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TABLE OF CONTENTS

PRISON ARCHITECTURE AS A TOOL FOR DISCIPLINARY SURVEILLANCE: THE ARCHITECTURAL CASE OF "PANOPTICON" 7
Zeynep Çiğdem UYSAL ÜREY

STUDENT - ARTIFICIAL INTELLIGENCE INTERACTION IN ARCHITECTURAL DESIGN EDUCATION: ARTIFICIAL INTELLIGENCE WORKSHOP IN DESIGN 31
Jülide EDİRNE, Merve ÖZTÜRK

CONSIDERATION OF PEDIATRIC SERVICE OF SELCUK UNIVERSITY MEDICAL FACULTY HOSPITAL FROM THE POINT OF CONCEPT "CHILD FRIENDLY" 55
Ayşe YILDIRIM ATEŞ

EXAMINATION OF SPATIAL PERCEPTIONS' ROLE FOR THE IMPROVEMENT OF ACTIVITY SPACE..... 71
Beste KARAKAYA AYTİN

EVALUATION OF URBAN RESILIENCE TARGETS WITHIN LOCAL GOVERNMENT STRATEGIES: THE CASE OF ÇANAKKALE CITY 87
Ali Tolga ÖZDEN

THE EXCEPTIONAL USAGE OF NARRATIVE FOR THE FUTURE OF ARCHITECTURAL DESIGN 113
Sennur AKANSEL

Preface

The architectural discipline can mold people's living environments and affect their quality of life since it represents a well-balanced synthesis of science, culture, and art. The relationship between thoughtful planning and good design is seen in architecture as a key element in our attempt to understand and explain the universe to which we belong. It serves as a crucial road map that prioritizes sustainability, usability, and aesthetic elements. This book offers six studies in the fields of architecture and design. The following book chapters are among them: PRISON ARCHITECTURE AS A TOOL FOR DISCIPLINARY SURVEILLANCE: THE ARCHITECTURAL CASE OF "PANOPTICON", STUDENT-ARTIFICIAL INTELLIGENCE INTERACTION IN ARCHITECTURAL DESIGN EDUCATION: ARTIFICIAL INTELLIGENCE WORKSHOP IN DESIGN, THE EXCEPTIONAL USAGE OF NARRATIVE FOR THE FUTURE OF ARCHITECTURAL DESIGN, EXAMINATION OF SPATIAL PERCEPTIONS' ROLE FOR THE IMPROVEMENT OF ACTIVITY SPACE, CONSIDERATION OF PEDIATRIC SERVICE OF SELCUK UNIVERSITY MEDICAL FACULTY HOSPITAL FROM THE POINT OF CONCEPT "CHILD FRIENDLY" and EVALUATION OF URBAN RESILIENCE TARGETS WITHIN LOCAL GOVERNMENT STRATEGIES: THE CASE OF ÇANAKKALE CITY. I would like to thank all the valuable chapter authors and Eğitim Publishing House who contributed greatly to the creation of the book titled "International Research in Architecture Sciences II" and hope it will be a useful resource for all readers.

Editor

Asst. Prof. Eda SELÇUK

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Önsöz

Mimarlık disiplini, bilim, kültür ve sanatın dengeli bir sentezini temsil etmesi nedeniyle insanların yaşam ortamlarını şekillendirme ve yaşam kalitelerini etkileme yeteneğine sahiptir. Mimarlık, iyi tasarım ve planlama arasındaki ilişkiyi, ait olduğumuz evreni anlama ve ona anlam verme arayışımızda çok önemli bir bileşen olarak görülmektedir. Sürdürülebilirlik, kullanılabilirlik ve estetik unsurları ön planda tutan önemli bir yol haritası görevi görmektedir. Bu kitapta mimarlık ve tasarım alanlarında altı çalışma sunulmaktadır. Kitapta şu bölümler yer almaktadır: PRISON ARCHITECTURE AS A TOOL FOR DISCIPLINARY SURVEILLANCE: THE ARCHITECTURAL CASE OF "PANOPTICON", STUDENT - ARTIFICIAL INTELLIGENCE INTERACTION IN ARCHITECTURAL DESIGN EDUCATION: ARTIFICIAL INTELLIGENCE WORKSHOP IN DESIGN, THE EXCEPTIONAL USAGE OF NARRATIVE FOR THE FUTURE OF ARCHITECTURAL DESIGN, EXAMINATION OF SPATIAL PERCEPTIONS' ROLE FOR THE IMPROVEMENT OF ACTIVITY SPACE, CONSIDERATION OF PEDIATRIC SERVICE OF SELCUK UNIVERSITY MEDICAL FACULTY HOSPITAL FROM THE POINT OF CONCEPT "CHILD FRIENDLY" and EVALUATION OF URBAN RESILIENCE TARGETS WITHIN LOCAL GOVERNMENT STRATEGIES: THE CASE OF ÇANAKKALE CITY. "Mimarlık Bilimlerinde Uluslararası Araştırmalar II" isimli kitabın oluşmasında büyük emeği geçen tüm değerli bölüm yazarlarına ve Eğitim Yayınevi'ne teşekkür eder, tüm okuyucular için faydalı bir kaynak olmasını dilerim.

