

## Post-war rural resilience as a development strategy in theory and practice

Meryem Aboushala<sup>a</sup> , Salah Haj Ismail<sup>a</sup> 

<sup>a</sup> Graduate School of Natural Sciences, Ankara Yildirim Beyazit University

### ABSTRACT

Post-war rural areas in developing and underdeveloped countries face huge challenges. Therefore, comprehensive development strategies designed specifically for responding to their problems are needed. Researchers have examined developmental potentials by analyzing conceptual frameworks and practical case studies to understand the possible tools. The concept of resilience belongs to these new tools for strategic diagnosis and to the given space being monitored. Building upon the existing work from developmental theories, this research investigates the idea of using the concept of resilience for determining rural developmental potentials. Moreover, it addresses the efficiency of these studied tools and what lessons can be learned. Secondary data have been collected and analyzed alongside a practical case study based on the literature review. The analyses have demonstrated the strengths, weaknesses, and potentials for implementation. The results indicate rural post-disaster efforts, whether related to natural or man-made disasters, to be poor. However, the frameworks and theories that have been studied can be applied by adapting them to the specific needs of each area. Finally, the recommendation is made that the resilience process should holistically and inclusively integrate all aspects of rural livelihood. Further field research is needed in the post-war context in order to identify the factors that can strengthen the effectiveness of resilience as a development strategy.

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The alarming numbers on many levels in some rural areas already require every possible aspect of scholarly endeavor to ensure a way out of the current crisis. In such turbulent situations, post-war rural areas face an urgent need to use strategic management and monitor change with specific tools. The concept of resilience has been indicated as a promising development strategy for post-war rural areas (Strzelecka, 2018).

All the factors involved in the process of resilience, whether physical or incorporeal, are integrated and overlapped. This means no sense is had in looking at them separately. In other words, rural resilience is a multi-disciplinary approach. Consequently, programs involving environments constructed over concerns do not achieve overall resilience if these concerns are addressed separately (UN Habitat, 2017).

Looking at the system in a targeted area is the most appropriate way to successfully respond to the effects of economic, social, political, and natural events. This also allows displacement, inequity, and overloaded urban services to be avoided. However, resilience should be approached not only scientifically but also socially and ethically. The notions of sustainability and resilience are reflected through different aspects of knowledge, values, norms, and power dynamics over time and space. Consequently, these are what connect the different actors (e.g., researchers, decision-makers, different spectrums of society) in the process of resilience (Romero-Lankao et al., 2016).

This study is a literature review of 37 papers in an attempt to indicate the existing gaps in the literature in the post-war context and analyze the collected data regarding how resilience has been implemented in the name

**CORRESPONDENCE TO:** Meryem Aboushala (Msc student), Graduate School of Natural Sciences, Ankara Yildirim Beyazit University, Ankara, Turkey.  
Email: 185110117@ybu.edu.tr

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development. In the same context, the research examines a recommended resilience program to try to conclude what key factors can be applied in the development process. The study’s conclusions and recommendations are based on the structure of the previous research.

### Method

This paper is a literature review analyzing post-conflict rural resilience. In this context, the analysis focuses on the progress of resilience as a development strategy by addressing the gaps in the literature and weak points in post-war times. In addition, this research analyzes a case study on a proposed development framework. The obtained findings have been used extensively to indicate the most important ideas in the proposed program and to recommend different areas to cover regarding this topic.

### Literature Review

Heijman et al. (2019) introduced rural resilience as the capability a rural territory has for coping with changeable conditions while maintaining appropriate living standards. Rural resilience measures the capacity a rural area has to maintain simultaneous balance between the ecosystem and economic/cultural functions.

Meanwhile, the concept of rural development is not considered a recent trend; it has been a subject of interest over the past few decades. However, this concept did not have the same institutional and governmental framework as has been seen recently, causing some researchers to be skeptical about the effectiveness of the process. By the 1970s, two main approaches had emerged in developmental policies: integrated rural development and basic needs, with both focused on community and economic empowerment (Ruttan, 1984).

Different strategies and approaches have been brought to light since then in a constant effort to establish a framework for the development process in rural areas. The general consensus had been that economic prosperity is a key factor in the rural development process (Saith, 1990). In the same context another study suggested fostering entrepreneurship as a part of an integrated approach toward inclusive economic development (MacKenzie, 1992).

