



## Croatian Rural Futures in 2030: Four Alternative Scenarios for Postsocialist Countryside in the Newest E.U. Member State

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**CROATIAN RURAL FUTURES IN 2030:  
FOUR ALTERNATIVE SCENARIOS FOR THE POSTSOCIALIST  
COUNTRYSIDE IN THE NEWEST E.U. MEMBER STATE\***

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**ABSTRACT.** The academic picture of a globalized European countryside, and particularly of rural areas in postsocialist, new member states of the European Union, is one of huge and increasing complexity, diversity, and uncertainties about the future. The aim of this research is to construct alternative scenarios for rural Croatia in 2030, acknowledging its postsocialist transition as an important framework. Future development scenarios were constructed by integrating quantitative and qualitative approaches. The main methods used

were: factor and cluster analysis; Monte Carlo simulation; and Delphi method, involving 37 rural experts in two rounds of written questionnaires. Four scenarios were developed: Rural Renaissance, Shift, Road to Nowhere, and Growth without Development. These scenarios provide a set of well-documented and reasonable assumptions to aid in thinking about possible future paths for the Croatian countryside, while at the same time allowing for the discussion of rural development paradigms. *Keywords: diversity, neoendogenous development, rural, scenario method, typology.*

The overwhelming academic picture of the European countryside has been, for some time now, one of great and increasing complexity, diversity, and heterogeneity (Halfacree 2006; Cloke 2006; OECD 2006; Rienks 2008; Copus and others 2011; Woods and others 2015). In general, the contributing factors are well-researched and related to the impacts of interconnectedness, the importance of linkages and flows, and the changing relational aspects of rural and urban (Copus and others 2011; Woods and others 2015; Dax and Copus 2016). As global linkages and connections are eased by technological changes and influenced through political frameworks of deregulation, local urban-rural interactions are taken over by a web of interactions on multiple spatial levels (local, regional, national, European, and global) (Copus and others 2011), increasing rural heterogeneity.

Furthermore, stronger integration of rural areas into wider spatial systems has simultaneously brought a higher level of dependence on numerous external factors---economic, political, social, cultural, and environmental---to rural Europe, raising uncertainties for its future development. For example,

exposure to external threats from changing terms of trade has proven to be a very important issue in rural Europe (Rizov 2006), as has climate change (see the EDORA Final Report 2011). Academic response to the increased level of uncertainties has raised interest in applying the scenario method in investigating possible ways forward for diversified European rural areas (for example, ATEAM; SCENAR2020 and SCENAR2030; EURURALIS; or ET2050).

New member states (NMS) from Central, Eastern, and Southeast Europe<sup>1</sup> have, along with globalization and/or as a part of it, undergone major transformations in the last 30 years: political and economic transition and accession to the E.U. These processes have brought additional levels of complexity to discussing possible pathways into the future, especially for the countryside. The NMS have been more or less present in a series of E.U.-wide research projects concerning modeling and scenario planning in rural areas. However, unlike E.U.-15 countries, for which numerous national scenarios, including rural areas, have been produced, scenarios are rare for the NMS (see Bański 2017). This paper contributes to filling recognized gaps by presenting the results of four alternative scenarios for rural Croatia in 2030, in the context of rural development, transition, and accession to the E.U.

## <<A-HEAD>> THEORETICAL BACKGROUND

### <<B-HEAD>> CHANGING PARADIGMS OF RURAL DEVELOPMENT

Our hypothesis is that the alternative future prospects of rural areas are related to differentiated outcomes of the interactions between the unique setup of natural and social capital (endogenous resources) available in the region on

one hand, and the exogenous conditions, actors, and processes on the other. This follows from the change of modernization's paradigm to a new concept of rural development (Ray 1999; van der Ploeg and others 2000; van der Ploeg and Marsden 2008; Woods 2011). Instead of the linear development trajectory of modernization theory, which mainly focuses on progress in agriculture, industrialization, and urbanization, the paradigm of new rural development is characterized by a web of nonlinear multitude or, as Jan Douwe van der Ploeg and others (2000) argued in their seminal paper at the turn of the twenty-first century, by its "multi-level, multi-actor and multi-faceted nature." In their later work, van der Ploeg and Marsden (2008) recognized six components of the (new) web of rural development: endogeneity, novelty, market governance, new institutional frameworks, sustainability, and social capital.

Woods (2011) further summarizes the differences between the new rural development paradigm and the modernization paradigm by acknowledging its distinguishing features: endogenous development, bottom-up innovation, territorially based integrated development, social capital, sustainable development, information infrastructure, consumption, small-scale niche industries, valorization of tradition, and local embeddedness. Ray (2006) in particular has further explored the idea of the multiactor character of new rural development. He argues that besides local actors who mobilize cultural capital---that is, "territorial intellectual property or place-specific factors of production" (Ray 2006, 283)---through bottom-up development, various actors from the "extralocal environment" are potential supporters of the local population in their development strategies. He expressed these "various manifestations of the extralocal" by adding the prefix "neo" to endogenous

development, thus coining the term “neoendogenous rural development.” In the E.U. context, the most visible pragmatic expression of the new paradigm of rural development is usually attached to LEADER Programme. Although its advantages for rural areas have been recognized, there has also been criticism, mostly regarding the lack of real participation, inclusiveness, innovation, and capacity to address problems of structural disadvantages, which are also related to the limited and insufficient financial resources of the CAP budget (Marquardt and others 2010; Dax and others 2016; Dax and Copus 2016; Lukić and Obad 2016).

