

# Concept of Resilience and Development of Small Towns and Rural Area

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## Abstract

*The aim of this article is to use a new research concept, referred to as resilience, in rural development (rural resilience) in the context of the often discussed concept of urban resilience. The concept of urban resilience is recognized as a tool for strategic diagnosis and monitoring of cities. In studies of urban resilience for cities of various sizes, quantitative research is most often used. The author, on the basis of literature discussions and own research, presents the use of qualitative research in the assessment of urban resilience for the national network of Cittaslow cities. The concept of urban resilience refers to “a resilient city”, especially in the case of a collective criterion (i.e., urban quality policy). Seven groups of criteria in the matrix of urban development self-assessment are the basis for the evolutionary changes in the resilience of individual cities and the entire network. In the case of Cape Clear Island in Ireland, qualitative research of rural resilience was based on global indicators of economic, social and environmental capital proposed by Wilson. Despite the subjectivism of respondents, results of qualitative research allow for making strategic decisions for the purposes of obtaining specific development balance points and selecting specific paths for the Island’s development. Both quantitative and qualitative research — their practical dimension — should be used to build community resilience.*

**Keywords:** urban resilience, rural resilience, local and regional development, revitalization, Cittaslow city network

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## Introduction

The development of territorial units in our country, based on strategic planning, rarely takes into account their functioning in conditions of uncertainty. Meanwhile, dynamic economic and social changes in global or regional terms (e.g., economic crises, large-scale migrations, terrorism, but also increased access to EU funds in the EU), climate change, including natural disasters, global trends (e.g., rapid technological development, aging society), political and social (development of democracy, social participation in decision-making processes) require taking them into account at the stage of strategic diagnosis and in the processes of monitoring local (regional) development in the medium and long term. In strategic management of sustainable local development, it is important to determine data and make changes of quantitative, qualitative as well as structural character.

In the future-oriented local (regional) development, improving the quality of life of residents is one of the main goals of strategic planning. When defining the quality of life<sup>1</sup> of a given territorial unit, two approaches can be distinguished: subjective and objective. The subjective, qualitative,

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1. The quality of life is “the overall living conditions of the individual/group, shaping in the social, economic, environmental and conscious dimensions of the development of a specific space (territorial unit, city), which in objective and subjective (quantitative and qualitative) represent the feeling satisfying the needs and fulfilling life aspirations in a given place and time” (Zarychta 2016).

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non-measurable approach refers to the perspective of the individual assessed individually — the study is subject to satisfaction with life as a whole and individual spheres of the individual's life (Zarychta 2016). In objective terms, quantitative social and economic indicators are used, and their analysis indicates opportunities created for people by the environment (Czepkiewicz and Jankowski 2015). Such two-dimensionality of the concept of quality of life translates into measurements made using various indicators (e.g., UNDP, World Bank, Gallup Institute, European Commission, Eurobarometer), universities (e.g., Oxford Brookers University) or CSO (Janiszewska and Klima 2017).

In turbulent times, cities and rural areas face the necessity of using strategic management and managing change with new tools. Measurement and anticipation of development processes of a given territorial unit against many interdependent phenomena of a complex character is a challenge for development policy. The classical methods of analysis and planning are not enough to diagnose and forecast development processes in the long term in a situation of fast-moving changes. Therefore, it is important not only to stimulate and direct local (regional) development, but also to define for the given territorial unit its capacity (as a system) to react to external disturbances, recover from the shock and use crisis management.

In addition to the already known methods of strategic planning,<sup>2</sup> foresight for the development of a given territorial unit,<sup>3</sup> territorial marketing and, more recently, scenario methods are used more often. The concept of urban resilience belongs to these new tools of strategic diagnosis and monitoring of cities. It can also be used to position the development of the city. It is based mainly on quantitative research and allows us to assess the degree of economic resilience of the city or the degree of its sensitivity to disturbances (Drobniak 2015, 122). In domestic publications, the issue of urban resilience is analyzed, based on economic (Drobniak 2015; Konecka-Szydłowska 2018a), demographic (Konecka-Szydłowska 2018b) and spatial dimensions (Markiewicz 2017). Both in Poland and abroad, the concept of urban resilience is applied to cities of various sizes, including small ones, and a specific development profile (e.g., post-industrial cities). However, the concept of rural resilience is described much less frequently.