EVALUATION OF URBAN RESILIENCE TARGETS WITHIN LOCAL GOVERNMENT STRATEGIES: THE CASE OF ÇANAKKALE CITY

Ali Tolga ÖZDEN[1]

1. INTRODUCTION

Preparedness of the social structure and communities living in urban areas against disasters can be considered as one of the most important stages envisaged for urban resilience. Especially the approach of international organizations such as the United Nations (UN) is not to start the game behind in the face of disasters, the impact and frequency of which are thought to increase around the world, and to reduce the negative effects of disasters by at least trying to complete the preparation processes (Leitner et al, 2018). In 2015, the International Sendai Framework on disaster risk reduction was prepared and adopted at the UN Third World Conference on Disaster Risk Reduction held in Sendai, Japan between March 14-18, 2015 (Kondo, 2015). This document, together with its predecessors, is a very important guiding document for countries. It is clear that the Sendai Framework is not a document that emerged out of nowhere (Kondo, 2015). Especially in the last quarter of the

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20th century, the issue of reducing disaster damages was the agenda setter for international institutions and organizations, especially the UN, and governments (Klarin, 2018). Eckhardt (et al. 2019) cited that in the year 2016, cost of the 342 natural disasters led to the death of 8733 people, with 569,4 million victims and losses of US$ 153,9 billion. Howell and Elliott (2018) asserted that just the direct cost of Hurricanes Harvey, Irma, and Maria in 2017, which combined to exceed $300 billion was accepted as a new U.S. annual record. Entering the 21st century, important policy decisions were being taken and institutional organizations were being established for the implementation of these decisions (Klarin, 2018). The main motivation of these efforts was to increase the capacity of communities and countries to recover quickly and cope with the effects of disasters that they may face in the 21st century. Accordingly, the precursor documents and policy makers that constitute the cornerstones of the road to Sendai should be mentioned as follows (Image 1);

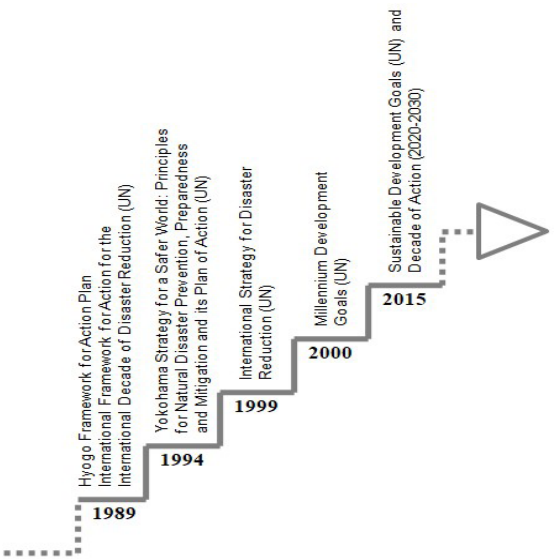


Image.1: Summary Chronology of United Nations-led Goals and Strategies for the Road to Resilient Cities (Image is produced by the writer from URL-1)

In these strategic documents, it is stated that local governments are the primary institutional structures for preparing communities against disaster risks. The MCR2030 Strategy document organized within this framework also draws attention to the need for local governments to develop both policy and implementation tools in this direction (URL-2). In this framework, MCR2030 manages a platform for "Making Cities Resilient" in line with the UN Office for Disaster Risk Reduction (UNDRR) and other components and the 2015-2030 Sendai Framework to support urban areas and reduce disaster risk. This platform (MCR 2030) mainly focuses on building the capacity of local authorities to reduce disaster risks, enabling the implementation and monitoring of prepared risk reduction plans and participation in the global network of cities. According to MCR2030, local governments come to the forefront as key actors in the healthy and successful execution of the cycle of disasters and disaster risk management. In this framework, a flexible and agile process of preparation, response and return to normalcy and better reconstruction is envisaged by anticipating risks in the creation of resilient cities against disasters (URL-2).

This responsibility attributed to local governments or municipalities is also directly related to the local capacity to implement the relevant strategies and objectives. In this study, local disaster risk reduction and disaster preparedness policies and strategies are evaluated. For this purpose, through Çanakkale Municipality's 2015-2019 and 2020-2024 Performance Programs (URL-3 and URL-4), the local government's perspective on disaster risks and the policies, strategies and objectives it produces are compared and evaluated.

2. LITERATURE REVIEW

2.1 Urban Resilience and Urbanization

Preparing for disasters and increasing the resilience of communities is directly proportional to the capacity of local conditions and decision makers. Therefore, the success of the decisions taken, strategies and implementation approaches both at international and national scales can be measured by the success of the understanding, policies and practices to be established locally. As Ulrich Beck (2019) points out, political decisions are reflexive and political decisions will mostly affect the resilience capacity of local communities in the face of disasters. When disaster hazards occur in response to the implementation or non-implementation of the decisions taken, the cause-and-effect relationship will also create a cost. Of course, it would be too simplistic to attribute the cost of disasters entirely or largely to faulty political decisions taken at the local level. At this point, while there are local decision-makers who successfully implement actions and decisions that correspond to the perception of local resilience, it is also necessary to correctly analyze under which conditions and capacities these decisions can be implemented.

