

“We manage what we can at pace we can”: small farmers’ development strategies in turbulent context in post-socialist Latvia

Talis Tisenkopfs and Sandra Šūmane

Baltic Studies Centre, Latvia

Abstract: This paper is based on the ongoing RURAGRI-ERANET research project RETHINK and preliminary findings from the case study in Latvia which focuses on resilience and development trajectories of small farms. In Latvia up to 95% of farms are considered “small” and being only partially integrated in conventional agro-food systems and commodity chains. Often this is considered as blockage for agricultural development in the country and small farming is approached as residue of the past. We challenge this view from Beck's reflexive modernisation perspective which invites to reconsider the modernisation's path in agriculture and we propose to look at small-scale family farming in the framework of resilience and sustainability. In particular we pay attention to small farms' survival and development strategies under difficult socio-political and economic contexts in North-East Europe, taking Latvia as an example. We look for ‘hidden’ potential of small farms that equally might be an alternative way to look at ‘absences’ in the mainstream agricultural discourse. We approach the current structure, problems, opportunities and strategies of small farms also as the offprint of controversies of hitherto agricultural policies which stipulated, perhaps, one-sided model of modernisation giving preference to large scale technologically equipped farms.

On the base of group discussions with national agricultural stakeholders, interviews with farmers and agricultural organisations, secondary data and literature review, we identified four place based development trajectories of small farms and corresponding farmer strategies: socio-economic specialization of farm, integration in food chain and/or territorial economical networks, development of human capital and social inclusion. These can be considered as preliminary prototypes of small farms development strategies or ‘models of engagement’ that will be further tested and elaborated in the case study. We present also some emerging relations between the identified small farm development strategies and components of agricultural modernisation and their outcomes which are evaluated as a degree of integration between prosperity and resilience. We distinguish between high, medium and low level of integration between prosperity and resilience that can be achieved through farmers’ individual and collective strategies. At current stage of research it is yet difficult to establish how these particular trajectories are shaped by farmers learning, networking and communication with other food system actors and beyond and how they are backed upon local place-specific resources – these are the issues for coming case study analysis.

Keywords: Small farmers, sustainability, resilience, development strategies

Introduction

Joanna is a small farmer. She lives in a bloc apartment building in a village of Ērgļi in rural Latvia, some 100 kilometres from the capital city of Riga. She is English and has lived in different counties but having travelled to Latvia several times she fell in love with its nature and decided with her husband to move here five years ago. Children and grandchildren are spread across the globe and live in Australia and Canada but Joanna and James cherish their recently acquired 12 hectares of meadows and forest and step by step settle up an ecological farm. James takes care of forest and fells trees to make hedges that fence a herd of alpacas – a new breed for Latvia and quite radical innovation. Before choosing their niche they considered also going into sheep but finally opted for alpacas because “their feet is so tender to soil and craftsmanship skills still exist in the neighbourhood to process the wool,” Joanna admits. While many small farmers are giving up agriculture and leasing or selling their land to agro-industrial enterprises and investment foundations; while the young generation is massively moving out of the area, some smallholders do persist in creating their alternative living and ways of economy and some even move in with new ideas. There are some sheep farms around, a goat farm producing cheese and selling it directly to consumers, a wood craftsmanship with good reputation, an American church is helping some small holders to go develop care farming. Joanna is interested in landscape architecture and sees the development of her farm and neighbouring community in agro-ecological perspective. “We make use of land that has nearly gone into forests,” she says and concludes: “We manage what we can at pace we can”. There is no much hope in government support or acknowledgement what people like them are doing in Latvian countryside, but this even strengthens her self-confidence. The only real problem is wild boar – when the big biogas plant operator harvests maize in the fields next to Joanna’s (“and they grow and burn maize, grow and burn, year by year, year by year”), the boar comes to Joanna’s meadows and damages grass.

This story might serve as an epigraph to real life situation of many small farmers in post-socialist countries like Latvia, their economic prospects, political profiling and individual endeavours. In this paper we try to understand and analyse why small farmers segment has been underestimated in post-socialist rural development policies. Upon the context which by large can be characterised as economically, politically and ideologically unfavourable for the future of these farms we pose a question why and how their liveability is still existing? How the small farms resilience and sustainability strategies are developing in post-socialist context? From where does this potential originate? We specifically explore how it is developed and enhanced through knowledge sharing, farmers networking, and wider social interaction. And we want to understand are there reasonable policy networks, measures and instruments emerging that give hope to counterbalance the hitherto totalistic prevalence of intensification and up-scaling policies and discourses in agriculture.

