analysis of natural hazards resilience.

2.3.1 Changing Values of Urban and Rural Resilience

The past two decades have witnessed an extensive research body concerning urban resilience, but less available for the rural context. However, the literature suggested that obstacles are different between urban and rural areas. For instance, rural areas usually face the problem of maintaining governance and operating the business in peaceful times and suffer from a lack of resources needed to recover from disasters [79].

The shortage in capital and economic resources can decrease rural resilience, while its self-reliant nature and a strong sense of belonging to natural resources can improve rural resilience. Both groups of challenges exist less in urban areas. Moreover, social inequalities may have the same negative impact on resilience in rural and urban areas, but economic diversion in urban areas fosters disaster

resilience when compared to areas that are dependent on one economic sector, mostly seen in rural areas [80].

It is significant to understand the rural fabric to comprehend that background and possibilities for hazards management is distinct. The inconsistency in deteriorating growth has made it challenging to recognize the type of disaster damages in rural areas and their effects due to density and structures, yet this impact could be larger in a rural context [81].

On the other hand, casualties and harm could be higher in urban areas after some natural disasters such as earthquakes. According to the population size and range of age, mortality ratios approve the difference between urban and rural disaster fatalities. Disaster resilience plays a significant role in mitigating vulnerabilities and enhancing risk reduction, but this is not well understood specifically in rural contexts [82]. For example, post-disaster individuals' redistribution was different from rural to urban areas as found in the literature. Elliott and Pais found that in urban areas vulnerable people were redistributed outside the hit areas whereas it was the opposite in the rural areas [83]. However, community-level disasters resilience empirical-based research is still little and insufficient to lay a base for comparison among places and their resilience levels [84, 85].

In fact, it is not certain if those indicators are useful and if they can capture the outcomes of resilience processes. Moreover, we do not know for sure if resilient places patterns shaped or shaped by disaster losses and vulnerabilities, especially within rural areas. However, comprehending and implementing measures that make rural areas vary in their ability for resilience than urban areas guide physical, financial, or social actions that could reduce the effects of disasters and speed up aftermath recovery [86]. The author tried to summarize previous ideas by developing table 2.1 which is presenting a comparison between different aspects of rural and urban resilience.

Table 2.1 A comparison between different aspects in rural and urban resilience

Aspects of comparison	Urban areas	Rural areas
Literature body	Extensive and rich	Less abundant
Business and governance	Well business management in peaceful times	The problem of maintaining governance and operating the business in peaceful times
Economic resources	Availability of essential resources for post- disaster recovery	Lack of resources needed to recover from disasters
	Economic diversion in urban areas fosters disaster resilience	Dependent on one economic sector
Hazards Management	Higher potentials for hazards management	Background and possibilities for hazards management is distinct
The impact of deteriorating growth	Less impact	Higher impact
Casualties and harms	Could be higher in urban areas after some natural disasters	Fewer mortality ratios
Post-disaster individuals' redistribution	Vulnerable people were redistributed outside the hit areas	Vulnerable people were redistributed in the hit areas

2.3.2 Data and Approaches in Distinguishing Rural-Urban Resilience

Some codes and methods developed by some scholars, e.g., the USDA codes developed in the USA by a group of researchers for understanding urban-rural permanence, offers different approaches for distinguishing resilience based on different natures. However, these approaches face several obstacles and challenges. According to this code, many areas have both rural and urban features, and this causes turbulence when trying to measure disaster resilience, and the process of preparedness and mitigation to enhance resilience [87].

Assessing these agreement types could be achieved by reactivating the analysis using mapping techniques to efficiently recognize habited and inhabited areas within a specific region. The next actions will be analysed to investigate both current geographical patterns and places where targeted interventions might be needed. Then, limiting resilience indicators to more specific geographic areas. When developing programmes to enhance the resilience of a community to disasters is the policy's goal, then a strategy that fits every aspect in the disaster reduction is not adequate or suitable. The reason is that it disregards the core natural inequality in competencies among the nation's communities. Some of these are based on the rural-urban characteristics of areas, but others are based on the historical development forms that generate the contemporary social and economic landscapes [88].

As a conclusion, findings suggest that planning for post-disaster resilience programmes should be designed on a local basis and the actions must be customized to guarantee the optimum success in accomplishing resilience. To author's opinion, drivers, and motives for resilience in the urban and rural contexts differ on some scales when it comes to post-war and post-natural hazards resilience. While resilience planning after natural hazards is driven by different motives on different scales, in the post-war context, social, economic, and governance resilience-building becomes more complicated and should be approached more sensitively and on long-term strategies. It is also thought that outcomes of resilience might take decades to be seen on the ground in a post-war situation, due to external actors with conflicting interests that might turn the area into a war by proxy and hinder the attempts of building resilience Additionally, the type of the war civil, armed or proxy may as well affect substantially programmes and results of resilience plans.

CHAPTER 3

POST-WAR RURAL RESILIENCE BETWEEN THEORY AND PRACTICE

Rural resilience is still relatively considered as a new concept on the contrary to urban resilience. Thus, investigating the results of implementing resilience in rural contexts was difficult. Most experiences found in the literature are either applied on a small scale or still in the theoretical framework. Moreover, post-war experiences are very few and mostly considered post Second World War. In this chapter, we focused on the suggested programmes or conceptual frameworks by either countries or global organizations, taking into consideration the geographical diversity of the studied cases. Then the learnt lessons will later be used in the conclusions and recommendations.

3.1 The Rural Resilience Programme (2RP) by IFAD

3.1.1 What is Rural Resilience Programme?

Known as 2RP, is a proposal by IFAD to equip small-scale producers, poor inhabitants, and their communities with needed resources to implement locally suitable resilience strategies. This proposal was propped in 2007 to address resilience in a holistic approach, bringing together key principles as pillars in a framework to increase their impact.

This programme is based on the expertise and innovation of IFAD, working in transforming rural societies through the themes of climate change, youth, food security and environment. Moreover, this programme will contribute to fifteen of the seventeen Sustainable Development Goals, with a special focus on some SDG goals such as, reducing poverty, overcome hunger, accomplish food security and enhanced nutrition, and encourage sustainable agriculture. It also contributes directly to other goals, such as gender equality, reasonably priced and clean energy, respectful jobs,

and economic development, encouraging sustainable consumption and production, climate preserving and livelihood [89].

2PR is a partnership between different actors and stakeholders under a common umbrella to scale up contributions to SDG accomplishments. However, aside from the local actors, this cohesion will be increased with regional and global partners such as global organizations from different territories (The African Unio, Rome Based Agencies, the Global Environment Facility and other relevant stakeholders scales out to other regions).

The programme has three main pillars:1} increasing adaptation for smallholder agriculture programmes, 2} The Initiative for Sustainability, Stability and Security in Africa, (3S Initiative), an African led initiative to increase opportunities for poor rural youth, and 3} The Green Climate Fund Umbrella programme for the Great Green Wall Initiative of the Sahel (GCF-GGWI), progressing from its history since its conception in 2007. Figure 3.1 explains the core concept of the GGW [90].

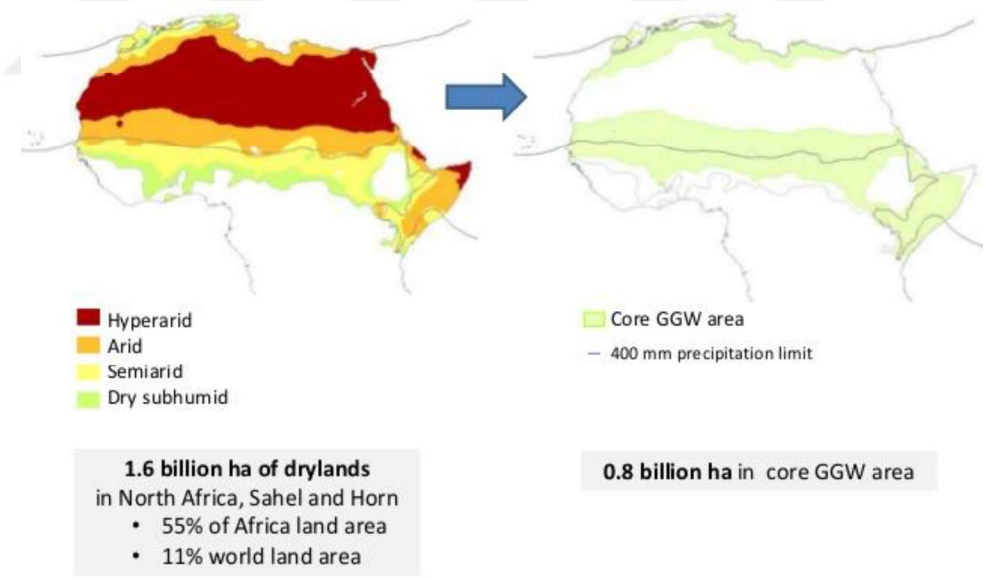


Figure 3.1 Core concept of GGW

Those pillars have emerged from different institutional and political donors and stakeholders, who reflect the deep comprehension of different drivers of rural poverty and insecurity on many levels. A young generation is a real contributor to

countries' development, yet it is considered a challenge as unemployment rises and an increasing number are leaving their homes and societies because of conflict, destitution and disasters [89].

Moreover, figure 3.2 demonstrates the evolution path of GGW where light green represents the original path, whereas the dark one represents the updated path. It has been expanded from 11 countries to include 21 countries in the continent of Africa.This project is considered an umbrella term, combining multinational projects with integrating scopes and objectives [91].

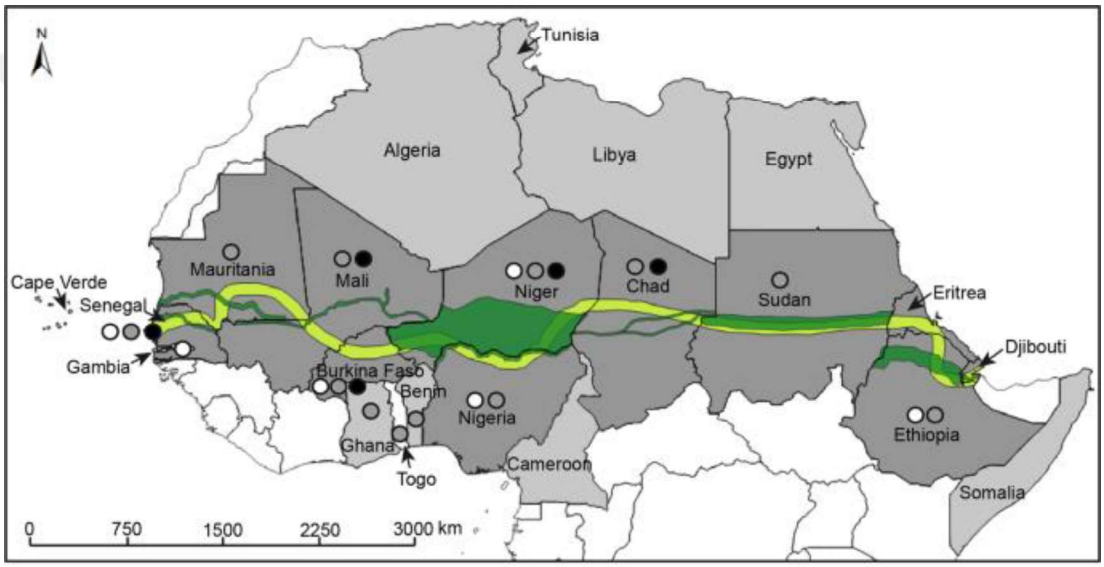


Figure 3.2 The evolution path of GGW where light green represents the original path, whereas the dark one represents the updated path

3.1.2 Programme Approach

The 2RP framework targets different levels to address multidisciplinary challenges facing rural resilience. This framework allows the integration of an ecosystem management approach based on downscaled climate assumptions. Groups of countries that have common agro-climatic zones and cross-border challenges, will be advised to achieve holistic programmes contributing to the larger aims of resilience-building ecologically, socially and on farming household levels.

Supporting communities is at the core of this approach to contribute to the renewal of ecosystem services in order to improve different components of the agrarian sector and overall enhancement of habitat that supports carbon sinks and viable communities of flora and fauna. Reinforcing ecosystem services is fundamental for building both biophysical and community resilience to climate change, and this will demand local communities to adopt sustainable agricultural approaches.

Fostering these alternatives requires collaboration and constant long-term efforts to build upon actual capabilities and achievements that enable scaling up to the ecosystem level. There is several sustainable land management approaches and technologies, agro-ecological farming, and off-farm sustainable livelihoods. Challenges facing this fostering this shift are represented in inadequate enabling policies, programmes, investment, and implementation capabilities. To overcome these hinders we need multi-disciplinary measurements such as policies development, governance of natural resources, promotion of regenerative and climate-resilient agricultural education, investing in appropriate climate-resilient and regenerative livelihoods supportive infrastructure; and strengthening implementation capacity for adaptive management.

The solutions should be holistic to be sustainable on environmental, social, and economic levels in the form of long-term efforts since they are necessary to build resilient communities and institutional capacity. Moreover, approaches of landscape-level and regional approaches are needed to foster shifts in ecosystems and social networks.

Building resilience through 2RP programmes will be over a long period to be able to use agro-ecological approaches and nature-based solutions. A 30-year time is basically needed for systematically addressing the motives of rural underdevelopment and for alleviating the negative effects of climate change. Moreover, it will provide for a spatial scale that transcends national boundaries and will help nest IFAD country loan and grant programmes within a larger ecosystem.

Along with boosting resilience to climate change and gender equality, this programme addresses Africa’s youth unemployment crisis is the continent’s third

pressing challenge. Africa is considered the world's youth and will host around 38 of the 40 youngest countries in 2050. Its average population will be younger than 25 years old. Each year more than 12 million youth enter the work market in Africa while only 3 million new jobs are being established in the formal sector. One cause of irregular migration is youth unemployment. The number of African migrants residing within the country grew from 16 million to 19 million between 2015 and 2017, and the number of Africans travelling beyond the continent rose from 16 million to 17 million. In sub-Saharan Africa, most households have at least one individual who has migrated. Internal migrants originate mostly in rural areas, while foreign migrants originate in urban areas. Migrants are mostly male and between the ages of 15 and 34 [89].

3.1.3 Activities

There are three main categories of challenges facing this resilience programme, which are environmental degradation, food insecurity and migration, and climate change:

Capacity building: investment in small and medium-sized farms and strengthening local markets, climate resilience infrastructure and access to renewable energy, effective governance, and institutional framework.

Securities: safeguarding existing rural jobs and motivating a new land-based investment, relieving pressure on the youth to reduce migration, restoring degraded cropland and improve secure land access for farmers.

Climate change: natural resources management and strengthening the smallholder farmers to make decisions, enhancing the use of climate information for planning investments to increase resilience, women's empowerment, develop the use of nature-based solutions with high potentials to decrease vulnerability and enhance resilience.

3.1.4 Expected Outcomes

As mentioned earlier, the programme suggested a holistic approach including different scales and aspects:

- Broadening the scope of interventions from farm to policy by focusing more on using renewable energy solutions for food processing. The link with national policies is extremely useful regarding food security policies and policies linked to climate change, land degradation and biodiversity that can contribute to the dialogues between different sectoral ministries.

- Technology uptake the project aimed to help small-scale producers cope with climate change can be challenging and requires specific skills. However, some failures have been reported, where expected “quick wins” did not gain the buy-in from small-scale producers. There were many lessons learnt from these failed pilots

- Local Capacity, partners, and extension systems: extension systems achieve better results if the content of the training is context-specific and adapted to marginalized actors such as women and young people. Local planning processes have been key to raise awareness around climate trends and impacts. The analysis of possible solutions, involving a community with a large range of stakeholders, including groups of women and young people, has proven to be the best solution to achieve uptake and impact.

- Raising vulnerable communities ‘resilience to food and nutrition security and climate change effects. Moreover, reduce migration within and from Africa by promoting sustainable land management that offers economic opportunities in rural areas by fostering the creation of rural jobs for youth, and contribution to improving overall rural livelihood

- Reduce greenhouse gases through win-win interventions that also yield significant development benefits. The author developed table 3.1 to summarizes the main activities, approaches, and outcomes of the suggested programme.

Table 3.1 Challenges tackled by the suggested programme of 2RP, the activities to overcome those challenges and the expected outcomes in every field

2RP Challenges	2RP Activities	2RP Expected Outcomes
-Climate change -Environmental degradation -Food insecurity -Water shortage	-Climate services (enhancing the use of climate information for planning to increase resilience. -Natural resources management and governance. -Develop the use of nature-based solutions. -Climate-resilient infrastructure. -Investment is small and medium-sized farms. -Land restoration and sustainable management of ecosystems.	-Enhance food security and nutrition levels. -Reduce greenhouse gases through win-win interventions that provide significant development benefits.
-Lack of capacity -Youth unemployment -Migration	-Safeguarding existing rural jobs and motivate new investments. -Relieving pressure on young people to lower the migration rate. -Restoring degraded cropland and secure access for farmers. -Building capacity.	-Foster the creation of rural jobs for youth and contribute to enhancing overall livelihood -Reduce migration by prompting sustainable land management that offers economic opportunities in rural areas.
-Gender inequality -Social inequality	-Women's empowerment. -Increasing women's participation and marginalized people adaptation activities.	-Increase the resilience of vulnerable communities to climate change and food security.

Assessment:

The third pillar of the programme, The Great Green wall is being assessed and evaluated periodically. The latest published report by The United Nations Convention to Combat Desertification (UNCCD) demonstrated some obstacles and challenges which is quite expected in such millennium projects. The most prominent challenge is the funding, however, the report indicated that it is not impossible to

raise enough funding every year for the next decade in the hope of achieving 100 million hectares. There are several methods by which researchers can contribute, the report indicated. However, being optimistic, 11 countries along the green wall have re-habilitated nearly 4 million hectares of land and created 350,000 jobs in the process. It also confirms that a broader group of 21 African countries is committed to restoring and rehabilitating 100 million hectares of land by 2030, creating 10 million green jobs. [92]. More achievements can be seen as well in figure 3.3. Figures 3.4 and 3.5 show pictures from the great wall evolution. [93].

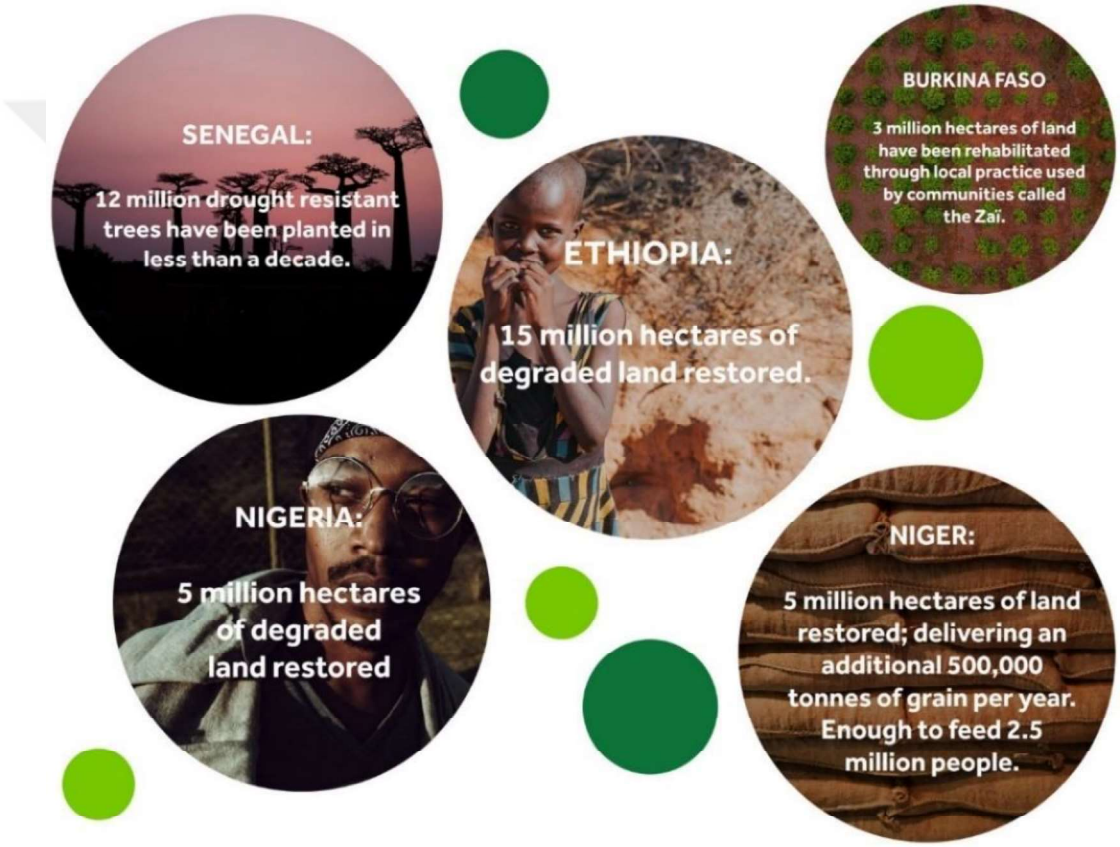


Figure 3.3 Achievements of GGW programme due to 2020 assessment reports



Figure 3.4 A picture taken in Nigeria in 2010 in the early beginning of implementing GGW



Figure 3.5 Forest land surrounding Ethiopia's churches are important islands of biodiversity in 2019

3.2 Rural Resilience in Aotearoa-New Zealand

3.2.1 A General Review

The resilience concept is applied in Aotearoa-New Zealand, tackling both research programmes and policies. However, it is relevant in this small place since it depends merely on primary rural production and is affected by a group of climatic and geological hazards. Groups of scholars have used some methods to detect, differentiate, and integrate resilience implications range in rural contexts [94]. Analysis concerning the idea of rural resilience is restricted in scope at the time of the analysis and was conducted by a group of scholars and needs collaboration. Rather than capturing the variety of threats and dangers as well as their influences, researchers have concentrated on a smaller group of hazards. The results of these studies provided valuable perspectives for hazard research meta-analyses. Moreover, they formed a framework for addressing the potential success and efficacy of resilience measures and helping to guide existing and future research goals in rural New Zealand and elsewhere that tackle chronic vulnerabilities [95].