Urban resilience, by definition, is perceived as a key concept that includes many components and functions as a connector between different disciplines (Leitner et al, 2018; Masnavi et al. 2018). This concept is often used in conjunction with the concept of sustainability. When talking about the resilience of a city, a valid definition can be used as follows: “Urban resilience is the capacity of an urban system and all the socio-ecological and socio-technical networks that make it up to maintain its functions at temporal and spatial scales or to quickly return to these functions in the face of a disturbance, to adapt to changes that may occur, and to rapidly transform systems that limit both current and future adaptive capacity” (Meerow et

al., 2016). Since urban areas are defined as “perfect examples of complex systems”, the fact that these systems are healthy and sustainable makes it appropriate to address the study areas through the concept of resilience (Meerow and Newell, 2016). The fact that the concept of urban resilience points to a complex semantic structure comes from the complexity of the concept of “city” itself. Since the networks that make up the city and the system itself that emerges with the overlapping of these networks reveal a very complex model, urban resilience has to be built on this complexity (Ernston et al. 2010) (Image 2).

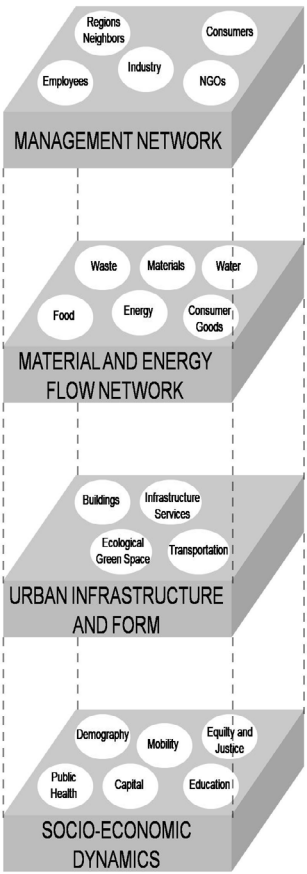


Image 2: A conceptual schematic of the urban system (adapted from Meerow et al. 2016 and Dicken 2011).

Urbanization is a phenomenon that points to the same complex structure within the urban system. Urbanization is becoming a global multidimensional process in parallel with increasing uncertainty due to factors such as climate change impacts, migration, and sustainability of ecosystem services (Ernston et al., 2010). Harvey (1996) also defines the city as an agglomeration, pointing to this agglomeration as contested spaces that produce a range of urban services ranging from transportation, housing and medical care to jobs and financial markets. In all these processes, the role of the city administration should be well-defined within a complex network. The implementation of efforts to increase urban resilience depends on the politicized urban environment being sensitive to ecosystem dynamics and strengthening urban governance mechanisms that can be proactive (preventive) against interconnected social-ecological uncertainties (Ernston et al., 2010). From this perspective, the uncertainties faced by urban areas and urbanization point to a crisis situation. In order to cope with this crisis and complex system, it will not be possible to claim that a single actor or a few actors have full knowledge and control. For this reason, local governments, which have a great deal of responsibility for a resilient and sustainable city, cannot be expected to carry out this process in a healthy manner on their own.

When local decision-makers undertake a political task, they make promises and commitments to the society in the process they aspire for office. The corresponding information, documents and opinions are mostly included in local government policy documents under the title of objectives and strategies. In these documents, how cities can be made resilient in the face of disasters is outlined in general terms. These documents point out basic strategies and implementation areas. However, implementation tools and capacities are generally not included

in these policy documents (Talu, 2019). Even if the political understanding that comes to local government does not have a law or regulation that will directly increase the resilience of the city in the face of disasters, it has the infrastructure to create it. This is the existing laws and regulations. These include a number of concepts, practices and strategies required to make the city resilient against disasters. Zoning laws, zoning implementation regulations, provisions on open space-parks, documents on emergencies, wastewater management, hygiene, public health, transportation, and many other information and documents are already available. Local decision makers should adopt an approach that combines these documents and formulate a strategy that will make the city resilient to disasters (WHO, 2016).

A local government that has produced a policy document outlining the ideal of preparing a disaster-resilient urban infrastructure should also emphasize that its policy document-strategies and resilience understanding overlap and are compatible with each other. In this sense, the municipality's investment programs and urban resilience programs are expected to be coordinated. Otherwise, the resilience strategy document will not go beyond a wishful thinking document.

Planning and strategies to be prepared at the national level should also be in line with local policies and strategies. When local conditions and implementation capacities are not taken into account in determining the objectives to be achieved at the national level, local integration into these processes will not be possible. In fact, disruptions or failures at the local level will directly affect the success of national policies. Therefore, for national policies to be implemented at the local level, local decision-makers need to integrate strategy and policy documents with national policies (Eakin et al. 2017).