#### <<B-HEAD>> SCENARIO METHOD AND RURAL AREAS

A further aspect of (new) rural development theory is related to the discussion about the future of rural areas. Van der Ploeg and others (2000) argued that the concept of rural development was primarily “a heuristic instrument...(that)...represents a search for new futures...” The scenario as “[a] description of a future situation and the course of events that allows us to move from the original situation to the future situation” (Godet and Roubelat 1996, 166) was chosen to reflect this aspect of rural development in our research.

The origins of the scenario method can be traced to the period during and after the Second World War, when it was used for military purposes (Schoemaker 1993). The scenario method further developed through its use in public policy and corporate/business planning, as well as in the scope of urban and regional planning, primarily in the United States and France (Godet and Roubelat 1996; Bradfield and others 2005). Although the interest in scenarios has fluctuated somewhat over the years, it increased in the 1990s and

especially 2000s (Ringland 2006; Varum and Melo 2010). Scenario construction leads to scenario analysis and scenario planning where, in essence, by examining several alternatives of how the future might unfold and comparing the potential consequences of different future contexts, one “can make decisions which are more resilient to the throes of tomorrow” (Shearer 2005, 68).

Since the 1990s, there have been a number of important research projects/programs exploring European rural futures, such as Ground for Choices, ATEAM, ACCELERATES, SCENAR2020 and SCENAR2030, EURURALIS, ESPON, FARO-EU, EDORA, TIPTAP, ET2050, and VOLANTE. For example, within the European Development Opportunities for Rural Areas (EDORA) Project, opportunities and constraints for different kinds of rural areas were considered over the course of two decades. Narrative scenarios were formed based on the relationship between two “external” variables, namely climate change (and responses) and economic governance (EDORA Final Report 2011).

Some of the recent topics in rural research explored via the scenario method include studies of complex rural development changes (Bański 2017), land use and land-cover change (Holman and others 2017; Kindu and others 2018), and the future of farming areas (Zagaria and others 2017). The scenario method is regarded as a participatory and strategic planning tool that provides a sound basis for policy and decision making, and facilitates communication among stakeholders (Soliva and others 2008; Gullino and others 2018). Different scenario typologies classify scenarios in relation to two basic questions to which scenarios respond: regarding the development that could

happen and the development that should happen---that is, scenarios that are explorative or normative in nature (Radeljak Kaufmann 2016). A plethora of methods and techniques used in developing scenarios encompass modeling approaches (Holman and others 2017; Kindu and others 2018; Zagaria and others 2017), Delphi-based surveys (Trammell and others 2018), participatory workshops or stakeholder meetings (Soliva and others 2008; Holman and others 2017), focus groups (Gullino and others 2018), and rural stakeholder/expert interviews (Soliva and others 2008; Rawluk and Curtis 2017; Gullino and others 2018). Various methods and sources are often combined (Priess and others 2018). Interactive scenarios result from creative processes and interactions among people (experts or users) and endogenous or exogenous models, either during the formation of scenarios or during their use (Gordon and Glenn 2018).

#### <<A-HEAD>> SETTING THE SCENE: CHALLENGES FOR THE RURAL AREAS IN THE NEW MEMBER STATES AND CROATIA

A quarter of a century ago, the future looked bright and promising for countries in Central, Eastern, and Southeast Europe. Dreams of unifying Europe after the Cold War spurred optimism. Liberal democracy, freedom, civic society, and a market economy were mostly warmly welcomed (Sokol 2001). Although accession to the E.U. was still far away, the importance of the E.U.'s Common Agricultural Policy (CAP) was also raising hopes that rural areas, after the turmoil of collectivization, negligence, and ideological subordination in industrially oriented state-socialist societies, would be given a new push. Fast forward to 2020 and the situation in most of the rural regions

in the NMS is certainly much more complex and worrisome than expected. The political and economic transition and the effects of E.U. accession have had both positive and negative effects (Spoor and others 2014; Swain 2016; Cianetti and others 2018).

On the positive side, the former significant differences between the NMS and the EU-15 in GDP per capita, economic activity, or long-term unemployment seem to have decreased (Sokol 2001; Ezcurra and others 2007; Gorton and others 2009). Furthermore, in the majority of the NMS the financial support to agriculture and rural areas has increased and accession to the E.U. is generally perceived as having a positive impact (Rizov 2006; Swain 2016).

On the negative side, some serious challenges for the future development of rural areas in the NMS have been noted: persisting and/or deepening regional disparities, polarization, and peripherization of rural areas (Sokol 2001; Ezcurra and others 2007; Macours and Swinnen 2008; Kovács 2010; Cosier and others 2014; Spoor and others 2014; Swain 2016; Páthy 2017; Loewen and Schulz 2019); inadequacy of agricultural transformations related to the E.U.'s Common Agricultural Policy (CAP) (Rizov 2006; Macours and Swinnen 2008; Kovács 2010; Swain 2016); and rural shrinkage (long-term depopulation and youth out-migration) (ESPON ESCAPE 2019).

National specificities notwithstanding, especially direct and indirect consequences of the Croatian War of Independence (1991--1996), Croatia shared many of the analyzed features of postsocialist NMS. Between 2001 and 2017 Croatia lost (officially) 331,967 inhabitants (7.5 percent). In that period, the demography of Croatia was characterized by a decline in total population,

continuous natural depopulation, increased aging of the population, imbalanced age structure of the population, and a positive net foreign-migration balance (though this has been negative since 2009). At the moment, the Croatian population ranks among the top 15 oldest world populations, and the share of older people in the total population is constantly increasing (Čipin and others 2014).