In this article, the author, based on literature review and own research, presents an idea of using the concept resilience for the needs of determining development opportunities of small cities and rural area, taking into account their attributes of resilience and sensitivity to the needs of strategic planning. In research of urban resilience quantitative methodology is most often used for cities. Examples of how qualitative research can contribute to the development of small towns and rural areas is illustrated by the Polish network of Cittaslow cities and Cape Clear islands in Ireland. The different indicators used in both examples, corresponding to the attributes of resilience and sensitivity, influence strategic decisions for the purposes of obtaining specific development balance points and the selection of specific development paths of these territorial units.

## 1 Definition of resilience

Resilience is the ability or process of adapting to changing conditions, adaptation to the environment, immunization, resistance to harmful factors. It was established as an ecological term but has since been applied in an economic and social context, including in relation to urban environments (used interchangeably: urban resilience) and rural area (rural resilience). There are different approaches to defining the concept of resilience:

- It is a specific property of the system/unit (its structures, capitals) — resilience (internal system efficiency); after exogenous and/or endogenous disturbances, the system returns to primary equilibrium, or adopts a new one, based on solving problems on common values, mobilization, motivation, social integration, effective communication.

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2. Strategic planning is a process preceded by research and diagnosis of the current state, taking into account the opinions of all stakeholders of a given territorial unit, leading to the development of final long-term strategies, various development plans and programs, and other operational documents.

3. The foresight method is a study project whose aim is to develop decision-makers and other opinion-forming circles for desirable directions of long-term development and changes, facilitating the formulation of policy and innovation strategies.

- It is a dynamic process in which its participants learn about positive adaptation, learn crisis management, manage technological challenges, etc.
- It is the ability for the system to survive in extremely adverse conditions, or its positive economic, social and environmental transformation as a result of achieving many points of equilibrium as a result of different (several) development paths. An example of obtaining balance points, determined on the basis of the diagnosis of “resistance” factors, is, for example, the introduction of revitalization programs for crisis areas, creating entrepreneurship opportunities for inhabitants (the indicator of development potentials versus the unemployment rate).

Resilience manifests itself through the following processes:

- preventive, as a result of replacing some solutions with other (e.g., renewable energies in place of traditional ones), actions that reduce the risk of various types of disorders and disturbances, the prevention of environmental change of residence
- reduction in the result of targeted actions of territorial units on preserving the permanence of existence of spatial and social, natural and economic structures (e.g., through revitalization projects, increasing green areas, elimination of flood plains for housing, etc.)

Chelleri and Olazabal (2012) for the purpose of describing the city’s development process after shock/disruption, developed a model of urban resilience comprising three stages that interact with each other: regeneration, adaptation and transformation. Resilience is also associated with the concept of mitigation<sup>4</sup>, although it is less often cited in literature. For the purposes of measuring and assessing urban resilience, the following attributes are most often referred to by Godschalk, Klein, Walker and Salt: redundancy, diversity, efficiency, autonomy, adaptability, cooperation, interdependence and attributes of urban sensitivity—i.e., maladjustment, fragmentation, excessive specialization, insufficiency, inefficiency and inconvenience (dissonance) (Drobniak 2015, 126–127). The aforementioned factors of resilience and sensitivity are attributed to various national indicators by various researchers, most often quantitative ones (e.g., Drobniak 2015; Konecka-Szydłowska 2018b).

In the literature on the subject of urban resilience there is a combination of two research approaches (i.e., economic equilibrium and an evolutionary approach). Two aspects are combined: the ability of the economy to preserve its structures and functions despite the shock (city resilience)<sup>5</sup> and the system’s ability to quickly and effectively change structures and functions in response to shock (Hill, Wial, and Wolman 2008).

The concept of resilience is also used in the rural context. Rural resilience is based in particular on economic, ecological and cultural (or social) connections on different spatial scales. Heijman, Hagelaar and van der Heide (2007) propose that rural resilience is “the capacity of a rural region to adapt changing external circumstances in such a way that a satisfactory standard of living is maintained.”