2.2 Çanakkale City and Urban Resilience

A number of policies and approaches have been tried to be produced for the city of Çanakkale in order to become a resilient city. An important step for Çanakkale was taken in 2009 and a separate section titled "Çanakkale Climate Change Action Plan" was created within the City Action Plan prepared under the leadership of the Çanakkale City Council. The Çanakkale Climate Change Action Plan is Turkey's first climate action plan at the local level in terms of discussing climate change and the measures that can be taken against the negative impacts of climate change, risk mitigation and adaptation approaches. However, no follow-up work has been carried out for this plan and its content, in short, the plan has not been followed up. There are many reasons why the plan could not be implemented. However, the main shortcomings that stand out are the inability to put forward a healthy cost estimate of the work defined for the realization of the targets specified in the Plan and the failure to establish monitoring and evaluation mechanisms of the Plan (Talu, 2019: 58).

Similarly, urban guidelines were prepared in cooperation with the Ministry of Environment and Urbanization and Yıldırım Beyazıt University. Under the title of "Sustainable Urbanism Project/Turquoise Cities Program within the Scope of Combating Climate Change", a study was carried out to prepare guidelines under the title of "Local Climate Action Plans". It is known that this project, which has a budget of 3.8 million TL, covers 13 cities, including Çanakkale. It is known that the aim of the Turquoise Cities Program is to establish the necessary infrastructure for the implementation of climate change policies in Turkish cities, especially metropolitan cities (Talu, 2019: 65).

In order for cities to develop practical projects in disaster preparedness, mitigation and adaptation processes, especially

climate change, they need to target some basic sectors. These sectors can be summarized in Image 3. Within the physical infrastructures of these sectors located above and below ground, the Building and Transportation Sectors are the most dense physical structures. These are followed by the Energy and Green Space Sectors. Less intensive in this sense are the Waste and Water Resources Sectors (Talu, 2019).

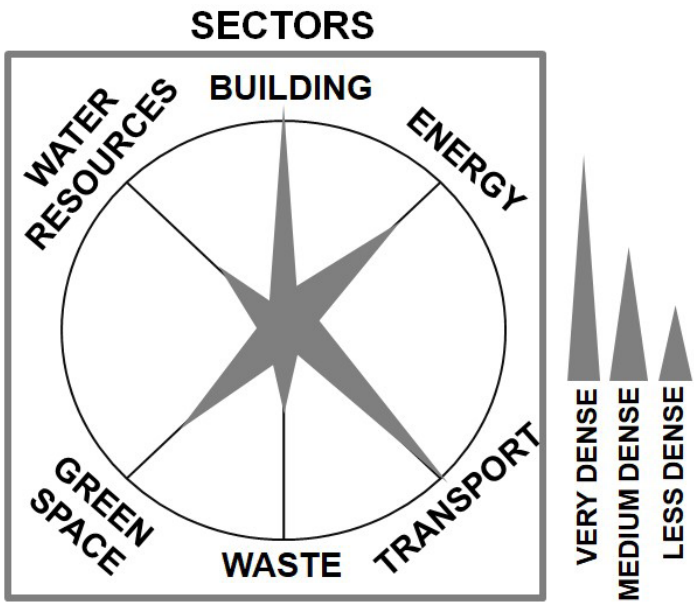


Image 3: Sectors of Physical Structures in Urban Areas (Produced from Talu, 2019).

When we look at the distribution of the sectors in urban areas within the city, it can undoubtedly be said that the housing sector has the densest area. However, the sector where the negative effects of different disasters on the physical structure are primarily observed is the building sector (Genç, 2007). However, it will be very difficult for the building sector to provide sufficient evidence to understand the effects of the disaster, especially for slow developing disasters,

especially climate change. For hazards and risks with much stronger economic, public health and psychosocial impacts, such as drought, sudden increase or decrease in temperature, epidemics, etc., for which we cannot take reference from the past, different evaluation criteria should be in question. In this case, it should be considered that sectors such as energy, green areas and water resources may stand out as important sectors in reducing disaster risks.

However, it is also accepted that strategies, planning and other studies to be carried out on disaster risk reduction and risk management should be prepared at the local level (Amaratunga et al. 2017; Zubir and Amirrol, 2011). The resilience and preparedness of cities and their inhabitants in the face of disasters can only be realized through planning decisions to be prepared by local decision makers, taking into account local conditions and capacities, and in line with local development. Plans and strategies to be prepared from the center and tried to be implemented locally will not have a chance of success within the framework of today's risk society understanding. Risks that have become more complex and whose impact, frequency and severity have increased indicate greater unpredictability for urban areas. What distinguishes today's risks from conventional risks is that they lack historical references and are reflexive risks that emerge as a result of human decisions (Beck, 2019). For this reason, risk mitigation approaches need to be integrated with local strategies and action plans, monitored, audited and reported.

Evaluating the risk mitigation process only with physical measures and practices will be insufficient for unpredictable risks. For example, it is considered that creating a risk mitigation solution against hazards such as floods in urban areas with only embankments to be placed in river beds and coastal areas will not be sufficient today (Liao, 2012). At this point, it may be

possible that a number of engineering measures taken to reduce disaster risks may also bring negative consequences for urban users in terms of ecological, socio-economic and socio-cultural aspects. Can the embankments to be built against floods emerge as a predictable measure against flood and flood hazards, especially due to the effects of climate change? According to which past references will the probability of breaching these embankments be evaluated? Can such structural measures also create a different set of problem areas for urban users?