Rural areas in Croatia, which encompass around 90 percent of the total land area and around 49 percent of the total population, bear many of the aforementioned national negative trends, but with even more undesirable tendencies. The typology of rural areas developed in this scenario study revealed that almost one-fifth of the rural territory belongs to areas with critical demographic characteristics and economic limitations in development, while an additional 18.6 percent of territory is considered to be predominantly agricultural areas, with significant unemployment levels (Tab. 1).

*[Table 1 near here]*

Thus, almost 40 percent of the rural territory is burdened by socioeconomic decline and/or rising unemployment rates. Although rural depopulation and marginalization is a legacy process in Croatia, the Croatian War of Independence and numerous economic difficulties in the transition period in the 1990s intensified external migration, deepened polarization between the wider Zagreb region and certain touristed coastal areas, and most of the Croatian countryside. Rural youth out-migration was increased after Croatia's accession to the E.U. Regional inequalities and the urban/rural divide have also increased. Prior to E.U. accession, agriculture in Croatia was

considered weak and unable to compete in the E.U. (Franić and others 2014), while the consequences of the CAP have yet to be seen.

## <<A-HEAD>> METHODS IN EXPLORATIVE SCENARIO DEVELOPMENT FOR RURAL CROATIA UNTIL 2030

The process of constructing future development scenarios for rural Croatia until 2030 included multiple steps. The selection of quantitative steps in scenario development was partially based on a study of rural England, where the results of factor and cluster analyses served to create a model to simulate rural dynamics and, via a Monte Carlo process, to develop scenarios (Foa and Howard 2006; Lowe and Ward 2009).

In our study, rural Croatia was defined as incorporating rural and mixed rural/urban areas, whereby the spatial units in the analysis were local government units (LAU2), excluding urban settlements with a population over 5,000 in 2011. In the first step, a total of 43 variables (derived from the official statistical sources and project analyses) as indicators of development trends in rural Croatia were used in factor analysis. The initial factor loadings were calculated using the principal component method, while the rotation method used was Oblimin with Kaiser Normalization. Based on the proportion of variance explained by each of the seven resulting factors, a total of 15 leading variables were identified as key for the development of rural areas:

1. Proportion of persons employed in accommodation and food-service activities in the settlement where they work, 2011 (empl\_accomm)
2. Proportion of the population with property income in the total population, 2011 (pop\_prop)

3. Coefficient of tourist functionality (number of tourist beds per inhabitant), 2011 (coeff\_tour)
4. Proportion of persons employed in the tertiary sector of the economy in the settlement where they work (excluding real estate, information, and communication), 2011 (empl\_serv)
5. Proportion of the population aged 15 and over with a university degree, 2011 (pop\_uni)
6. Proportion of the population aged 0 to 19, 2011 (age0\_19)
7. Proportion of the population aged 60 and over, 2011 (age\_60ov)
8. Proportion of nonfamily households (singles) to the total number of private households, 2011 (singl\_priv)
9. Natural population growth rate, 2001--2011 (nat\_growth)
10. Proportion of persons employed in the primary sector of the economy in the settlement where they work, 2011 (empl\_prim)
11. Proportion of agricultural holdings to total number of households, 2011 (agric\_hold)
12. Proportion of unemployed persons to economically active, 2011 (unemp)
13. The average size of the ARKOD arable land unit (ha), 2015 (size\_unit)
14. Proportion of built-up area, 2012 (built\_up)
15. Proportion of in-migrants in a settlement from another settlement of the same local government units to total population, 2011 (inmigr\_lgu)

Second, a cluster analysis was conducted where six different types of rural areas in Croatia were recognized (Table 1 and Table 2). Ward's clustering method was used (squared Euclidean distance, values standardized by variable between -1 and 1).

*[Table 2 near here]*

The following step in our scenario construction included a Delphi study, consisting of two rounds of written questionnaires. The Delphi panel encompassed academics with rural expertise. The choice of panelists was based on papers published by potential members, their scientific discipline, and regional distribution. Out of 57 researchers who were initially contacted via e-mail, 37 participated in the first Delphi round, while 13 participated in the second round. The following disciplines were represented: agronomy (3), agricultural economics (6), anthropology (2), architecture and urbanism (1), demography (3), economics (3), ethnology (1), forestry and environmental protection (1), geography (9), spatial economics (2), social work (1), and sociology (5). The time frame was June/July 2017 for the first Delphi round, and August/September 2017 for the second round. The first questionnaire was disseminated via an online service and the second via e-mail. In the first round the panel considered possible future development of each of the 15 key variables (through numerical estimates and additional explanations). They also had an option to describe other factors deemed important for the future development of Croatian rural areas, either in a national or international context. For the sake of clarity, the questionnaire was prechecked by two experts who later participated in the Delphi panel; their comments helped improve the final questionnaire structure.

The analysis of the results was both quantitative and qualitative. Numerical estimates were used as input data for Monte Carlo simulations, resulting in the most likely new types of rural areas (clusters) in the final year.

The qualitative analysis of responses to open-ended questions was conducted with regard to the possible future developments of listed variables, including the specific characteristics of rural area types, and other factors, both endogenous and exogenous. These results served as input in structuring the scenarios.

Scenarios were developed using the scenario axes technique/2 x 2 matrix, which Bishop and others (2007) refer to as the Royal Dutch Shell/Global Business Network matrix approach. The approach includes identifying the two most important and most uncertain factors for future development. The aforementioned factors are represented by two axes, whereby opposite axes sections stand for extreme values of each factor. The resulting four quadrants set the frame for possible future developments within four different scenarios.

In our study, two axes of key uncertainties were recognized based on the qualitative analysis of the first Delphi round. We also used the results of a questionnaire survey among 59 rural stakeholders who were participants at the First Croatian Rural Parliament. The selected key uncertainties were demographic state and processes, and a combination of innovation---such as problem solving, economic, and technological development---and actor networking (Fig. 1).