Policies of silence, absence and marginalisation

As Diana Mincyte has argued based on Lithuanian experience, small-scale and semi-subsistence farmers have been marginalised in post-socialist conditions and their role in advancing sustainability has been doubted although this group constitutes a considerable proportion among rural populations (Mincyte, 2011). In Lithuanian *Rural Development Plans 2000-2006* strong language has been used to characterise subsistence farmers as ‘serious weakness’ and ‘obstacle’ to the development (ibid, p.102). Similar observations about the scepticism and critical attitude towards small farms in agricultural and rural development policy documents in Latvia have been made by Cimdira and Raubisko (2012). The productivity-enriched policy language employs expressions regarding small-scale farming like low production capacity, low productivity, high costs per product unit, insufficient mechanisation, inefficient production, high labour use, low quality, little export-oriented.

The principal national agricultural and rural policy planning document Latvia Rural Development Programme 2007-2013 contains several explicit references to the undesirable and detrimental

character of small-scale farming that hampers agricultural development. For example, “At the moment fruits are produced mainly on small plots from 1 to 3 ha, which is one of the major weaknesses of the branch” (Ministry of Agriculture, 2007, p. 32). “Despite the positive trends in milk sector during the recent years, it still remains rather fragmented - around 90 % of milk farms are small (with up to five cows). “Therefore the development of milk production and use of its potential are hampered by high production, processing and marketing costs, insufficient quality of products, lack of current assets and means for farm restructuring and modernisation” (ibid, p. 35). At the rationale of the support measure for the creation and development of enterprises there is the statement that the inability of small farms to develop competitive and market-oriented production pushes potential rural entrepreneurs to stop their activities in rural areas. The same programme also includes a measure targeted to deal with the small-scale structure. The support measure for restructuring of partly subsistence farms aims improving the number of market oriented farms by restructuring the partly-subsistence ones. The attributed funding for construction, mechanisation and permanent crops are aimed at increasing the production capacity and competitiveness, therefore pushing small farms towards the same competition track as big, commercial, intensive farms.

Consequently, public support has been distributed following such political attitudes: recent evaluations of the distribution of EU and national funds for agricultural and rural development testify that their biggest share has been attributed to a small group of big farmers (Vēveris and Kālis, 2011).

Mincyte argues that devaluation of semi-subsistence economies and farmers exposes the workings of contradictory political agendas that have shaped the implementation of the EU reforms in the new member states.

The origin and fate of small holdings was inflicted by consecutive albeit disrupted policies – that of land privatisation in the beginning of 1990s (which in Latvia created a large number of private holdings) and farm modernisation policies introduced in the beginning of 2000 and especially enforced after joining EU in 2004 (which concentrated on the growth of bigger farms). Paraphrasing Jan Douwe van der Ploeg’s expression, the peasants were given the land, but soon after many were cut off from agricultural development (van der Ploeg, 2008, p. xiv).

Doubts about small farmers’ feasibility to develop in liberal economic environment permeate post-socialist policies and stem from a double-hardened argument of ‘globalisation’ and ‘catching up modernisation’. The liberal economic policies introduced in agriculture in Latvia after the collapse of socialism coincided with unprecedented globalisation of markets and free trade. The newly established private agriculture sector had to adjust to those challenges. In response the policies gave a clear preference to the growth of bigger agricultural holdings with an argument of technological modernisation, scale of production and market competitiveness. This also gradually deteriorated the public attitude towards small farmers as valuable part of the economy and society.

We may say that small farming segment was politically *deactivated* and socially *questioned* in addition to difficulties to establish economically. The post-socialist and later new EU member state’s agricultural policies implied that the place of small peasants is to be taken by agricultural entrepreneurs well equipped to follow the logic of the market and respond to government incentives. Small farmers do not fit well in this logic. Even if they demonstrate entrepreneurial achievements, create alternative market niches and introduce innovations, they often remain under the radar of mainstream policies.

Therefore the current thinking of rural sustainability and resilience faces a fundamental challenge as to how to incorporate people, practices, economies and environments that do not easily fit into

the existing policy models and visions (Mincyte, 2011, p. 104). This primarily relates the segment of small farmers and critical revaluation of their potentials.