While discussing the sustainability of urban life through studies that envisage increasing the quality of urban life by opening the city to recreational use of urban users and transforming it into public spaces, structural measures that may affect both physically and visually the access of urbanites and urban users to beaches, natural water areas and places with high recreational potential can also be opened to discussion (Liao, 2012). In this sense, it is a fact that holistic approaches that emphasize urban resilience are needed to mitigate urban risks.

Çanakkale is familiar with flood and flood hazards both as a coastal city and with Sarıçay, an important natural waterway that literally bisects the city center (Bekler et al., 2022; IRAP, 2021). Past disaster experiences do not show that the city is in a very dangerous position in terms of disaster history. However, the effects of the climate change crisis strengthen the prediction that the city may face flood and flood disasters in the near and medium future. However, the references that can be taken from the past and the extremely limited disaster experiences of the city bring along important discussions on which risk mitigation measures can be taken against this prediction. In this sense, the preparation of the city for disasters can be discussed from both engineering and ecological perspectives. It should be considered that only an engineering perspective would be incomplete. For this reason, it can be suggested that the engineering perspective

should be evaluated holistically within the framework of the concept of resilience together with the ecological perspective.

While increasing the resilience of the city against disasters, it is necessary to emphasize economic and socio-cultural approaches that increase urban quality and do not hinder sustainability by emphasizing adaptation processes instead of construction activities aimed at risk reduction within the framework of engineering resilience that envisages only structural measures, especially in the face of risks that are very difficult and complex to predict, such as the effects of climate change.

For sudden disaster hazards such as earthquakes, the preferred method for risk mitigation is again based on the engineering resilience perspective in our country. Here, too, the principles of engineering resilience (Liao, 2012) such as robustness, stability and quick repairability are dominant. Buildings should fully absorb the earthquake load, should not be damaged, or even if damage occurs, they should be easily repaired and continue to function. However, in the ecological resilience perspective, the natural and built environment is composed of different layers and the whole of these layers may not be able to recover after a disaster. For this reason, it should be able to adapt to the new situation and have alternative functional features. The physical structure and infrastructure, green facilities, natural environment, transportation, recreational areas and even the natural life (forest areas, agricultural areas, etc.) trying to survive in or around the city may not always react to disasters in the same way as buildings do. The deterioration and changes in topography, climate and environment should be controllable with a perspective that ecological layers and other components of the physical environment can adapt. Therefore, the capacity to return to its previous state after a disaster, which is the basis of the engineering perspective, is being replaced by

a more holistic and ecological resilience understanding with the complexity and unpredictability of the risks in the urban areas emerging today.

The built environment, which interferes with a significant portion of agricultural lands, fertile natural areas, forest cover, water resources and natural life, actually irreversibly disrupts the existing ecological structure. Even without any disaster, the incompatibility between the physical structure and the natural environment is rapidly deteriorating to the detriment of the natural environment. In fact, this environmental degradation continues even during the process of making buildings resistant to disasters from an engineering perspective. It is also obvious that after sudden or slowly developing disasters, unpredictable deterioration can often occur. While the robustness of individual structures and their ability to survive and maintain their function in the face of the effects of disasters are considered important, the environmental structure, ecological layers and components that they are forced to deteriorate and transform may undergo further irreversible deterioration. For this reason, the fact that the physical environment can easily overcome the effects of the disaster does not mean that the whole city will easily adapt to the new situation. It will be possible for all components of the city and urban environment to adapt to the same degree, to absorb the effects of the disaster or to reorganize the new situation in their favor in a way that the quality of life will not deteriorate, only if engineering resilience and ecological resilience work in harmony (Ernston et al. 2010; Meerow and Newell, 2016).

The strategy and policy documents of local governments also focus on how they can make arrangements in the face of visible and predictable disaster hazards. On the other hand, creating strategy documents for the unpredictable risks faced by urban areas can be considered as a very dangerous political

field. Especially in documents containing political promises prepared before elections, pointing to hazards that are less predictable may mean taking political risks. It is therefore understandable that policymakers politically emphasize more visible risk mitigation measures. In this sense, disaster hazards that point to a perspective of engineering resilience, which is more focused on individual building robustness, and which are generally socially prominent, such as earthquakes, constitute the agenda items. When we turn to practice, it can be observed that the promises made by political policy makers are carried out through the production of single buildings under the big title of urban transformation. In this sense, the concept of resilience, just like the concept of sustainability, becomes vague and is subsumed under the term robustness. However, we use resilience to describe situations and community capacities where "the impact of the disaster is limited, communities are able to recover from these impacts without significant damage, and if damage or losses have occurred, these do not constitute an obstacle to a rapid return to normal life" (Lamond and Proverbs, 2009; Bosher, 2008; Godschalk, 2003; Buckle et al., 2000; Tobin, 1999). However, while claiming that the physical and natural environment is integral to the city and urban life, predicting resilience based solely on the robustness of buildings would be extremely restrictive.

