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Author(s): Puupponen, Antti; Paloviita, Ari; Kortetmäki, Teea; Silvasti, Tiina

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Kraków, July 24–27, 2017

"Uneven processes of rural change"

The XXVII European Society for Rural Sociology Congress

Towards sustainable farming practices and food security: study about vulnerability of Finnish farms

Antti Puupponen, Ari Paloviita, Teea Kortetmäki and Tiina Silvasti¹

Abstract – The aim of this paper is to discuss food security in the context of sustainable farming practices in Finland. There are two research questions: 1) How are the Finnish farms vulnerable from the viewpoint of food security? 2) How could they increase their resilience for guaranteeing food security in the future? The paper is based on a qualitative study for which 15 Finnish food system specialists were interviewed in 2015. According to the results, three types of vulnerabilities are discovered: 1) market vulnerabilities, 2) continuity of farms, and 3) environment changes. For reducing vulnerabilities, the re-evaluation of policy instruments is needed. At the same time, new knowledge and skills are needed for supporting the decision-making at the farm level.

INTRODUCTION

Finnish agriculture and farmers have faced different risks and vulnerabilities during recent years. In particular, climate change, indebtedness, lowered income and increased bureaucracy are setting new challenges for future sustainable agricultural practices. Correspondingly, there are increased concerns about how these challenges, together with other social changes, are influencing food security in Finland. In line with these overarching concerns, the following research questions are tackled, herein: 1) How are Finnish farms vulnerable from the viewpoint of food security? 2) How could they increase their resilience for guaranteeing food security in the future? Through these questions, we aim to find representative solutions that support the future of sustainable farming practices and governing models that safeguard Finnish food security. The paper is based on a qualitative study wherein 15 Finnish food system specialists were interviewed in 2015.

CONCEPTS

By acknowledging the ambiguity involved in defining the food security concept, we utilise a well-adopted definition by the *Food and Agriculture Organization of the United Nations* (FAO) (1996). It states that "Food security exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food which meets their dietary needs and food preferences for an active and healthy life." Naturally, food security is dependent on environmental and agricultural conditions. Thus, food security preserves when the food system is sustainable and resilient. In the context of food security studies, a common debate revolves around sustainable farming practices, especially as relates to developing countries. Sustainable farming practices are an important part of the resilient food system and they can contribute towards better food security. Hence, overall, these integral interventions are similarly invaluable for the agricultural practices of industrialised countries. In line with these arguments, we draw upon the works of Huttunen et al. (2016). They discuss about the concept of good farming and how it is valued in the community and demonstrated via different symbols. In the context of Western industrialized farming systems, they argue that the core features of good farming are productivity, independence, continuity and stewardship.

DATA AND METHODS

The findings of this paper are based on a qualitative study that was conducted in Finland in 2015. More specifically, 15 thematic interviews with specialised experts were conducted. These participants comprised of specialists within the field of food policy, food governance, agricultural and environmental research and food trade. The interviews were carried out by our interest in vulnerability drivers of food systems. Based upon research literature covering

¹ Antti Puupponen, Department of Social Sciences and Philosophy, University of Jyväskylä, Finland (antti.puupponen@jyu.fi).

Ari Paloviita, Department of Social Sciences and Philosophy, University of Jyväskylä, Finland (ari.paloviita@jyu.fi).

Teea Kortetmäki, Department of Social Sciences and Philosophy, University of Jyväskylä, Finland (teea.kortetmaki@jyu.fi).

Tiina Silvasti, Department of Social Sciences and Philosophy, University of Jyväskylä, Finland (tiina.silvasti@jyu.fi).



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vulnerability and previous studies, we focused on three types of vulnerability drivers: hydro-meteorological changes, public and private policy changes and changes in consumption patterns. Additionally, all interviews covered themes related to the vulnerability of agricultural sector and farms. The interviews were recorded and transcribed verbatim. The data were analysed by using qualitative content analysis in conjunction with theory-bound and abductive approach (see e.g., Silvasti 2014; Timmermans & Tavory 2012). Abductive approach means that our aim was to create a dialogue and analyse data by systematically combining empirical data and theoretical concepts (Dubois & Gadde, 2002). In this context, we use theoretical grouping based on Darnhofer (2014). Due to the relative small sample of our data, the generalizability of our results should be taken with caution, since they are predominantly applicable to our sampled cases. However, we are able to find some general lines and make conclusions by utilising research literature with the data.

RESULTS

According to the results, three types of vulnerabilities are unearthed. First, Finnish farms are vulnerable to changes in food markets. A number of adverse effects have proliferated within the Finnish food system in recent years that influence the overall functionality of farms. Second, Finnish farming is dominated by the older generation. The younger generation has proved to eschew farming as an alternative career option. Subsequently, farms are also vulnerable from the perspective of continuity. Third, the interviewed experts are concerned about climate change and its influences on the environment. However, on a global scale, the consequences of these concerns have proven to be uncertain. Nonetheless, climate change may adversely affect plant species, insects, and food prices, and in the long run certainly, food security as well. Overall, the results indicate that the studied vulnerabilities are often caused by the inability of farms to foresee the political and economic changes in the food system. These changes are often unexpected and occur spontaneously from the farmers' perspective. For reducing vulnerabilities, the re-evaluation of policy instruments is needed. At the same time, new knowledge and skills are needed for supporting the decision-making at the farm level.

CONCLUDING REMARKS

Finnish food markets are centralized and agriculture is concentrating. If this trend is tied together with growing efficiency thinking (such as maximizing short-term yields using chemical inputs), it may,

however, be problematic from the viewpoint of food security and sustainable farming practices. This trend may lead to more adverse effects, whereby agricultural systems are isolating themselves from the ecological environment. Hence, agricultural systems will become more inflexible (Darnhofer et al. 2016). Likewise, some biotechnological innovations (such as genetically modified food) may increase the risk of inflexibility and isolating of farms from their ecological environments. If the risks of climate change, other unforeseeable impacts and vulnerabilities are taken into account in the future, the socio-ecological resilience of the food system should be taken more seriously into the political agenda. At the same time, the conceptual definition of food security should be established more unequivocally.

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