Van der Ploeg (2008, p. 3-9) distinguishes between three modes or ideal types of farming which can be observed in contemporary societies. The first mode is peasant farming traditionally characteristic to agrarian societies but also present in capitalist system in forms of distancing farming practices from mainstream markets by using clever mechanisms (for instance engaging in short food supply chains). The second mode is capitalist farming characteristic to industrial societies with large food processing industries, supermarkets and globalised supply chains. The third mode is entrepreneurial farming which epitomises the recent phase of globalisation and modernisation emphasising scale enlargement and intensification achieved through technology. Entrepreneurial farmers are seen as actively engaging in market dependency; if they succeed they join the ranks of export oriented corporate farming sector.

Despite of produced unintended negative consequences of policies of small farm ignorance, silence and marginalisation, such as rural poverty and exclusion, out-migration and land takeover by foreigners, there are other alternatives for small farmers that have been discussed in scientific literature and examined practically in farming communities like alternative agri-food networks (Maxey, 2006; Maye and Kirwan, 2010), local food systems (Feagan, 2007), short food supply chains (Renting et al, 2003; Galli et Brunori, 2013; Kneafsey et al, 2013), civic food networks (Seyfang, 2006), periurban and urban agriculture (Jarosz, 2008), agricultural and food movements driven by farmers and other social actors, etc. In the next chapters we examine how ideas of these conceptualisations and practical developments can form an alternative framework to reconsider and analyse resilience and sustainability of small farms.

Alternative frameworks to revalue resilience and sustainability potential of small farmers

Even from the standpoint of the poor efficiency argument the criticism of small-scale farming does not keep well the route anymore as increasing number of scholars establish the economic efficiency advantages of small farms who are found to be as or even more productive, efficient, and contributing to economic development than large farms (Rosset, 1999; Lerman and Sutton, 2006; Masterson, 2007; Altieri, 2009). Small farmers worldwide produce from 2 to 10 times more per unit area than do larger farmers thanks to their labour intensity and quality, multiple cropping, high use of non-purchased inputs, more efficient irrigation and use of resources (Rosset, 1999).

However, such uni-dimensional agricultural model which heralds exclusively productivism and efficiency and its supporting policies have been broadly criticised due to their social, environmental and economical damages. Beck's (1992) thesis of reflexive modernisation puts forward that industrial agricultural production has provoked unintended destructive side effects which cause threats and damages to ecosystems and cultures from local to global levels. Those hazards destabilize and put into question such agriculture's foundations and the whole system of its political and economical management. Public awareness about the negative effects of industrial agriculture is raising and environmentally and socially more conscious agriculture is at growing demand.

As alternative to techno-economic approach to agriculture, more complex, systemic visions have been developed which capture and illuminate farming as multidimensional activity closely intertwined with and embedded in other socio-ecological systems. They broaden the scope of technological progress and profit at agriculture and grasp also environmental, social and cultural significance of farming. By that they open "rehabilitation" gate for small-scale farming.

During the 20th century in the Western world under the regime of technological progress and productivism in the neoliberalism shell, sustainability of agriculture has been mostly of alternative, marginal or secondary concerns. Since the UN Stockholm Conference on the Human Environment in 1972 the ecological dimension of sustainability has been officially brought forward at global scale and later it was followed also by the social one. In agricultural and food systems sustainability is related to a broad range of practices which in one way or another aim at balancing economical, environmental and social goals, like reduction of ecological footprint, improving ecological diversity, establishing fairness and equity in food chains, improving food quality and security etc. Organic farming, fair trade initiatives, short food supply chains are just few examples of how sustainability principles in agriculture are put into practice.

When examining those initiatives closer, we can detect that many of them are predominantly composed of small farms. Ousted from or being at the margin of conventional markets and food-chains and their supporting systems small farms are often at the origin of establishing alternative local food production and consumption initiatives. Those initiatives are more than farmers' responses to growing concerns about food. They offer them new ways to ensure their livelihoods, well-being and farm development. Those alternative initiatives represent also new governance modes where local farmers re-establish their decision making power and co-produce rules. As Bird and Ikerd (1993) states, knowledgeable people with a sense of ownership, empowerment and independence is a primary requisite of sustainable agriculture. Often such alternative food production and consumption networks involve also intensive learning and knowledge processes, resulting in innovative outcomes that boost not only farms but the whole local community and territory therefore provoking broader sustainability's spillover.