3.2.2 Thematic Analysis

The research summarized and explored core trends from the 51 studies: the resilience of members of the rural population, the resilience of rural entities, and the role of restoration and response workers in supporting rural resilience.

Key Pillars Impacting Rural Community Resilience*:* Hazards response in rural societies differs regarding different values and risk comprehension, and different stakeholders are involved in the post-disaster process (e.g. farmers, tourism workers, international visitors), varying in levels of awareness to hazards and risks [96]. Relations between different communities are important to understand resilience on a larger scale. Therefore, the degree to which variables such as group relations and position connection are involved in resilience may be different due to the unique features of the society especially population insecurities. As rural areas have a great focus on temporary situations (e.g., vacation homes, visitors, and farmers), that has

major consequences on danger resilience in New Zealand. This creates a void in actual expertise which requires more study [97].

In the literature, seminars and other sources of knowledge were recognized to support individuals in communities pre and post disasters, making them more resilient and helping them better understand hazards preparedness [98] [99]. Training and related activities boost remote areas coping with floods, but there is no one-dimensional advancement in rehabilitation. Any study indicates that after the Canterbury earthquake, people witnessed more than one disappointment[4] In the meantime, among those most affected by the earthquakes, there was no downscaling in emotional well-being; other personality-related attributes remained steady [100].

Achieving resilience demands experience of the long-term consequences of disasters. In the literature, the conflict between multiple players, including local or national governments, and stakeholders leading to resilience has also been investigated. Between local expertise and pursuing specialist recommendations and national guidelines, a well-planned equilibrium should be sought [101,96].

Community action strategies will create resilience, and resilience itself is almost as important as the planning phase. This has been discussed in the research, albeit to a more limited degree, along with public contribution to post-disaster rehabilitation. Finally, data from the aforementioned papers shows that resilience in rural regions will be created by interventions that promote involvement by communities in the process [102].

[4] Canterbury earthquake stroke the South Island of New Zealand with a magnitude of 7.1 in September 4, 2010, and caused widespread damage.

3.2.2.1 Organizations and Rural Resilience*:* Another resilience driver that concerns the capacity of companies to rebound from unexpected change is also a subject for many studies. This encompasses several sizes, from the systemic level to the supply chains, as well as sustainability in various industries such as agriculture and industry. Good coordination, versatility, and effective interaction with stakeholders are characteristics of resilient organizations [103].

The well-being of workers and inter-personal partnerships are another important element in organizational resilience. Therefore in rural areas with high tourism rates, preparing staff members for disaster response is critical [104]. Some research found that farmers with prior experience with destruction were more capable able to adopting more quickly, this indicates that when companies will be in charge of their stability and wellbeing, it won't be necessary for those in the middle of the disaster region to recover for a longer period. [105].

Learning and adaptability, rather than development and quality, is another main component of achieving rural resilience. Different strategies were adopted by farmers in New Zealand against the threats of climate instability, transition, and urbanisation. Some of those approaches are short-term ones, such as burning hay by farmers to keep the crops warm in severe cold situations. Other solutions depended on medium and long term strategies, such as modifying pruning techniques [106].

The farming sector can be more resilient because it has various individuals' approaches and work sources. Some measurements such as converting some lands into plantation forests can enhance farmers' resilience and contribute to national emissions reductions. Via greater cooperation with researchers and by capitalizing on the expertise of farmers, opportunities to boost farm-level resilience can be realized. Eastern New Zealand growers are now embracing resilience-enhancing measures to combat climate change [107].

The analysis showed the differences between rural and non-rural organisations. Relations between farmers and neighbours are fundamental to ensure food and labour security. Studies show that community connections were the main factors in determining resilience, as well as external help, which is fundamental in

rehabilitating basic infrastructure after disasters. Post-disaster measurements to provide farmers with psychological assistance and technological acceptance are important influencers of resilience. Improving performance during 'business as usual' is capable of intensifying weaknesses through emergencies and recovery [105].

Farms are getting larger in New Zealand than they used to be, but they are still held by families with a lot of debt that needs to be serviced, and research stresses the importance of involvement and diversification in the economy. Collaboration between local and neighbouring communities on several levels could lead to resilience. However, when it comes to understanding their exposure to disasters that threatens the livelihood economy, this mentality can also trigger a blind spot. Community-based emergency planning and response plans can be especially effective for boosting tourism sections in peripheral areas due to their closeness to pre-existing community links [108].

3.2.2.2 Agencies participation in Recovery and Response: This is the last topic discussed in the study, that is the measures taken by workers and organisations in recovery and response. Knowledge contribution among organizations to enhance early warning systems and emergency response technology will improve readiness and speed up recovery. This involves improving the contribution of research results to industry and helping infrastructure managers and governments contribute to the development of disaster education, ensuring disaster risk reduction technologies [108].

Organizations could collaborate during crises in order to produce more effective solutions, and this cooperation should be extended to establish a shared definition of responsibilities in times of emergency. Building partnerships between external consultants and local residents, in addition. Coordination between national and local organisations is often seen to be a fundamental necessity, such as the importance of four-wheel-drive clubs in aiding emergency relief agencies after a string of snowstorms in southern Canterbury [105].

Figure 3.6 indicates the primary hazard focus and geographic region of interest for studies of rural resilience in New Zealand. The number exceeded 51 studies, and some of them focused on more than one hazard, geographic region, or stakeholders [105].

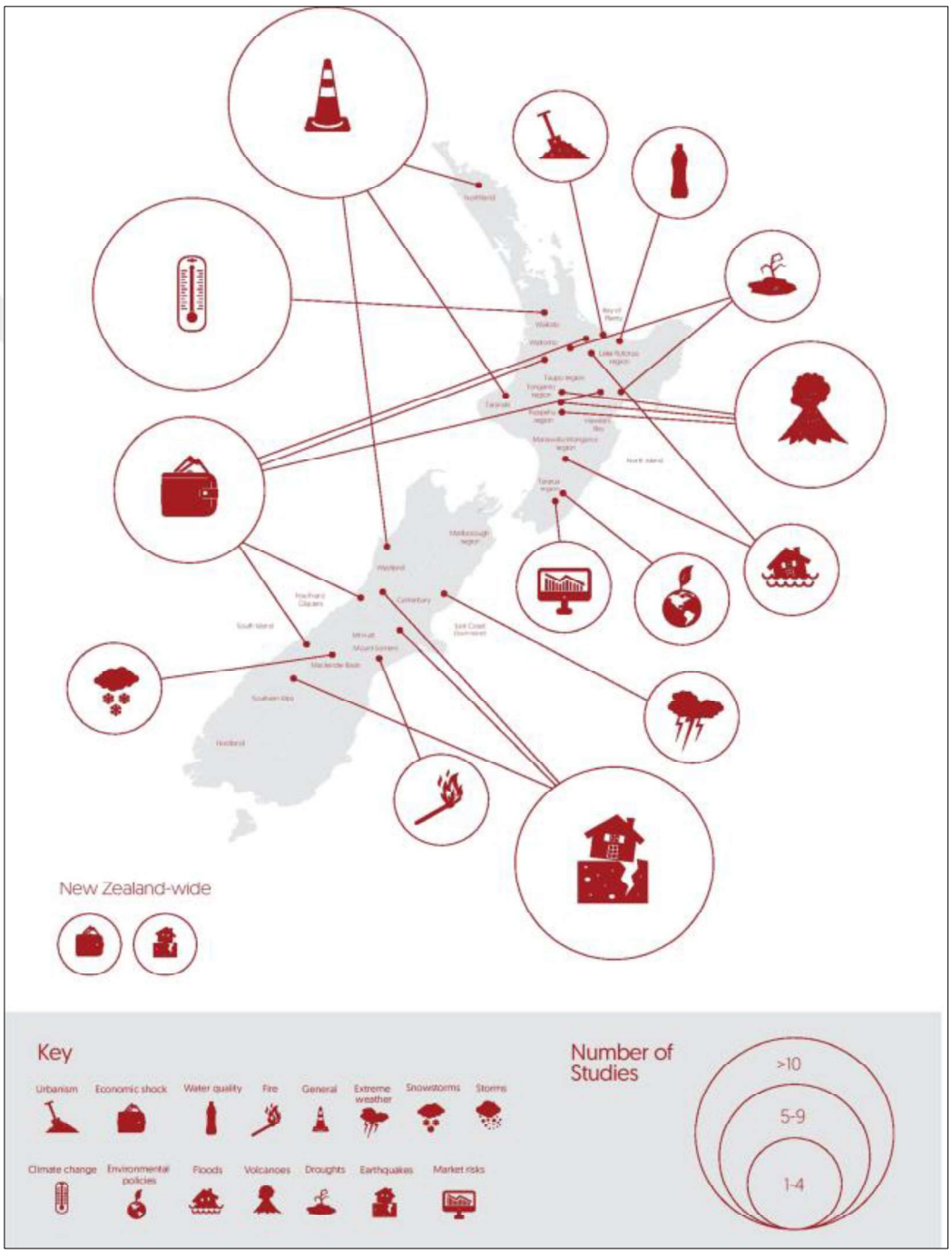


Figure 3.6 Primary hazards focus studies on New Zealand based on geographical distribution

3.3 The resilience of Socio-ecological Systems in Rural Europe

Challenges facing rural areas today are complicated and on multi scales and that cause a serious issue to rural management and affect rural future perspectives. In this section, we will go through the most significant factors of rural resilience within Europe. Answers to the question of how to enhance rural resilience will be investigated by reviewing the existing literature.

3.3.1 Resilience Assessment in Socio-ecological Systems

Pitfalls for operationalisation: this assessment is considered challenging since different slopes may come to the front when trying to operationalize resilience. Moreover, wondering about the suitable measurements to be used for decision making, and which variable should be considered is also a challenge. Different variables operate in social-ecological systems and work at several scales with different paces. Those variables have a major impact on the system overall dynamics; therefore, they become a fundamental concern to system managers.

On the other hand, variables governing changes and adaptations to modifications are typically sluggish. It should also be considered that elements of the environmental system have steadily altering variables. Meanwhile, socio-economic elements mainly have rapid changing features [109].

Assessment review*:* Many case studies were analysed and investigated by different researchers using different methodologies and approaches to assess resilience in social-ecological rural systems. Those case studies had mathematical models that make assessment easier in the long term and some of them have a social background that involves social practices and multiple resources in system dynamics [110].

Resilience steps for SESs should rely on the variables shaping the ability of environmental processes to provide socio-economic systems with ecological services. Two key methods were used to measure resilience in rural areas: 1) the establishment of a resilience index to assess resilience at the macro level among

countries or regions; 2) a case study or a sequence of case studies to evaluate resilience [109].

3.3.2 Towards Resilient Rural Policy Development

The role of policies is fundamental to the adaptability and resilience of rural SESs. In order to design effective policies, we first need to fully understand how policies drivers change, channels and actors they work through [111]. Policies have different features, such as having a fast-tracking nature, and sometimes slowing down certain development processes. Speaking of which, past agriculture, policies have caused the production to increase, and market price support resulted in a higher return on products. To design a policy that contributes to the resilience of SESs, some characteristics should be available. The main three features are redundancy, modularity and variety of actors and relations [112].

Redundancy allows the system to remain functional when some elements are missing by taking over the function, such as formal and informal rules of resource management. Modularity is the second key component of system resilience, and it means that the system has different practical parts or modules that can operate separately. Even though those modules are integrated, they are independent and relaying on each other. Finally, lack of diversity in actors or relations. It Will not provide a system with the chance to come with innovative ideas or connections.

It is important to derive from these three framework characteristics how to improve policy guidelines for resilience. There is a trade-off between specialized adaptation when developing policies, meaning policies that are specialized in stimulating or stopping a certain creation of a particular item, but it often limits the system's flexibility, hence it is more vulnerable to different forms of disruption. Thus, high diversity policies covering the system is important to achieve resilience in rural SESs [113].

3.3.3 Adaptation Strategies

Ecologists in rural areas mostly tend to focus on natural hazards and disturbances, like fire, floods, and hurricanes. However, in social-ecological systems, other types

of disturbances need to be included such as sudden changes in regulations and world market shifts Resilience of other systems can be influenced by disruptions in one resilience scheme.

If a rural region is not economically resilient, the area would be vulnerable to economic changes, such as a decrease in wealth, a rapid rise in tax rates or an increase in interest rates. The population would gradually turn away from unemployment and vulnerability would grow. In order to trigger crises in the rural system, increasingly smaller shocks are necessary. Vulnerability is a fundamental principle of resilience and involves the characteristics of individuals or communities that help them cope with the effects of hazards, such as natural disasters or manmade crises [112]. In the absence of resilient ecological sources for rural areas, the requirements for environmental resources, landscape services and agrarian sector would exacerbate, and insecurity of rural context would grow. Natural biodiversity in ecosystems, for example, can play a bio-control role in crops and eliminate outbreaks of pests in crops.

Compared to a case of one or two major predator types, a rich diversity of species, each with variable population densities, constitutes a more effective management mechanism. In other words, the technical diversity of the agents that provide natural pest control for the landscape operation enhances the SES's durability. Social resilience sources such as social capital, faith and connections, experiences of adopting to changes are also important for the ability of rural social-ecological structures to adapt and form change [69].

3.4 Concluded Remarks:

Some lessons can be learnt from the previous experiences on different levels in both theory and practice. It is of paramount importance to understand that methods and strategies suggested or applied in different scenarios might not necessarily apply to the study zone of this thesis, which is Syrian rural areas. However, in this part concluding remarks will be made and to what extent they are useful for our case study will also be shown. The author created table 3.2 for more details.

- Measuring resilience is a constant challenge since it depends on interactions between system components. Therefore, further research is needed on the processes occurring in the rural system to learn to understand how they interact together to contribute to overall system dynamics

- Increasing resilience is dependent on many aspects, economically and socially. Enhancing food security and nutrition levels, fostering the creation of rural jobs for youth, and contributing to improve overall rural livelihood are key factors for resilience.

- Policies play a significant role in achieving resilience therefore different thoughts must be taken into consideration when designing effective policies that contribute to resilience.

- Focusing on societies as one of the main factors of resilience alongside organizations and agencies. Moreover, enhancing the human capacity of the local labour force is fundamental in providing chances for the community members, no matter where they will be working.

- In order to build rural resilience, activities should be designed to build capacity and achieve securities on different scales, and finally adapt to climate change Moreover, providing opportunities to familiarise communities with top-down procedures; and allow for enhanced resources management to address current disparities.

- Developing and underdeveloped countries should have their specific designs of development strategies for rural areas alongside toolkits for each service package. Those designed strategies should have both conceptual and actual frameworks that can be applied before, during and post-crisis.

- It is strongly recommended to develop clear and applicable criteria to measure the results of resilience programmes and frameworks in different time phases.

Table 3.2 The linkage between the concluded remarks from the case studies and the case of Syria

Studied framework	Implementing field	Concluded remarks	Linkage with Syria
The Rural Resilience Programme (2RP) by IFAD	-Capacity Building -Achieving securities -Climate change	-Enhancing food security and nutrition levels. -Fostering the creation of rural jobs for youth, building capacities, and strengthening social capital. -Contributing to improving overall rural livelihood as key factors for resilience.	-The need to focus on developing measuring criteria. -Directing activities into capacity building and social capital. -Developing a local resilience framework in both the mid and long terms.
Rural Resilience in Aotearoa-New Zealand	-Community -Organizations -Policy-making	-Focusing on developing the right policies to foster resilience. -Involving the academic society in building resilience through inclusive hazard studies. -Involving NGOs in the process of resilience.	-Assuring the integration of all the aspects in the process of resilience. -Keeping resilience on the political agenda and working on interpreting this interest into a significant policy response. -Conducting further research to establish an inclusive comprehension of resilience in a local context.
The resilience of Socio-ecological Systems in Rural Europe	-Ecology -Society	-Achieving economic prosperity. -Preserving Natural biodiversity in ecosystems. -Building Social resilience sources such as social capital, faith and connections and experiences of adopting to changes.	-Activating external monitoring held by supporting countries and international NGOs. -Working on achieving economic stability as a key factor for building resilience.

CHAPTER 4

RESILIENCE IN POST-WAR RURAL SYRIA: CASE STUDY ANALYSIS

4.1 General overview

Building a comprehensive vision for the future of post-war rural areas needs basic knowledge and understanding of their features, challenges, and hopes. In this section, we will briefly review the general characteristics of Syrian rural areas, the most notable dilemmas that need to be handled in the way of redemption. To end up discussing the idea of taking advantage of the crisis to achieve development and resilience.

4.1.1 Main Features of Syrian Rural Areas

The variation of geographic features in Syria resulted in different rural environments and forms of living. The population of the countryside before the conflicts including more than half of the total population and mainly work in agriculture and related fields. However, this percentage was starting to shrink due to the low rate of population growth and migration to the cities [6].

The main two features that have marked the Syrian countryside, are first their decentralization around the country being relatively distant, and their increasing ratios of urbanisation caused by natural growth and migration [1].

4.1.1.1 Social Structure:

The Syrian rural society according to Ghiath Al Jundi indicates two main social essences represented in, firstly the legislative role that the principle of the village plays “Almokhtar” through his connection with the formal institutions of the government. His job is to organize both internal and external affairs of the village including keeping the records, solving people’s problems and more. However, this significant role became less and less vibrant with the crawl of collective communication media.

The second dominant element is the power given to the family which plays a highly important role in organizing the relationships between the members in the village as well as among the families. The sequence of members’ supremacy among the family starts with the father following up with his sons. The leader represents on behalf of the family in different events and is responsible for contacting other families. This hierarchal formation gives a clear understanding of the social order applied in rural areas and in turn ease future social actions without any struggle [114].

4.1.1.2 Work Structure and Natural Resources:

The agricultural sector is the main occupation for most of the countryside inhabitants alongside some related fields such as the food sector and poultry farming. By 2006 the agricultural sector contributed 21% to the national GDP which is considered a higher rate than some surrounding countries. Moreover, the workers in this field represented 20% of the country’s labour force with a production of 433 billion Syrian pounds by the end of 2006. It is also worth mentioning that the unemployment rate in the countryside is relatively low and does not exceed 5%. However, they might go through seasonal unemployment which saves them plenty of free time. Another point is the lack of experience the workers have for other jobs and the inability to obtain such experience [115].

The expansion of the rural areas in different geological regions is the reason behind the diversity of available building materials. Varying from basalt in the southern parts to calcareous stones and sandstones in the middle and eastern regions and clay

in river basins. This variety of local buildings materials caused different architectural types and enriches knowledge and materials exchange with different parts of the country.