3. RESULTS

3.1 Resilient City Strategies and Objectives of Local Government in Çanakkale

The Strategy Plans for the last two 5-year periods covering 2015-2019 and 2020-2024 prepared by the local government of Çanakkale will be compared and analyzed. The final report of the 2015-2019 period, i.e. the 2019 Performance Program, and the final report of the second 5-year period (2020-2024

period), i.e. the 2023 Performance Program, are compared as the prepared and published reports of the plans. In the 2019 Performance Report (URL-3), the first section of the report explains the duties, powers and responsibilities of the Municipality and its relevant units. Within these explanations, no duties and responsibilities are directly related to urban resilience and disaster hazards and risks. The same situation is also identified in the 2023 performance report (URL-4). In both reports, only the terms "disaster and risk" are used among the keywords "disaster, hazard, risk, urban resistance/resilience". The umbrella concept of "sustainability" is included in the 2019 report, but not in the 2023 report.

In the 2019 report, under the title of "Main Policies and Priorities" (URL-3: 15), the Strategic Plan is evaluated under 4 main headings and one of these headings is "Livable Healthy Urbanization". The other titles are Institutional Change and Development, Social and Economic Development, Culture and Arts. In the 2023 report, the Strategic Plan titles were diversified and grouped under 8 main titles (URL-4). Table 1 shows the strategic objective titles of the 2019 and 2023 plans.

Table 1: Strategic Plan Objectives of Çanakkale Municipality for the 2015-2019 / 2020-2024 Periods (URL-3; URL-4)

	2015-2019 Strategic Objectives	2020-2024 Strategic Objectives	
1	Organizational Change and Development	Reducing the impact of environmental threats on the city	1
2	Livable Healthy Urbanization	Making the existence of water sustainable	2
3	Social and Economic Development	Ensuring healthy, safe and livable urban development	3
4	Culture Art	To ensure sustainable local development and improvement with a structure that sees the city as a whole with its rural areas and where all actors are together.	4
		Ensuring multi-stakeholder and people-oriented social development.	5
		To ensure the preservation and transfer of urban culture and social life to future generations with the partnership of the city's inhabitants.	6
		To expand preventive health activities to eliminate the effects of factors that threaten public health	7
		To improve service quality by developing institutional capacity that uses technology and information effectively	8

In the comparison of both periods, it is seen that the titles of the strategic objectives in the 2020-2024 period are slightly more detailed and more attention is drawn to the dangers and risks. It is considered that the city's difficulties in precipitation regimes and the emergence of drought symptoms along with the amount of precipitation in this period may be effective in the prominence of keywords such as "water", "public health", and "environmental threats". However, it is considered that Çanakkale has entered an arid period since the 2000s (Ilgar, 2010; URL-5). It is not known to what extent the COVID19 Pandemic, which emerged in late 2019 and especially in early 2020, had an impact on the determination of these strategic goals. A separate research is also needed in this direction. It is seen that the keyword "fire" is included in the report for the resilience of the city in terms of fire disaster. On the other hand, the threat of "forest fire", which may threaten the city and its inhabitants in terms of physical, economic and sociocultural aspects, disrupt normal life and turn into an ecological disaster, is not included in both report periods. However, as stated by Türkeş and Altan (2012), there is a strong relationship between drought and forest fires, and the danger and risks of forest fires tend to increase during dry periods in Çanakkale.

In the 2015-2019 report period, the sub-headings of the Strategic Plan Objective No. 2 (Table 1) under the title of Goals and Objectives are expressed as 13 items. These sub-headings are given in Table 2.

Table 2: Canakkale Municipality 2015-2019 "Livable Healthy Urbanization" Basic Strategic Plan Objective Subheadings (URL-3)

SO.2	**ENSURING LIVABLE AND HEALTHY URBANIZATION BY USING THE CITY'S ASSETS AND RESOURCES EFFECTIVELY**
ST.1	Ensuring sustainable spatial development of urban settlement.
ST.2	To ensure urban renewal integrated with the entire city in terms of social, cultural and economic dimensions.
ST.3	To ensure the design, construction, maintenance and repair of urban common areas in order to improve the quality of life.
ST.4	The quality of urban transportation system will be improved by developing human and environment-oriented, fast, safe and accessible arrangements and methods in urban transportation.
ST.5	The "public transportation system" in the city will be restructured and public transportation usage and satisfaction will be increased.
ST.6	Diversity of use, security and service quality of open and green areas throughout the city will be increased.
ST.7	Sustainability, efficiency, effectiveness and economy will be ensured in the supply and delivery of drinking water to the city by utilizing the technological means of the day.
ST.8	The negative impacts of wastewater on nature and the environment will be reduced through measures to be taken.
ST.9	The negative impacts of wastes on the environment will be reduced by increasing social awareness in the processes from generation to final disposal.
ST.10	Measures will be taken to reduce air and noise pollution caused by unconscious activities of individuals.
ST.11	Research, inventory and projection studies will be carried out to meet urban and institutional energy demands with renewable energy sources as much as possible.
ST.12	The city and the public will be prepared for possible natural and man-made disasters, fires and extraordinary situations.
ST.13	The utilization capacity and service quality of the marina will be increased.