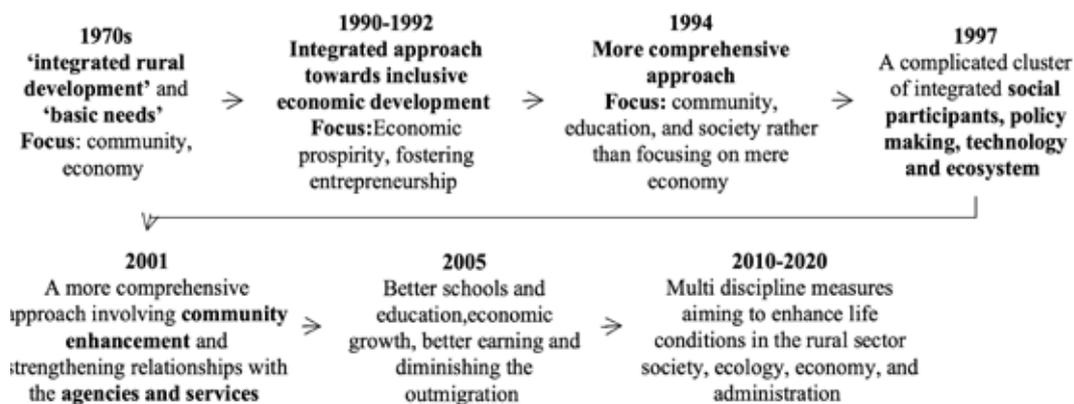


Figure 1. A timeline of the progress of suggested rural development strategies.

Recently, more comprehensive frameworks have been proposed that shed light on the role other components such as community, education, and society have, rather than focusing only on the economy (Zekeri, 1994). The United Nations Research Institute for Social Development (UNRISD) published three volumes that have brought together an immense collection of analytical work created since the 1960s. Barraclough et al. (1997) presented a complicated cluster of integrated social participants, policy-making, technology, and ecosystem as the main pillars of rural development strategies. Cavaye proposed a more comprehensive approach involving enhancing the community and strengthening their relationships with agencies and services (Cavaye, 2001). Some researchers (Gibbs, 2005) have argued having better schools and education systems as a part of rural development strategies to lead to economic growth, better earnings, and diminished outmigration.

Over the past two decades, rural development programs have been introduced in both theoretical and practical frameworks. For instance, the European Network for Rural Development (ENRD) proposed multi-disciplinary measures aimed at enhancing life conditions in the rural sector. In the same context, another group of researchers (Gorbenkova, Shcherbina, & Belal, 2018) discussed the main drivers for rural sustainable development after analyzing and comparing domestic and international experiences over many levels. They approached different aspects including society, ecology, economy, and administration, with subcategories for each.

Wars are considered a form of disaster, and studies on integrated rural development strategies as seen above have made extensive and broad considerations. A sufficient number of studies related to post-natural disasters are understood to have been conducted. However, when dealing with customized post-war strategies, the literature is seen to be less abundant and more recent. Post-war rural Africa takes up a good portion of the literature with a focus on how the long-term consequences of war on farm households have created options in Mozambique (Brück, 2003). Meanwhile, another paper (Weingart & Kirk, 2008) on Southeast Asia introduced the influence institutions have on socio-economics and decreasing poverty in post-war rural Cambodia. In one debate, the World Bank Group suggested applying the agriculture-for-development framework, presenting post-war rural Guatemala as a case study of a war-torn territory in South America. The case of post-war rural Rwanda has also been a focus of interest, with one group of researchers (Hitayezu et al., 2014) analyzing the different factors affecting the rural non-agricultural section in Rwanda.

European countries have also contributed to the literature. Buller and Lowe (1990) analogously analyzed the situation in rural UK, which has developed a modern agricultural model and become domestically strong and powerful. More recent studies (Sato, 2005) have investigated enhancements in rural livelihood in Japan after World War II when the area had been cruelly affected on all levels. Douarin et al. (2010) also analyzed the consequences of war on rural households in Kosovo. Zakrzewski et al. (2014) addressed the issues and challenges that had been induced by the changes in demographics and demands in West Germany's post-war rural and suburban areas. While on the subject, Spain's rural Andalusia has had its share of studies after the recent economic crisis that hit there (Sánchez-Zamora & Gallardo-Cobos, 2019).