Syrian rural community has two main advantages represented in the availability of local building materials, and the seasonal labour in addition to the clear social structure. It can be argued based on the previous facts, that the Syrian rural community could have an important role in the post-war reconstruction process [1].

4.1.2 Challenges and Dilemmas of Rural Areas Prior and Post-conflict

The Syrian countryside has always suffered from multi-level problems including administrative issues, socio-economic and urban challenges. It can be argued that those problems in addition to lack of services, weak infrastructure, and land misuse are caused by corrupted and unwise policies [116].

Water shortage, displacement and crop failure have also affected the area in the years between 2006-2011in one of the severe prolonged droughts and most serious series of agrarian failures in different regions in the Syrian countryside. That caused a massive wave of migration for lots of agriculturally dependent families from the rural areas to the cities.

In addition, some of the most important reasons for the collapse of farmlands in Syria in that era were climate change and natural resource mismanagement. An article published in the journal of climate change indicated, based on strong evidence, that the prolonged drought was caused by climate change. According to the report, expectations for the environmental future of farmlands were frightening [117].

In other words, massive internal migration throughout the drought period posed major strains on Syria's economically deteriorated cities causing significant resentment
among agrarian communities. Poor governance along with corrupted authorities have contributed to water shortage and land desertification by both mismanaging natural resources and marginalizing the countryside. They worked on funding corps that needed extensive water meanwhile encourages using inefficient irrigation techniques,

which led in turn to overuse of the country's groundwater. As a result of the aforementioned circumstances combined with other factors, poverty became one of the top prominent features in rural areas [118].

The challenges affecting rural areas in the period before the conflict are wide and complicated. However, we will be focusing in this study on some aspects which are considered by the researcher fundamental in achieving post-war rural resilience. Those are demographic shifts, policy-making and poverty.

4.1.2.1 Demographic Shifts:

Internal migration in Syria has had different patterns ranging from the most dominant type which is the rural-urban migration, to urban-urban, reaching the urban-rural, the least common. Albeit migration has permanent reasons such as education, economy, family reunification and social networks, services and policies, some incidents could provoke this process in a wider range. For example, the drought in Syria in the years before the conflicts caused 1.5 million people to a huge wave of rural-urban migration.

The conflict provided a major boost to migration. According to the annual report of UNHCR at the beginning of the eighth year of the crisis in Syria, there are 6.2 million internally displaced people (IDPs) and 1.41 million of them are returning to their origins.

Euphrates Shield Area (ESHA) became a top destination for IDPs as the area is relatively safe and close to Turkey, with IDPs total number of 387,150 in late 2017 and the number is still increasing. According to a recent study conducted by the REACH organization, an estimated number of 1.4 million IDPs are residing in the Idleb governorate and the surrounding areas. By the end of 2018, Idleb governorate and surrounding areas were hosting 1,207,295 IDPs which accounted for 36% of the total number of IDPs. Figure 4.1 shows the shifts of huge numbers of IDPs to Idlib province from different parts of Syria.

According to UNHCR periodic reports, the number of IDPs exceeded 5 million by the end of May 2020 with a slight spontaneous return movement to cities of origin

with a number of 184,433 returnees and 13,423 of those who seek asylum previously [119].

Due to the rapid demographic changes and movement of the inhabitants seeking safety, it is hard to distinguish social features to build any study on. However, it is paramount of importance to document these changes, analyse them, raising questions regarding the potentials and opportunities.

In other words, understanding the war-based created socio-economic structure and its features could be a key factor in achieving resilience. That could be done by correctly employing the newcomer expertise, potential high education levels and different occupations to change the factual situation [120].

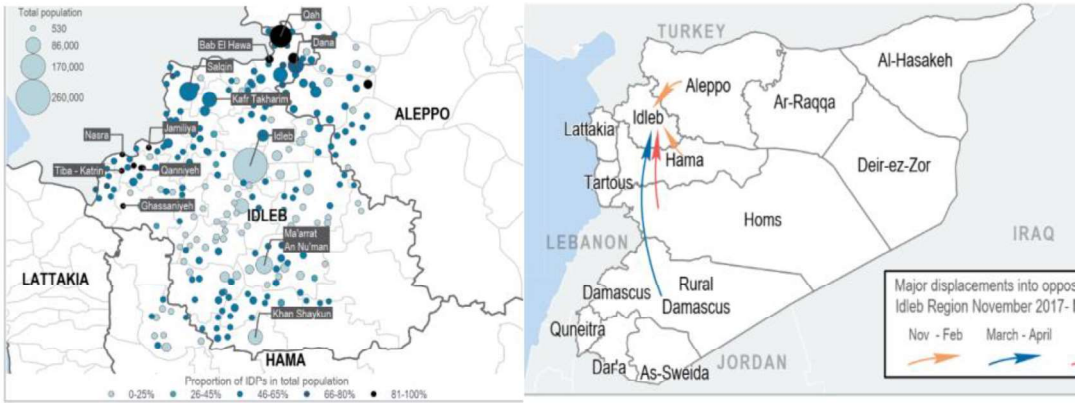


Figure 4.1 Two maps showing the huge flows of IDPs heading to Idlib province from different parts of the rest of the country

4.1.2.2 Policy-making:

As in many developing or underdeveloped countries, food and agriculture-related policies have a crucial impact yet are inconsistent and not transparent. The second prominent feature is the exchange rate misalignments due to Government interventions that resulted in many problems regarding export-oriented agricultural sectors.

The Syrian agriculture sector has suffered mainly from unfair regulations and dishonest implementation of those regulations (e.g., marketing constraints at the wholesale level prevail, and price controls at the retail level are still possible) and

regarding FAO “a wide range of tariff and non-tariff measures remains a handicap for the country's agricultural trade”.

In recent years, the plummeting growth rate of the Syrian agricultural sector between 2006 and 2007 started to improve from 2007, and then between 2008 and 2009 it almost recovered from -9% to more than 8%. This also meant that the agricultural sector’s contribution to GDP improved by 12% in 2009. Considering that the ratio of consumer price changes had peaked in Syria during 2008, it is interesting to see how agricultural policies have responded to that challenge. However, even the regular support offered by the state system by providing seeds to the landlords and buying their crops, have stopped due to warfare [6].

Another classification of policies must be appointed, which are the rural areas administrative regulations. The rules limited the development and potentials of the rural areas leaving them in a state of weakness on many levels. Many areas were neglected and marginalized in the aspects of adequate services, infrastructure, proper education, and decent health services which triggered the rural-urban migration for the sake of better conditions. Syrian regime has failed to interpret the goals of rural development into coherent plans to provide sufficient resources of implementation. Rural policies can be described as mostly being incoherent and inconsistent. In fact, in such a centralized and personalized authority political system, legal institutional structures aim in the first place at private gains, by using public offices as sinecures for relatives and clients as typical practices. On a pettier level of corruption in a weak administration system, many local officers take bribes from peasants to overlook some regulations or to get official approval for some services or procedures [121].

In general, continuous populist ideology, personal interest over the agrarian sector’s interest, and the increasing corruption and misuse of official powers and resources are major obstacles to capitalist development. Therefore, it is important to touch upon the economic-political consequences of previous policies in the rural areas to design a proper interference in the process of development and resilience.

4.1.2.3 Poverty and Economic Issues:

Poverty in Syria has been concentrated in the northeast region, especially in rural areas which have consistently been poorer than urban centres, and the urban-rural rift has grown since 1997. Rural northeast was the poorest part of the country in 2007 and was also the only area that went through an increase in poverty rates between the years 1997 and 2004. Table 4.1 explains poverty rates in Syria based on regions between the years of 1997,2004 and 2007 [116].

People living in rural areas are relying directly and indirectly on their basic income on agriculture. Food security is related to natural resources and weather conditions. Even though some could provide income by temporary off-farm labour, most of them have limited access to incomes from industrial production or services [6].

The conclusion of the Third National Report on the Millennium Development Goals in Syria 2010 links the failure of reducing poverty to the policies applied and posed by the Syrian government since 2000. However, many projects aiming to reduce poverty were launched in the country during that period [116].

Since the crisis, water resources have been either damaged or over exploited, and studies show that many lands are depending on rainwater for irrigation. Moreover, instead of being a source of livelihood for half of the population as it used to be, the agriculture sector was dramatically affected by warfare.

Due to FAO and WFP Crop production has been affected by high labour costs, lack of working force, crops loss and dispersed markets, with disrupted supply chains and severe damage to grain silos and flour mills. Unfortunately, that turned the country from a self-sufficiency strategy owner into an importer [4].

Table 3.1 A Table of Incidence of extreme poverty by region given in percentage 1997, 2004 and 2007

		1997	**2004**	**2007**
Southern Region	Urban	10.65	5.82	10.6
	Rural	15.19	10.671	12.8
	Total			11.2
North-East Region	Urban	13.94	11.16	10.8
	Rural	15.24	17.91	19.7
	Total			15.4
Central Region	Urban	14.80	9.02	7.76
	Rural	22.58	11.10	9.05
	Total			8.4
Coastal Region	Urban	11.34	9.34	5.6
	Rural	9.25	9.7	9.09
	Total			7.7
Syria	Urban	12.6	8.7	9.9
	Rural	15.9	14.2	15.1
	Total	14.3	11.4	12.3

Degradation in the agriculture sector which once accounted for more than one-fifth of GDP before the conflict has gone through severe losses. The destruction in the past years has not only affected people and the built environment but also came over huge areas of farmlands. This situation led to insufficient agrarian materials such as pesticides, seeds, fertilizers, and even labour force, alongside damage to existing irrigation systems. On a more humane aspect, farmers have also faced many challenges such as selling off their livestock, difficulties in transportation where constant conflicts taking place over main roads and territories. Furthermore, more fertile areas which once accounted for more than half of Syrian's GDP, such as Aleppo and Raqqa governance, have been out of Syrian regime control [122].

The above-mentioned facts about the degradation of the agriculture statistics, alongside the huge number of IDPs settling in the rural areas and the limited job opportunities, all caused the already tense situation to even get worse.

4.1.3 Post-War Rural Areas: War Born or War Burn:

It is a fact that Syrian war losses are massive in all aspects. However, when it comes to rural areas we can conclude from the factual numbers, that the situation has always been rough before the war. The conflict has caused the already existing challenges to aggravate and become more noticeable. Thus, instead of focusing on the damage, we should be focusing on turning the war into an opportunity to enhance the situation in the rural areas.

Even though those multiple displacements have contributed to a significant deterioration in living conditions and exacerbated competition over land, natural resources, and employment with host communities. Moreover, they could have difficulties integrating into the society since they come from different cultural, social, and educational backgrounds. In that context, many of them have either considered going back to their original cities or have already started. Yet, from these challenges, many opportunities could be stemmed. They could be prompted to be involved in the resilience and sustainability plans by offering promising visions. Economic, intellectual, and social potentials that might be obtained by the new arrivals, could be considered a real key stone in shaping a better new community in the post-war era.

The infrastructure, which had been already poor, was not affected as much as in the cities. The severity of housing damage is unprecedented in both urban and rural areas, but due to simple rural buildings patterns, the damage is incomparable. The damage on other sector levels was also less compared to the situation in cities since there was already a lack of health, educational and administrative facilities. Whereas taking care of the built environment is essential for the aftermath phase, preserving and maintaining the damaged or partially damaged infrastructure or facilities might not always sound the correct decision. In other words, taking advantage of the war to restart comprehensive corrective progress to achieve resilience and stability.

The current political and administrative situation in Syria is confused and managed by different agents. Moreover, the future of Syria is still unclear and blurry, having stable and well-studied policies and regulations, in the meantime, is still hard. Whereas some are considering this kind of consequence as a curse, others might see it from a different perspective. With a long history of oppression and corruption, old policies were getting even more rooted and needed a profound change that could not be done before the conflicts. What looks like chaotic circumstances now might be a base for better conditions in the future if managed and planned well having a chance to dramatically change the regulations is paramount of importance since policies have huge impacts on the situation in the countryside regarding agriculture production and food security [6]. The author developed table 4.2 that shows existed problems, and the chances that could be created by the war to minimize the effects of the problems and pave the way to face those challenges in a post-war context.

Table 4.2 The table indicates the problems and the opportunities that could be created in post-war scenarios in rural Syria

Challenges	Opportunities
Poverty	- Employing the flows of support from NGOs and other potential sources to enhance the economic situation. - Focusing on education as the main role player in overcoming poverty and spreading the culture of equity among all individuals.
Flows of IDPs	- Integrating the IDPs in the society and exploiting the well-educated category into improving the current situation intellectually, socio-economically, and physically. -Planning for recovery and resilience through a community-based approach and encouraging the IDPs to be a dynamic part of the later phases.
Unjust policies and lack of resources	- Considering the war as a way out of the corrupted policy makers whose injustice and lack of transparency have created a long history of suppression and marginalization. -Taking the chance to establish new, consistent, and fair policies based on the actual needs and rights.
Physical damage	-Thinking of the appropriate housing type regarding the poor existent infrastructure and cease the chance to rebuild the damaged parts appropriately. -Considering the damage as a chance to rebuild based on new masterplans and focusing on facilities that were poor before the conflicts such as schools and healthcare centres.

4.2 Case Study of Bza'ah and Potentials for Resilience

4.2.1 Introduction to the Study Area

Al-Bab is one of four sub-districts forming the Al-Bab district which is located 40 kilometres northeast of Aleppo, 30 kilometres south of the Turkish border. It belongs to Aleppo Governorate and has an area of (489.28) km^2 square kilometres. Back into (2004), the sub-district had a population of 112,384 inhabitants which increased to reach 300,889 in (2008) according to the Central Bureau of Statistics (CBS). However, the statistics in the years of war were not so accurate since that area was one of the first areas to be out of government control.

Up to 2012 Al-Bab had been relatively unharmed by the war, until rebel groups started to form in the area later that year. The conflict then lasted to 2017 through series of battles between different parties including the opposition, the Islamic State of Iraq and the Levant (ISIL), the Syrian regime, and the Syrian Democratic Forces (SDF). Finally in 2017 al-Bab was captured by Turkish-backed rebels, becoming a part of the Turkish buffer zone.

(Al-Bab) sub-district is composed of 29 cities, and our case study (Bza'ah) is one of them. It is a town located 3 kilometres east of the city of Al-Bab in northern-central Aleppo Governorate, north western Syria close to a river called "Nahr-u-Thahab" which means the River of Gold". In 2007 the council of Aleppo announced it as a city based on the development projects that existed back then. It had a population of 12,718 inhabitants as per the 2004 census according to the Central Bureau of Statistics (CBS). However, according to the local council of the Town, it reached 61,315 inhabitants in 2021 for both Bza'ah and its suburbs, with a rate of 37% for IDPs. Bza'ah alone has a population of 32500 with a rate of 32% for IDPs which is equal to 10500 inhabitants. The residents are mostly Arabs and Turks with a Kurdish minority (CBS, 2004). Figure 4.2 shows the location of both Al-Bab city, the main city in the district and Bza'ah.

There are no accurate statistics about the facilities that existed before the war broke out in 2011, but in general, the town was ignored and marginalized by the government like the rest of the eastern countryside of Aleppo.

What concerns us the most in the case study is the situation in Bza'ah during and after the war for two main reasons: firstly, the relative availability of resources based on the primary data collected by the researcher, and secondly achieving the goal of the study which is based on the suggested framework for resilience in post-war eras.

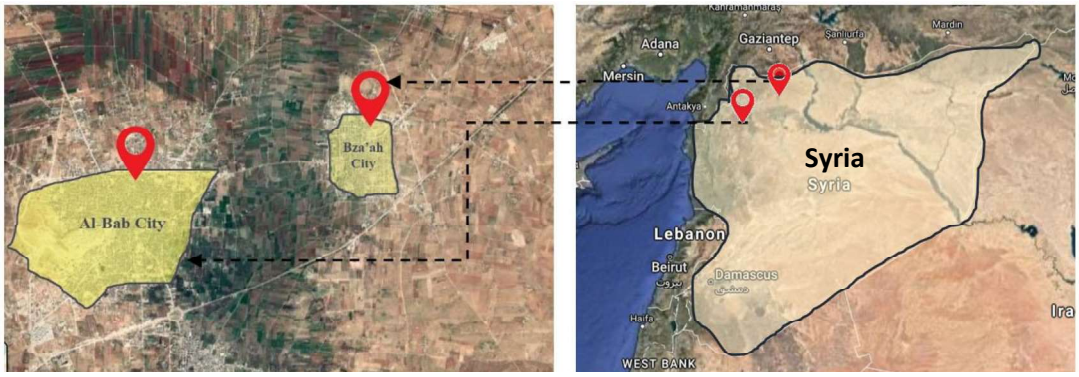


Figure 4.2 The location of the case study in relevance to Syria and the sub-district of Al-Bab

4.2.2 Post-war Bza'ah and Reconstruction: Assessment and Measures

As mentioned earlier in the study, resilience is an overlapping and integrated process, hence it requires interventions on many levels and in different fields. However, these fields differ in importance and priorities according to the areas, time of intervention and urban-rural contexts. For instance, the most important aspects in post-war rural areas are education, tangible and intangible infrastructures, governance, community, and health. It is difficult due to different limitations to include all the aspects in one study. Thus, the next section will be focusing on the most four affecting factors according to the researcher, those are built environment, infrastructural services, community, and governance. Data were collected through surveying with sixty-seven surveyed from the residents of Bza'ah, from different ages, gender, and educational groups. Alongside nine interviews with decision-makers from the authorities in the area. It is worth mentioning that the limited number of conducted surveys was due to some limitations (security issues, remote researcher, and so forth). It might be

considered an insufficient sample size to build the results on. However, it can provide a primary consensus about the discussed issues and form a solid basis for future related work.

4.2.2.1 Built Environment:

The first element to be observed and assessed in a post-war zone is the physical damage in the area on urban, architectural and infrastructure levels. Residents have agreed that the damage of the building was medium between (30%-50%) based on their personal experience and observation as shown in figure 4.3. *(See Appendices C and D for more results).* Infrastructure, on the other hand, was already poor, inadequate, and facing many challenges and that is why the assessment, to their opinions, was absurd. However, according to the local council of Bza'ah, the loss was greater in the housing sector, where almost 53% of the houses were partially or completely damaged, alongside around 33% of the schools and mosques which faced the same fate. Other services buildings were more fortunate to go through the conflict with fewer damages [123].

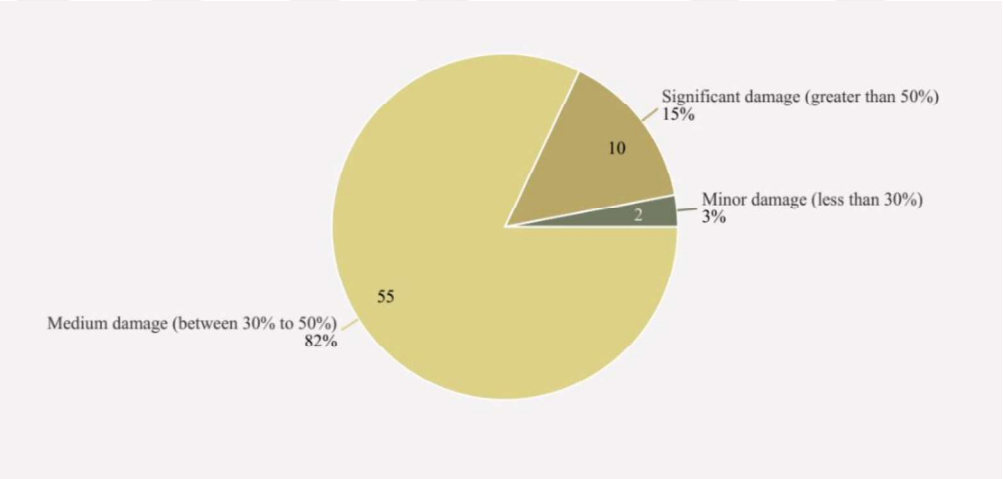


Figure 4.3 A chart clarifying residents' opinions about the distruction in the area

Did this damage change the shape of Bza'ah? 97.01% of the responses were "Yes" and when asked how, *82.09%* said that new features and types of facilities and buildings which did not exist before have been either a fact or being planned for. Vertical extended relatively high buildings are replacing horizontal extended old

buildings (Local council building, National hospital building, Mosques, Sharia' school[5], see figure 4.4. New building materials are being used, such as glass for facades and artificial ceilings as shown in figure 4.5. Brand new buildings and facilities are seeing light in the area, such as residential compounds, football playground, grinding building, a new market which is a part of a bigger project that contains sixty-three apartments, a garden, and a mosque [124].