*[Figure 1 near here]*

Numerical estimates for 15 key variables and different types of rural areas were organized along the two axes by the expert team, which served as the backbone for scenarios and an input into Monte Carlo simulations, and

ultimately led to four new rural typologies (for example, Fig. 2 and Fig. 3). Scenario narratives were based primarily on the qualitative analysis of the Delphi survey responses. In the second Delphi questionnaire, the participants gave their comments on scenario narratives, including the consistency-check and the results of numerical simulations. The constructed scenarios are explorative scenarios, based on the analysis of current trends and exploration of possible future developments.

## <<A-HEAD>> SCENARIOS ON CROATIAN RURAL FUTURES

### <<B-HEAD>> RURAL RENAISSANCE

The Rural Renaissance scenario is based on economic development generated by synergistic and innovative approaches to the best use of local, endogenous developmental resources, in an encouraging institutional setting and business environment. Positive demographic trends follow and start emerging by 2030. A common vision for local populations, often arising from the actions of LEADER Local Action Groups (LAGs) and/or proactive individuals, would cause the strengthening of communal activities in the form of associations, cooperatives, clusters, and producer organizations that, in turn, would strengthen employment, competitiveness, and entrepreneurship. This results in a more successful approach to the market by small farmers, craftsmen, and tradesmen, as well as the largest and most successful businesses. The success of small economic entities confirms the true strength of a rising economic sector. The multisectoral economy becomes a reality that opens a variety of jobs for people with varying levels of education. With respect to the various types of rural areas, multisectoral economy encompasses market-oriented

agricultural production of traditional crops, new high-income crops and organic agriculture, the combination of agriculture and tourism, and the development of many other selective forms of tourism based on natural and cultural heritage. In the vicinity of urban centers, there is often development of innovative and technologically advanced industries. Decisions regarding the use of the most important local development resources of rural communities are made with the consent of local, regional, and national governance levels. This represents the first step toward the successful decentralization of the institutional framework, which is experiencing positive change under the influence of an increasing number of different actors on one hand, and the demands that come with obtaining money from E.U. funds on the other. Administrative obstacles regarding entrepreneurship, as well as the uncertainty of the legal framework have been alleviated. More significant influence of funding from Common Agricultural Policy (CAP) and other relevant E.U. funds is expected in the new budget cycle after 2020, with the strengthening of absorption power on the local level. As a result of the aforementioned, rural development stakeholders would not allow a return to “business as usual,” that is, passive observation of the progression of negative processes. In such an atmosphere, the inefficient and uncoordinated state and/or arbitrariness of local leaders is gradually replaced by positive engagement of local stakeholders and various external factors in a relationship that transitions from paternalistic to partner relations. This enables better quality of planning and the development of communal and social infrastructure that is essential to the quality of life. Demographic measures are designed on the basis of immigration and redistributive demographic policies, with a focus on young

families; they are more than just maternity benefits and housing support funds, and are primarily oriented towards supporting the working and social environments. A growing number of young urban residents who have just finished their education have decided to move to rural areas for new opportunities for employment, to start their own businesses, for the rural lifestyle, and/or due to insecurity of employment in urban centers. As a result of the lengthening of the tourism season, seasonal workers also come to work in tourist destinations and reside in nearby rural areas, alongside immigrants from war-afflicted areas. The influence of potential E.U. enlargement to Croatia's neighboring countries and general geopolitical stability could contribute to the strengthening of rural development in Croatia, both thanks to increased trade and the stabilization of cross-border relations.

#### <<B-HEAD>> SHIFT

The Shift scenario portrays the future of a rural Croatia in which a new approach to solving key rural problems is applied, but with a continued negative demographic situation, emigration, and depopulation as dominant trends. The described positive changes in the Rural Renaissance scenario also take place in this scenario, but they are slower and less intense, which does not result in the cessation of negative demographic trends by the end of the investigated period. An important innovative turnabout regarding the “activation” of the older population, however, does take place, which is a change from this group's neglected role in current development processes. They are recognized as an important factor of economic development due to their skills and traditional knowledge, as well as their ownership of land and

property. In this scenario, in contrast to multisectoral economic development in the Rural Renaissance scenario, the advancement of agriculture is the key to development. This is the consequence of innovative approaches to solving some key contemporary problems, such as land ownership relations and agricultural land management. When attracting funds, the emphasis has primarily been on the Rural Development Programme within CAP and strengthening of agricultural competition. Positive effects in agriculture are evident: holdings grow in size, the availability of various forms of professional education grows, the position of small agricultural producers improves due to innovative links to urban markets, and agriculture becomes increasingly multifunctional. The other strong pillar of economic development is tourism. Owing to innovative approaches in the development of selective forms of tourism, areas near coastal tourism hubs enjoy strong tourism development. There is a growing need for workers in both economic branches, and demographic policy measures, despite being planned and carried out, have not yet given results. The possibility of revitalization is found in the incentive for redistribution of population from other parts of Croatia; however, the “import” of foreign workers from neighboring countries is used as the main compensatory economic measure. This then creates a permanent state of uncertainty in regard to the unstable geopolitical situation in Southeast Europe and the uncertain destiny of further E.U. enlargement.

#### <<B-HEAD>> ROAD TO NOWHERE

The Road to Nowhere scenario is determined by emigration and depopulation, the lack of innovation, and discordant approaches on the part of a growing

number of actors. There is a lack of development incentive on the local level, primarily due to further weakening of human and social capital, and dependence of the economic sector on large entities, primarily in agriculture and tourism. The strong outflow of the young, educated population continues, which brings about an irreversible loss of new knowledge and new technological approaches in agriculture and the economy. The lack of human resources, especially youth, becomes the main factor of lagging behind in development.