Agroecology provides an alternative understanding of agricultural sustainability accordingly to which it should be regarded into a broader context of the whole agroecosystem with many interacting environmental, economic and social components and not as narrow sustainable technological solutions to production problems. Sustainability of agroecosystems lies on the principles of natural and traditional (local) agroecosystems which provide evidence of how local ecological and cultural systems co-evolve with their local environments in time (Gliessman, 2008). Small farmers, often underserved by agricultural knowledge and innovation system (AKIS) institutions, base their farming practices on their complex local knowledge of the place which is developed over long time, even several generations. In contrast to modern conventional agroecosystems who focus on socio-economical goals and have degraded their ecological foundations, many traditional agroecosystems composed of small farmers demonstrate wise application of ecological knowledge to ensure their food and livelihoods in long-term (Altieri, 1990). The transformative evolution in the interaction of natural and social worlds stressed in agroecology leads to the idea of resilience.

Although sustainability slogan has introduced changes both in perceptions of agro-food system and its practices, it has proven to be highly contested concept and sometimes loose when applied in real-life situations when its ethical aims have been lost in front of instant pragmatic motives. In addition, as the dynamic, unpredictable and interconnected nature of contemporary world demands not only sustainable but also highly (pro-)active, flexible and adaptive position, resilience paradigm turns to be better appropriate to deal with sustainable development practices over time in unstable, non-predictable, changing environments.

Resilience is understood as any system's capacity to absorb change, reorganize while maintaining its characteristic structures and continue to develop (Folke et al, 2008). Attributed to farmers, resilience means their capability to cope with, make use of and adapt to changing, often disadvantageous, conditions. That capability is forming from interaction of individual and place-specific resources. It involves knowledgeable flexibility which is made of farmers' existing knowledge stock, learning position and place-specific competence: knowing and using of local resources,

opportunities which are at their closest reach. Darnhofer (2010) concludes that general resilience building factors of farms are the same which have been identified as characteristic to social-ecological systems (defined by Folke et al. (2003) and Berkes (2007): (1) learning to live with change and uncertainty, (2) nurturing diversity in its various forms, (3) combining different types of knowledge and learning and (4) creating opportunity for self-organization and cross-scale linkages. Small farms across the world developed in harmony with the specific local conditions exhibit a great diversity of practices and knowledge as well as autonomy and therefore prove to have a high potential of resilience (Altieri, 2009).

Multifunctionality of farming is closely linked to sustainability and resilience. It explicitly evokes the many dimensions and respective functions farming involves in providing environmental and other public goods. Diversity in on-farm practices is acknowledged also as strengthening farms' resilience (Lin, 2011; Darnhofer, 2011) Pluriactivity practiced in small farms provide a base from which rural households are able to sustain their livelihoods, thus „ keeping ‘lights in the windows’ and retaining populations in areas from which they would surely have been lost if farm amalgamation had proceeded” (Shucksmith and Rønningen, 2011).

To sum up the presented frameworks, in order to better capture the role of small farmers in agricultural and rural development the very notions of agricultural and rural development and attached to them agricultural, political and scientific practices still has to be reconsidered. Sustainable and resilient agricultural development has to be regarded as a constant **process** of actors' learning and adaptation of their practices to suit them to their dynamic contexts. Sustainability and resilience are encoded in multiple long-term outcomes of farmer practices in terms of their quality of life, ecological situation, rural landscape, prosper and viable rural communities, food quality and security, soil fertility etc, not in yearly production outputs. From such a long-term and processual estimation point of view, the contribution of small farms to agricultural and rural development is better captured.

Agricultural development has to be regarded in relation with environmental and social systems and processes. This points to its **connectedness**: connectedness of social, environmental and economic aspects of farming; of various actors; of local and global scales and dynamics; to past events; of “expert” and lay knowledge etc.

Connectedness as relations between distinct parts evokes the **diversity** as immanent characteristic of sustainable and resilient agriculture. There is no single pathway of sustainable agriculture; instead there are diverse practices implemented in different combinations of actors, resources, goals. Diversity in agricultural development, maintained by small farms, allow for a wide range of social, economic and environmental potentialities to exist so that also future generations have possibilities of reaching **their** sustainability aims (Shucksmith and Rønningen, 2011).

Taking into account the many expressions of sustainable practices it becomes clear that they are place specific and **locally embedded** – they are local people's developed solutions that considers and suit the best to their opportunities and specific local conditions. This points to the role of local knowledge and permanent learning.