Figure 3.4 Architectural elements were not used before, such as glass facades and internal ceilings



Figure 3.5 The emergence of a high building relative to the pre-war situation

With the huge flows of IDPs to the area, attention must be drawn to the effects and potentials of their existence among the host communities. On the built environment level, effects revolved, for example, around the high density of urban texture, random construction, or the emergence of new facilities. Surprisingly enough,

[5] All mentioned buildings are still under construction and expected to operate in the second half of 2021.

random construction had the lowest rate of responses of 15% to the favour of high density which had the highest percentage of responses, 73.75%. This is a good indicator of awareness level since random construction was a prominent feature in these areas. Figures 4.6 and 4.7 demonstrate some of the survey's results regarding random construction and the effects of IDPs flows.

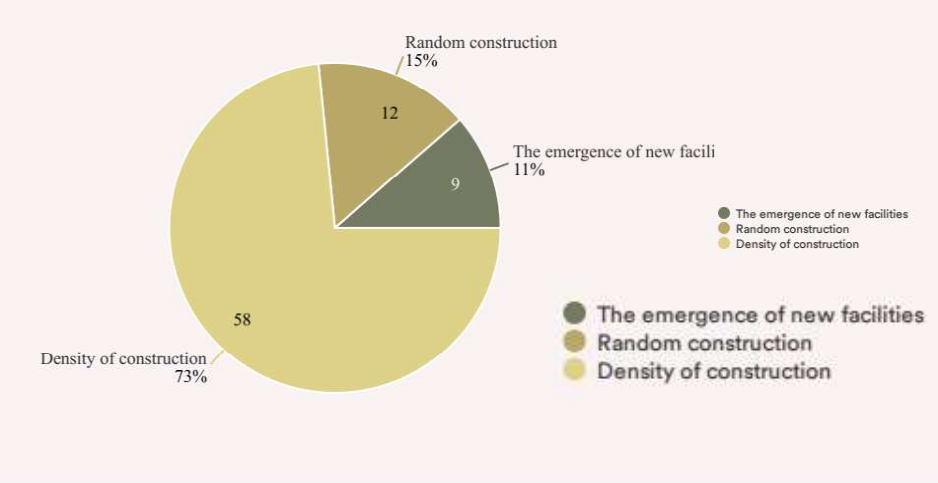


Figure 4.6 A Chart of responses to the effects of IDPs presence in Bza'ah

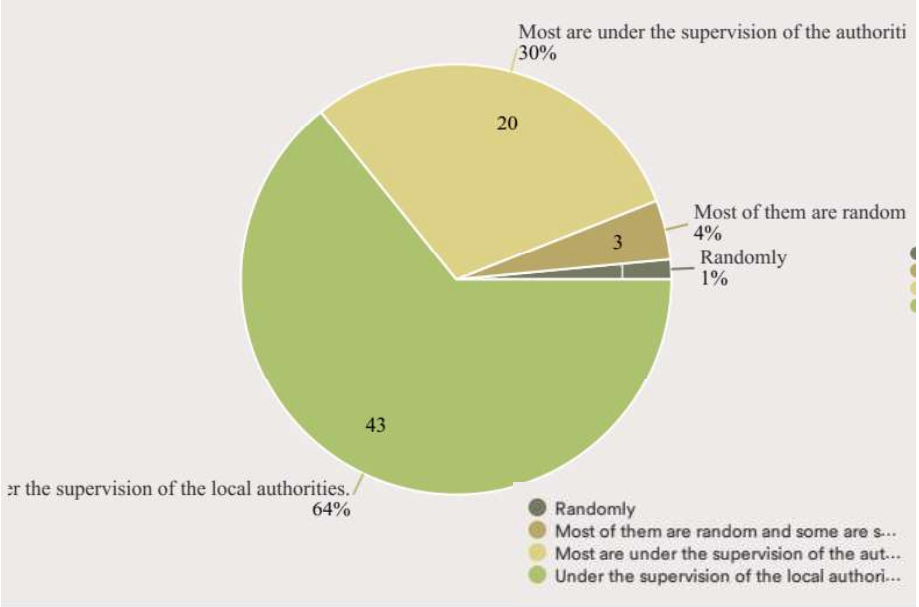


Figure 3.7 The chart indicated that the majority of construction is being held under the supervision of local authorities

Another important side to be inspected in a post-war context is dealing with debris. Residents believe that most of the rubble was either moved to surround empty lands or left in piles in different parts of Bza'ah where it turned to huge trash dumbs. Less percentage has been sold or used for other purposes rather than reconstruction. However, in February 2021, Syrian Civil Defence (known as the White Helmets) launched a project of removing 131,000 cubic meters of rubble, from 42 sites, 6 of which are in Bza'ah. The project aims to remove the piled debris in residential neighbourhoods and public squares, especially in some areas where rubble has turned into garbage bins and a place for rodents' dens and to use parts of the removed debris to rehabilitate damaged roads [124]. Figure 4.8 demonstrates responses to the question of dealing with rubble.

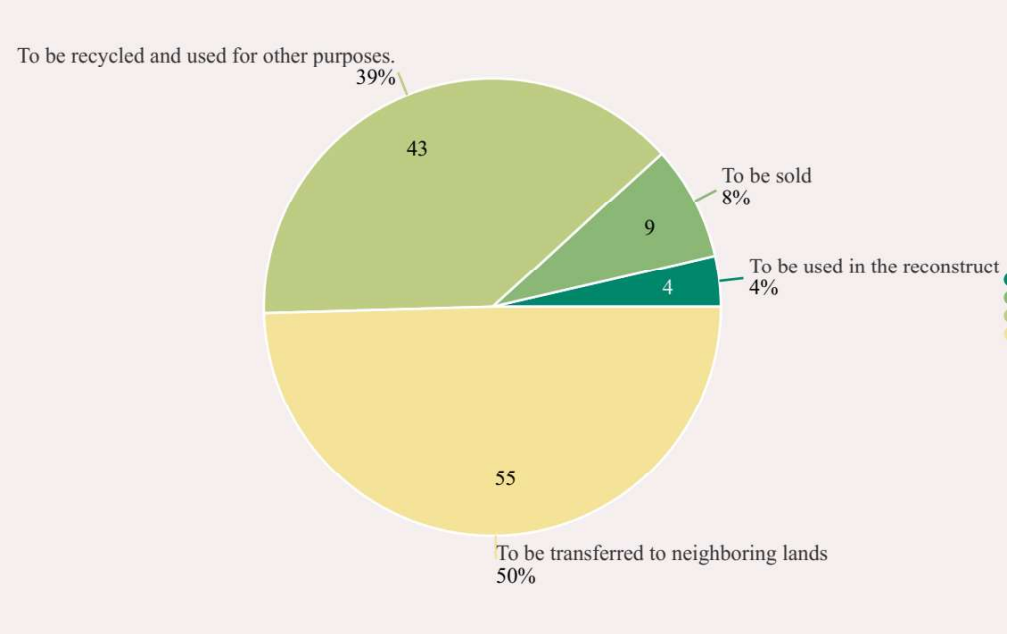


Figure 3.8 A chart of responses related to dealing with rubble where most of the answers indicated that rubble was got rid off to the neighbouring areas

On the urban level, changes were less observed since the reconstruction process did not include real changes in the whole plan of Bza'ah, except for rehabilitating and restoring some roads and infrastructure, sewage, and electric systems. Besides, symbolic sculpture work in public squares. Figure 4.9 represents Bza'ah urban plan before the conflict broke out and it was taken from the council of Bza'ah.

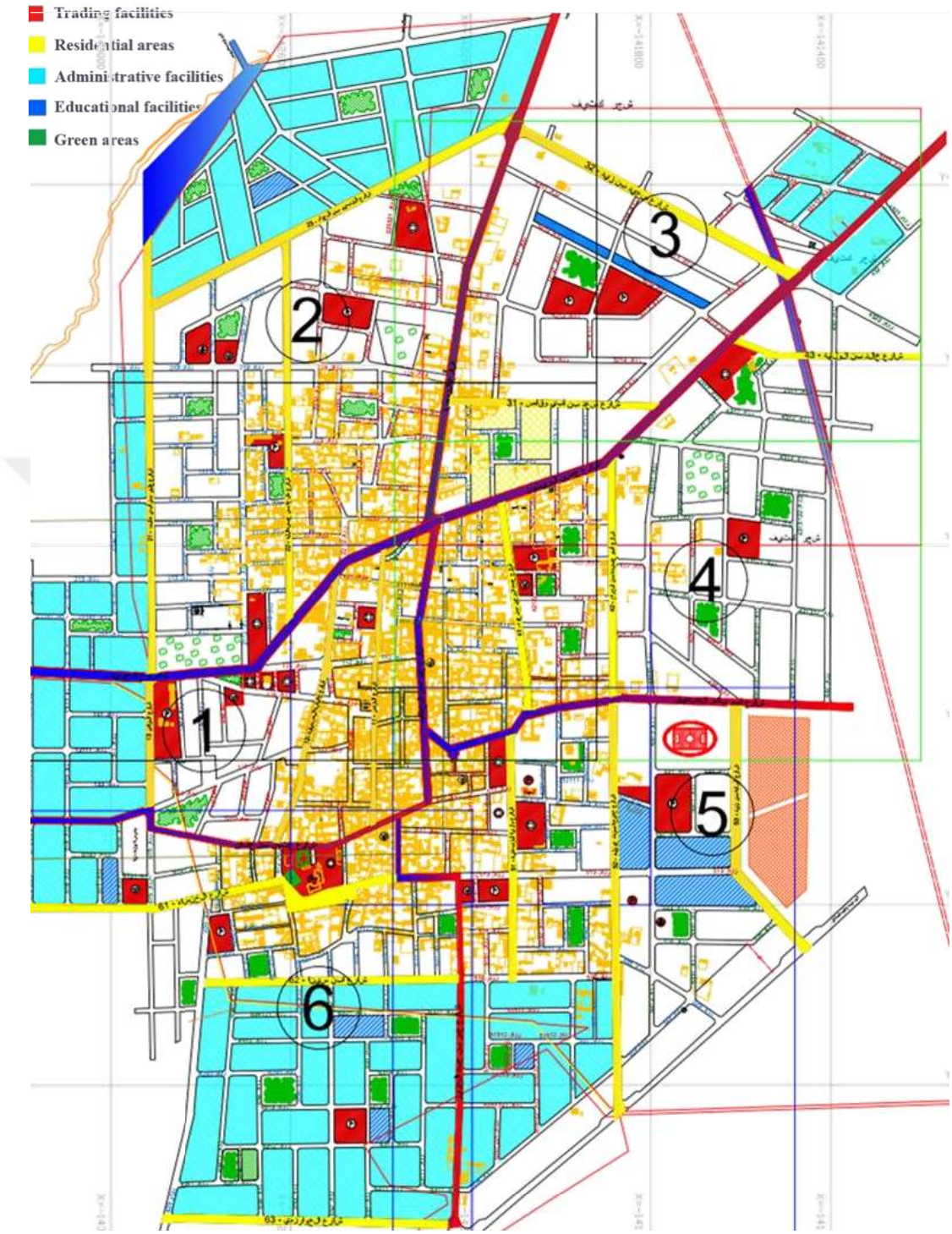


Figure 3.9 The old urban plan of Bza'ah

The intention, however, is a new city plan proposal, that keeps restored buildings and newly constructed ones as sustained areas and reorganizes the rest of Bza'ah. Unfortunately, the council stated their inability to provide the researcher with the new plan due to security considerations [125]. Based on the data collected from the surveys and interviews, the researcher created estimated urban zoning for the area to compare between pre- and post-war contexts which is presented in figure 4.10.

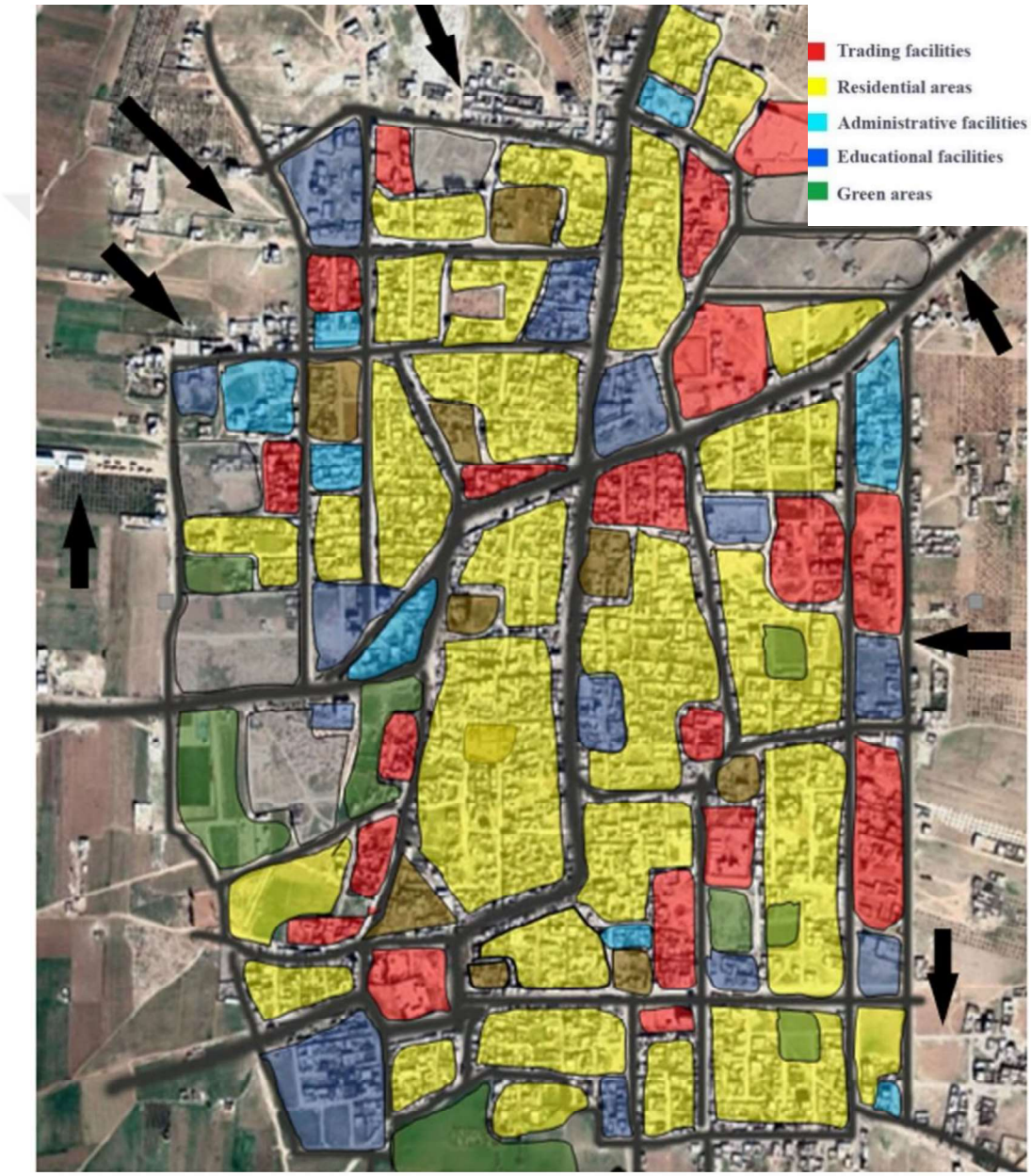


Figure 4.10 An estimated urban zoning for Bza'ah to compare between pre- and post-war contexts

The comparison shows that Bza'ah maintained the original urban square grid style and the main dividing roads. Moreover, it is indicated by the author that residential areas were randomly extended to the peripheral regions (*represented by the black arrows*), and this is due to the high density caused by flows of IDPs and random construction at the beginning of the conflict.

Both educational and commercial sectors grew noticeably compared to how they were in the old plan. Finally, arrows on the plan show an expansion in the urban elements to exceed the original borders of Bza'ah, which requires careful scanning for the new situation to create a plan that meets the real needs.

In the context of measurements, a group of forty architects and engineers in the area established a core for Engineering Syndicate in cooperation with the local councils. This union aims to organize architecture and construction work, to regulate construction work, under international standards.

The main goal of the union is to organize and develop engineering and architectural work, and to provide engineering, architectural, construction, and electrical plans, and studies, under international standards, specifications, and regulations, to reduce random buildings that pose a threat to public safety.

The union is an independent engineering professional assembly that regulates engineering work in the area by organizing engineering files for building permits. Moreover, offering consultations and inspecting buildings, to maintain public safety at the request of the local council, and to provide planning engineering studies that are consistent with the situation on the ground, and compatible with the urban plan.

The Syndicate presents proposals to amend construction and to activate the role of engineers in construction development and urban development. Furthermore, it works on organizing the affairs of engineers residing in Bza'ah based on available specializations, to encourage them to participate in the process of reconstruction. In this context, the union has provided a proposal for a new urban plan for the city of Al-Bab and surrounding cities including Bza'ah.

During the first months of the union's establishment, building codes were modified to adjust to the factual situation and the urban plan. In addition, it examined and inspected different private and public buildings, in coordination with the Demolition Committee, bypassing the challenge of the presence of mines in the area [126].

***Results**: Even though damage on the built environment level was medium and mainly in the housing section, this damage changed the urban shape of the town. New architectural elements and styles emerged, with the expansion of the urban plan with the flows of IDPs. In the early years following the conflict, random construction was common. However, it is being controlled recently and the majority of new construction projects are being guided by local authorities. Measurements are promising and working on tackling different aspects in the post-war context, with more success on some levels than the others. All in all, authorities with the help of NGOs are making big efforts for the present and the future of the area.*

4.2.2.2 Infrastructural Services

Systems' damage in Bza'ah was more difficult to measure than the built environment. The main obstacle is the lack of statistics related to the number of education and healthcare sector facilities and functions before the conflict. That is why the focus will be bigger on the measures taken by the authorities and communities to reconstruct the functions of the educational, health and administration sectors.

Among the procedures in post-war reconstruction, some decision-makers were interviewed and asked about future plans. The number of schools reached about 52 schools in 2020 including primary, preparatory, and secondary levels with around 23,000 students. Fourteen of them were built in the years between 2017 and 2020, and the rest were restored or reconstructed, figure 4.11 shows one of the reconstructed schools. Moreover, some civil society organizations in cooperation with the Local Council launched few campaigns to encourage both families and students to go back to schools such as "Education first". On the other hand, assigning the teaching staff was decided based on formal competition in different fields trying to assure competence and efficiency. The directorate focused as well on

strengthening the educational process by organizing periodic trips, sports events and activities for students and staff, as well as honouring and rewarding pioneer students in different stages [127]

In the same context, a new project was launched to build a prefabricated school with a capacity of around 1000 students, this school is shown in figure 4.12 [124]. The new curriculum was designed and implemented to adjust to the new context of the region. On the higher education level, relations were strengthened with different universities in the Turkish side offering the chance for the high school graduates to study in some of their universities such as Gaziantep and Harran universities.



Figure 4.11 Reconstruction of Al Shuhada'a elementary school in Bza'ah



Figure 4.12 Photos of the prefabricated school in cooperation between local council and NGOs

On the administration level, most of the administrative services will be gathered in the local Council under-construction building where all needed services will exist (municipality, health, education, …etc), it is expected to get into service on the first of July 2021 [128].

However, the health sector is considered to be the poorest among all since Bza'ah had only one health centre before the war and it was partially destroyed and later reconstructed. In 2020 the council started to construct a new healthcare unit and according to the head of the development projects, it has an area of 450 m^2 with different clinics and will be ready to function in July 2021. Another big project was launched which is the four-story national hospital of Bza'ah, with a land area of 8014 m^2, and a capacity of 84 beds. Figure 4.13 shows how will the building of the national hospital look like [129].



