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- DRAFT -

Rural changes: Their types and effects on rural capital

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Abstract

“Rural areas are changing” is the favourite quote of rural studies in the last few decades. Although this is the fact, current dynamics in rural areas have become the challenging research topic. The diversity and uniqueness of rural areas, the difficulty to define and classify them due to the last transformations occurred, have led researchers to focus on case-study specific changes. This new dynamism in rural areas can be caused by internal factors (e.g. assets of a given rural region), external factors (e.g. national politics) or their combination. It is certain that the dominant indicators and their impacts on the rural change differ according to the unique features of rural areas. Nevertheless, it is worthy to define common points which have already created great shifts or are able to create further that give new role to rural areas in the global scene. Therefore, in this study, we try to classify the rural changes and we offer a typology of this regeneration which is followed with a SWOT analysis on the basis of the possible and current effects of these changes on rural capital.

1 Introduction

In recent years, there has been a shift in the evaluation of rural areas with respect to the changes and to their quick responding characteristics. More than two decades ago, rural studies have started to talk about the rural change and this has become the favourite and the most challenging subject since then (see Rogers, 1993).

Due to the diversity and uniqueness of rural sites and their current dynamism, it is already difficult to define what is rural and what is not. Besides, changes in rural areas are various and different terms are used to define rural changes. Among these words, rural change, rural transition, rural transformation, rural restructuring, rural resilience, rural regeneration and rural gentrification can be listed. Basically, rural change is a process and may have different ignitizers related to their reasons of emergence, viz. internal factors (e.g. assets of a given rural region), external factors (e.g. national politics) or their combination. Therefore, these factors can be diverse and can have various impacts on rural areas have different type.

Rural change is basically a combination of the responding systems. All these changes occurring in rural area especially of developed countries, used to be economically driven (Ilbery, 1998). But today, it is not possible to explain the rural change only from social and economic perspectives. Rural is no longer seen as one single space but rather a multiplicity of spaces in the same geography (Cloe and Milbourne, 1992). Therefore, the processes of rural change do not start only by the will to increase the income level but rather with other purposes and drivers.

Rural change happens usually in an uncontrolled way and its results can be undesired. But, the reevaluated rural policies concern more about obtaining sustainable rural development while improving the enthusiasm of rural inhabitants to stay in their settlements and while providing the continuity of the inherited characteristics of the area. Rural change is the reaction to and articulation of changes in each component of rural capital and usually shaped by the decision makers and politically powerful people in rural decision mechanisms (Marsden, 1998).

Rural capital is an organizing concept generated for rural studies by Castle (1998). It is the combination of natural capital, man-made capital, human capital, and social capital. Natural capital refers to the part of the natural environment that is capable of contributing directly or indirectly to human satisfaction, while man-made capital refers to the capabilities of the physical environment. In addition, human capital reflects both the size of the working age population (with population growth leading to the widening of human capital) and investment in the education and training of people (which leads to the deepening of human capital). Social capital refers to the networking, trust and relationships within communities. The development and conservation of rural capital is of fundamental importance to rural people as they exercise their autonomy in addressing common concerns and pursuing their aspirations, while encouraging consideration of the destruction of some capital, as well as the creation of other forms (Castle, 1998). Thus, this approach of rural capital is a more conservative approach of the changes, referring to possible undesired changes in rural regions.

In this study, we aim to offer a common ground for the different types of rural change, while investigating the factors and drivers of such changes and also their impacts on rural capital. The study will be based on a literature review. A meta-SWOT analysis will be offered at the end to better understand the rural change occurring in both developed and developing countries' rural areas.

Section 2 defines the reasons of emergence of rural change and offers a systemic approach to define these factors. Section 3 proposes a typology for rural change while discussing the paths to reach the ideal rural change. Section 4 investigates the effects of rural change in the area and highlights strategies for an ideal sustainable rural development. The study concludes by discussing future research agenda about the topic.