When narrowing down the research area to the Middle East region, the literature on post-war rural development becomes more destitute. This can be attributed to many reasons, including the relative freshness of certain incidents, weak potential, and national and international indifference. For example, Ehsani's (2006) study touched upon rural Iran through the 20 years following the revolution. Other studies have taken the Middle East into consideration by going through past measurements on planning and development during the restructuring of Syria (Sawaan, 2018). In addition, Briscoe et al. (2012) studied options for post-conflict stability and economic recovery for the current regime.

In conclusion, the literature related to post-war developmental strategies for urban areas is myriad and comprehensive in many countries. Many good practices and successful case studies also exist regarding post-war rural areas in developed regions. Conversely, the research becomes less copious in many contexts when dealing with developing and underdeveloped rural areas such as in the Middle East. Few studies are found related to post-war rural areas after World War II. Hence, the need to conduct more studies and research in that field has become more urgent and essential as a strategy to achieve development in light of current circumstances.

### **The Concept of Rural Resilience**

The concept of rural resilience has been studied by many scholars from different backgrounds under various contexts. However, the common definition of this concept is the capacity of a rural territory to adapt to different internal or external conditions while maintaining acceptable living standards. Moreover, this also includes the ability to recover from governance or administrative failures. As in urban resilience, rural resilience defines the extent to which a specific rural region can handle adjustment after change before it establishes a new set of processes and structures.

Resilience may also be measured as the extent to which rural areas can synchronously achieve stability between its ecosystem and economic and cultural systems. In other words, the perspective on rural resilience relies on the capability a rural region has to cohere with its deep-rooted economic, cultural, and ecological strengths and weaknesses. To achieve this, these three systems (i.e., ecological, economic, and cultural) should be integrated and the interaction between them increased in intensity and scale (see Figure 2).



Figure 2. Diagram explaining the components of rural resilience.

Hence, these concepts need to be considered as having overlapping rather than separate content. Thus, rural resilience is quote logically based on the articulation of other aspects of resilience. Consequently, any change or shift in one of these fields has the ability to influence resilience. If a region is not economically resilient, the individuals will gradually move away and vulnerability will increase. As a result, this will generate chaos and turbulence in the overall system. In the same context, if the area lacks ecological resilience, the conditions for agriculture will worsen and the whole system will start to collapse. Lastly, social resilience is a critical requirement for the process of rural resilience as it guarantees the availability of adequate human resources in the region. Thus, a reduction in cultural resilience leads to vulnerability of the rural system. Declining resilience raises vulnerability, placing rural structures at high risk of confusion and shock. Consequently, building resilience must be part of the planning and designing of spatial rural schemes (Heijman et al., 2019).

Multifunctionality is one of the indicators of rural resilience; it is the ability to act using several aspects in accordance with society, the agrarian sector, and public services as well as non-agricultural services such as rural tourism, cultural heritage, and nature management (Copus, 2014).

According to Wilson, rural resilience involves the community's ability to adapt to dynamic changes through different eras, as well as community education and the commitment to taking control over the path of their development. In this context, resilience depends profoundly on the insistence, durability, and preparation of a rural community so it can address various changes successfully (Wilson, 2010). Therefore, the most valuable form of capital from the point of view of resilience is human and social capital, where having a sense of belonging to a place and community presents the basis of rural communities and in turn contributes to resilience.

Other scholars have defined rural resilience as the presence, development, and involvement of community assets in enhancing preparations for facing any unprecedented, unexpected, or unsure circumstance. This can be presented by a thriving community's personal and collective capacity to respond to any disturbance by maintaining good conditions and developing the community for the future (Magis, 2010).

### ***Urban-Rural Resilience: Differences and Approaches***

**Changing values of urban and rural resilience.** The past two decades have witnessed an extensive body of research on urban resilience, but less so regarding rural contexts. However, the literature suggested that different obstacles exist in urban and rural areas. For instance, rural areas usually face the problem of maintaining governance and business functionality in peacetime and suffer from a lack of the resources needed to recover from disasters (Kapucu et al., 2013).

A shortage in capital and economic resources can decrease rural resilience, while a rural area's self-reliant nature and strong sense of possessing natural resources can improve rural resilience. Both groups of challenges are less present in urban areas. Moreover, social inequalities may have the same negative impact on resilience in rural and urban areas, but economic diversity in urban areas fosters disaster resilience compared to areas that depend on a single economic sector, which is mostly seen in rural areas (Tootle, 2007).

Understanding the rural fabric is important for comprehending its distinct background and possibilities for disaster management. The inconsistency in deteriorating growth has made recognizing the types of disaster damages in rural areas challenging, as well as their effects due to density and structures. However, this impact has the possibility of being larger in the rural context (Ash et al., 2013).