Wilson (2010) introduced a significant differentiator of the vitality of rural areas, which is multifunctionality. It is understood as the potential to perform many functions simultaneously in a society; traditional (agricultural production), but also new ones—e.g., various market and public services (Copus 2015). Non-agricultural services include rural tourism, landscape management, water storage, cultural heritage and nature management. Rural areas should also be treated as nature and biodiversity reserves. Wilson (2010) combines the concept of multifunctionality of rural communities with the elasticity and sensitivity in human systems and proposes its indicators (see tab. 2, 4, and 5, columns 1 and 2). According to him, resilience means the result (better adaptability of rural communities) and the process—i.e., “dynamic changes over time related associates with community learnings and willingness to take responsibility and control of their development pathway . . . Such resilience can be expressed through the robustness, the rapidity, the redundancy and resourcefulness of a community to find ways to address internal and external changes.”

4. Mitigation — decreasing values, stopping, inhibiting, restraining actions that we do not want to happen.

5. Or engineering resilience—the city is treated as an environmental and infrastructure system (including security); its stability depends on returning to the point of economic equilibrium after disturbances. In this approach, resilience is defined as the ability of the urban system to absorb and accumulate disturbances without changing urban structures (Drobniak 2015, 120, 122).

Undoubtedly, the most valuable capital from the point of view of the concept of resilience is human and social capital. McManus believes that belonging to a place, community and the general public forms the basis of action of rural communities, so it is a positive attribute that contributes to resilience (Enright 2016, 6).

Magis defines the resilience of the community as “the existence, development and engagement of community resources by community members to thrive in an environment characterised by change, uncertainty, unpredictability, and surprise. Members of communities intentionally develop personal and collective capacity to respond to and influence change, to sustain and renew the community, and to develop new trajectories for the communities’ future.”<sup>6</sup> According to Chaskin, “community resilience should be seen as a positive, adaptive response to adversity where resilient actors (individuals and or networks) are able to draw on economic, social and environmental capital to adapt successfully and thus, are able to moderate or avoid the negative consequences that similar threats visit upon less resilient individuals or network” (see: Enright 2016, 6).

## 2 The resilience of development in the Cittaslow city network

About 30 Polish small towns, joining the Cittaslow city network, chose development oriented towards a good quality of life. It is one of the parallel development models (and thus development paths) in these cities. The network uses revitalization as a tool to overcome the “critical points” (imbalance) in the city. In the framework of the supra-local revitalization program, the cities acquired funds for revitalization. The main objective of this program is to improve the situation on the labor market. In accordance with the Statute of the Polish National Cittaslow City Network (attachment C),<sup>7</sup> the certification process covers seven groups of multi-component requirements (obligatory and optional), including: energy and environmental policy, infrastructure policy, urban quality policy, agricultural policy, craft and craft tourism, hospitality, awareness and education policies, social cohesion and partnerships. The candidate city prepares a self-esteem matrix, containing about 70 descriptive requirements and must show at least 51% of fulfilled obligatory criteria in the application. Belonging to the cities of the Cittaslow network assumes an evolutionary development of resilience; besides the initial certification, periodic audits are carried out. All groups of multi-component criteria are, however, a formalized (top) vector of emphasis on the increase of urban resilience, which only partially affects the pro-active activities of the local community. The Polish National City Network Cittaslow creates its own examples of good urban development practices.

The area of “Urban quality policy,” closely related to spatial aspects, is described in more detail below. It includes a requirement, referring to urban resilience, concerning the preparation by the cities of a “plan of resilience of the urban structure” (fig. 1, requirement 3.1).<sup>8</sup> How to understand this concept is indirectly described by the requirements (3.2 – 3.17), however, for the purposes of drawing up the self-assessment matrix, there is no clear explanation in the formal document. Although this is a non-mandatory requirement, the candidate cities make simplified entries. They focus mainly on changed or created program and planning documents – for example: in Działdowo — on the city’s development strategy, local revitalization program (the city’s evolutionary development is underlined, consistent with sustainable development); in Rzgów — on the preparation of a study, low-emission economy plan, on cooperation with the Business Council and associations (e.g., “Stop wind farms near homes”), village leaders and Sołeckie councils. The city of Rzgów is covered by 95% of local spatial development plans.<sup>9</sup> Figure 1 and table 1 illustrate the results of self-assessment for Rzgów and Działdowo in a group of sixteen multi-faceted certification requirements in the area of “Urban quality policy.” Non-compulsory requirements: 3.1, 3.3 and 3.14 are not taken into account when the city is admitted to the Cittaslow network but are important for their further

6. See: What is “community resilience” and how should it link to sustainable rural development? Presentation during 16th Summer Academy by S. Skerratt, Scotland’s, Rural College (SRUC), Middletown, Ireland.