2 Rural change: Factors and Drivers

Rural areas are very sensitive to what is happening around and beyond them. Their weaknesses, smallness and uniqueness have led rural people to create their own solutions to overcome what is happening and make them very defensive and closed communities. In both theory and practice, the attempts to prepare rural areas for negative and uncontrolled changes and to transform rural areas from being unwanted to being preferred are called sustainable rural development. Sustainable rural development is not a solution solely for rural areas but also for urban areas (see Harris and Todaro, 1970).

Sustainable rural development to be obtained needs to be fostered by various systems, e.g. economic system, social system, administrative system, etc. Thus, it needs a systemic approach to be evaluated and investigated. Rural areas, even though, seem to be one small part of a (social) system, as a whole they are complex systems.

Rural system and its components are the main factors which can cause different type of changes. Therefore, here we systematize the common factors which make emerge different types of changes. In order to do that, we applied a pentagon approach which has been applied in several policy studies in the last decade in order to assess the critical success/failure factors of a policy (see, e.g., Nijkamp et al., 1994; Nijkamp and Pepping, 1998b; Capello et al., 1999; Nijkamp, 2008b, Akgün et al., 2011).

Basically, this approach aims to map out in a structured manner the various forces that contribute to the performance of a given policy (Pepping and Nijkamp, 1998c). The model which is used not only in policy studies but also in systemic thinking about, and evaluation of, multidimensional complexity, has demonstrated its methodological power and empirical validity in various studies (Nijkamp, 2008b).

From a pentagon approach, here we will talk about five systems which may have a dominant role to generate change in rural areas. Therefore, the type of the change can be identified. The dominance of the system can be naturally or artificially obtained. For instance, the rural change can be rural resilience in which natural systems play a dominant role and may be caused by the factors, i.e. natural disasters. In other words, causes of rural changes can be natural or artificial from inside or outside of the rural areas.

According to our evaluation from a systemic pentagon perspective, there are five main systems which may cause the rural change. These are: physical systems (man-made capital), social systems (social capital), natural systems (natural capital), economical systems (human capital), and institutional/organizational systems (administration/governmental and non-governmental institutions, and public interest) (Figure 1).

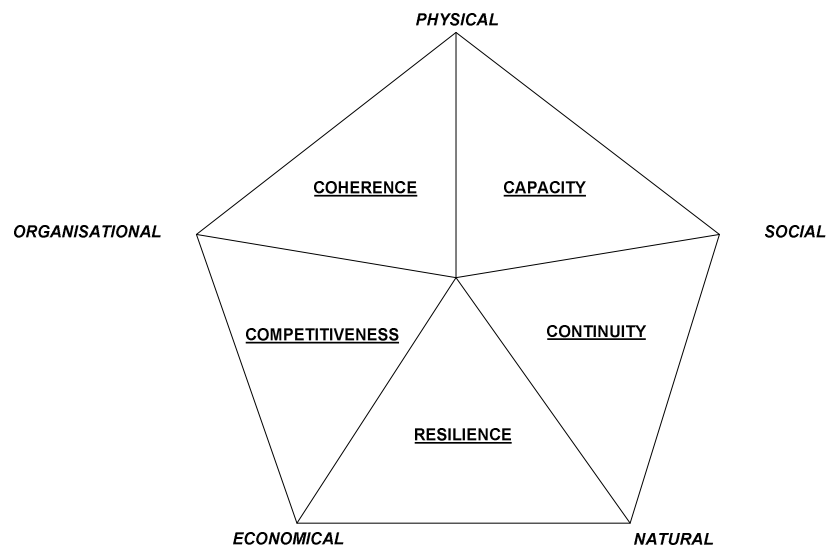


Figure 1. Pentagon factors of rural changes

The changes caused by these factors can result different outcomes. For instance, changes caused by physical and social changes in rural areas may affect the most the rural capacity. In addition, the social and natural changes can result in different ways but rural perceived as socially defensive and naturally rich areas can face success or failure in its continuity. We name these different results as the aim/driving forces of changes (Figure 1). These are capacity, continuity, resilience, competitiveness and coherence.

In the following section, on the basis of these five factors and driving forces, a typology of rural changes is discussed to better understand the impacts of rural changes.