Under such conditions, the institutional framework and top-down actors continue with paternalistic relations that result in the continuation of policies of political and fiscal centralization, with emphasis on strong local, primarily political, actors. The expected positive influences of the Rural Development Programme and E.U. funds are lacking, with a few exceptions, due to weak usage, caused by disharmony on all levels of administration and a lack of experts. Furthermore, the funding that is absorbed does not have a wider territorial effect, because it is hindered by numerous bureaucratic obstacles (frequent changes to the legal framework, stifling tax structure, and trade difficulties). Demographic policy remains on the level of maternity benefits and some local measures, without a systematic approach.

Increasing unemployment is a key factor in further depopulation.

Under conditions of a shrinking local job market and vanishing social amenities, it is nearly impossible to find seasonal workers for agriculture or tourism. This encourages unplanned and unselective import of predominantly unqualified workers. Along with the aforementioned processes, local development resources, primarily natural---freshwater, forests, biomass, stone,

soil--- become fundamental, but nameless, sources of income, mostly in the hands of foreign investors. Local identity---natural and cultural heritage---is degraded due to an exclusive market orientation. The aspiration level of the remaining youth falls. Systematic, balanced, and overall development becomes impossible under conditions of increasing peripheralization of rural Croatia. Border areas are especially threatened due to unsolved border disputes between Croatia and neighboring countries. In this sense, geopolitical issues and the consequences of the migrant crisis, if it continues, can have a strong negative influence on rural Croatia.

#### <<B-HEAD>> GROWTH WITHOUT DEVELOPMENT

The Growth without Development scenario describes a future of rural Croatia in which stagnation or population growth is achieved by 2030, depending on the type of rural area. However, this happens in an environment that lacks innovative approaches to solving key development problems and does not advance the level of coordination and networking of key actors and stakeholders. Consequentially, in contrast to the similarly demographically positive Rural Renaissance Scenario, this sort of quantitative trend is not reflected on the qualitative level, as numeric simulation shows that the share of youth will continue to reduce along with a continual increase in the share of aged population. This situation reveals that in-migration has primarily been a consequence of external trends, of which the most important are further tourism and an increase in the number of second homes in touristic areas of Croatia that become seasonal/permanent places of residence for an increasing number of retired Europeans. For retirees, Croatia is an increasingly attractive,

secure place with a favorable climate. Furthermore, after the first strong wave of emigration from eastern Croatia, the demographic situation there stabilizes, given that the younger and the more ambitious have left, and the remaining population is more passive, and also because owning agricultural land offers at least some kind of revenue.

The development of mass tourism at the seaside is the dominant trend in this scenario, which demands a large, less educated workforce, so immigration is on the rise but is very unselective and is the result of business interests of investors and owners of tourist facilities. In the European context, this scenario partially hints at the idea of Croatia as a “European playground,” highlighting the country’s weak importance in terms of the production sector, and its significance in terms of leisure and recreation---especially due to the growth in the number of affluent retirees. Geopolitical processes in the (wider) neighborhood are of key importance, because any sort of instability repels the main source of income and endangers economic development.

#### <<B-HEAD>> SPATIAL IMPACTS

Spatial impacts of explorative scenarios were visualized through four scenario-specific typologies. Here we explore the examples of two scenarios: Rural Renaissance (Fig. 2) and Road to Nowhere (Fig. 3). The mean values for each of the 15 variables in different types of rural areas (Table 2) indicate the difference in trends in the Rural Renaissance and Road to Nowhere scenarios with regard to the original typology.

*[Figure 2 near here]*

The Rural Renaissance scenario resulted in a significant increase in the number, area, and population in the cluster of touristic, demographically older areas (10.6 percent to 13.5 percent of territory, 7.1 percent to 11.3 percent of population). Owing to the development of selective forms of tourism in the hinterland, parts of mountainous Croatia near Kvarner, the island Krk, Istria, and Šibenik Zagora became a part of this type. Furthermore, parts of Slavonia, in the wider Osijek region, have undergone positive changes in terms of development of agriculture and general employment level, which can be observed in their transition from predominantly agricultural areas, with significant unemployment levels, into heavily agricultural areas.

*[Figure 3 near here]*

The Road to Nowhere scenario brings the most visible spatial changes in the distribution of types of rural areas. Areas with critical demographic characteristics and economic limitations in development had especially large growth in the number of spatial units and, consequentially, in the shares of surface area and population (increase were experienced from 19.8 percent to 27.5 percent of territory, and from 7.1 percent to 15.7 of population.) The second-expressed spatial change is the strong reduction of heavily agricultural areas (decrease from 20.0 percent to 5.1 percent of territory, and from 16.4 percent to 4.6 percent of population), which is a direct consequence of the aforementioned spread of areas with critical demographic characteristics and economic limitations in development.

## <<A-HEAD>> DISCUSSION AND CONCLUSION

Our study was guided by the idea that “the theory of rural development does not deal with the world as it is---it is about the ways in which agriculture and landscape could be redesigned” (van der Ploeg and others 2000, 396). By developing four alternative scenarios with different demographic, economic, social, and spatial outcomes, we have offered a set of well-documented and reasonable assumptions that should help us to reflect on possible future paths for Croatian rural areas.