SO: Strategic Objective, ST: Strategic Target

The strategic objectives listed in Table 2 (2015-2019 period) offer targets that may bring up concepts such as environmental protection, ecological approaches, sustainable and clean resource use (for water and energy), open space quality, increasing the quality of building production, developing safe and sustainable transportation alternatives, repair-restoration-renovation for the aging parts of the urban fabric. Attention is drawn to the direct danger of disaster in Strategic Target 12. Here, both man-made and natural disasters are characterized and the need for society to be "prepared" against disaster hazards and risks is emphasized.

Eight main headings have been identified for the strategic goals and objectives for the 2020-2024 period (Table 1). Among these objectives, there are also objectives that include

decisions on how to protect the city and its inhabitants against disaster hazards and risks and how to increase the quality of urban life in this direction. Objectives based on disaster hazards and risks, environmental protection, water and food security are stated as follows (Table 3);

Table 3: Çanakkale Municipality 2020-2024 Core Strategic Plan Objectives Related to Resilince and Disaster Concepts (URL-4)

SO. 1	REDUCING THE IMPACT OF ENVIRONMENTAL THREATS ON THE CITY
SO. 2	MAKING WATER AVAILABILITY SUSTAINABLE
SO. 3	ENSURING HEALTHY, SAFE AND LIVABLE URBAN DEVELOPMENT
SO. 7	TO EXPAND PREVENTIVE HEALTH ACTIVITIES AIMED AT ELIMINATING THE EFFECTS OF FACTORS THAT THREATEN PUBLIC HEALTH

Accordingly, “Strategic Targets” are also specified under each “Objective” heading. These targets are given in Table 4.

Table 4: Strategic Targets of Çanakkale Municipality 2020-2024 depending on Basic Strategic Plan Objectives (URL-4)

SO.1	**REDUCING THE IMPACT OF ENVIRONMENTAL THREATS ON THE CITY**
ST.1.1	Local awareness and measures for climate change and human-induced environmental risks will be increased.
ST.1.2	Local knowledge and awareness on energy efficiency and the use of renewable energy resources will be increased.
ST.1.3	The harmful effects of solid waste on the environment will be minimized.
ST.1.4	The amount of green space will be increased throughout the city.

S0: Strategic Objective, ST: Strategic Target

SO.2	**MAKING WATER AVAILABILITY SUSTAINABLE**
ST.2.1	For the continuity of water supply, the existing water basin will be protected and necessary studies will be carried out for alternative water resources.
ST.2.2	Citizens will be provided with uninterrupted access to healthy, reliable water, and water savings will be ensured through social awareness-raising activities and physical and administrative practices to reduce water waste.
ST.2.3	The effects of wastewater on human and environmental health will be minimized.

S0: Strategic Objective, ST: Strategic Target

SO.3	ENSURING HEALTHY, SAFE AND LIVABLE URBAN DEVELOPMENT
ST.3.1	To realize urban development in accordance with the polycentric growth model supported by a strong transportation network, based on the natural resources and values surrounding the urban area.
ST.3.2	In the process of sustainable urban development, planning will be made for an urban macroform that reduces costs, uses public resources efficiently and prevents sprawl.
ST.3.3	The use of innovative applications in sustainable urban development processes will be expanded, a smart city vision document will be prepared with the participation of city actors, and local service quality will be improved.
ST.3.4	Mobility and access needs within the city will be met in a safe, economical and environmentally friendly manner.
ST.3.5	Social awareness against disasters and emergencies will be raised and community-based solutions will be developed.

S0: Strategic Objective, ST: Strategic Target

SO.7	TO EXPAND PREVENTIVE HEALTH ACTIVITIES AIMED AT ELIMINATING THE EFFECTS OF FACTORS THAT THREATEN PUBLIC HEALTH
ST.7.1	In order to improve individuals' sense of personal and social health responsibility, social awareness on preventive health services will be increased and preventive activities will be implemented.
ST.7.2	Animal welfare in our city will be improved.
ST.7.3	It will be ensured that sports become a habit of healthy living.
ST.7.4	A support, monitoring and evaluation system will be established to facilitate public access to fair, healthy and safe food and protect the rights of producers and consumers.

S0: Strategic Objective, ST: Strategic Target

The four objectives (SO.1 - SO.2 - SO.3 - SO.7), which envisage the city and its inhabitants to live in a healthy, safe and sustainable environment, can also be considered as a social contract of local policy and decision makers. In this sense, the local government that aspires to govern the city demonstrates that it is aware of the dangers and risks that the city faces, and that it has a set of measures against them.

3.2 Applicability Performance of the 2015-2019 and 2020-2024 Strategies and Targets

In the strategic goals and targets for 2020-2024, it can be seen as an important approach that “climate” related threats are prioritized in terms of the future threats and the risks that these threats will pose if they materialize. While using the concept of environmental threats in SO.1, it can be argued that the objectives are interpreted from a perspective that draws attention to new urban risks that have stronger links with the quality of urban life, clean environment and sustainable urban life, which are also discussed in the international arena, and which are also difficult to predict, instead of conventional hazards and risks. Accordingly, the use of the “Climate Change”

parameter in ST.1 under SO.1 also reveals the most significant difference with the strategies and targets of the previous period (2015-2019 period). The fact that it is frequently stated in the targets for the 2020-2024 period that studies will be carried out especially to increase social awareness can be evaluated in the direction that "preparation" processes are among the targets in creating a disaster-resilient society.