3 Different types of rural change

We have mentioned above different nomination of rural change. In this section, we will create a typology of rural changes mentioned in the literature and their impacts on rural capital. This typology is based on a literature review started in January 2011 and still on-going. The terminology used for rural change is diverse thus, difficult to organise and gather.

The first sub-section offers a summary of the meta-data with a typology of rural changes in relation with rural capital. The following sub-section generates a meta-SWOT analysis of different types of rural change.

3.1 Summary of the meta-data

Rural changes are usually caused by the dualization of different systems related to sustainable rural development. Usually these dualizations are between social and economic systems, physical and natural systems. The changes caused by organizational systems can have different aims and can be the ignitizer of various changes. Therefore, while creating our typology we will take organizational system as the external factor.

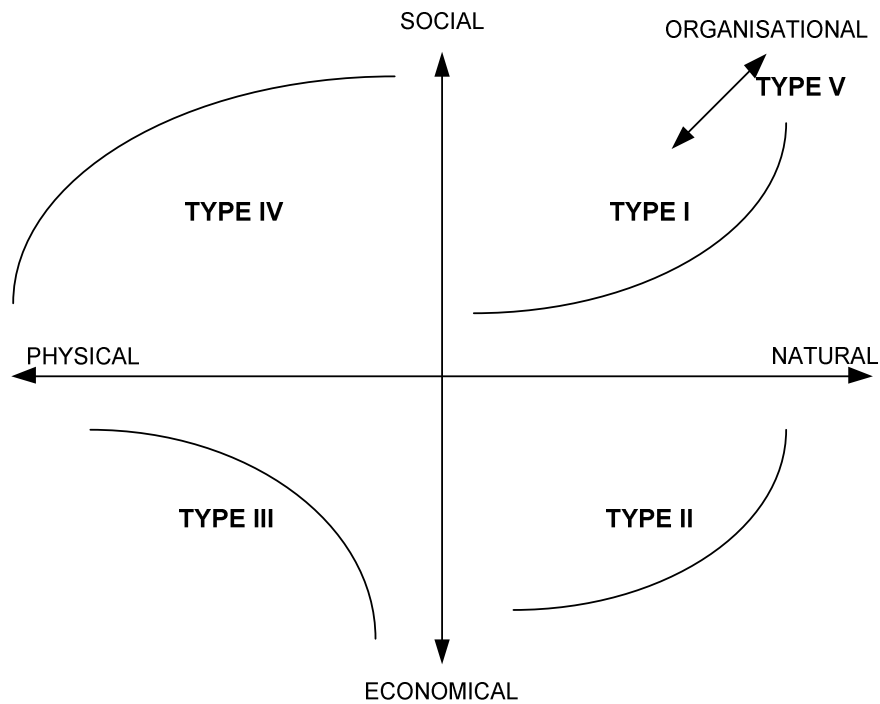


Figure x. Types of Rural Change

If a rural change is emerged first by the changes in social capital, this immediately affects the economic capital. For instance, the change in education level, results in agricultural sector as high productivity. In addition, the changes in physical capital may be two-folded. First, it can be related to the conversation of local architecture and its amelioration or the total change of the man-made capital. Although in the first case, natural capital in rural areas are not really affected, the causes of the second case can be either natural disasters or growth thus, natural capital will be harmfully affected from this process. The probable impacts of natural threats have been usually associated with the urbanized areas, rather than rural parts of likely affected territory. The reason of urban areas to be the hot spot of vulnerability, resilience and consequently risk assessment may be seen according to exposed elements facing with threats. Urban areas embed all complex systems and their more complex interactions. The synergy created by several sets of relationships is supported by larger population, skilled work force, value added by production, innovation technologies and diversity. Therefore, besides talking about vulnerability of the urban system, resilience of this system is well mentioned with the statement of “large settlements are likely to be more resilient that smaller ones due to accessibility to and diversity of resources”. In the recovery process aftermath of a calamity, the importance of this statement may be considered, however, the degree of intensity of any hazards and their collateral impacts are mostly related with resilience level of pre-disaster phase. On the other hand, when any hazard hits even an urban area, systemic losses due to malfunctioning of infrastructural system and triggered technological disaster(s) may increase and expand the level of damage through vicinity. In this case, rural areas are most vulnerable because of low accessibility, environmental degradation, probable long-run economic losses etc. For instance, after the earthquake occurred in 1999 in Kocaeli, fire at the TUPRAS Oil refinery, leakage of chemicals from various industrial facilities through soil and water resources and toxic gases released to air have caused serious break-down in agricultural production of neighboring rural areas where some species do not exist anymore. Referring past disasters directly hit rural areas (mostly earthquakes, floods and landslides), we may note that these events have resulted large scale