On the other hand, casualties and damages after certain natural disasters such as earthquakes can be greater in urban areas. The difference between urban and rural disaster fatalities is based on the population size, age ranges, and mortality rates. Disaster resilience plays a significant role in mitigating vulnerabilities and enhancing risk reduction, but this is not well understood, especially in the rural context (Borden & Cutter, 2008). For example, the post-disaster redistribution of individuals as found in the literature shows differences between rural and urban areas. Elliott and Pais (2010) found vulnerable people in urban areas to be redistributed outside the affected areas, whereas the opposite has been the case in rural areas. Meanwhile, empirical-based research on community-level disaster resilience is still rare and insufficient in size for laying a basis to compare places and their resilience levels (Barnett et al., 2008; Cutter, 2016).

Table 1

*Comparing the Different Aspects in Rural and Urban Resilience*

Compared Aspects	Urban Areas	Rural Areas
Body of Literature	extensive and rich	less abundant
Business and Governance	well business management in peacetime	the problem of maintaining governance and operating the business in peacetime
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
Disaster Management	Higher potential for managing danger	Has unique backgrounds and possibilities for managing dangers
Impact from Deteriorating Growth	Lower	Higher
Casualties and Damage	May be higher in urban areas after certain natural disasters	Lower mortality rates
post-disaster individuals' redistribution	vulnerable people were redistributed outside the hit areas	vulnerable people were redistributed in the hit areas

In fact, these indicators' usefulness is uncertain, as is their ability to capture the outcomes of resilience processes. Moreover, whether or not the patterns of resilient shape or are shaped by disaster losses and vulnerabilities is unknown, especially within rural areas. However, comprehending and implementing measures that allow rural areas to vary their ability for resilience compared to urban areas provides guidance for the physical, financial, or social actions that may reduce the effects from disasters and accelerate recovery in the aftermath (Cutter et al., 2016).

**Data and approaches on distinguishing rural-urban resilience.** Scholars have developed certain codes and methods (e.g., the USA Department of Agriculture [USDA] codes developed by a group of researchers for understanding urban–rural permanence) offer different approaches for distinguishing resilience based on various characteristics. However, these approaches face several obstacles and challenges. According to these codes, many areas have both rural and urban features, and this causes turbulence in the preparedness and mitigation process for enhancing resilience when trying to measure disaster resilience (Sherrieb et al., 2010).

Assessing these types of agreement can be achieved by reconducting analyses using mapping techniques to efficiently recognize inhabited and uninhabited areas within specific region. The next stage will be to conduct analyses investigating both current geographical patterns and places where targeted interventions may be needed. The step after this will be to limit resilience indicators to more specific geographic areas. A policy's primary goal is to first develop program that enhance a community's resilience to disaster; this is followed by determining whether developing a strategy that fits every aspect of disaster reduction is suitable or inadequate. The reason is that this disregards the core natural inequalities in the competencies among a nation's communities. Some of these are based on the rural–urban characteristics of areas while others are based on the historical forms of development that have generated the contemporary social and economic landscapes (Winderl, 2014).

In conclusion, findings have suggested that planning for post-disaster resilience programs should be designed locally and that actions must be customized to guarantee optimum success in accomplishing resilience. In the author's opinion, the drivers and motives for resilience differ in the urban and rural contexts at varying scales when dealing with post-war

and post-natural disaster resilience. While post-natural disaster resilience planning is driven by different motives at varying scales, social, economic, and governance resilience-building in the post-war context becomes more complicated and should be approached more sensitively over long-term strategies. The outcomes of resilience are thought to perhaps take decades to be seen on the ground in post-war situations due to external actors with conflicting interests that might turn the area into a war by proxy and hinder attempts at building resilience. Additionally, the type of the war (e.g., civil, armed, proxy) may substantially affect programs and the results of resilience plans.

### **Case Study Analysis: International Fund for Agricultural Development's Rural Resilience Program (2RP)**

Known as 2RP, this program is an International Fund for Agricultural Development (IFAD) proposal to equip small-scale producers, poor inhabitants, and their communities with the resources needed to implement locally suitable resilience strategies. This proposal is a response for addressing resilience using a holistic approach and brings together key principles as the pillars of a framework for increasing their impact.