Numerical simulations have shown that alternative scenarios imply a change in the spatial distribution and size of the territory, as well as in the number of inhabitants in a given rural area type compared to the current typology (Fig. 2 and Fig. 3). Although some previous research has also warned that future studies need more integrative and robust methods to use the concept of a heterogeneous countryside as a starting point (Foa and Howard 2006; Lowe and Ward 2009), scenario exercises usually consider ex-post spatial impacts of developed scenarios in different types of rural areas. In our study, the diversity of rural areas was the starting point and was considered simultaneously with the development of scenario narratives in an attempt to address identified challenges.

Furthermore, with regard to rural development theories, we would argue that the alternative scenarios developed for rural Croatia in 2030 consist of components of both the modernization paradigm and the new rural development paradigm. This particularly concerns recognized factors that could influence future rural development in Croatia: endogenous development vs. inward investments, multilevel governance vs. paternalistic, centralized

state, sustainable development vs. exploitation and control of nature, consumption vs. production, multisectoral economy vs. sectoral dependency (tourism), and peripheralization vs. balanced regional development. The Rural Renaissance and Road to Nowhere scenarios seem to correspond to the tension between the paradigms. Rural Renaissance is the most positive picture of the Croatian countryside in 2030, and it is the multitude of different actors from different sectors of society---institutions, enterprises, citizens, individuals---focusing on territorial resources and working in vertical and horizontal partnerships, that bring progress, reflecting the new paradigm of rural development, especially its neoendogenous aspect. In Road to Nowhere, however, the opposite is true; the lack of social and entrepreneurial energy due to weak human and social capital makes dependence on foreign investment and top-down development inevitable. Instead of sustainable development, which is emblematic of the new paradigm of rural development, Road to Nowhere brings further exploitation of natural resources, sectoral development, and dependence on imported financial capital, features that are related to the instruments associated with the unsuccessful application of the modernization paradigm. On the other hand, the two other scenarios are arguably much more mixed in terms of their components in relation to the rural development paradigms. For example, while the postproductivist, consumption countryside is usually considered as a domain of the new rural development, the Growth without Development scenario depends strongly on tourism and the growing second-home sector in rural Croatia in 2030, while there is no significant effort in the areas of integrated territorial development, networking, multilevel governance, and innovative approaches, important

aspects of new approaches to rural development. Many of the Delphi respondents considered the aforementioned paradigmatically mixed two scenarios as more realistic versions of the rural futures. This could be an interesting proposal for future research on the currently dualistic and separate view of old and new theories of rural development.

Moreover, the scenarios emphasized the role of regional development for the future pathways for rural areas. In the Road to Nowhere scenario, the term “peripheralization” was frequently used by experts in Delphi research to describe the process of deepening disparities between the capital city and its urban region on the one hand and lagging rural areas on the other. The experts shared the view that center-periphery relations are becoming one of the main obstacles to a systematic and balanced development of rural Croatia. Similarly, polarization processes between urban/metropolitan areas and rural areas have been identified in many NMS as negative impacts on intraregional cohesion and rural development (Gorton and others 2009; Binelli and Loveless 2016; Kisiała and Suszyńska 2017; Brambert and Kiniorska 2018; Pociūtė-Sereikienė and Kriauciūnas 2018). They appear to be of particular importance even in the economically better-off NMS such as Slovenia (Cosier and others 2014), where studies on rural development also suggest that the strengthening of urban-rural links in terms of improving the employment and residential conditions, infrastructure, and access to services could bring mutual benefits to regional development of the county as a whole (Perpar 2014).

Finally, the question could be raised about the possibility that, due to the diversity of rural areas, there could be a mixture of scenarios in each rural environment, leading to potential conflicts of interest among them (Guštin and

Potočnik Slavič 2020). Our modeling of the different scenarios, as illustrated by the changes in the case of Rural Renaissance and Road to Nowhere (Fig. 2 and Fig. 3, Table 2), statistically express the most likely outcome of the selected scenario at the spatial level of LAU2 (municipality). However, we do not claim that only one scenario is possible within a particular type of rural area, especially in municipalities or settlements belonging to a particular type. A different approach to the use of typology in the study of rural heterogeneity was taken by Woods and others (2015), who developed a typology of rural responses to the challenges of globalization. They identified eight different types of regional responses that can occur in different rural settings (for example, Relocalizers, Global Conservators, and Resource-providers). However, in that study the comprehensive view of the territorial typology---inclusion of all territorial units in the spatial framework studied---is not present since the methodology is based on selected case studies. In future research, the combination of these two typologies, typology of rural areas and typology of rural responses, in a newly developed and methodologically robust framework could be a step towards new perspectives for understanding current and future processes in diversified rural areas.

#### <<A-Head>> NOTES

1. In this paper the term “new member states” (NMS) is used to denote ex-socialist countries of Central, Eastern, and Southeast Europe that entered the

E.U. in the last three waves of enlargement: in 2004 (the Czech Republic, Estonia, Hungary, Latvia, Lithuania, Poland, Slovakia, and Slovenia), 2007 (Bulgaria and Romania), and 2013 (Croatia). Although Malta and Cyprus joined the E.U. in 2007, they are not considered in this paper.