In order to better recognise and advance small farm sector, new governance modes should be set in place which base on the diversity of resources and in particular put in value the often neglected local and tacit ones. Despite growing witness on the contribution of small farms to sustainable and resilient rural and agricultural development (Saraceno, 1994, Shucksmith and Rønningen, 2011; Altieri, 2009; Mincyte, 2011), there are still few research witnessing how these principles of sustainability and resilience embodied in alternative food production are translated and experienced in practice (Maxey, 2006). In order to provide some answers on the question how small farmers are actually succeeding to develop their farms in sustainable way and contribute to

broader rural development, despite often disadvantaged social, political and economical contexts, the following chapters will illuminate our current research on small farms' development strategies in Latvia implemented within ERANET – RETHINK project.

Methodology

The paper is based on several methods of data collection and analysis. First, we organised a national stakeholder seminar within RETHINK project framework which gathered 20 participants representing the main stakeholder groups: the farmers and their organisations, the Ministry of Agriculture, the Association of local municipalities, The Latvian Rural Advisory and Training Centre and agricultural research organisations. The discussion concerned the issues of definition of small farms, their development problems and opportunities, the existing and potential solutions to the problems as well as stakeholder understanding of the meaning of overarching research concepts: resilience, prosperity, governance and knowledge and learning. Second, we did a literature review and screening of existing researches and statistics about small farms in Latvia. Third, we use the data (interviews, workshop summaries, initiative descriptions and case study reports) produced in former projects to the extent they represent the small farmers' problems and action strategies.

Results

Problems of small farms

The problems of small farms can be clustered in definition, technical, policy, knowledge and scientific problems.

Definition problems are experienced by various stakeholders as there is no one adopted and agreed definition what the small farms are and boundaries make this farm group distinctive. This is unsettled in statistics, agricultural census and policy documents and research papers. Various definitions refer to economic size unit, standard output, land area and other criteria. We also distinguish scientific problems in defining small farms related to multidisciplinary perspectives: economists tend to emphasise economic and productive criteria, whereas sociologists and anthropologists include in small farm definition also social categories, like: family, gender, generation etc. The stakeholders expressed wish for a more complex definition of small farms and their typology resulting from RETHINK study which would combine economic and social vision. Although this definition problem does not represent a direct difficulty in small farms' operation, there are consequences through national and institutional policies which do not succeed to respond adequately to small farms' needs.

Technical problems: Small farms are characterised by a range of problems which we cluster as 'technical' including economic difficulties related to capital, labour and land availability; production and technology related problems; marketing problems; and management problems.

Policy problems: stakeholders and experts distinguish inadequate policies towards small farms as a specific kind of problem affecting negatively the small farmers economically (their role is often devaluated), but also psychologically (small farmers feel they are distrusted and their future doubted in agricultural policies).

Knowledge is considered both by farmers and experts as major issue affecting small farms especially in terms of access to up-to-date knowledge sources, technological knowledge, marketing and management knowledge. Small farmers compensate inadequate knowledge support from official AKIS organisations by employing other forms of knowledge (tacit) and through mutual sharing.

All these problem categories are interrelated, of course. The long-term disregard of small-scale farming in agricultural policies has nurtured the development of support structures (be they knowledge, funding or service support) which discard small farmers from their target groups. Lack of technological, marketing and management knowledge aggravates even more “technical” problems in small farms.

However, ‘problematization’ of small farms is also an expression of power discourse and political struggles, for example between big land owners and their smaller neighbours. The problem definition in small farm segment is not value free and separated from power, policy networks and relations between influential and less influential agricultural organisations. The stakeholder workshop highlighted another aspect of ‘non-problematization’ of small farms – a discourse and self-definition among a number of small farmers who do not distinguish themselves as a problematic category, but carry on with their chosen farming style regardless mainstream policies and the general lack of appreciation from the policy makers. These farmers do not complain, utilise their capacities and ensure livelihoods, thus showing substantial resilience.

Small farm development strategies

RETHINK analytical framework (Darnhofer et al 2014) sees farm development as relational process and non-linear ‘becoming’; there are different trajectories possible and farms development is contingent process. Transformative diversity is a key lens to break out from path dependency cementing the link between negative past and gloom prospects. No problems should be viewed as predetermining small farms to decline because there are multiplicity of contingencies and possibilities and farmers actual responses to these.