Figure 3.13 Virtual photos for National Hospital of Bza'ah

Other projects are taking place such as building mosques, Islamic institutes attached to the mosques and kindergartens. One of the recent mosques according to the Director of Endowments has a capacity of 1500 individuals under construction next to the new Shari'a Secondary school which in turn is under construction. This school was built by the local council in cooperation with the organization of “Sakarya and the result is a human” with an area of 900 m^2 and it is the only one in the region. Both facilities will start operating in the coming months. Some projects for fixing and paving the main roads in the city and between the city and the surrounding suburbs were achieved to serve 10,000 individuals in the area. Some of those projects such as Osama Ben Zaid Mosque and Shari'a secondary school are shown in figure 4.14 [124].



Figure 4.14 Upper Photos belong to Osama Ben Zaid Mosque construction works, while lower photos show Shari'a school construction process

According to the data collected by the surveys, most of the responses indicated that the damage of the services infrastructure was medium. Most of the responses indicated that some of the important facilities for the reconstruction process were not

considered, such as administration units for managing disasters and women rehabilitation centres.

In the same context, the need for other services was shown in the answers, such as centres for cultural facilities, and psychological care centres. Other responses showed that authorities worked on the integration of the IDPs with the original residents of the Bza'ah through awareness facilities where workshops and sessions take place. However, fewer respondents demanded administrative centres specialized in disaster management. Figure 4.15 shows more results regarding the preferable facilities in post-war reconstruction.

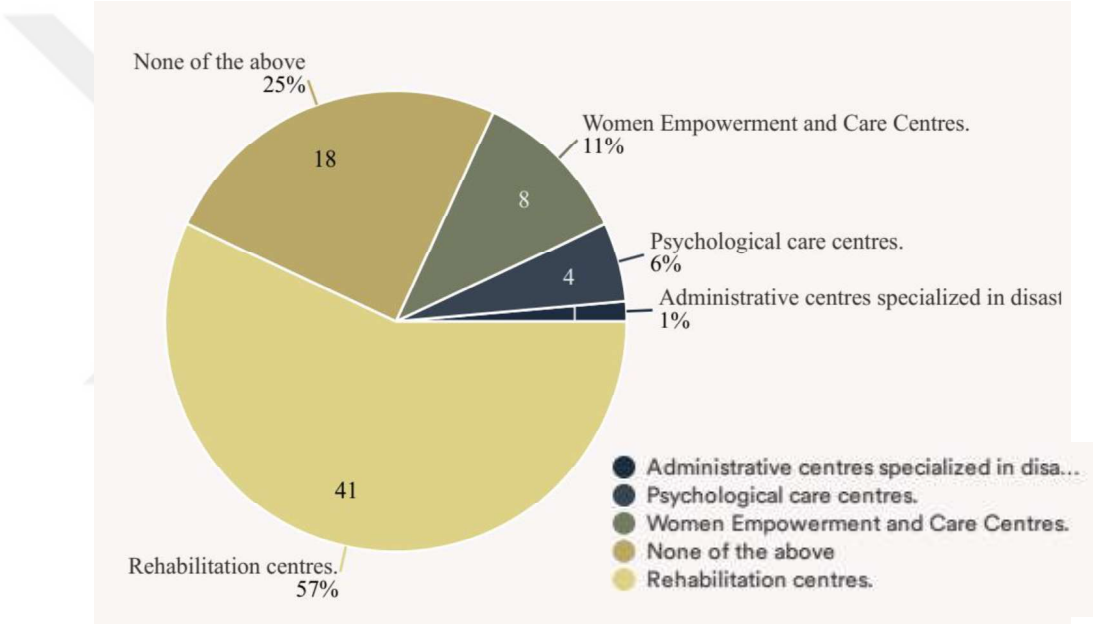


Figure 4.15 A chart showing responses related to residents' preferences for post-war facilities

Can we consider the damage in the area as an opportunity to reconstruct better facilities and systems? According to the residents, the majority believe that it is a great chance for a better future for many reasons. The old infrastructure was poor, inadequate, outdated, randomly constructed, and out of function in many fields. Moreover, Bza'ah among other towns in the area was suffering from deliberate government neglection and no real attempts could have been made towards development. Thus, the damage provided a great opportunity for reconstruction in better conditions based on need analysis and according to the urban and architectural

codes and rules. On the other hand, very few people thought that this will cost a lot and there is no hope for a healthy reconstruction.

Results: *damage to infrastructural services could not be assessed due to lack of pre-war data. On the other hand, actions were excessive and rapid regarding reconstructing building infrastructure. Attention is being paid to the dynamic systems such as education, health, and administration. Even though they are still poor and inadequate, but they are promising. There is a general consensus that destruction in facilities and systems is an opportunity to build back better and achieve stability and resilience.*

4.2.2.3 Community: Order and Participation

As mentioned earlier in the same chapter, the social structure has some dominant features such as the power given to the family that plays a huge role in controlling the relationships among the members in the village and families. The father has the supreme power to follow up with his sons and this sequence gave a clear idea about the order of society in rural areas.

However, the war affected the social texture due to many reasons such as forced displacement, and the absence of the men in the family whether killed or disappeared. 91% of the responses agreed on the change of social fabric in the area, and that manifested itself in many ways. Family break-ups, the absence of family influence on individuals which caused moral corruption, migration of the youth and the high rates of unemployment were all among the new features of the society. In the same context, the waves of IDPs that formed around a third of the inhabitants has also its ramifications. The host community accepted and welcomed the IDPs according to 92.65% of the responses, and they look at the situation positively and think that this wave is good for the area by integrating both communities through different activities. On the other hand, fewer respondents thought that they were rejected and caused community discomfort. Figure 4.16 shows the host community attitude towards the IDPs.

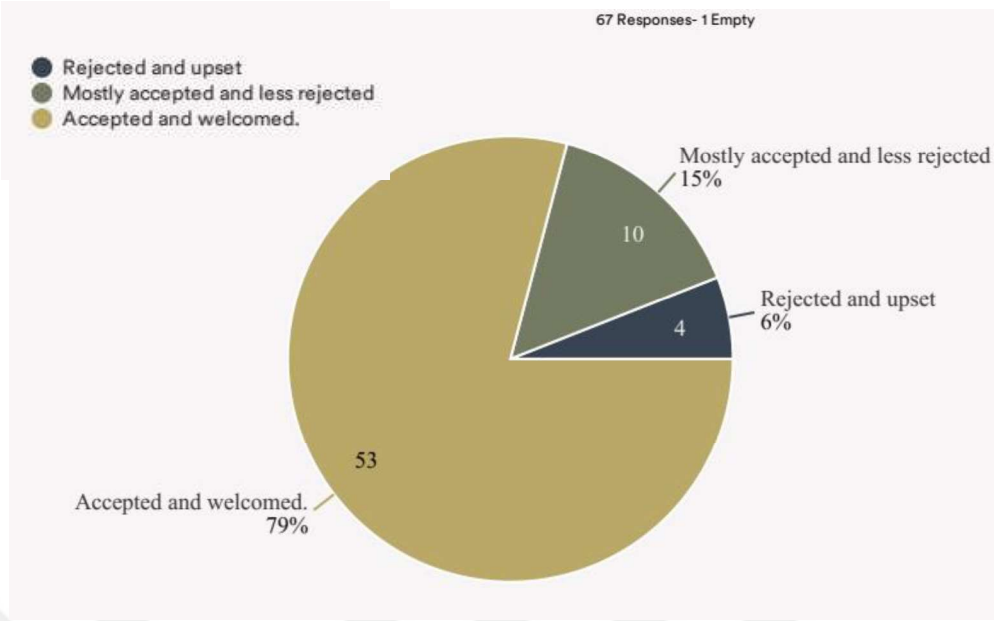


Figure 3.16 Indicators of host community attitude towards IDPs

Community participation plays a significant role in the process of reconstruction in post-war times. According to the survey, participation was represented in helping in building construction with a rate of 69.25%, while performing social cohesion activities and voluntary teaching came next in the list with a rate of 7.59% each. Those results are explained more in figure 4.17. When asked what they recommend for encouraging community participation, the answers were mostly revolving around engaging national and international organizations in this process. In their opinion, organizations work better on bringing both communities together and boost better community involvement in the reconstruction process. This could be through different activities such as workshops, training, empowering women, and teaching courses related to reconstruction, which make the participation more organized and solid.

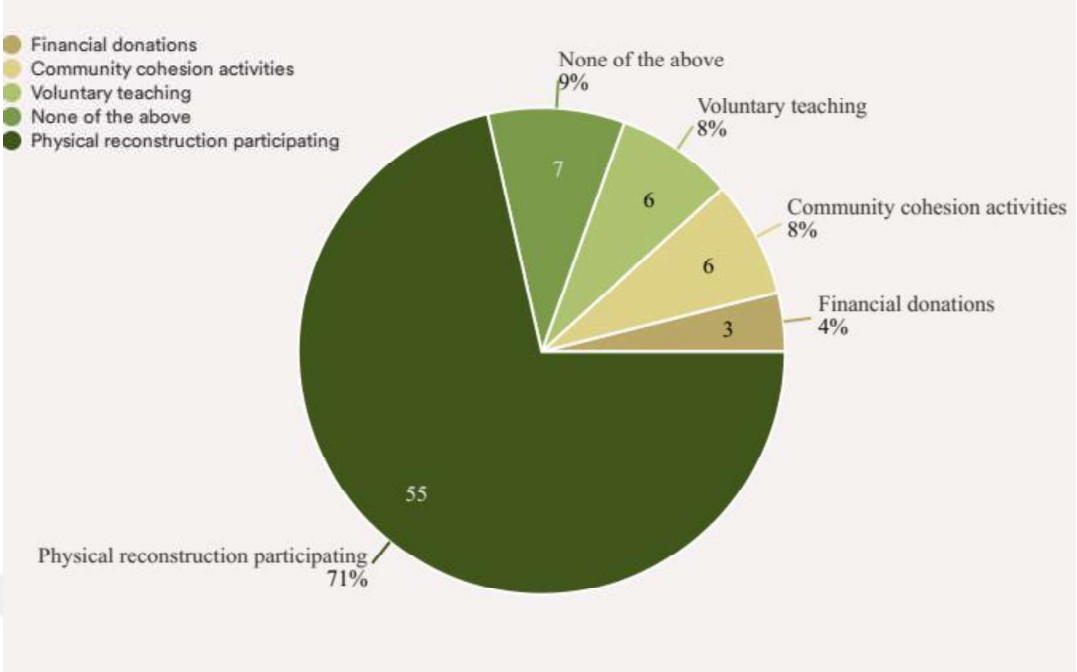


Figure 3.17 Community involvement in the reconstruction process in Bza'ah

Another important part of community participation is women empowerment and their role in the next phases. In 2018, the United Nations and local councils have launched a project in rural areas on reinforcing women in social participation, and the unit of supporting and empowering women is a part of this project. It is considered the first project in this context in Aleppo countryside targeting more than 1500 women, and the unit covers twelve rural civil societies, six of them were targeted in the first phase and Bza'ah is one of them.

The project seeks upon integrating effective women in both political and social contexts, through different training programmes such as "conflict management programme", "Empowerment Programme" and "Participation Programme". The process is depending on elections to choose suitable and qualified women to be in charge. It is worth mentioning that the unit started to function in Bza'ah in December 2020.

Empowering women is considered a very sensitive topic in rural Aleppo, and it is expected to deal with several challenges and obstacles. However, the unit directed its work to implement its activities within the framework of community customs and

traditions, and to important projects in the interest of society, which prompted the "concerned" categories to accept the idea of women's integration in all areas of life, including administrative and leadership positions [130].

Supporting the same idea, Falah, a trainer in the same unit demonstrated how hard it was for the society to accept female presence among decision-makers committees. She declared contacting more than one council in the region of Al-Bab for the sake of women participation in the local council by establishing an office for women within the council. To her, it was an arduous journey to convince the council that they should have women within it. Until now no female is representing the council of Bza'ah [131].

Results: *community participation is still weak and restricted to few physical works. Individuals' awareness is increasing but needs a thorough sponsorship, by local and external parties. Vulnerable categories started to get more attention from the community itself and development programmes. Cultural and raising awareness activities are being promoted by some organizations trying to impose new changes among rural communities. This awareness forms one of the key pillars in achieving post-war resilience.*

4.2.2.4 Governance: Disaster Management Measures

When talking about governance in the area, we mean local authorities in cooperation with NGOs and Turkey, and this is due to the complicated political situation in the area. This means that capacity for rehabilitation is still limited when compared to other scenarios in different areas

How effective was the role of authorities during the reconstruction process? Most of the responses indicated that the local council and its affiliations tried to employ the qualifications and the abilities of the IDPs in the process of reconstruction (engineers, teachers, doctors, and labour force). Yet, working on raising the awareness of disaster preparedness and mitigation was poor. However, only 5.48% of the responses agreed that the authorities made efforts to spread awareness about disasters, and 6.46% said that the people in charge worked on rehabilitating the staff

working in service facilities (administrative, health, educational) to deal with disasters and crises. More results are explicit in figure 4.18, with the responses to the question of authorities' role in rehabilitation.

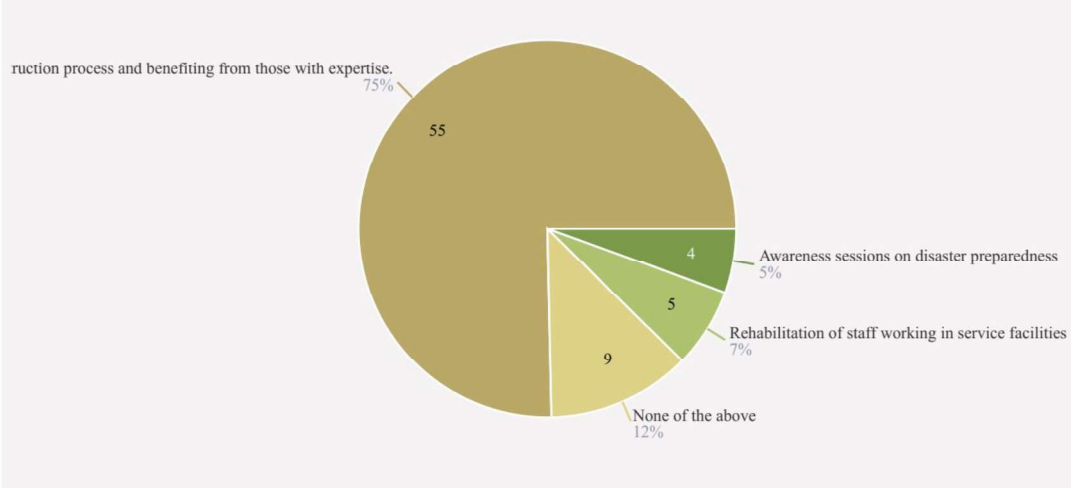


Figure 4.18 A chart showing responses to the role of authorities' role in the rehabilitation

Due to these results, some interviewees suggested changing people in charge and elect a new board of local authorities to be able to meet the needs of the coming stages of reconstruction. This includes more comprehensive and wider procedures to be taken into authorities' consideration.

Aside from the local council, other stakeholders are taking action in the area. Local civil society organizations in cooperation with the local authorities are making serious efforts to raise community awareness for disasters and crises. Moreover, big projects are being funded and supported by international organizations in a wider vision.

Results: *Efforts made on the built environment scale are observed and acknowledged, especially being done in a relatively short time. More actions must be taken on scales of community awareness, empowering vulnerable categories, rehabilitating dynamic systems and the inclusion of resilience in the wider political agenda.* Case Study Discussion and Conceptual Resilience Framework

4.2.3 Case Study Discussion and Conceptual Resilience Framework

4.2.3.1 Results and Discussion

- Bza'ah and the surrounding areas in the same district have suffered from governmental neglect for decades. Hence, with appropriate sponsorship, governance and policies, war could have provided a great opportunity for those areas to become more developed and resilient than they could have ever been.

- Public security is still an issue that needs time, local and international efforts to be solved. Even though it is one of the anticipated war ramifications in an area newly heading to stability, resilience is a process that needs a stable ground to be sustainable and efficient.

- Local authorities in cooperation with local and international NGOs, and Turkey's support, are making great efforts in the process of reconstruction. It can be stated that this progress seemed to be more focused on the built environment rather than individuals and systems. However, more attention is being paid recently to the importance of community, marginalized categories, and youth in post-war rehabilitation, which in turn will boost the process of resilience.

- The post-war reconstruction process in Bza'ah is working on building systems facilities in steady progress. Yet, attention to the systems themselves is still poor. For instance, new schools are being built, but raising community awareness to education importance also matters and needs a lot of work, and this applies to the rest of the systems.

- Community participation is still confined to simple construction works and in limited volunteering activities. This is due to many reasons: 1} lack of awareness of individuals' role in reconstruction on levels other than built environment 2} social order and customs that restrict women' participation in political life and decision making 3} shortage of trained and qualified members who can lead rehabilitation process on the community level.

- Authorities are working gradually on integrating IDPs in the reconstruction process, especially qualified engineers, teachers, and health sector workers. However, taking full advantage of their presence in the area of study needs the host community's majority to be accepting and ready for coexistence, alongside a holistic policy response for integration.

- Despite all efforts made by local authorities and their partners in sponsoring reconstruction, there is still a gap between governance and community members. That was concluded from occasional contradictions in answers between interviews with people in charge and surveys with residents regarding reformation and actions taken by authorities.

- Finally, concluded results do not necessarily apply to the rest of the post-war rural areas in Syria, due to differences in political, cultural, social, and even geographical contexts.

4.2.3.2 Recommendations for Resilience Conceptual Framework for Bza'ah

- Inclusive need analysis and assessment must be conducted to assure that the planned and designed framework is compatible with the requirements of the timeframe and spatial dimension.

- It is recommended that local authorities cooperate with people in charge to control security situations by imposing a set of regulations and restraints to reduce acts of violence, nepotism, and corruption. Moreover, Early warning networks and immediate intervention are recommended to be formed. These networks function in the case of potential or existing conflict that could break out in the area. This, in turn, will help provide a solid base for the rest of the resilience procedures.

- Local authorities and organizations should work more steadily on capacity building, and plan for extensive training programmes and activities targeting vulnerable categories. Training should include several scopes such as

empowering women, disasters awareness and preparedness, small- projects management, and cultural activities.

- In the context of establishing a resilient community, it is recommended to launch different campaigns encouraging education and promoting gender equality in the context of education. Moreover, providing rehabilitation centres for traumatized categories and promote for psychological healthcare as a part of post-war resilience. This can be achieved by building health awareness through extensive sessions and public symposiums.

- Community participation is an essential component of the resilience process; therefore, they should be greatly involved in reconstruction. The local government should adopt bottom-up strategies and approaches and form civil networks. Moreover, community available expertise and qualifications must be employed in the process, which gives individuals a sense of belonging, this, in turn, will make them feel more responsible for facilities and systems functions.

- Civil society organizations in cooperation with local authorities should organize series of cultural activities to fully integrate IDPs in the host society. Moreover, offering enough job opportunities that can accommodate members of both communities in a way that preserve justice and equality among individuals and relieves congestion if any.

- Trust-building should be focused on in this phase, and this requires honest decisions, statements, and transparent promises from authorities. On the other hand, communities must offer cooperation and commitment to the rules and regulations. The author created figure 4.19 to demonstrate the above-explained results and recommendations.