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## **Figures and tables**

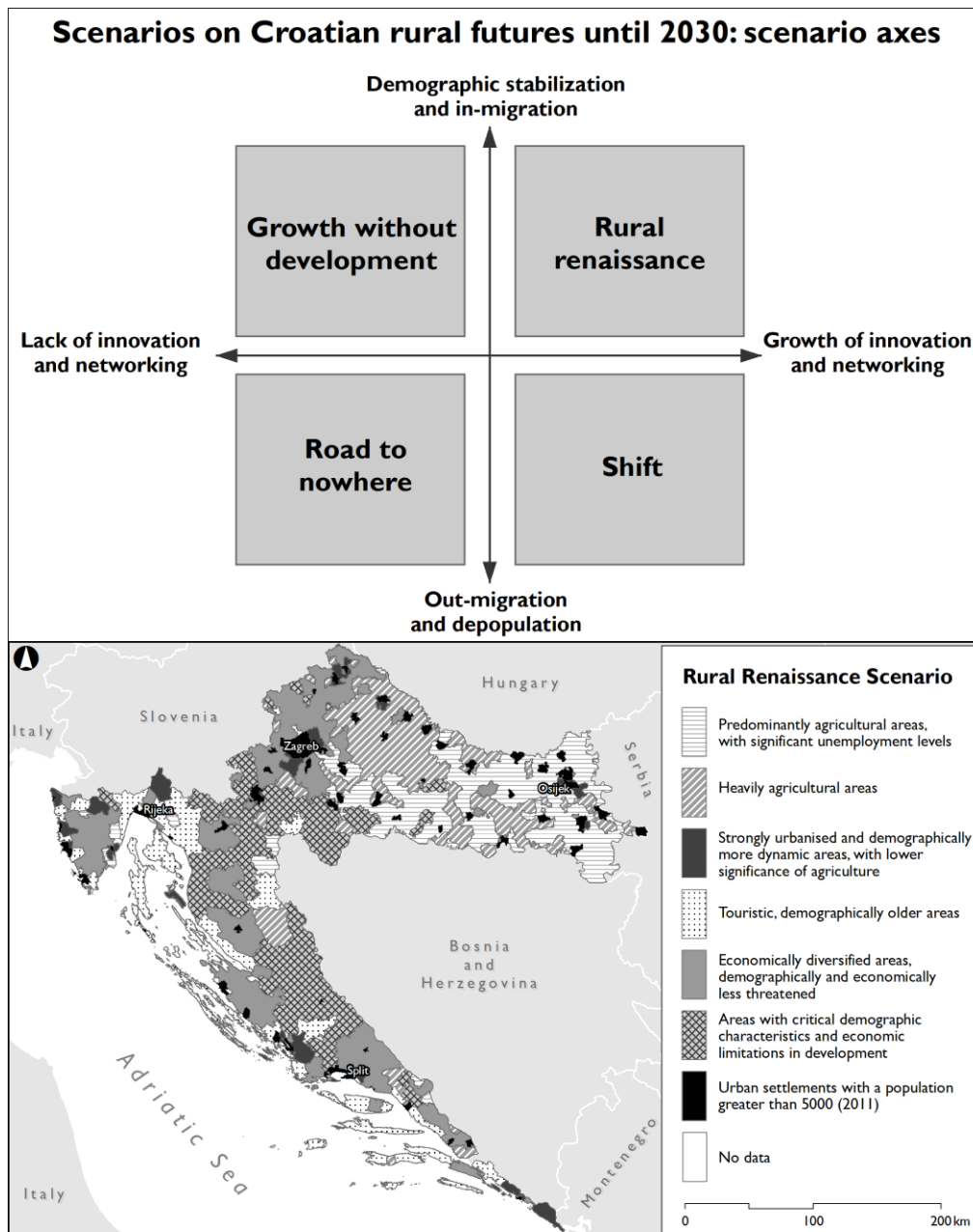
Fig. 1. Scenarios on Croatian rural futures until 2030---scenario axes

Fig. 2. Types of rural areas in Croatia in 2030---Rural Renaissance scenario

Fig. 3. Types of rural areas in Croatia in 2030---Road to Nowhere scenario

Table 1. Share of territory (T) and population (P) for clusters/types of rural areas of Croatia in 2017 and the four scenarios

Table 2. Mean values of variables in six clusters (types of rural areas) in typology in 2017, Rural Renaissance and Road to Nowhere scenarios



Tab. 1 Share of territory (T) and population (P) for clusters / types of rural areas of Croatia in 2017 and the four scenarios

| Type of rural area  | Typology in 2017 |       | Rural Renaissance |       | Shift |       | Road to Nowhere |       | Growth without Development |       |
|---|------------------|-------|-------------------|-------|-------|-------|-----------------|-------|----------------------------|-------|
|   | T (%)            | P (%) | T (%)             | P (%) | T (%) | P (%) | T (%)           | P (%) | T (%)                      | P (%) |
| <b>C1</b> – Predominantly agricultural areas, with significant unemployment levels                            | 18.6             | 18.3  | 19.8              | 19.5  | 19.4  | 19.0  | 19.2            | 19.3  | 24.7                       | 23.6  |
| <b>C2</b> – Heavily agricultural areas  | 20.0             | 16.4  | 18.2              | 15.3  | 19.2  | 15.4  | 5.1             | 4.6   | 11.4                       | 10.4  |
| <b>C3</b> – Strongly urbanized and demographically more dynamic areas, with lower significance of agriculture | 6.2              | 19.2  | 4.0               | 9.2   | 4.5   | 15.0  | 5.4             | 18.7  | 2.8                        | 10.7  |
| <b>C4</b> – Touristic, demographically older areas  | 10.6             | 7.1   | 13.6              | 11.3  | 14.7  | 13.9  | 9.3             | 7.2   | 11.9                       | 9.0   |
| <b>C5</b> – Economically diversified areas, demographically and economically less threatened                  | 24.7             | 30.6  | 23.2              | 36.0  | 21.2  | 28.1  | 33.4            | 33.2  | 26.3                       | 37.1  |
| <b>C6</b> – Areas with critical demographic characteristics and economic limitations in development           | 19.8             | 7.1   | 21.1              | 7.4   | 20.9  | 7.4   | 27.5            | 15.7  | 22.8                       | 7.8   |