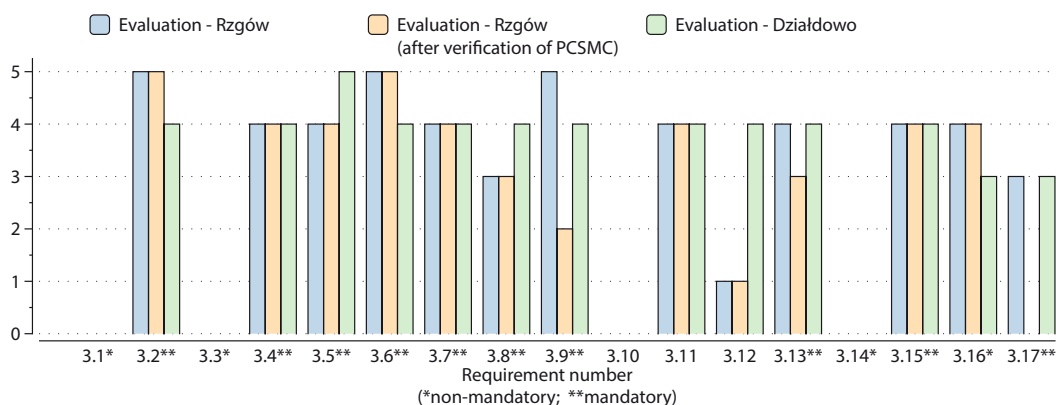
7. See: <http://www.cittaslow.org/>.

8. Earlier translation concerned “planning city flexibility.”

9. Records come from self-assessment matrices for the city of Działdowo (from the year 2015), and Rzgów (from the year 2017).

development (audits). On the other hand, obligatory requirements 3.3, 3.10 and 3.17 do not refer to statistical data in Polish conditions, which makes it difficult to compare data on a network scale. Figure 1 illustrates the results of self-assessment for Rzgów and Działdowo in a group of sixteen multi-faceted certification requirements in the area of “urban quality policy” (tab. 1).

Requirements presented in the table concern infrastructural and revitalization activities of an economic, social and environmental nature. The assessment at level 3 and lower is a signal for the city to take action in this area in the future (evaluation in subsequent audits).



**Fig. 1.** List of ratings for the city of Rzgów (preliminary assessment and after verification) and the city of Działdowo in area 3. Quality policy for urban life

Source: Own elaboration based on Świątkiewicz (2017, 60)

**Tab. 1.** List of certification (and development) requirements for a Cittaslow network candidate city

No.	Group of criteria—“Urban quality policy”
3.1*	Resilience plan of the urban structure; earlier: “Planning the flexibility of the city”
3.2**	Actions in the field of renewal and increasing the value of city centers (small urban architecture “street furniture,” tourist signs, satellites and telephones, preservation of the urban landscape)
3.3*	Restoration/creation of social green areas with the use of crop plants and/or fruit trees
3.4**	Revival of urban life (house schedule—work, childcare, kindergartens, free time, etc.)
3.5**	Reclassification and re-use of peripheral areas
3.6**	Application of new information and communication technologies “ITC” in the development of interactive services for residents and tourists
3.7**	Office for sustainable architecture (bioarchitecture, etc.)
3.8**	City cable network (optical fibers, wireless systems)
3.9**	Monitoring and reduction of pollution (noise, electromagnetic field, etc.)
3.10	Development of telework
3.11	Promotion of private sustainable urban planning (passive houses, construction materials, etc.)
3.12	Promotion of social infrastructure (time banks, projects for the exchange of goods between residents of a given urban community, etc.)
3.13**	Promotion of public sustainable urban planning (passive houses, construction materials etc.)
3.14*	Renewal/creation of green areas with production plants and/or fruit trees on the outskirts of the city
3.15**	Creation of places for trade in local products
3.16*	Protection/valorization of assets of a special nature—creation of natural shopping centers
3.17**	Cubic meters of cement (network infrastructure) in urban green areas

Note: \* non-mandatory requirements; \*\* mandatory requirements

Source: Own elaboration based on Statute of the Polish National Network of Cittaslow Cities (Appendix C)

### 3 Rural resilience based on the example of Cape Clear Island (Ireland)

Qualitative studies of resilience of Cape Clear Island (Ireland) taken in 2015 by Pat Enright of the University of Cork were based on the indicators adopted by Wilson (2010), which identify strongly and poorly developed economic, social and environmental capitals (tab. 2, 4, and 5). According to this author, the indicators of strong capital enable the emergence of resilient and sustainable rural communities. These indicators have been compiled for the purposes of this study with selected research results for Cape Clear Island, for which the following assumptions have been made:

- local indicators are used (not macro-regional indicators), and
- opinions of islanders and their perception of the local community are the correct way to understand the potential of a specific village.