Stating that ecological, environmental and climate-based studies will be oriented within the targets can also be interpreted as an important strategy change. In this sense, while measures to increase the resilience of urban areas against global climate change are meant, there are also hints that some studies will be carried out for adaptation approaches to climate change. The keywords "Climate - Energy - Waste - Green Space" actually emphasize the key terms given in Table 4, which are the dominant concepts for climate change adaptation strategies.

In the strategic plan targets for the 2015-2019 period, it is stated that the budget prepared for the title "The city and the public will be prepared for possible natural and human-induced disasters, fires and extraordinary situations" (Table 2: ST 12) is 380,000 TL. However, it is not detailed which tools this budget will be used to produce, what kind of investments will be made and which institutions and organizations will be used to develop partnerships. For this reason, the rationality of the allocated budget is questionable. There is a need for more descriptive studies on this issue, and to convey what the tools and policies of the objectives are. The budget for all targets under this objective is stated as 100,740,000 TL.

Budget requirements were determined for the Goals and Objectives included in the strategic plan targets for the 2020-2024 period and given in Table 4. Accordingly, the total budget for SO.1 (REDUCING THE IMPACT OF ENVIRONMENTAL

THREATS ON THE CITY) is 117,010,000 TL. An important point here is that there is (not) a budget for the sub-target of SO.1, ST 1.1 (Increasing local awareness and measures for climate change and human-induced environmental risks). The total budget allocated for SO.2 (SUSTAINABLE WATER PRESENCE) is determined as 133,617,000 TL. The total budget allocated for SO.3 (ENABLING HEALTHY, SAFE AND LIVABLE URBAN DEVELOPMENT) is 119,915,000 TL. Here, it is seen that no budget is foreseen for the sub-target of SO.3, ST 3.5 (Social awareness will be raised against disasters and emergencies and community-based solutions will be developed). The budget allocated for SO.7 (To expand preventive health activities to eliminate the effects of factors that threaten public health) is 15,710,000 TL. It is understood that no budget is foreseen for ST 7.4 (A support, monitoring and evaluation system will be established to facilitate public access to fair, healthy and reliable food and to protect the rights of producers and consumers), which is the target of SO.7.

4. EVALUATION AND CONCLUSION

It should also be acceptable to argue that urban areas are the most important places to produce resilience studies and policy documents. In the strategic decisions and recommendations taken by international organizations, preparation and risk reduction approaches for disasters, especially those caused by climate change, whose impact, frequency and severity are expected to increase in the future, come to the forefront. Local governments are pointed out as the most important actors in these processes. However, it is underlined that local governments alone cannot cope with these multifaceted, complex and sometimes unpredictable disaster hazards and risks that cannot be referenced from the past. For this reason, it is considered essential that the policy documents

to be formulated by local governments should be consistent, research-based, multidisciplinary, local participation, feasible, acceptable and rational approaches. The chaotic nature of urban areas and their vulnerability to many hazards and risks require local governments to consider the concept of urban resilience as an important policy document.

The two strategic document approaches of the Municipality of Çanakkale for the periods 2015-2019 and 2020-2024 are summarized in Table 5.

Table 5: Comparison of Çanakkale Municipality Strategy Documents

Republic of Turkey Canakkale Municipality		2015-2019 Strategy Document		2020-2024 Strategy Document	
		There is	No	There is	None
Concepts	Disaster	✓		✓	
	Danger		✓		✓
	Risk	✓		✓	
	Resilience		✓		✓
	Climate Change		✓	✓	
Prevention - Preparedness Goals and Strategies for Climate Change			✓	✓	
Goals and Strategies for Raising Public Awareness on Disasters - Emergencies			✓	✓	
Targets and Strategies for Creating - Increasing Urban Green Spaces		✓		✓	
Public Health Goals and Strategies			✓	✓	
Goals and Strategies for Food Safety		✓		✓	
Goals and Strategies for Water Security		✓		✓	

This study comparatively evaluates two strategic and policy approach documents prepared by the local government of Çanakkale for the last two periods (2015-2019 and 2020-2024). By examining the strategic goals and objectives that can be considered to be oriented towards urban resilience between these two periods, the differences between the two periods are tried to be revealed. Accordingly, the strategies, goals and targets included in the policy document for the 2020-2024 period show that political decisions have been taken to take important steps on climate change, protection of water resources

and the environment, developing an ecological perspective and raising awareness of local people. However, they do not provide sufficient information and documentation on how these goals will be achieved, how the allocated budget will be used, which tools will be produced and how the implementation processes will be carried out. The announcement of these goals and strategies makes the relevant local government politically responsible, but there is no mechanism to monitor and evaluate whether this responsibility is fulfilled or not.

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