Tab. 2 Mean values of variables in six clusters (types of rural areas) in typology in 2017, Rural Renaissance and Road to Nowhere scenarios

| Type                              | empl_accomm | pop_prop | coeff_tour | empl_serv | pop_uni | age0_19 | age_60ov | singl_priv | nat_growth | empl_prim | agric_hold | unemp | size_unit | built_up | innmigr_lgu |
|-----------------------------------|-------------|----------|------------|-----------|---------|---------|----------|------------|------------|-----------|------------|-------|-----------|----------|-------------|
| <b>Typology in 2017</b>           |             |          |            |           |         |         |          |            |            |           |            |       |           |          |             |
| <b>C1</b>                         | 4.7         | 0.2      | 3.7        | 21.3      | 5.5     | 23.0    | 23.4     | 23.3       | -36.7      | 24.6      | 17.3       | 25.4  | 2.4       | 2.5      | 6.8         |
| <b>C2</b>                         | 2.9         | 0.3      | 1.5        | 15.3      | 4.9     | 22.1    | 25.5     | 24.1       | -62.6      | 49.4      | 38.6       | 18.3  | 1.1       | 2.3      | 8.0         |
| <b>C3</b>                         | 12.2        | 0.9      | 83.7       | 38.7      | 14.0    | 20.8    | 23.2     | 20.9       | 0.7        | 3.5       | 7.0        | 14.8  | 0.5       | 8.6      | 12.1        |
| <b>C4</b>                         | 24.6        | 3.7      | 249.3      | 43.7      | 13.1    | 17.5    | 31.5     | 29.2       | -55.3      | 13.3      | 17.1       | 14.0  | 0.3       | 2.5      | 5.6         |
| <b>C5</b>                         | 6.5         | 0.2      | 15.3       | 29.0      | 7.9     | 22.0    | 23.7     | 21.4       | -27.9      | 8.1       | 18.1       | 15.9  | 0.4       | 3.4      | 8.2         |
| <b>C6</b>                         | 5.2         | 0.1      | 4.8        | 24.0      | 6.3     | 16.5    | 35.3     | 33.1       | -139.5     | 14.1      | 14.6       | 25.5  | 0.5       | 1.0      | 9.4         |
| <b>Rural Renaissance Scenario</b> |             |          |            |           |         |         |          |            |            |           |            |       |           |          |             |
| <b>C1</b>                         | 8.8         | 0.3      | 5.6        | 23.9      | 8.6     | 21.4    | 22.3     | 21.9       | -38.0      | 23.6      | 19.5       | 20.5  | 3.1       | 3.1      | 4.8         |
| <b>C2</b>                         | 4.4         | 0.4      | 3.2        | 18.5      | 8.4     | 22.5    | 23.0     | 22.3       | -69.0      | 47.7      | 40.1       | 14.2  | 1.9       | 3.5      | 5.7         |
| <b>C3</b>                         | 19.9        | 0.8      | 70.6       | 51.4      | 16.8    | 24.4    | 21.6     | 16.9       | 41.8       | 2.8       | 4.8        | 9.8   | 0.5       | 8.1      | 26.8        |
| <b>C4</b>                         | 28.3        | 3.4      | 223.1      | 54.2      | 18.3    | 18.7    | 30.5     | 26.4       | -66.7      | 11.9      | 13.2       | 8.7   | 0.3       | 4.7      | 4.4         |
| <b>C5</b>                         | 11.8        | 0.7      | 32.3       | 40.9      | 12.7    | 23.7    | 23.1     | 18.5       | -21.9      | 5.8       | 16.6       | 10.2  | 0.6       | 7.5      | 6.8         |
| <b>C6</b>                         | 8.7         | 0.3      | 6.6        | 29.8      | 8.7     | 16.2    | 33.3     | 32.4       | -142.9     | 10.9      | 18.1       | 19.3  | 0.7       | 1.3      | 5.4         |
| <b>Road to Nowhere scenario</b>   |             |          |            |           |         |         |          |            |            |           |            |       |           |          |             |
| <b>C1</b>                         | 3.9         | 0.8      | 3.3        | 22.2      | 5.0     | 15.1    | 28.7     | 27.6       | -32.6      | 17.9      | 12.6       | 28.4  | 2.8       | 2.7      | 7.3         |
| <b>C2</b>                         | 2.7         | 0.5      | 1.4        | 13.2      | 3.7     | 14.9    | 33.9     | 27.3       | -74.3      | 38.7      | 37.3       | 16.6  | 1.1       | 2.3      | 12.4        |
| <b>C3</b>                         | 12.2        | 1.8      | 80.8       | 42.6      | 13.7    | 16.2    | 27.1     | 25.4       | -7.1       | 5.0       | 8.3        | 16.2  | 0.6       | 9.8      | 17.5        |
| <b>C4</b>                         | 25.8        | 8.8      | 358.8      | 51.9      | 13.7    | 12.4    | 37.1     | 36.3       | -44.0      | 12.7      | 15.7       | 17.1  | 0.3       | 2.8      | 10.5        |
| <b>C5</b>                         | 7.8         | 0.3      | 28.4       | 31.5      | 7.5     | 16.0    | 28.7     | 26.7       | -35.2      | 8.2       | 15.2       | 18.3  | 0.5       | 3.2      | 13.0        |
| <b>C6</b>                         | 2.8         | 0.4      | 2.0        | 20.2      | 4.7     | 14.0    | 36.7     | 33.9       | -82.3      | 27.8      | 22.3       | 27.7  | 1.5       | 1.9      | 10.2        |