Cape Clear is an island with an area of 6,7 km<sup>2</sup>, which belongs to County Cork in Ireland. It is inhabited by 124 people (Enright 2016), mainly Irish (81% people) and British citizens.<sup>10</sup> 62 people (32 men and 30 women) participated in the survey, mostly being permanent inhabitants of the island. 50% of these people graduated from higher education compared to 26% of the population of County Cork in Ireland. The average age is 54 years, where the oldest person is 88 years old, and the youngest is 18 (Enright 2016). The economic prosperity of the island was analyzed based on the following indicators: poverty, indebtedness of inhabitants, housing conditions, and economic resourcefulness of the population. Both poverty and indebtedness of the inhabitants are quite a significant problem on the island (tab. 2, column 3), however, the inhabitants consider poverty on the Island to be a smaller problem than in County Cork.

The construction boom (the so-called Celtic Tiger) did not reach the Island; only 9 houses were built in 2001–2016. As for the economic resourcefulness of the population, about 48% of respondents believe that they are doing more or less the same as other farms in Ireland, including Cork County. In general, however, the respondents thought they were doing worse than those on land. The cost of living is much higher on the Island than on the mainland.

Half of the surveyed residents considered the infrastructure of the Island to be good or very good. The research included: transport between the Island and the mainland, telephone and internet communication, social facilities, and infrastructure for tourists. According to 84% of people, transport on the Island is effective, despite the controversial quality of roads; 75% of people have their own car, and the local bus line is efficient and helpful for older people and those unable to drive. Only 40% of people rate phone calls, including Internet connections, as satisfactory. Water shortages are also a problem (tab. 2). Every second respondent believes that the Island has adequate facilities for residents, including a shop and a health center, and a primary school education is considered very effective. There is no permanent nurse presence on the Island, no post office and no secondary school; the latter contributes to temporary or permanent migration of parents with children to the mainland. Education at a higher level is a challenge.

The infrastructure for tourists on the Island needs improvement according to 66% of people, and 70% believe that the Island's resources are not enough to satisfy the inflow of tourists and students from Irish universities. The number of people on the Island in the summer increases twofold. The respondents pointed to a lack of accommodations for tourists, shortages of water, lack of activities for children, public toilets, rubbish bins and additional places to eat.

An unusual indicator included in the research is happiness, which according to Wilson (2010) contributes to the emergence of strongly developed economic capital (tab. 2, column 1). The happiness research was based on the Oxford Happiness Survey methodology, developed by Hills and Argyle, which proposes a psychological approach to an individual view of life as well as social and recreational activities (Hills and Argyle 2002). The average happiness score for Cape Clear residents is 4,59. 26% of Cape Clear residents had a score above 5, which means “they were very happy” (i.e., they have a base of happiness that allows them to expand their horizons and aim for greater success); 53% of respondents scored on a scale of 4 to 5, which means that more than half of the respondents are happy and optimistic (Enright 2016, 14–15).

10. According to the Ireland's Central Statistics Office, data from March 2018.

**Tab. 2.** Global indicators of well and poorly developed economic capital (according to Wilson) and research results for Cape Clear Island