This program is based on IFAD's expertise and innovation and works to transform rural societies using the themes of climate change, youth, food security, and environment. Moreover, this program will contribute to 15 of the 17 Sustainable Development Goals (SDGs), with a special focus on certain SDGs such as reducing poverty, overcoming hunger, accomplishing food security and enhancing nutrition, and encouraging sustainable agriculture. The program also contributes directly to other goals such as gender equality, reasonably priced clean energy, respectful jobs, economic development, encouraging sustainable consumption and production, environmental protection, and livelihood.

2RP is a partnership between different actors and stakeholders under a common umbrella for scaling up contributions for achieving the SDGs. However, aside from the local actors, this cohesion can be increased through regional and global partnerships such as with global organizations from different territories (e.g., African Union, Rome-Based Agencies, Global Environment Facility, and other relevant stakeholders scaled out to other regions).

The program has three main pillars: 1) increasing adaptation for smallholder agriculture programs, 2) the Initiative for Sustainability, Stability, and Security in Africa (3S Initiative) as an African-led initiative for increasing opportunities for poor rural youth, and 3) the Green Climate Fund Umbrella Program for the Great Green Wall Initiative of the Sahel (GCF-GGWI), progressing history since its conception in 2007. These pillars have emerged from various institutional and political donors and stakeholders who reflect a deep comprehension of the different drivers of rural poverty and insecurity on many levels. A young generation is a real contributor to countries' development, yet they are considered a challenge as unemployment rises and increasing numbers leave their homes and societies as a result of conflict, destitution, and disasters (IFAD, 2020).

#### ***Program Approach***

The 2RP framework targets different levels to address the multidisciplinary challenges facing rural resilience. This framework enables an ecosystem management approach to be integrated based on downscaled climate assumptions. Groups of countries with common agro-climatic zones and cross-border challenges will be advised on how to achieve holistic programs contributing to the larger aims of resilience-building on the ecological, social, and agricultural household levels.

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

Fostering these alternatives requires collaboration and constant long-term efforts at building upon the actual capabilities and achievements that allow for scaling up to the ecosystem level. Several sustainable land management approaches and technologies exist such as agro-ecological farming and off-farm sustainable livelihoods. The challenges facing this and fostering this shift are represented in policies, programs, investments, and implementation capabilities that inadequately enable. To overcome these obstacles, multi-disciplinary measurements are required such as promoting policy development, natural resource administration, regenerative and climate-resilient agricultural education; investing in appropriate infrastructures supporting climate-resilient and regenerative livelihoods; and strengthening the implementation capacity for adaptive management.

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

To be able to use agro-ecological approaches and nature-based solutions, building resilience through 2RP programs will become a long-term action. A 30-year timetable is a basic requirement for systematically addressing the motives of rural underdevelopment and for alleviating the negative effects of climate change. Moreover, having this will provide a spatial scale that transcends national boundaries and help nest IFAD countries' loan and grant programs within a larger ecosystem.

Along with boosting resilience to climate change and gender equality, this program addresses Africa's youth unemployment crisis as the continent's third most-pressing challenge. Africa will likely host around 38 of the 40 youngest countries in the world in 2050. Its average population will be under the age of 25 years. Each year, more than 12 million youths enter the workforce in Africa, while only 3 million new jobs are 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 males between the ages of 15 and 34 (IFAD, 2020).

### *Activities*

Three main categories of challenges exist facing this resilience program: environmental degradation, food insecurity and migration, and climate change. The following activities have been designed based on these obstacles: 1) capacity building such as investments in small- and medium-sized farms and strengthening local markets, climate resilience infrastructure, and access to renewable energy, effective governance, and institutional framework; 2) security such as safeguarding existing rural jobs and motivating new land-based investments, relieving pressure on youths to reduce migration, and restoring degraded croplands and improving secure land access for farmers; and 3) climate change (e.g., as in natural resource management) and strengthening smallholder farmers' decision-making and ownership, enhancing the use of climate information for decision-making, planning investments to increase resilience, empowering women, and developing the use of nature-based solutions with high potential for decreasing vulnerability and enhancing resilience.