collapse of physical environment (due to traditional construction techniques and low maintenance) which has led through failure of social structure and breaks in economic production. Regarding to long-run disasters such as drought and climate change, the weaknesses in rural areas are mostly related with the institutional structure and policies developed by this system. As these threats are long-term, possible risks are usually underestimated due to low perception.

It is worthy to note that, even examples given in the previous paragraph underline the impacts of natural/technological threats on rural areas, The failure in rural system may lead larger failure in both urban and national scales. We should keep in mind that first there were natural sources performed by agricultural production which formed the basis of industrial development and finally fed the formation and improvement of the tertiary sector. Once this chain breaks at the very early point related with the rural areas, the impacts are likely to propagate all systems in medium to long term.

This new dynamism in rural areas can be caused by internal factors (e.g. assets of a given rural region), external factors (e.g. national politics) or their combination. It is certain that the dominant indicators and their impacts on the rural change differ according to the unique features of rural areas. Nevertheless, it is worthy to define common points which have already created great shifts or are able to create further that give new role to rural areas in the global scene.

While summarizing these different rural changes and interactions of each component of rural capital, we ended up with a typology of 5 different rural changes. The level and sign of changes in rural capital may vary.

Table 1. Summary of different types of rural change

	TYPE I	TYPE II	TYPE III	TYPE IV	TYPE V
Social	X			X	
Economic		X	X		
Natural	X	X			
Physical			X	X	
Organizational					X
Nomination	Transformation Resilience	Restructuring Resilience	Transition Transformation	Gentrification	Re-built Remove Regeneration
Sub-causes	Natural disasters Newcomers	Economic diversity Industrialization Globalisation	Commuters Expansion of Urban areas	Replacement of inhabitants Renovation of physical environment	External political debates Displacement/ Replacement of rural areas for security reasons

TYPE 1: The first type of rural change starts in social and/or natural environment and these can be interactive reciprocally. In the literature, rural transformation and social/natural resilience are used to explain these changes. The causes of this type of change can be: natural disasters, change of land use of natural capital, change of social and human capital.

TYPE 2: The second type of rural change is emerged in economic and/or natural environment. This can be named as economic/natural resilience, restructuring. The economic structural changes, the size of lands and enterprises in rural areas are very sensitive.

TYPE 3: This type is associated with changes in economic and physical environment. This type usually concerns with the rural areas which are located in the urban-interaction zones. They can be used as commuting settlements or the back door of urban areas. This changes immediately, the economic structure and sometimes results in losing traditional economic activities and traditional physical environment. This can be called as transformation or transition.

TYPE 4: This type is usually seen in urban areas where the human capital increases with a huge change in physical environment. This called gentrification and can be also seen in rural areas. Usually this type of rural changes happens in developing countries by the expatriate movers from developed countries.

TYPE 5: The last type of rural change happens in ecologically and politically hot spots. This change is associated with the external forces which decide either to regenerate the rural area, or displace the settlement from its current location.

4 Effects of rural changes on rural capital

The effects of rural changes can be two-folded, viz. total change and preservation. Due to the smallness and complexity of rural system, total change in one single system may results as a total change in whole. Sometimes this can be seen as the desired outcome while can be also seen as the unwanted and uncontrolled impact on rural capital.

Basically, this duality of the outcomes of rural changes depends on the change of era, e.g. from fordist to post-fordist (Cloke and Goodwin, 1992; Marsden et al., 1990). But what researchers from different disciplines accepted is that new social reproductions are offering although cannot be guaranteed, but has to be continuously secured by the social norms, mechanisms and institutions have (Cloke and Goodwin, 1992). Therefore, we can claim that although one is lost in rural areas, another social norm will appear in order to sustain the rural changes.

