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Rural futures in developed economies: The case of Finland

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ABSTRACT

This study presents four possible images of rural futures in Finland: decentralized bio-economy, colonial countryside, museum countryside and rural business islets. They are distilled through literature reviews, futures workshops and futures tables. Alternative specifications of structures, contents and agencies result in highly divergent states of key dimensions and, consequently, divergent rural futures. This diversity challenges the conventional public wisdom or intellectual monoculture that considers decay as the only future for rural areas. Key challenges in crafting plausible but divergent futures images are finding an appropriate level of abstraction or "flight altitude", establishing a credible logic or model for the system of futures, defining roles for the agency and applying a proper balance between imagination and discipline. This study provides one example for tackling these challenges. It can be utilized to stimulate ideas of using futures images as a social technology or tool for social learning about alternative rural futures. This intellectual perch is an antidote for intellectual monocultures tending to dismiss the diversity of the rural areas.

1. Introduction

For what are the rural areas needed in developed economies? Common key words that are used to describe rural futures in the public debate and several studies are recreation, retirement and regression (Amcoff and Westholm, 2007; Lennert and Robert, 2010; Lowe and Ward, 2009). Using different looking glasses or world hypothesis (Pepper, 1942, 142–143) could result in different conclusions. After looking at the grand challenges of mankind – for example, the transition from oil economy to bio-economy, the increase in food demand, the scarcity of freshwater, the climate change, the loss of biodiversity, pollution and concerns about the security of critical supplies – it becomes evident that rural areas could have many fates. Many grand challenges have essentially rural solutions. The rural minority will have a major challenge in feeding, heating and fuelling the urban majority in their cities. To overcome this flux between passive and active roles of the rural areas in developed economies, some new avenues of though are needed.

A key challenge in outlining alternative roles for the rural areas arises from our limited capability to comprehend complexity and uncertainty. All sceneries of social life are complex. As individuals or as collectives within organizations, cultures or nations we all live in our partially insulated micro-cosmoses belonging to the nested branches of complex, hierarchical and adaptive social systems (Simon, 1996, 9). Uncertainty and our need to manage the complexity make us hungry for predictability (Heiner, 1983, 567). They keep up our desire for habits, routines and institutions (Swindler, 1986, 281). The same hunger has created the demand for ancient and modern ways of studying futures as instances of "social technologies" (Burns, 1986, 28; Niiniluoto, 2001, 375). Even though our *á priori* judgment of true uncertainty is always subjective, contextual and limited by experience (Knight, 1921, 224–230), we may employ futures studies methodologies to not only project the covering laws to the future but also to uncover metaphysical "synthetic *á priori* judgments" (Kant, 2003, 11) that expand our *á priori* knowledge and understanding.

However, extending causal explanations to the future to simulate them is a risky business due to discontinuities and evolving contexts. Using loose pattern explanations (linear, wave, jump, exponential, nested, noise, break; Kamppinen and Malaska, 2004, 68) that may host a diversity of alternative causal substances is another way to probe the futures. Attempts to apply this peculiar technology may serve "creation and design of tomorrow" (Inayatullah, 1990, 136) by constructing systems of "predictive argumentation" (Aligica, 2003, 1035) and "inspiring actions and structures that address the grand challenges" (De Smedt et al., 2013, 432) of each micro-cosmos. We may explore, simulate and justify the specific outcomes of the dialogue between various structures and agencies in the incubation of futures. Essentially, futures research methods and processes are examples of *social technologies or platforms for social learning* (Robinson, 2003). This approach also assists in distinguishing the roles of structures and agencies explicitly in emerging futures: despite of complexity, uncertainty and our limited foresight, the alternative futures do not just "happen".

This study discusses rural futures in the context of a developed economy and provides an example of futures studies as a design tool in social

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learning about rural futures. We want to demonstrate how the dialogue of structures and agencies may bring about several alternative rural futures. Our examination of the possible outcomes takes the form of *futures images*, which are configurations of alternative end states of developments. The scenery of these images is Finland: a small (population 5.5 million) developed country in northern Europe with a rare combination of extensive rural areas, extremely low population density, rapid socio-economic transformation and high economic wellbeing. In 2013, rural areas covered 95% of the land, population density reached 18 inhabitants/km^2, the share of agriculture and forestry in employment was 4.4% and GDP per capita was 37,000 euros (Statistics Finland data). The article starts with contextualizing the study and proceeds to discuss method, data, interim results and final futures images. The article is concluded with general reflections about the use of the approach as a social technology and a tool for social learning about rural futures.

2. Storyline of past and "structural inheritance"

The heading of the storyline of the rural change in Finland is shared by many developed economies. Since the wars in the 1940s, agriculture and forestry, along mechanization and modernization, have released most of their labor force to other industries. Regional main cities have received numerous new inhabitants, implying large-scale depopulation of the most remote rural regions. Rural areas have been incubators of city dwellers. Many services, which were extended to rural regions still in the 1990s in the era of the Nordic welfare state, are now pulled back to main cities like reverted rivers. In remote areas, the layers of economic activities have become thinner, but the urban-adjacent areas have been able to replace job losses with new inhabitants: commuters. The deeper division of labor resulted in a diversified economy and a better standard of living for all. When people were better off, they tended to use their extra earnings on services. When most services are produced and consumed simultaneously – in the same time and place – the growth of services was engaged to regional concentration of population and economic activities.