### *Expected Outcomes*

As mentioned earlier, the program has suggested a holistic approach that includes different scales and aspects: 1) Broaden 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 can contribute to the dialogue between different sectoral ministries. 2) The project aims to take up technology to help small-scale producers cope with climate change; this can be challenging and requires specific skills. However, some failures have been reported where expected "quick wins" did not achieve the buy-in from small-scale producers. Many lessons have been learned from these failed pilots. 3) The project also aims to develop 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 raising awareness around climate trends and impacts. Analyzing possible solutions at the community level with the involvement of a large range of stakeholders, including groups of women and young people, has proven to be the best solution to achieve uptake and impact 4) Another aim is to increase the resilience of vulnerable communities to the impact of climate change on food security and nutrition. (v) A fifth goal is to reduce greenhouse gases through win-win interventions that also yield significant development benefits. (vi) Also, the aim is to reduce migration within and from Africa by promoting sustainable land management that offers economic opportunities in rural areas. 7) Lastly, it seeks to enhance food security and nutrition levels, foster the creation of rural jobs for youths, and contribute to improving overall rural livelihood.

Table 2

2RP Program’s Approach and Elements

2RP Challenges	2RP Activities	2RP Expected Outcomes
<ul style="list-style-type: none"> <li>▪ climate change</li> <li>▪ environmental degradation</li> <li>▪ food insecurity</li> <li>▪ water shortage</li> </ul>	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 in 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.
<ul style="list-style-type: none"> <li>▪ lack of capacity</li> <li>▪ youth unemployment</li> <li>▪ migration</li> </ul>	Safeguard existing rural jobs and motivate new investments. Relieve pressure on youths to lower the rate of migration. Restore degraded croplands and secure access for farmers. Build capacity.	Foster the creation of rural jobs for youths and contribute to enhancing the overall livelihood of beneficiaries. Reduce migration by prompting sustainable land management that offers economic opportunities in rural areas.
<ul style="list-style-type: none"> <li>▪ gender inequality</li> <li>▪ social inequality</li> </ul>	Empower women Increase participation form women. Provide adaptation activities for marginalized people.	Increase the resilience of vulnerable communities to climate change and food security.

### Findings

As concluded from the literature analysis, rural resilience as a development strategy has gained more attention in Africa and Europe, but less so in the Middle East and underdeveloped countries. War is considered to be one of the many disasters an area might face, and the literature is rich regarding post-natural disasters. Yet when dealing with post-war disasters, the literature becomes even more abundant. Still, lessons can be learned from existing experiences in the constant attempt to duplicate them in underdeveloped countries. Implementation should take into consideration the adaptations to each area’s characteristics by paving the way into a more comprehensive understanding of post-war rural resilience.

The case study analysis has discussed the obstacles facing the program and the strategies that have been designed to overcome these challenges by focusing on capacity building and institutional framework, achieving security (e.g., safeguarding existing rural jobs), and motivating new land-based investments. It has concluded by studying natural resource management and how to strengthen smallholder farmers.

From the case study analysis, the conclusion can be made for the utmost importance in understanding that the methods and strategies applied in one area may not necessarily be applicable to other rural areas. Moreover, rural areas are considered vibrant socio-ecological systems that consist of a variety of interactive components. Hence, planning for resilience should be holistic, not just socially and economically but also by enhancing food security and nutrition levels, fostering the creation of rural jobs for youths, and contributing to the improvement of overall rural livelihood as key factors for resilience.

Furthermore, providing community support is one of the main pillars of the process involving youths and vulnerable categories. Reinforcing the ecosystem and facing the challenge of climate change have been proposed as the program’s main activities. These in turn will reduce migration within and from Africa by promoting sustainable land management that offers economic opportunities in rural areas. However, some reports of failures have occurred when expectations did not include factual results in the context of small production. Still, lessons were learned from these pilot applications.

## Discussion

Post-disaster rural resilience builds upon the capacity a region has to deal with the aftermath of a disaster, to decrease the effect from disturbances, to adhere to changes, and to quickly shift the dynamic systems that may limit the actual or future adaptive capacity. Therefore, studying rural resilience while bearing in mind different types of disasters and shocks in each space is essential for making communities more resilient in the face of dangerous events.

In fact, achieving integrated processes is something that is expected to occur over a long span of time while bearing in mind the constantly changing circumstances. Therefore, as a long-term process, challenges are constantly being posed about the mechanisms for measuring resilience and how to evaluate the success of a suggested framework. Moreover, designed frameworks cannot be applied in all contexts, areas, or eras; they should be adjusted to cope with the specific needs of each aspect. The analyzed program worked to meet these criteria on many levels; however, some failures were detected. Understanding the reasons behind a failure is quite important for avoiding the same failures in future designs. Huge areas of implementation, multi-disciplinary frameworks, and lack of cooperation between different parties can be found among the reasons for failures.