In this section, we tried to summarize these outcomes as a meta-SWOT analysis (Table 2). This analysis offers only a limited version as the research is still on-going. The proposed summary needs a more complex and dynamic structure.

Table 2. Meta-SWOT

Type of rural changes	SW OT	
	SW	OT
TYPE 1: Social Natural	Improvement of social structure Individual Resilience Protection of natural resources	Lack of infrastructure
	Local assets in the market	Mass attractiveness
TYPE 2: Natural Economic	Economic autonomy Redundancy	Loss of agricultural land Agricultural land by smaller pieces More consuming use of natural resources
	Local assets in the market Economic diversity	External disembedded entrepreneurs
TYPE 3: Economic Physical	Quality of life Technology involved Conservation of uniqueness (positive)	Too much construction
	More economic networks	Loss of uniqueness
TYPE 4: Physical Natural	Quality of life	Loss of locals
	Better built-environment	A new culture
TYPE 5: Organizational	This type of change has a destructive effect, locals has no right to decide for themselves. So, SWOT is not valid for this case.	

Outcomes of TYPE 1: This type of changes has three different starting point. One can start with social change and continue with natural change, another one can start with natural change and continue with social change and the last can be both.

Socially driven:

The rural area is seen as a socially defensive localism. Thus, it is quite difficult to destruct social capital as a whole. On the other hand, the human capital (social structure) can be ameliorated. This may result as the increase in the awareness and tolerance of novelty in rural areas. Therefore, the strength is the improvement of the social structure. On the other hand, it is proven that in rural areas individual resilience is very high as they are occupied with the natural environment (Hegney et al.). Thus natural resources are preserved. But the improvement of social structure is not very easy due to the lack of infrastructure, especially the communication infrastructure (both traditional and modern). The increase in tolerance of rural people may cause the acceptance of outsiders in their settlements thus, the new lifestyle perception of urban residents may result a mass attractiveness which can cause a negative impact on the natural resources. On the other hand, this attractiveness may ease the spread of local assets of rural areas in the global market.

Naturally driven:

This change is usually caused by external factors, viz. the new comers in rural areas and natural disasters. Therefore, this is related to the rural areas transforming into consumption and recreational places of urban dwellers. Therefore, the use of natural capital in rural areas changes totally and may face to be lost its ecological assets. But again, this may result in a positive change from an economic perspective. Another cause may be the natural disaster where the resilience of both social and natural capital plays an important role.

OUTCOMES OF TYPE 2: This type of change is more economically-driven change which is much more associated with the changes in natural capital. The impacts of this are more look like the outcomes of TYPE 1. But in this type of change the change of land use is the primary outcome rather than being indirect impact of the change. This is also can be seen as the commonly talked rural change in the literature.

OUTCOMES OF TYPE 3: This rural change is the change occurring in both economic and man-made capital hand in hand. Its impacts can be negative as this can end with over construction and loss of traditional norms which can be replaced by new ones.

OUTCOMES OF TYPE 4: usually this type of change is developed in an uncontrolled way. The establishes of this change are the outcomers which can change the rural in their own way without thinking the local assets and locals. Thus, locals who cannot find a place in their own land for themselves usually move away.

OUTCOMES OF TYPE 5: These changes are obtained by the external policy-driven factors. Their starting point is always the desired outcome. In order to evaluate its impacts a more policy oriented evaluation is needed.

5 Conclusion

Rural change is an on-going debate and offers new theoretical backgrounds while opposing the current urban related ones (Clope and Goodwin, 1992; Gülümser, 2009). Rural change as a process can destroy all the assumptions and can come up with different results depending on the reaction and articulation of rural societies.

In this study, we offered the preliminary results of different types of rural changes going on around the world. Although our summary is very limited for now, it still proves the diversity and unpredictable nature of rural changes.

We believed that, the accomplishment of this research will provide in-depth rural policies and way to overcome with uncontrolled and unwanted results of the rural changes. Thus, this will help to generate policy lessons associated with the protection of tacit knowledge/rural capital in rural areas.

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