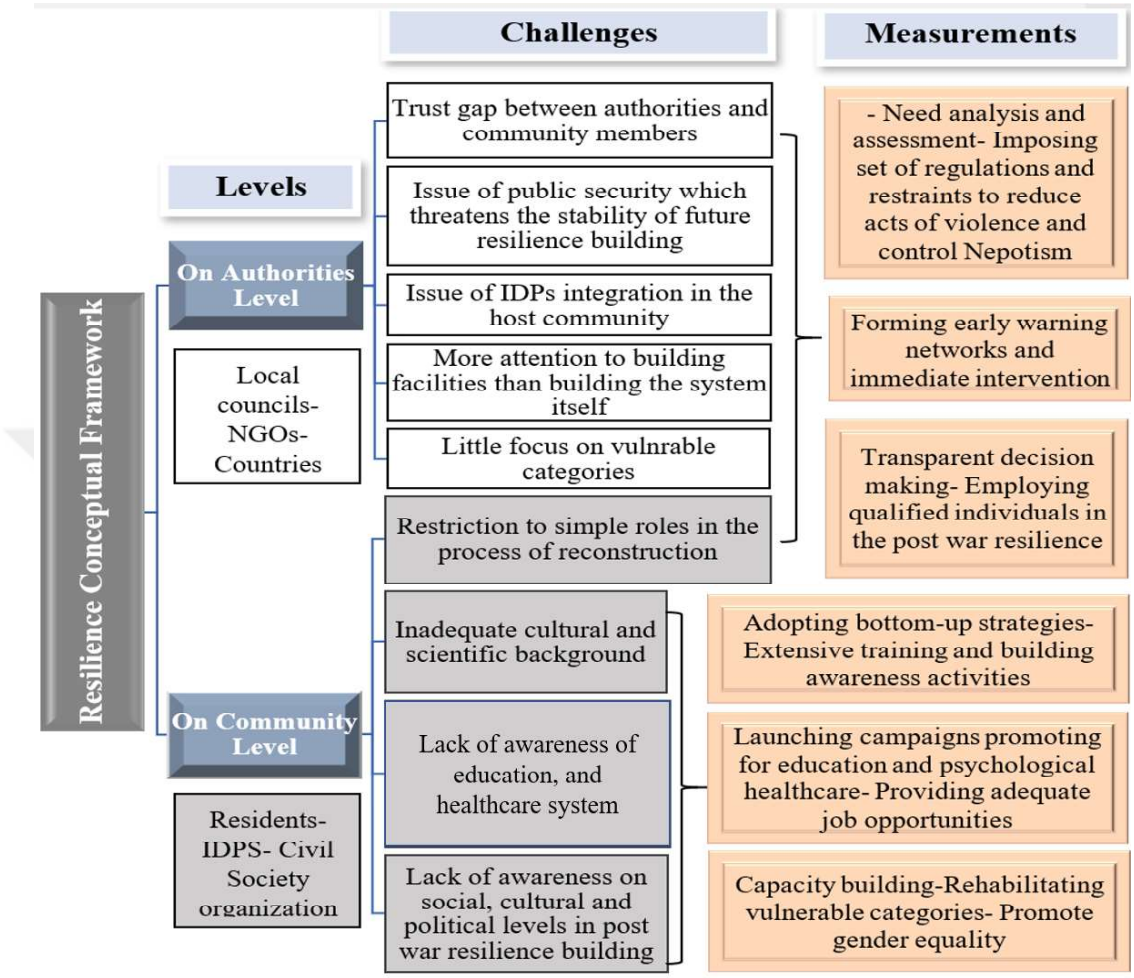


Figure 3.19 Demonstration of challenges facing resilience in the case study and recommendations to overcome those obstacles

CHAPTER 5

RESULTS

Rural development goals are wide and integrated such as successful and just investment of agricultural land and exploitation of natural resources, developing rural livelihood and communities in the face of ignorance and illiteracy by raising awareness to enhance life quality, overcoming poverty, economic and unemployment issues, and the improvement of built infrastructure and services. The thesis aims to think of planning and securing resilience as a strategy for achieving development in the Syrian countryside, based on UN goals of 2030 but in the rural context. This section summarizes the results and conclusions of the study in general, investigating the expected outcomes of resilience implementation as a means of achieving development. Above mentioned subsections will be then presented in the form of a conceptual framework to help forming a basis for establishing post-disaster rural resilience as a suggested strategy for rural development.

5.1 Conclusions

- Despite its allure and functional relevance, rural resilience is a complicated concept to be strictly defined and applied. Even though the research body related to urban resilience is increasing, it can be included from the literature that studies related to post-war resilience in rural contexts are still few and inadequate.

- This research shed light on theory and practice contexts of rural resilience in post-war eras, highlighting its definition, dimensions, main features, obstacles and hopes. Hence, it aims at proposing a resilience conceptual framework to help governmental institutions to develop rural areas in the face of disruptive events.

- Post-disaster rural resilience builds upon the capacity of a region to deal with disasters aftermath, decrease disturbances effects, adhere to changes, and quickly shifting dynamic systems which can be limiting actual or future adaptive capacity. Therefore, studying rural resilience bearing in mind different types of

disasters and shocks in a given space is of paramount importance to make communities more resilient in the face of hazardous events.

- Rural resilience is analysed on the basis of five dimensions: physical, social, institutional, natural, and economic. Those are supported by several basic features: diversity, productivity, strength, interdependency, flexibility, resources supported, independence, creativity, inclusion, integration, and finally measurable.

- To boost community resilience, it is important to merge practices from different sources, as in integrating several forms of knowledge with the diversity of approaches where institutions and scientists can cooperate to produce consistent, solid and applicable scientific knowledge.

- It can be observed that official conceptual frameworks that regulate and supervise the process of resilience in post-disaster rural areas are absent. With all the disturbances after major shocks, the need for an obvious and robust framework becomes urgent to avoid chaos in decision making and actions taken.

- Despite having several concepts, features and dimensions used in evaluating and assessing rural resilience, it can be observed that there is a lack in the tools of evaluation, and that creates a huge challenge for the process. However, this could be a great opportunity to produce future studies in the field of rural resilience. Therefore, it is important to define the most efficient acts to enhance resilience in different systems, how they must be shaped and designed, applied, and monitored.

- Local, national, and international NGOs' participation in the process of resilience in rural Syria is promising and effective in many areas and contexts. However, it is still restricted to several factors related to the unstable political, economic, and de facto situation in the area.

- The political and economic situation of Syrian rural areas is still unstable and suffering in many parts from violent actions until the time of conducting this

research. This is considered one of the biggest challenges in the face of achieving resilience. Without a secure foundation, sustainable and efficient resilience plans cannot be applied.

- Both Dynamic systems and infrastructure are severely damaged in the Syrian countryside. Some areas suffered more than others due to different cultural, economic, and political contexts. However, being governed by different authorities among the rural areas in Syria, raise several challenges in the face of applying a holistic framework for resilience.

- Community members are key agents in the process of resilience. Establishing social networks in each rural region, and between different regions in the Syrian countryside will help them shape any area's patterns including economic, environmental, social, and progressively governance network dynamics.

- Technology usage promotion, providing training schemes, and individuals' engaging planning measurements, can boost community participation in enhancing resilience at multiple scales and paces.

- Rural development depends on a set of foundations and methods to achieve its goals, the most prominent of which are the following: 1} fostering agrarian clusters by using modern methods and well-designed plans of resources use to increase agriculture production and GDP, which allows rural communities to have a higher income, 2} development of education, health, and administration sectors by raising awareness to the importance of education which leads to community-level enhancement, 3} Ensuring just and fair distribution of the total national income through appropriate monitoring and supervision tools, is an essential element of achieving development, 4} it is crucial in post-war development to involve rural communities in the political life and provide the right drivers and training to ensure their effective participation decision making and help them adopt appropriate bottom-up development strategies.

- Looking at the above-mentioned methods of achieving development, it can be concluded that there is a compatibility between resilience goals and strategies,

and rural developmental plans. Goals that can be accomplished through resilience, can at the same time pave the way for development by creating a foster environment of healthy dynamic systems, infrastructure, agro-cluster and well-trained and satisfied community that can lead the development process.

- Measuring to what extent can the rural development process be successful, needs a careful adaptation of the right measuring and assessing tools based on a set of criteria on many levels. However, in the case of rural Syrian instability, this monitoring and evaluation process should be carried out under a national and international umbrella.

5.2 Recommendations

Based on analysing both the theoretical research body and the pilot zone in rural Syria, a group of recommendations were provided to form a conceptual framework for rural resilience. It is worth mentioning, that those suggestions were categorized in upper and lower scales subcategories. Upper scale touches upon measurements and actions taken by governments and national actors. Meanwhile, the lower scale was more concerned with actions taken by communities, local authorities, and local civil society organizations.

5.2.1 On Upper Scale

- Keeping rural resilience on political agendas for as long as possible, meanwhile, working on interpreting this interest into a significant policy response space on both technical and governmental scales.

- Designing flexible conceptual frameworks for post-disaster rural Syria, with specific features, such as simplicity and being sloid enough to be implemented by non-specialists and integrated with self-assessment acts. Furthermore, regulatory frameworks help to assign responsibilities to specific parties, which make it clear who will be held accountable in the case of failure or carelessness.

- Establishing a planned and management structure to assure implementing the actions boosting the resilience of Syrian rural systems. This will help producing a

clear functional definition and sloid rural resilience baseline, to reduce levels of inaccuracy usually connected with the resilience concept.

- Developing short and mid-term measurable and replicable resilience evaluation criteria, based on five pillars; agriculture, built environment, social, economic, and institutional. Moreover, developing assessment tools of a flexible nature that may fit into different rural contexts. Both groups of tools must help create a group of enhancements to systems' conditions and to determine obstacles and potentials resulting from mitigation and prevention actions. On the other hand, creating long-term measurements and assessment criteria to monitor the rural development process is compatible with the initially set goals. Strategic and sustainable frameworks must be planned and updated to suit the area's constantly changing circumstances.

- Constant re-examination of planning approaches to rural resilience and development in relevance to disturbances and blockages in systems that might happen. Therefore, analysing successful stories of post-disasters implementation might provide initial guidelines for the future, with adjustment to each context's characteristics.

- Concentrating on improving agro-cluster in the Syrian countryside, by adopting several strategies under national funding and local umbrella. This will play a significant role in the economic prosperity of Syria, which in turn positively affect resilience building.

- Collaboration with national and international NGOs, to help achieving resilience and overcome financial issues in the region, which can be considered one of the most challenging obstacles that might hinder resilience progress. However, this collaboration should be controlled and monitored with specific criteria. This, in turn, could help provide adequate job opportunities which could reduce youth migration, the key pillar of any reconstruction process.

- This research may help to form a ground for extended future research in fields related to resilience. It is recommended that future work examines opportunities

for policies development, by laying foundations for setting frameworks for post-disaster rural resilience to help governmental institutions mitigate and reduce the impacts from natural hazards or manmade disasters.

5.2.2 On Lower Scale

- Building community networks capacity, which will create a society that can step in and solve problems, can be achieved by forming what so-called (Early Warning Networks) with skilled and well-trained members. These groups collaborate with local authorities, local and national NGOs- work on solving local conflicts and intervene to prevent potential conflicts breakout.

- Educating rural societies by offering them adequate training in cultural, social, and political contexts. Moreover, empowering vulnerable categories through inclusive and excessive training programmes under a national umbrella. Moreover, wide-ranged campaigns to raise awareness of post-disaster resilience must be launched with the help of visual media.

- Engaging community members in the process of resilience, by planning and designing measurements based on bottom-up strategies. This will guarantee individuals' participation in decision making and help to develop the right policies.

- Rebooting systems of education, health, administration on a robust and solid ground of governmental regulations, based on an inclusive needs analysis and assessment via surveys, reports and research. Furthermore, increasing community attention to the importance of these systems in the process of resilience.

- Applying measurements and actions must be compatible with the specific features of each rural area. Ethnicity, religion, economy, political governing parties and social structure must be taken into consideration when both planning and implementing resilience plans.

- Imposing strict urban and architecture codes and assuring they are being applied. This will play a significant role in post-disasters whether natural hazards or

manmade, in regulating the process of reconstruction and reduce the percentage of random construction and ruining urban plans of the area.

- Finally, the large diversity of features among Syrian rural areas, makes it difficult to generalize the results of one case study all over the region. Hence, it is recommended as future work to focus on other pilot zones, representing different sectors in the region on a geographical, political, and ethnic basis. Resilience frameworks then must be designed to adjust to each area and its specifications. The author created figure 5.1 to represent a suggested conceptual framework built upon this research.

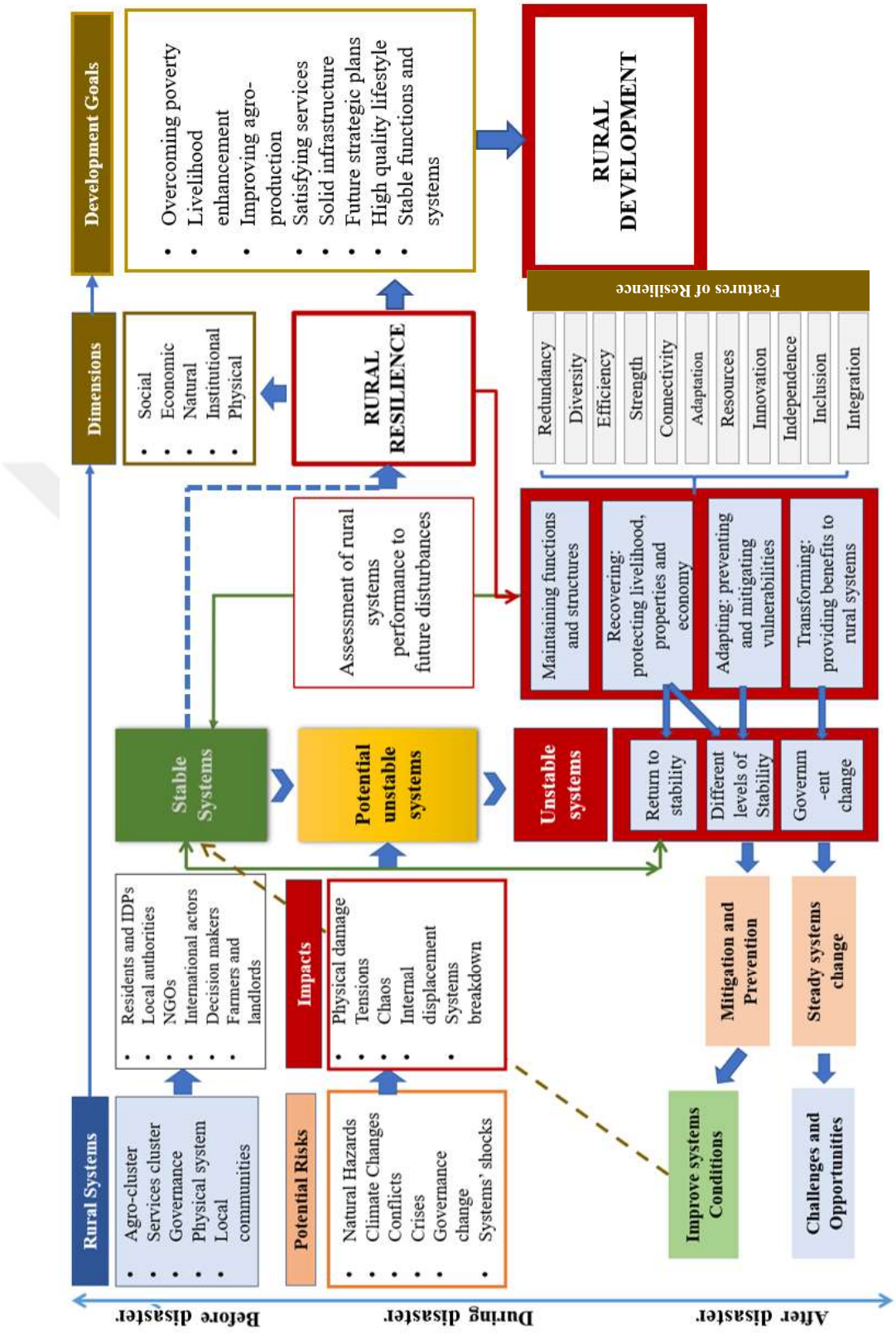


Figure 5.1 A conceptual framework for achieving resilience in post-war rural Syria

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[126] W. Osman, 'Head of the Syndicate of Al-Bab district', May 10, 2021.

[127] K. Akeel, 'Director of Education Bza'ah', May 15, 2021.

[128] A. Alammoura, 'Head of Municipality Services of Bza'ah,' May 18, 2021.

[129] T. Ali, 'Head of Health Directorate of Bza'ah', Apr. 25, 2021.

[130] N. Hreitani, 'Secretary of Supporting and Empowering Women Unit', Apr. 30, 2021.

[131] F. Asmar, 'Trainer in Supporting and Empowering Women Unit', Apr. 30, 2021.

APPENDICES

Appendix A: Questions of the Conducted Survey.

Appendix B: Respondents' Statistics

Appendix C: Survey Results on Urban and Architectural Level

Appendix D: Survey Results on Community and Governance Level

Appendix A - Questions of The Conducted Survey

On Urban and Architectural Level:

1. Has the destruction of war changed the urban landscape of Bza'ah?

2. Did new urban or architectural elements that did not previously exist appear? (Squares, tall buildings, etc.). If the answer to the previous question is yes, mention some of these new architectural models.

3. Did the waves of internal displacement to and from the region have effects on the reconstruction and urbanization movement in the post-war era?

- Density of construction
- Random construction
- The emergence of new facilities.
- Other than that.

4. How was the destruction of the rubble (construction material leftover) handled? All or some of the following answers can be chosen:

- To be transferred to neighbouring lands.
- To be used in the reconstruction of new buildings.
- To be recycled and used for other purposes.
- To be sold.

5. How is the process of urban and architectural reconstruction taking place in the region?

- randomly.
- Under the supervision of the local authorities.
- Most of them are random and some are supervised by the authorities.
- Most are under the supervision of the authorities, and some are random.

6. How do you estimate the percentage of the damage in the infrastructure of service facilities (health centres, schools, service buildings)?

- Significant damage (greater than 50%)
- Medium damage (between 30% to 50%)
- Minor damage (less than 30%)

7. Did the reconstruction movement include any of the following types of facilities? All or some of the following answers can be chosen:

- Rehabilitation centres.
- Women Empowerment and Care Centres.
- Psychological care centres.

- Administrative centres specialized in disaster management.
- None of the above.

8. If the answer to the previous question is none of the above, then what in your opinion are the types of facilities needed after the war that must accompany the reconstruction process in the region?

On Community and Governance Level:

9. Has the war affected the composition of rural society and its societal fabric?

10. If the answer to the previous question is "Yes", mention two impacts of the war on the society fabric.

11. How were the displaced people treated by local community?

- Accepted and welcomed.
- Rejected and upset.
- Mostly accepted and less rejected.
- Mostly rejected and less accepted.

12. Did you think the demographic change (the presence of the displaced) in the region had a negative or positive impact?

13. Did the local and civil society contribute to the planning process for the reconstruction phase with any of the following contributions? All or some of the following answers can be chosen:

- Physical reconstruction participating
- Financial donations
- Community cohesion activities
- Voluntary teaching
- None of the above

14. If the answer to the previous question is none of the above, what would you suggest as a contribution to the local community in the reconstruction process?

15. Have the local authorities played an effective role in the architectural and urban reconstruction process?

16. Have local authorities played an effective role in the process of community reconstruction on the following levels? All or some of the following answers can be chosen:

- Awareness sessions on disaster preparedness
- Rehabilitation of staff working in service facilities (administrative, health, educational) to deal with disasters and crises.
- Integration of internally displaced persons in the reconstruction process and benefiting from those with expertise.