Finally, rural development is based on a set of frameworks and methods for achieving its goals, the most prominent of which are: 1) fostering agrarian clusters to increase agriculture production and GDP, 2) improving the educational, health, and administrative sectors, 3) ensuring just and fair distribution of the total national income as an essential element of achieving development, and 4) working on community integration and participation in the process of development. When looking at these methods for achieving development, the need can be argued for compatibility to exist between the resilience goals/strategies and rural developmental plans. Goals that can be accomplished through resilience may at the same time pave the way for development by creating a fostered environment of healthy dynamic systems, infrastructures, agro-clusters, and a well-trained/satisfied community that are able to lead the development process.

## Recommendations

As a result of the literature review and resultant examples and findings, as well as bearing in mind the main objectives of post-war resilience in rural areas, the following recommendations can be stated:

1) Further research is needed on the processes occurring in rural system to understand how all aspects interact together in contributing to the overall system dynamics. 2) Focus should be placed on societies as the main factors of resilience alongside organizations and agencies. 3) Enhancing the human capacity of the local labor force is fundamental in enabling opportunities for community members, no matter where they will work. 4) In order to build rural resilience, activities should be designed to build capacity, achieve different levels of security, and ultimately adapt to climate change. 5) Policies play a significant role in achieving resilience; therefore, different thoughts must be taken into consideration when designing effective policies that can contribute to resilience. 6) Opportunities should be provided to enable familiarizing communities with top-down procedures; these opportunities should allow for enhanced resources management to address current disparities. 7) Developing and underdeveloped countries should have their own unique designs for developing strategies for rural areas alongside toolkits for each service package. 8) Designed strategies should have both conceptual and practical frameworks that can be applied before, during, and after a crisis. 9) Developing clear and applicable criteria is strongly recommended for measuring the results and framework of resilience programs at different stages in time. Measuring the success or failure of a program makes the program more practical and easier to define which procedures can be duplicated in other scenarios and areas and which cannot. 10) Working on pilot zones is recommended for experimenting with the success level of suggested frameworks as a possible tool of measurement.

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All authors have contributed equally.

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### Author's ORCID numbers

Meryem Aboushala	0000-0003-2554-1738
Salah Haj Ismail	0000-0001-6682-6663

## References

- Ash, K. D., Cutter, S. L., & Emrich, C. T. (2013). Acceptable losses? The relative impacts of natural hazards in the United States, 1980–2009. *International Journal of Disaster Risk Reduction*, 5, 61–72.
- Barnett, J., Lambert, S., & Fry, I. (2008). The hazards of indicators: Insights from the environmental vulnerability index. *Annals of the Association of American Geographers*, 98(1), 102–119.
- Barracough, S., Ghimire, K., & Meliczek, H. (1997). *Rural development and the environment: Towards ecologically and socially sustainable development in rural areas*. United Nations Research Institute for Social Development.
- Borden, K. A., & Cutter, S. L. (2008). Spatial patterns of natural hazards mortality in the United States. *International Journal of Health Geographics*, 7(1), 64.
- Briscoe, I., Janssen, F., & Smits, R. (2012). *Stability and economic recovery after Assad: Key steps for Syria's post-conflict transition*. Clingendael.
- Brück, T. (2003). Coping strategies in post-war rural Mozambique. *SSRN Electronic Journal*. <https://doi.org/10.2139/ssrn.2124929>
- Buller, H., & Lowe, P. (1990). Rural development in post-war Britain and France. In *Rural development in post-war Britain and France*. (pp. 21–36). Retrieved from: <https://www.cabdirect.org/cabdirect/abstract/19911885060>
- Cavaye, J. (2001). Rural community development – New challenges and enduring dilemmas. *The Journal of Regional Analysis & Policy*, 16.
- Copus, A. K. (2014). The new rural economy and macro-scale patterns. In *Territorial cohesion in rural Europe* (pp. 35–58). Routledge.
- Cutter, S. L. (2016). The landscape of disaster resilience indicators in the USA. *Natural Hazards*, 80(2), 741–758.
- Cutter, S. L., Ash, K. D., & Emrich, C. T. (2016). Urban–rural differences in disaster resilience. *Annals of the American Association of Geographers*, 106(6), 1236–1252.
- Douarin, E., Litchfield, J., & Sabates-Wheeler, R. (2010). *Poverty, livelihoods and war legacies: The case of post-war rural Kosovo*.
- Ehsani, K. (2006). Rural society and agricultural development in post-revolution Iran: The first two decades. *Critique: Critical Middle Eastern Studies*, 15(1), 79–96.
- Elliott, J. R., & Pais, J. (2010). When nature pushes back: Environmental impact and the spatial redistribution of socially vulnerable populations. *Social Science Quarterly*, 91(5), 1187–1202.
- Gibbs, R. (2005). *Education as a rural development strategy*. Retrieved from: <https://www.ers.usda.gov/amber-waves/2005/november/education-as-a-rural-development-strategy>
- Gorbenkova, E., Shcherbina, E., & Belal, A. (2018). Rural areas: Critical drivers for sustainable development. *IF-AC-PapersOnLine*, 51(30), 786–790.
- Heijman, W., Hagelaar, G., & van der Heide, M. (2019). Rural resilience as a new development concept. In L. Dries, W. Heijman, R. Jongeneel, K. Purnhagen, & J. Wesseler (Eds.), *EU bioeconomy economics and policies* (Vol. II, pp. 195–211). Springer International Publishing. [https://doi.org/10.1007/978-3-030-28642-2\\_11](https://doi.org/10.1007/978-3-030-28642-2_11)
- Hitayezu, P., Okello, J. J., & Obel-Gor, C. (2014). Farm households' participation in rural non-farm employment in post-war Rwanda: Drivers and policy implications. *Development Southern Africa*, 31(3), 452–474.
- International Fund for Agricultural Development. (2020). *The Rural Resilience Programme (2RP) Programme Description*
- Kapucu, N., Hawkins, C. V., & Rivera, F. I. (2013). Disaster preparedness and resilience for rural communities. *Risk, Hazards & Crisis in Public Policy*, 4(4), 215–233.