Strongly developed capital	Poorly developed capital	Negative resident opinions on selected indicators for Cape Clear Island
<ul style="list-style-type: none"> <li>• economic prosperity</li> <li>• diversified sources of income</li> <li>• low dependence on external funds</li> <li>• multifunctional companies</li> <li>• integration with the global capitalist system</li> <li>• happiness</li> </ul>	<ul style="list-style-type: none"> <li>• poverty/debt</li> <li>• excessive dependence on agricultural production</li> <li>• bad infrastructure</li> <li>• high dependence on external financing (EU)</li> <li>• community as network food importers</li> </ul>	<ul style="list-style-type: none"> <li>• Poverty—is a problem according to 62% of people (grades: from “significant” to “moderate” problem).</li> <li>• Debt—for 49% of respondents is a significant problem, although only 19% of 79% of owners of apartments have a mortgage.</li> <li>• Broadband connections—according to the opinion of about 48% of people Internet and telephone communication is not satisfactory for the Island.</li> <li>• Water—6% of people assess water shortages in summer as a significant problem.</li> <li>• Transport to and from the Island—Cape Clear is regularly cut off from the mainland during the winter.</li> </ul>

*Source:* Own study based on Wilson (2010, 69) and Enright (2016, 8, 10–14)

**Tab. 3.** Diversifying sources of income by sectors on the Cape Clear Island

Sector	Positive aspects	Negative aspects
Agriculture	60% think that agriculture is in good condition (sustainable, is the main full-time employment), and 30% of people share this with EU support for small farms (agriculture is considered only as supporting the development of the Island).	14% of people work in the primary sector (farmers); 13% of people think that this sector supports only a few families with modest incomes. According to 9% of people, transport of animals and other goods is expensive, and agriculture is maintained only thanks to government support.
Tourism	This is the second main source of income for the Island according to 34% of people. 14% of respondents evaluate this sector positively. 23% of respondents had a different job in the tourist season compared to the rest of the year.	14% think that the sector could do better. According to 19% of respondents, the number of tourists has been falling since the economic crisis, 29% of people consider the sector to be very dependent on the weather; (e.g., the short summer).
Public services	18% of people work in public services such as school, health, etc.	There is no post office, no permanent medical service (no physician or nurse), no secondary school.
Private services	The sector employs 30% of residents, including in the tourism sector.	Approximately 80% of respondents think that food and goods are more expensive than on the mainland, by approximately 21%.
Citizenship	It has its significance in the tourist offer.	It is the fifth most important sector.

*Source:* Own study based on Enright (2016, 8, 16–19)

Diversifying sources of income thanks to the agriculture, tourism, public services and private services sectors (48% work in the service sector) has a positive effect on business multifunctionality; 19% of people had different positions, and 23% different work in the tourist season (tab. 3). Agriculture and tourism are the leading sources of income, with agriculture being considered by 30% of people only as sustainable thanks to EU funds. The dependence on external financing from the EU shows the weak economic capital of the sector. Tourism developed and expanded on the Island based on Irish language, culture and wildlife and marine fauna. The unemployment rate on the Island is lower than the unemployment rate in Ireland—9,7% (Enright 2016, 19). There were 21% of the residents who were retired.

Positive indicators of resilience and development related to social capital turned out to be the result of research: cooperation/interaction and communication within the community, which is particularly important in the case of communities with limited access to land services and support (tab. 4). Leadership turned out to be important, but only in the local authorities of the Island. Cooperation is important on the Island according to the majority of respondents, but about 20% of people think that they do not cooperate in business or other general matters.

Lack of a secondary school on the Island causes parents to either place their children in a boarding school on the mainland, or to move with the children to the mainland (temporary or permanent migration). Stopping the migration of people (the population is decreasing year by year), as well as attracting young people to the Island permanently or for a definite period is determined by access to the Internet, mainly due to work (services, including tourism, education). It is therefore one of the key economic and social factors of local infrastructure—it also determines the sensitivity of the Island's development. The development of the local community depends on relations between the Island and its surroundings, including with Irish universities for the viability of the Island (according to 90% of respondents). The inflow of students in summer is positively assessed by 97% of respondents. Both in this area of research and in the case of economic capital, there is no information about innovative human and social capital.

Negative aspects of Cape Clear environmental capital (tab. 5) include water shortages.