Appendix B- Respondents' Statistics

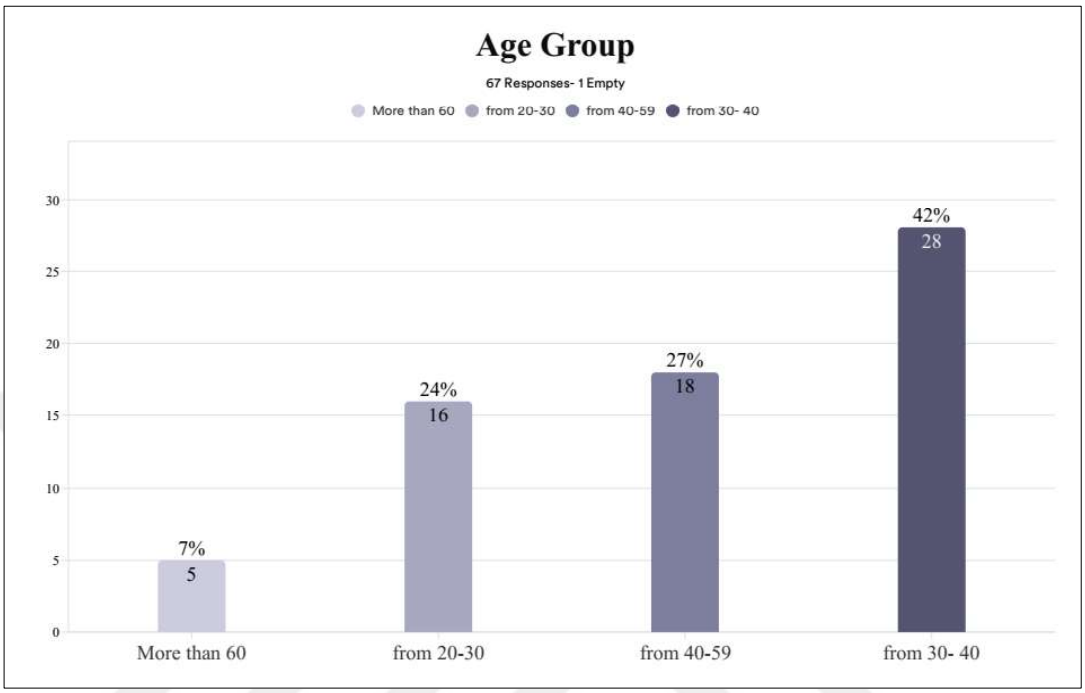


Figure B-1 Respondants' age group

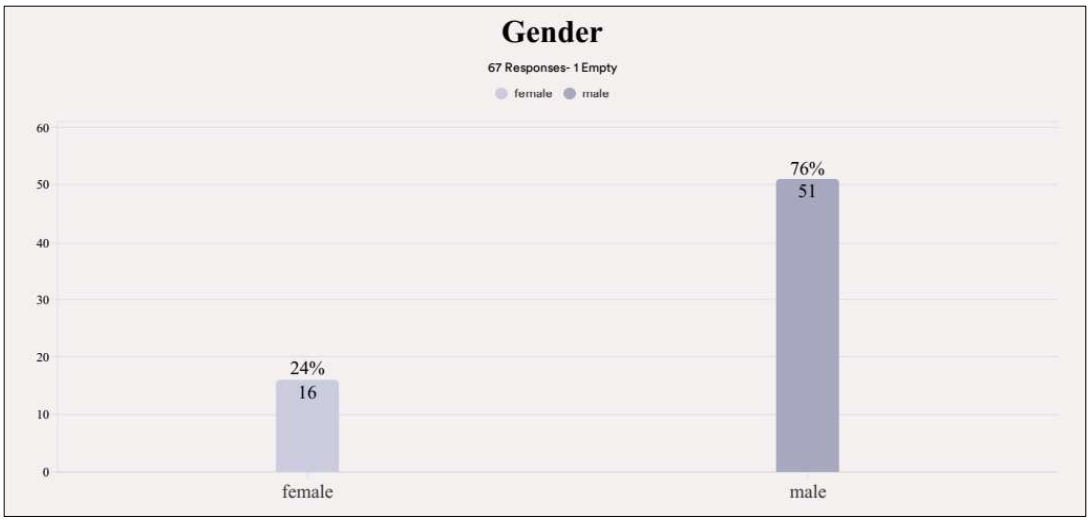


Figure B.2 Respondants' gender

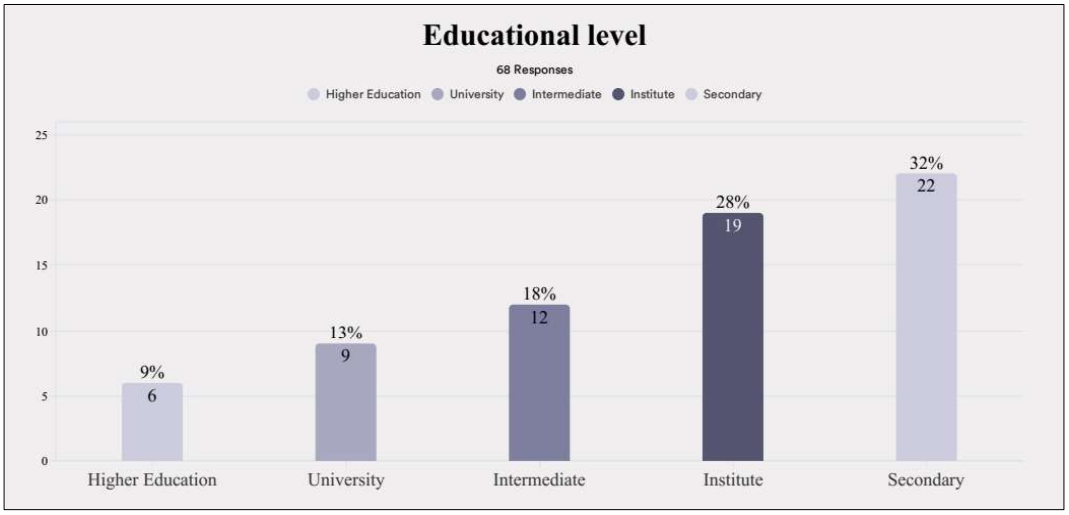


Figure B.3 Respondants' educational level



Figure B.4 Respondants' origins

How long have you been residing in the city of Bza'ah?

67 Responses- 1 Empty

Data	Responses
Since birth	44
2 years	6
3 years	4
4 years	4
1 year and a half	3
2 years and a half	1
35 years	1
20 years	1
12 years	1
32 years	1
4 months	1

Figure B.5 Respondants' length of stay in the case study area

Appendix C- Survey Results on Urban and Architectural Level

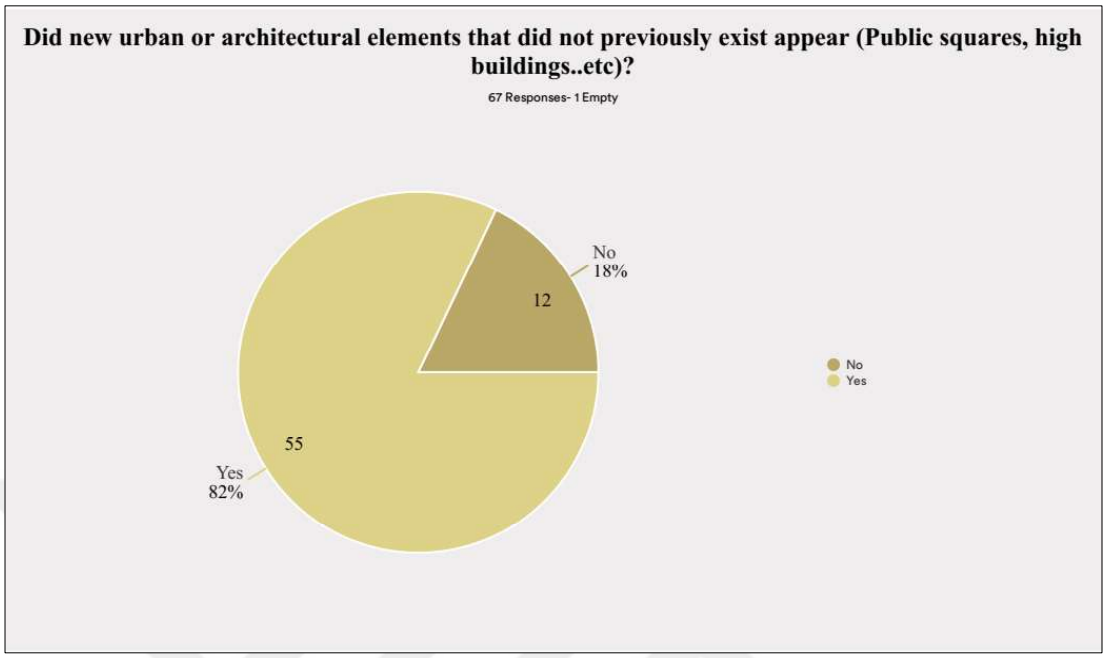


Figure C.1 The effects of the damage on the architectural features

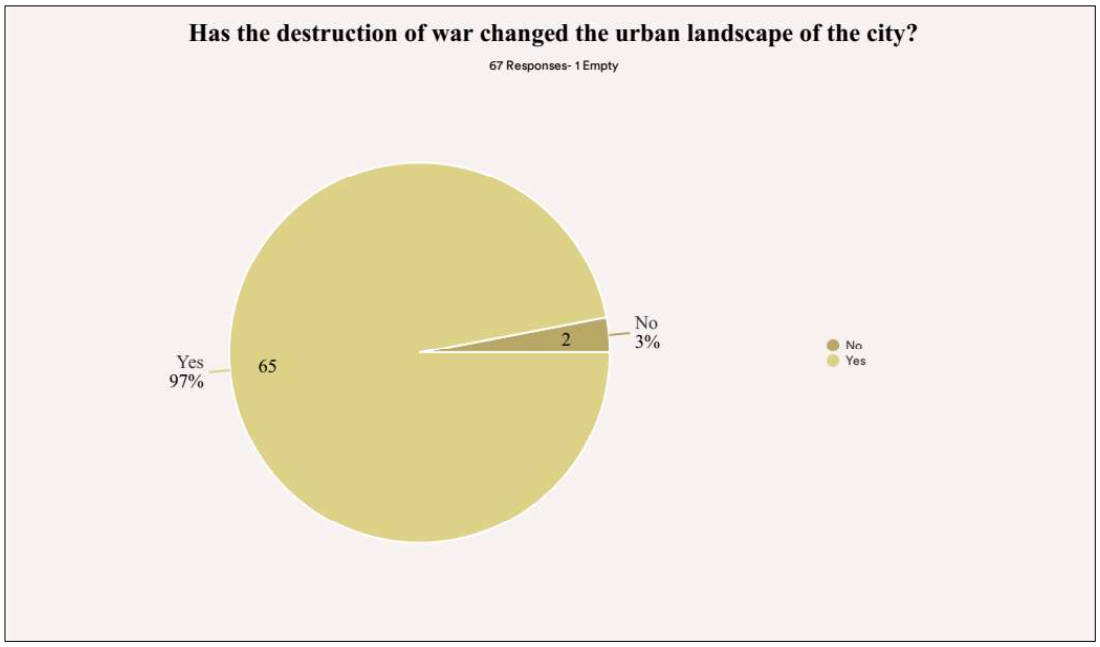


Figure C.2 The effects of the damage on the urban features

If the answer to the previous question is yes, mention some of these new architectural models.

52 Responses- 12 Empty

Data	Responses
Local council building, residential compounds for IDPs, Sharia'a schoo, mosques and a playground	20
High buildings	9
Local council building, residential compounds for IDPs, Sharia'a school and a playground	5
Residetial compounds and mosques	4
Residetial compounds	3
High buildings, mosques and residential compounds	3
Residetial compounds and high administration buildings	3
High buildings, mosques, residential compounds and playground	1
Residential compounds and playground	1
Residetial compounds, high administration buildings and Sharia'a school	1
Mosques and schools	1
Playground and a grinding facility	1

Figure C.3 Examples of the new architectural elements

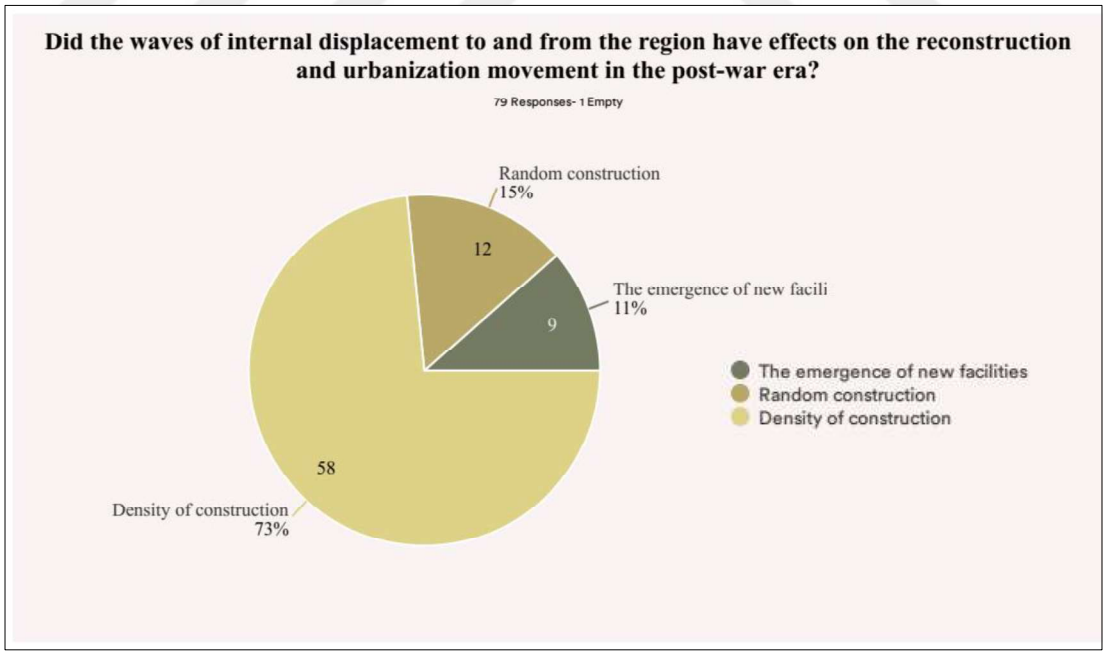


Figure C.4 The effects of IDPs on the reconstruction movement

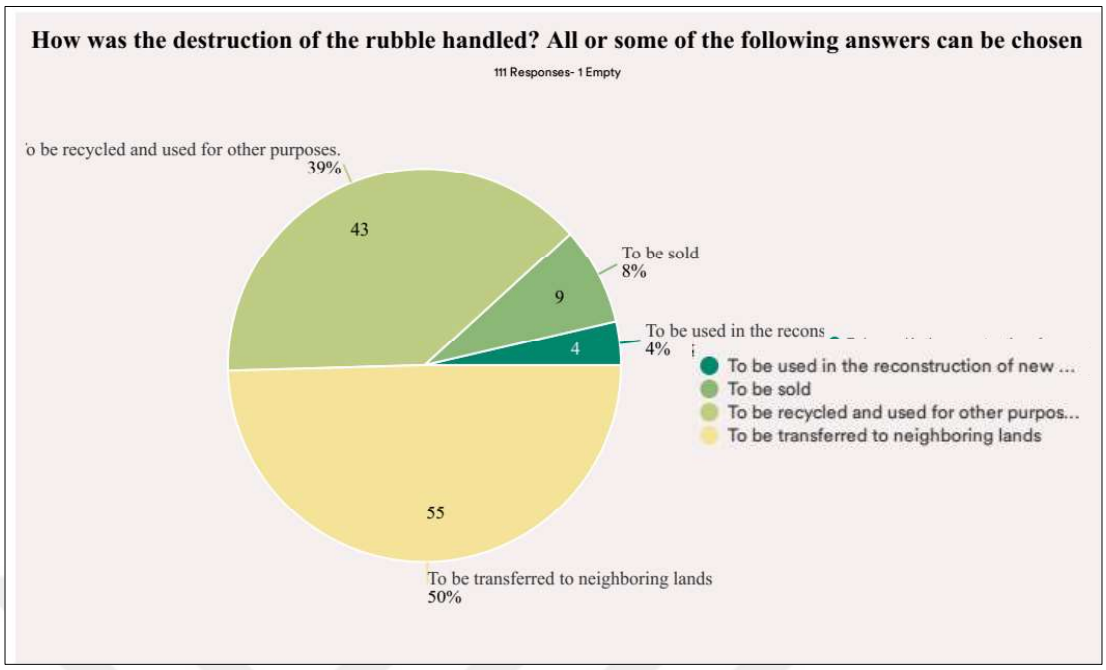


Figure C.5 The way that the rubble was dealt with

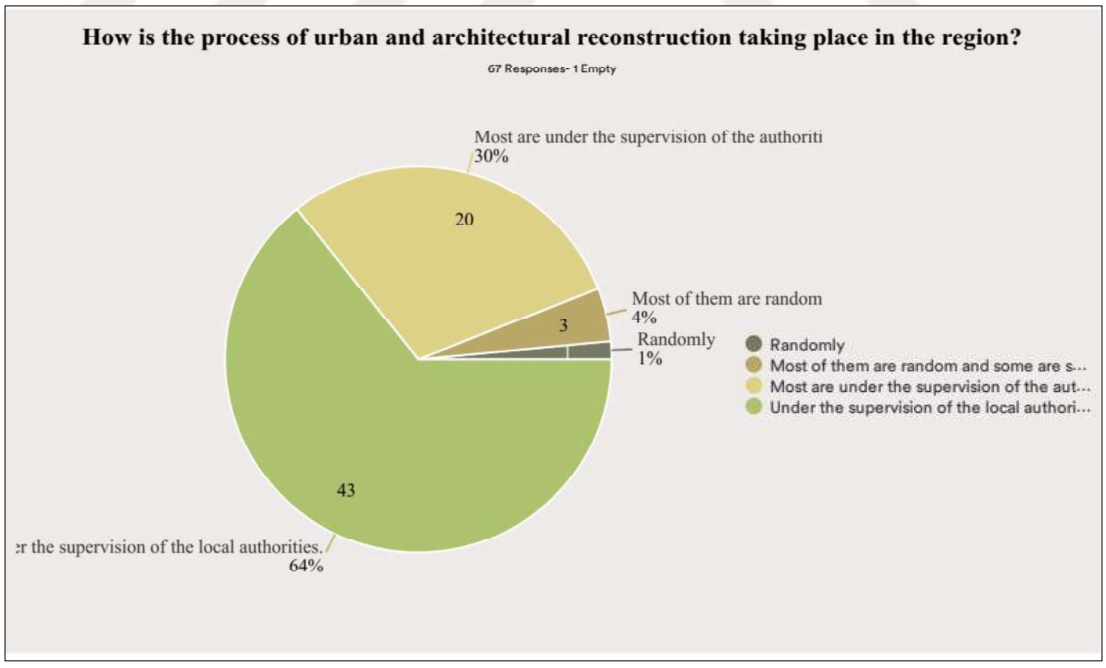


Figure C.6 The way that the reconstruction process was handled

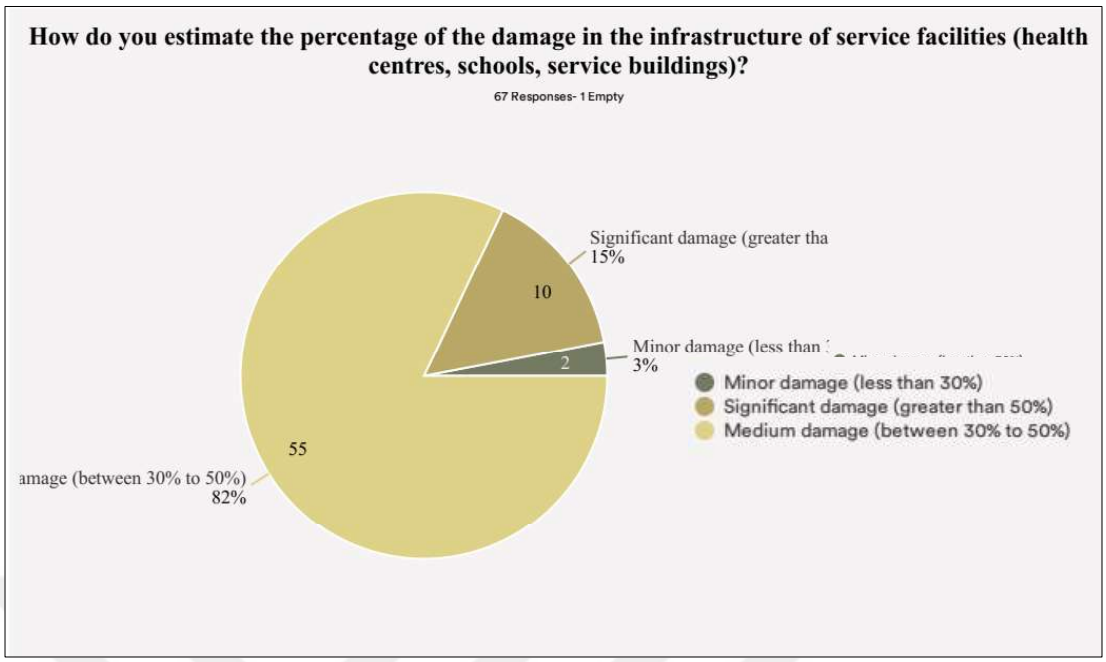


Figure C.7 The percentage of the damage in the area

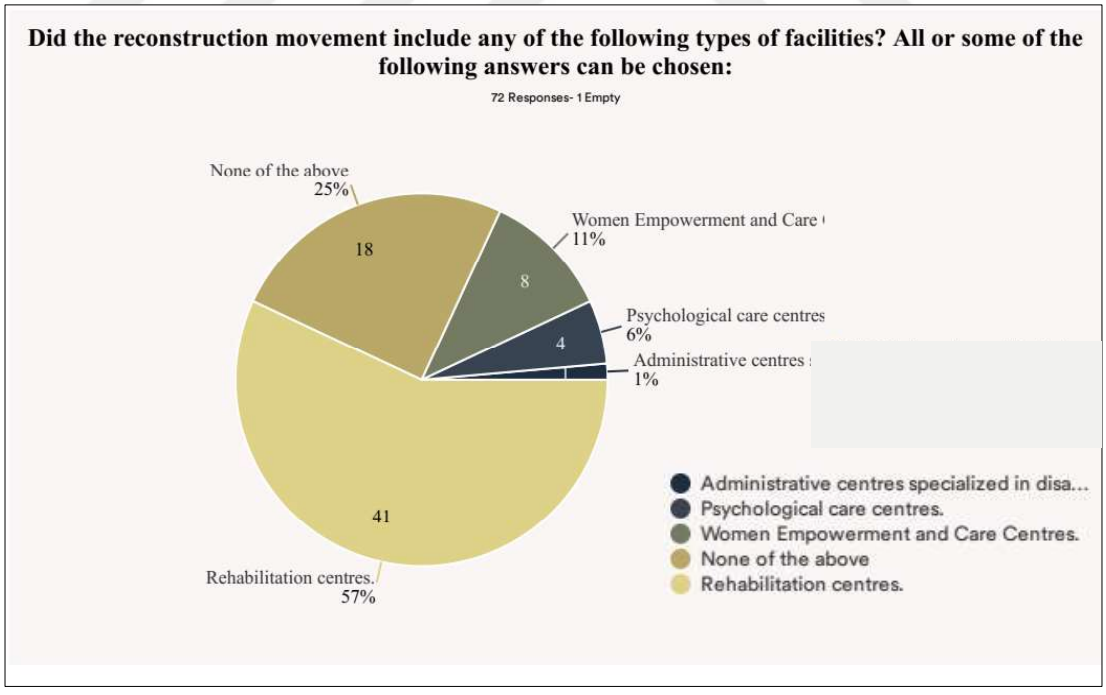


Figure C.8 The types of facilities in the post-reconstruction phase

If the answer to the previous question is none of the above, then what in your opinion are the types of facilities needed after the war that must accompany the reconstruction process in the region?