- MacKenzie, L. R. (1992). Fostering entrepreneurship as a rural economic development strategy. *Economic Development Review*, 10(4), 38.
- Magis, K. (2010). Community resilience: An indicator of social sustainability. *Society and Natural Resources*, 23(5), 401–416.
- Romero-Lankao, P., Gnatz, D. M., Wilhelmi, O., & Hayden, M. (2016). Urban sustainability and resilience: From theory to practice. *Sustainability*, 8(12), 1224.
- Ruttan, V. W. (1984). Integrated rural development programmes: A historical perspective. *World Development*, 12(4), 393–401.
- Saith, A. (1990). Development strategies and the rural poor. *The Journal of Peasant Studies*, 17(2), 171–244.
- Sánchez-Zamora, P., & Gallardo-Cobos, R. (2019). Diversity, disparity and territorial resilience in the context of the economic crisis: An analysis of rural areas in Southern Spain. *Sustainability*, 11(6), 1743. <https://doi.org/10.3390/su11061743>
- Sato, H. K. (2005). 'Livelihood improvement' in postwar Japan: Its relevance for rural development today. In *Gender and development* (pp. 68–84). Springer.
- Sawaan, M. (2018). *History of urban planning and development in the Middle East as a context of Syrian post-war reconstruction*. 16.
- Sherrieb, K., Norris, F. H., & Galea, S. (2010). Measuring capacities for community resilience. *Social Indicators Research*, 99(2), 227–247.
- Strzelecka, E. (2018). Concept of resilience and development of small towns and rural area. *Barometr Regionalny. Analizy i Prognozy*, 16(3), 121–130.
- Tootle, D. (2007). Disaster recovery in rural communities: A case study of southwest Louisiana. *Journal of Rural Social Sciences*, 22(2), 2.
- Weingart, A., & Kirk, M. (2008). *Escaping poverty traps? Collective action and property rights in post-war rural Cambodia*.
- Wilson, G. (2010). Multifunctional 'quality' and rural community resilience. *Transactions of the Institute of British Geographers*, 35(3), 364–381.
- Winderl, T. (2014). *Disaster resilience measurements: Stocktaking of ongoing efforts in developing systems for measuring resilience*.
- Zakrzewski, P., Berndgen-Kaiser, A., Fox-Kämper, R., & Siedentop, S. (2014). Prospects for West German post-war single-family home neighbourhoods revitalising housing stocks as a new policy field for suburban and rural municipalities. *Comparative Population Studies*, 39(2).
- Zekeri, A. A. (1994). Adoption of economic development strategies in small towns and rural areas: Effects of past community action. *Journal of Rural Studies*, 10(2), 185–195.