**Tab. 4.** Global indicators of strongly and poorly developed social capital (according to Wilson) and research results for Cape Clear Island

Strongly developed capital	Poorly developed capital	Positive aspects of social capital on Cape Clear (selected indicators)
<ul style="list-style-type: none"> <li>• close interaction between people from rural areas</li> <li>• availability of training and education</li> <li>• good health and sanitary conditions</li> <li>• multifunctional services</li> <li>• good communication between stakeholder groups</li> <li>• women's equality</li> <li>• communities free of prejudice</li> <li>• good and transparent land ownership regulations</li> <li>• stakeholders in rural areas are responsible for the development trajectories</li> <li>• strong management structures at many geographical scales</li> </ul>	<ul style="list-style-type: none"> <li>• migration of young people</li> <li>• abandoning military service</li> <li>• no leadership</li> <li>• lack of control over the fate of the rural community</li> <li>• high mortality and low life expectancy</li> <li>• poor communication between stakeholder groups</li> <li>• women's dependence</li> <li>• weak land ownership patterns</li> <li>• dissatisfaction with the rural development path</li> <li>• poor Island management</li> </ul>	<ul style="list-style-type: none"> <li>• Coping with negative events—more than 80% of people consider cooperation as important on the Island; people organize themselves to deal with negative situations such as removing the effects of storms/floods, accidents and health problems, accidents with cattle (this fosters closer relations among farmers).</li> <li>• Communications in the community—it is good (meetings of residents, blogs). In the opinion of about 70% of respondents.</li> <li>• Leadership in the community—about 44% of respondents consider the Island authorities to be good; 23% of people were neutral.</li> </ul>

Source: Own study based on Wilson (2010, 369) and Enright (2016, 8, 15–16)

**Tab. 5.** Global indicators of well and poorly developed environmental capital (according to Wilson) and research results for Cape Clear Island

Strongly developed capital	Poorly developed capital	Negative aspects of environmental capital Cape Clear (selected indicators)
<ul style="list-style-type: none"> <li>• high level of biodiversity</li> <li>• good water quality and availability</li> <li>• sustainable soil management</li> <li>• predictable agricultural yields</li> <li>• sustainable management of environmental resources</li> <li>• multifunctional environmental resources</li> </ul>	<ul style="list-style-type: none"> <li>• soil degradation</li> <li>• desertification</li> <li>• salinity</li> <li>• low water quality and availability</li> <li>• uncertainty regarding agricultural yields</li> </ul>	<ul style="list-style-type: none"> <li>• 26% of respondents think that water supply is a problem.</li> </ul>

Source: Own study based on Wilson (2010, 69) and Enright (2016, 8, 12)



The relative strength and weakness of economic, social and environmental indicators for Cape Clear Island is illustrated in figure 2. Indicators such as: happiness, infrastructure, economic prosperity, community cooperation and diversified income strongly affect the development of the Island's development capitals, while broadband infrastructure, dependence on EU subsidies and dependence on imported food were considered indicators of imbalance, since they increase the sensitivity of the Island to changes.

< Strongly developed capital	Weakly developed capital>
<p data-bbox="368 544 507 566">Infrastructure</p> <p data-bbox="280 658 384 680">Happiness</p> <p data-bbox="520 600 730 651">Poverty and debt Economic well-being</p> <p data-bbox="461 689 740 741">Community cooperation Diversified income</p>	<p data-bbox="892 573 1155 595">Broadband infrastructure</p> <p data-bbox="1090 745 1385 797">Dependence on food imports Reliance on EU subsidies</p>

**Fig. 2.** The relative strengths and weaknesses of the economic, social and environmental capital for Cape Clear Island  
*Source:* Own study based on Enright (2016, 21)

## Summary

The development of rural and urban communities is a complex process specific to each locality. Therefore, urban or rural resilience is most often determined for a given territorial unit on the basis of the composition of indicators related to resilience and sensitivity selected individually by researchers. Quantitative research as well as qualitative estimates of resilience of cities or rural areas require repetition in specific cycles, due to turbulent surroundings and changing needs of residents. In the case of a network of cities—e.g., Cittaslow, cyclical audits support the resilience studies, and the results obtained are important not only on an individual (local) scale, but also on the scale of a (regional) network.

The results of urban and rural resilience research create the question of what are “desirable results,” who are they desirable for and who decides what is “desirable”? Therefore, pro-active social attitudes and building the potential of human and social capital, and its innovativeness should be taken into account in resilience studies. The presented research also highlights the importance of ties, shared values and leadership, which are important in small cities or isolated environments (such as an island). These aspects are not reflected in the “hard” socio-economic indicators. Both quantitative and qualitative research—their practical dimension—should be used to build community resilience. Taking into account many perspectives and research experiences, appropriate information policy, mindfulness and perceiving territorial units that do not show or cannot display resilience will support sustainable and sustainable development of rural areas and cities.

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