Along these developments, the role of the countryside in society has changed. For decades, rural areas "produced" and released new labor-force, who lacked rural jobs and moved to cities. Population of the 20 largest cities tripled in 1950–2013 and their share in total population grew from a quarter to a half (derived from Statistics Finland, includes municipal mergers). On the rural verge, about 1.5% of the population inhabit 68% of the country. However, this rural *well of labor-force* will dry out in the future. Until the 1980s, the majority of Finnish exports were agri-food and forestry products. Now dawn of a bio-economy could valorize natural resources in novel ways, and all natural resources are located in the countryside. Consequently, the role of the countryside as a *source of raw materials* could even expand. Rural areas have provided nature-based welfare since the hunting-gathering society. In the future, many lifestyles diversify the role of the countryside as a *source of welfare* (e.g., rural housing with commuting or remote work, self-sufficiency, green care, nature sports, fishing & hunting). Along these transformations, the rural population has become a minority, which gives impetus for new opportunities and conflicts along the way toward new societal roles. In developed economies, the rural minority is affected by the dreams, fears, needs and power of the urban majority.

Alternative futures take place in specific places and in the ether of time. The past is manifested in "structural inheritance" (Archer, 2000, 307–308), which affords and constrains choosing specific futures. In the Finnish rural areas, at least four aspects of structural inheritance condition future choices and development paths. First, the space of rural activity is *geographically dispersed*. The logic of agglomeration lies within city boundaries, but coordination and governance of the rural activities follow the logic of a dispersed economy. Second, rural activity is *bound to specific places*, which has many implications. Fields, forests and minerals cannot be moved and transplanted to new places where business booms. Due to the law of diminishing returns in the biological processes, the "industrialization" of primary industries faces problems. The rural businesses are bound to be rather small and local, and so is the scale of success. Third, the *adaptability* of the rural economy is limited in some respects. The evolution of biological production is slow (e.g., change of animal stock or crop varieties), the yield of natural resources cannot become regulated in the same way as a machine (e.g., natural conditions have an effect) and several sunk costs glue the activity to the existing line of action (e.g., expensive buildings with few alternative uses). Renewal of the rural economy is relatively slow. Fourth, rural activity is often severely *policy-dependent*. The use of natural resources, the supply of food and the supply of energy are sensitive issues, which many societies wish to control, regulate, tax or subsidize. Rural bureaucracy is an institution. Among others, these four features provide structures for the various agencies that effectuate ploys for rural futures.

3. Methods, materials and interim results

There is no general theory about the future, and this is why the choice of the best research strategy and methodology is guided by the research topic and by the research problem. This study aims at distilling rural futures, which include observations about the specific structural inheritance and the role of agency in emergent futures. Possible futures are iterated by relying on traditional futures studies methods as a four-step process: content analysis, futures workshops, futures tables and futures images. We have used *content analysis* of the relevant literature for identifying drivers and elements of alternative rural futures, *futures workshops* for structuring ploys for the futures and a *futures table* for providing coherence of structures, contents and agency in the futures. This research strategy allows oscillation between single drivers, alternative ploys, coherent prototypes and underlying universals and, in this way, calibration to an appropriate level of abstraction in the final images. Finding a feasible "flight-altitude" or level of abstraction is one of the most critical challenges in covering the field of possible futures of complex phenomena (Levins, 2006). The research process with interim results before the final images is presented next. Since the interim results (drivers, elements, futures tables) are part of the research process, they are discussed in this section along with methodological notes and remarks.

3.1. Content analysis: drivers and elements of the futures

As the first step, conventional content analysis (Hsieh and Shannon, 2005, 1286) was carried out to identify drivers of change. Documents (research and foresight reports, planning documents) that represent diverse domains and perspectives on rural economy and on rural land use were chosen, 100 documents for each strand. Appropriate search strings were applied for finding documents in the web and in the scientific databases, for example rural economy + future and rural land use + future. The candidate documents were studied for their contribution (e.g., a major planning document), relevance (e.g., foresight study on land use patterns), comprehensiveness (e.g., inclusion of major rural businesses) and insightfulness (e.g., novel alternative futures). After this screening, 100 most prominent documents per theme were selected for the analysis based on the judgment of the authors. The documents were from recent years (97% published in 2005 or later) and the timespan in the foresight and futures studies was mostly 15–35 years. The rural areas were defined as regions outside the regional main towns; drivers of change were considered as broad forces and developments, which affect the purpose (what), the location (where) and the way (how) of utilizing rural space. Factors providing answers to these questions were identified, arranged into generalized nodes and registered for their frequency (hits). These data sources capture the ideas and observations of scientists, policy-makers and experts of rural, regional, economic and social development.

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