20 Responses- 48 Empty

Data	Responses
Psychological centres, and women empowerment facilities	4
Women empowerment facilities	2
New infrastructure	2
Rehabilitation centres	2
Rehabilitation Centres	1
Women Empowerment facilities	1
Healthcare points	1
Facilities for crisis management	1
Women empowerment centres and healthcare points	1
Crisis management centres	1

Figure C.9 The type of facilities that the inhabitants prefer

Appendix D- Survey Results on Community and Governance Level

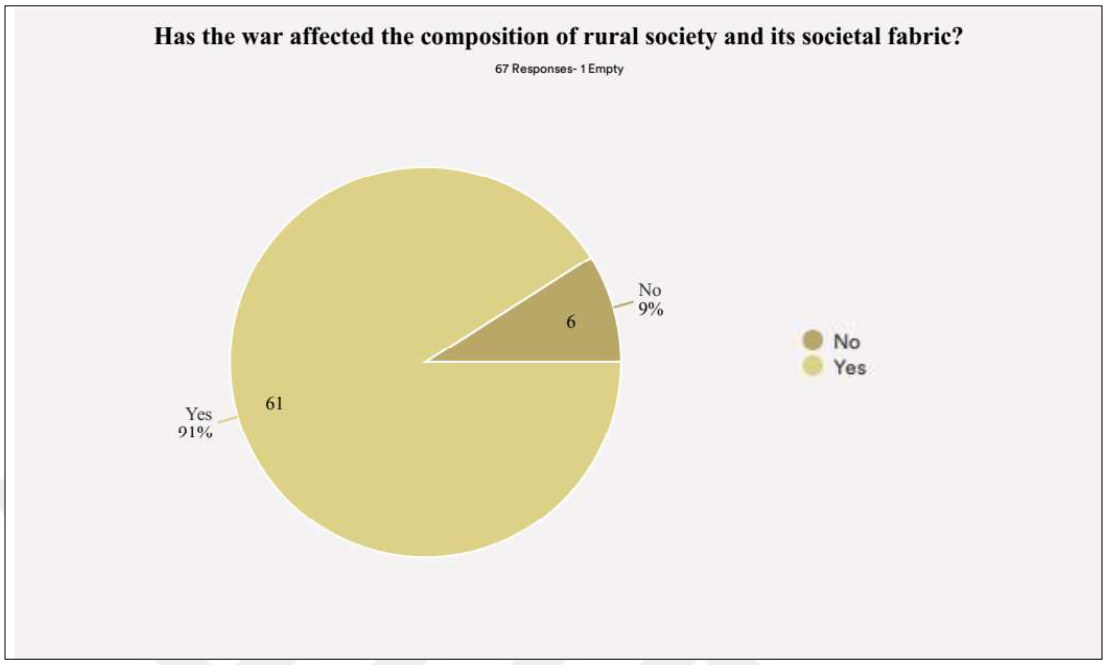


Figure D.1 The effects of the war on the social fabric

If the answer to the previous question is "Yes", mention two impacts of the war on the society fabric.

55 Responses- 13 Empty

Data	Responses
Family disintegration and the absence of family influence	27
Family disintegration and unemployment	11
Family disintegration	6
Family disintegration and loss of customs	3
Pressure and psychological health	2
Family disintegration and the absence of family influence which led to corruption	1
Family disintegration and the absence of family influence and youth migration	1
Social corruption	1
Youth migration	1
Poverty, unemployment	1
Loss of education	1

Figure D.2 Different social impacts of the war

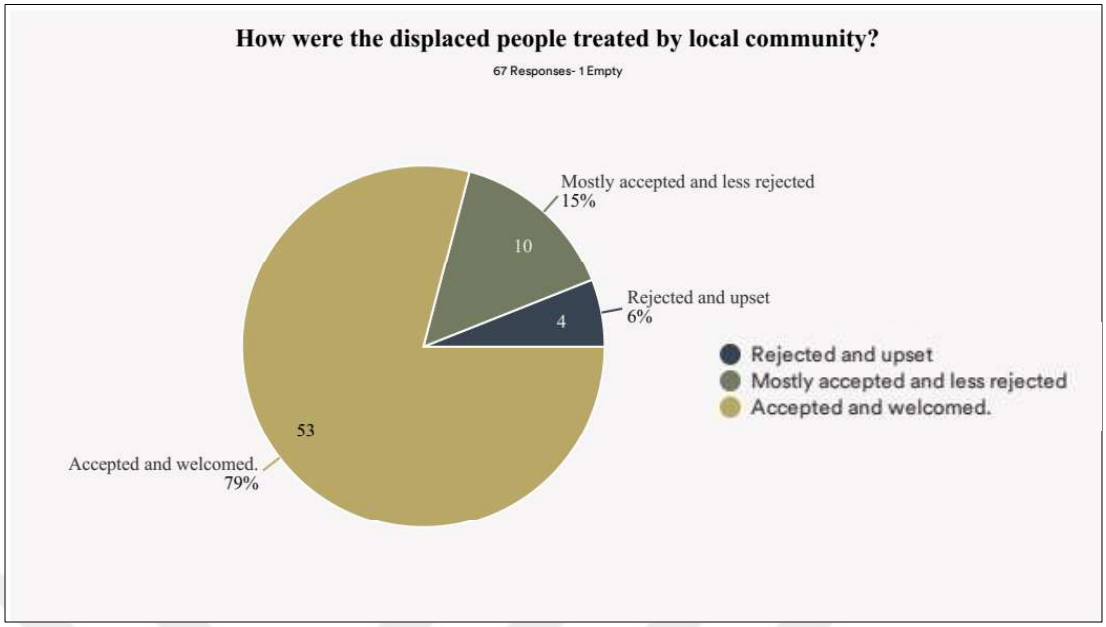


Figure D.3 The attitude of the residents towards the IDPs

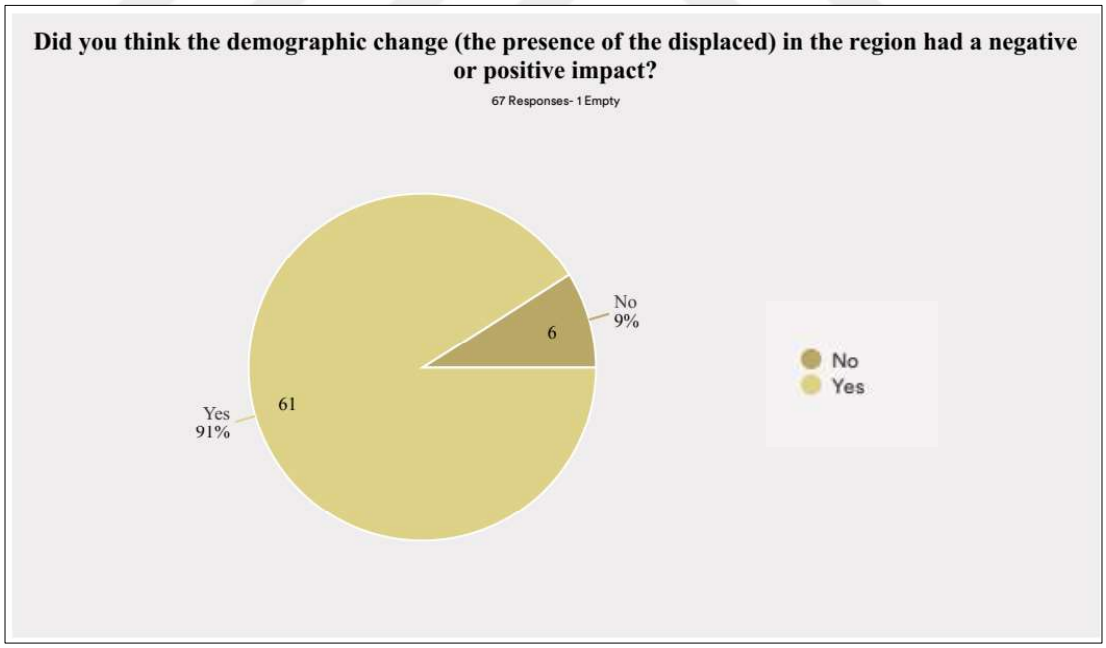


Figure D.4 The impact of the IDPs on the region

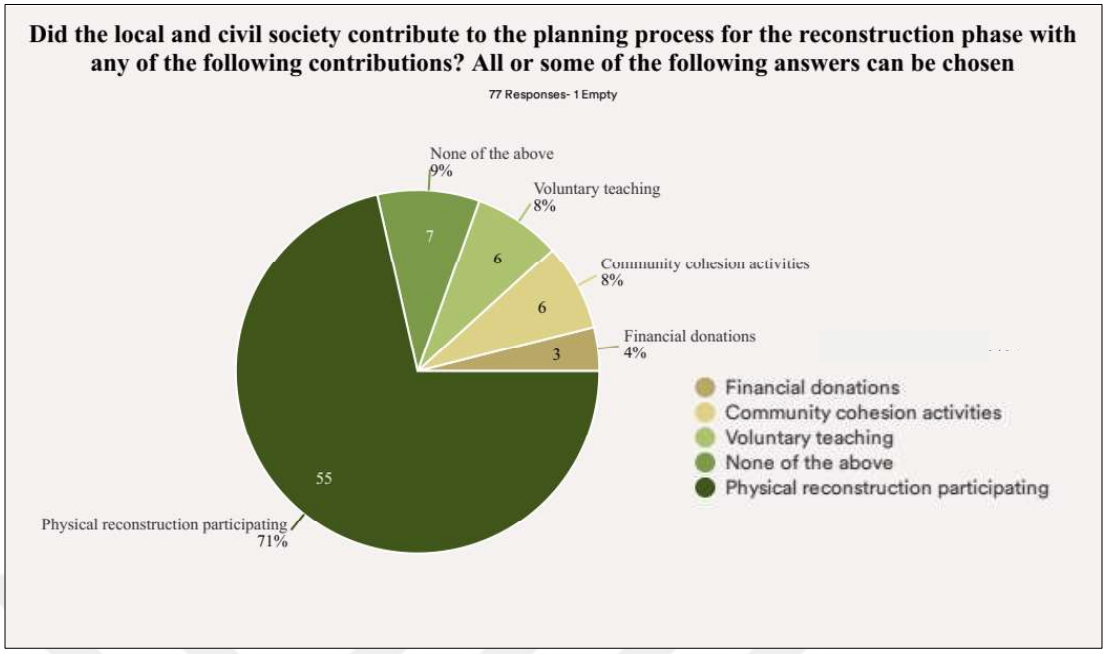
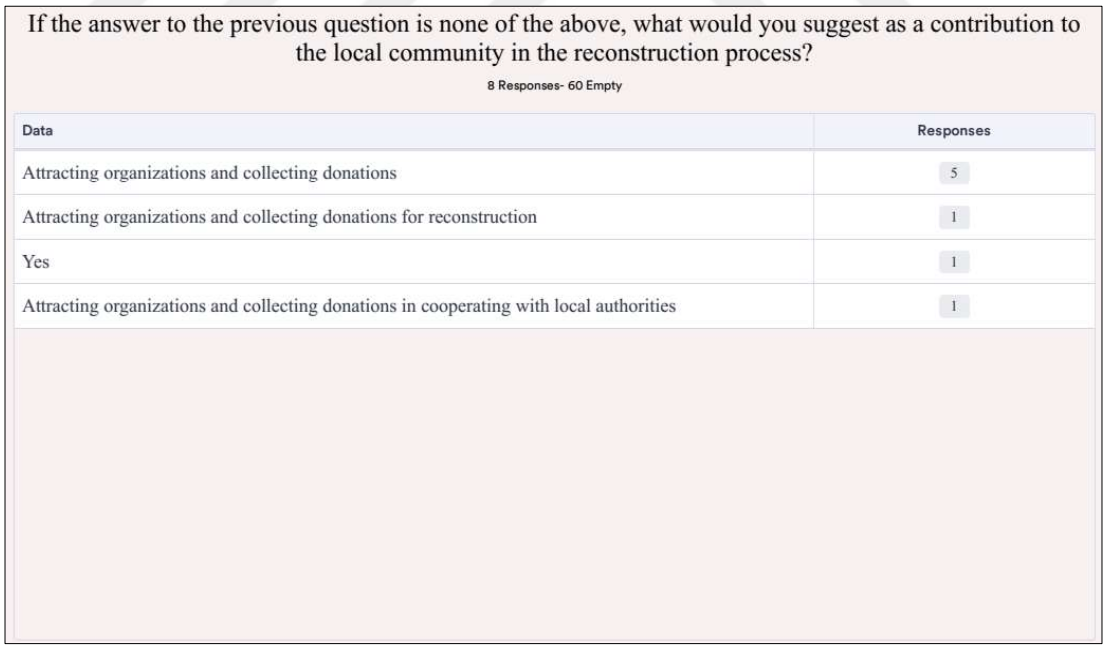


Figure D.5 Society's contibution to the reconstruction process



Data	Responses
Attracting organizations and collecting donations	5
Attracting organizations and collecting donations for reconstruction	1
Yes	1
Attracting organizations and collecting donations in cooperating with local authorities	1

Figure D.6 Suggested society's contribution forms

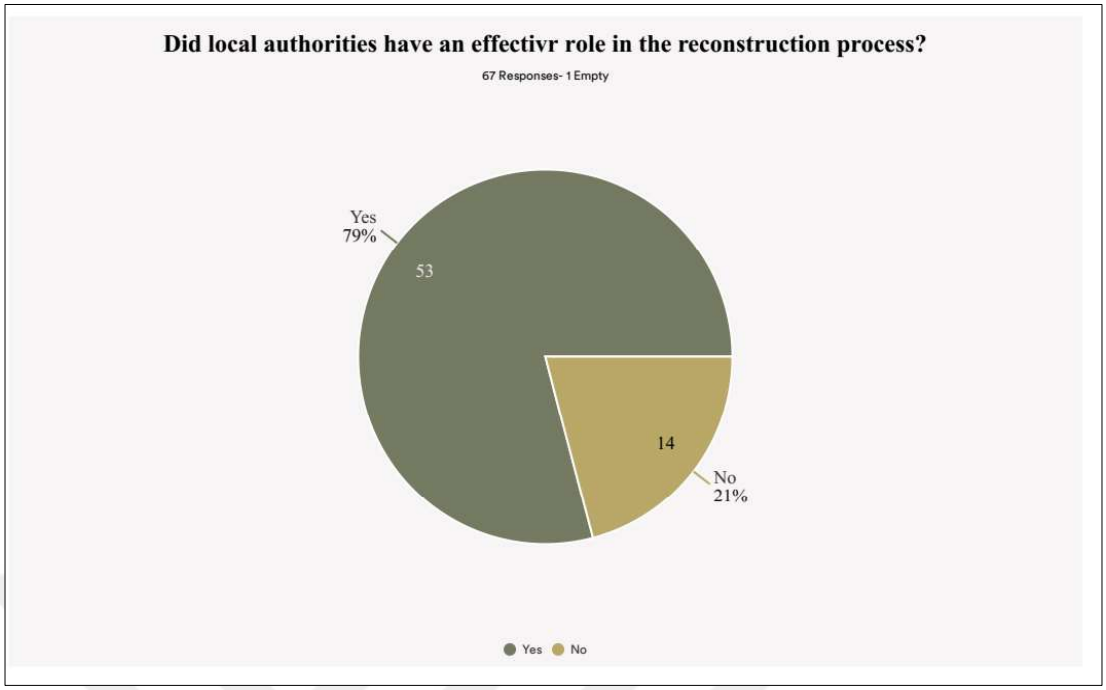


Figure D.7 The role of the authorities in the reconstruction process

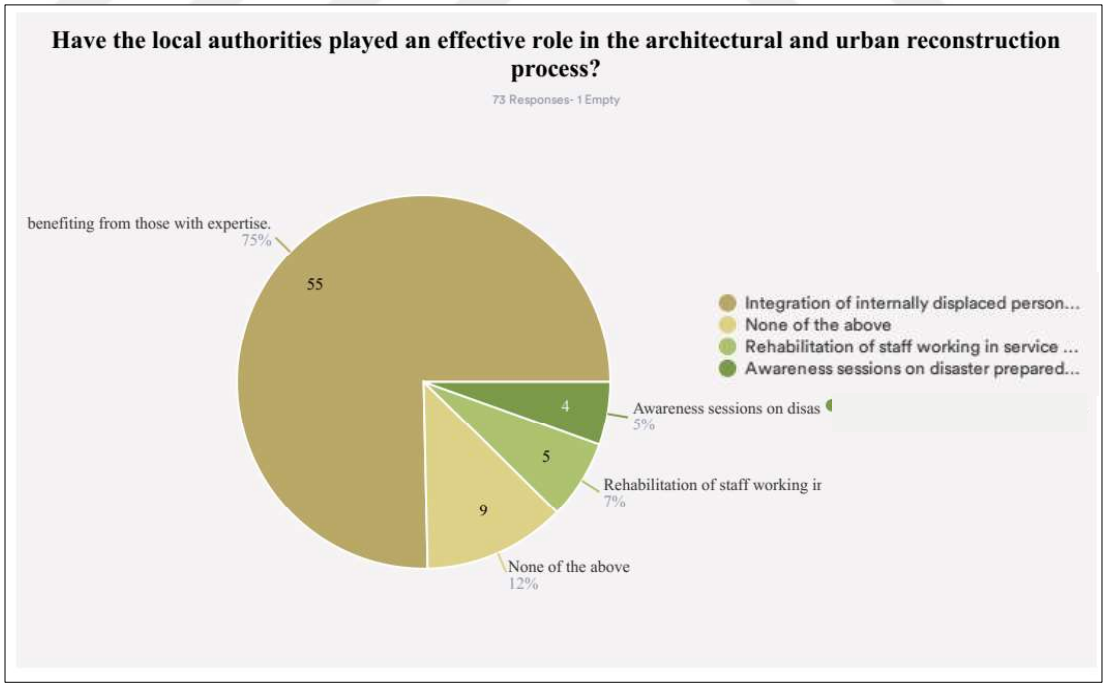


Figure D.8 The role of authorities in the architectural and urban reconstruction