Based on the inventory of problems, opportunities and existing solutions identified and discussed at the stakeholders workshop it was possible to preliminary identify the four place based small farm development strategies which characterise their engagement in markets, territory and society; these are:

A/ Enhancing farm profile through diversification and/or specialisation: these are farms which combine traditional and novel ways of production in the given environment, develop niche production or and high value added products; these may be also farms which combine farming with rural services, nature conservation, crafts, etc.;

B/ Integration in food chain and/or territorial economical networks is another strategy. Small farms are integrated in conventional mainstream markets individually and through cooperation as members of agricultural cooperatives. They create also alternative market channels and mechanisms through mutual networking and links with various food chain actors. Direct sales, farmers markets, specialised shops, outlets of local and organic products in supermarkets, participation in School Fruit programme, short supply chains are variations of this strategy. In this case *interdependencies along the food chain are considered*, e.g. taking into account the strategies of processors, retailers, consumers; producer-consumer relations; drawing attention to social issues, taken up by food actors, like ‘health’, ‘environment’ etc.

New territorial food networks manifest in emergent urban food strategies and localised food initiatives such as farmers markets, public procurement of sustainable food, community supported agriculture, etc. in all of which small farmers are keen participants. They show the role of municipalities as territorially based development strategy needs considerable coordination and facilitation. Still few but some municipalities exhibit already explicit interest to support local producers through assistance to cooperatives and coordination of territorial specialisation. Region branding is relevant in instances when farm products are sold in bunch with other local products and services. According to RETHINK methodology (Darnhofer et al 2014) in this case *interdependencies within a territory* are to be considered such as the interactions between local networks, coop-

eration between farmers, diversification at territorial level, cooperation with regional stakeholders, interaction between agricultural and non-agricultural population.

C / Development of human capital: According to the stakeholders, this strategy relates farmers education, development of entrepreneurial and management skills, availability of training and advice, involvement of young farmers and generational succession, new collaborative initiatives (social innovations) that empower farmers.

D/ Social inclusion: A strategy that seeks to connect farmers and wider society in various ways – farmers participation in LEADER projects; services to urban dwellers; economic and social links with other rural residents; farmers multiple employment and part-time farming, etc.

These strategies are rather ideal types or models of engagement of farms in market, territorial and civic structures. They are only preliminary identified and will be tested in case study. These farmers' orientations may consist of multiple choices and activities, and in individual instances farmers may combine elements of several strategies and activities. The case study will amend these ideal type strategies and confront them with real diversity of small farms business models and social relations. It should be noted that farmers' strategies are not solely their invention; they are constructed in interaction with many other stakeholders – market actors, policy actors, civil society.

Farm strategies and agricultural modernisation

In this section we outline relations between small farm strategies and agricultural modernisation conceptualised in RETHINK project as resilience, governance, prosperity and knowledge and learning. Resilience and prosperity can be considered as an outcome of modernisation whereas governance and knowledge and learning more relate the process of modernisation. The stakeholder seminar helped to adjust the meanings of these scientific concepts (resilience, governance, prosperity, and knowledge and learning) to small farmers' situation in Latvia and translate them in stakeholder language. Participants provided nuanced comments on cultural and research appropriation of these concepts.

Resilience in RETHINK project is understood as socio-ecological resilience distinguishing three aspects: persistence, adaptability and transformability (Walker et al., 2004, Folke et al., 2010). It includes adaptive capacity and transformative capacity. Learning is central component in resilience as farmers have to learn to persist, adapt and transform. Different types of disturbances and risks at farm level require different resilience strategies (Darnhofer et al, 2010). At the territorial level, resilience may be linked to the concept of 'potential' as discussed in Shucksmith and Rønningen (2011). They point out that 'potential' is *pluralistic*, acknowledging multiple voices and visions. The national stakeholder groups seminar exposed some new and unexpected meanings and connotations of resilience, for example – economic resilience of farms was not necessarily associated with their economic efficiency and scale enlargement but rather with diversification and cooperation; social resilience was strongly linked to farm family wellbeing, children and rural livelihood.

Prosperity in RETHINK is conceptualised mainly as outcome of rural development and understood as *fair and lasting prosperity* beyond the narrow materialistic view. According to Jackson (2009: p.37) there are three understandings of prosperity as: opulence, utility and capabilities for flourishing. Economic efficiency and material wealth is only a part of prosperity and this concept is strongly value laden and contested between two paradigms, that of economic profit and that of human wellbeing. Participants of Latvian stakeholder seminar referred to both kinds of meanings of prosperity. For small farmers prosperity as opulence might not be a primary objective; their construction of prosperity strongly underlies human value dimension referring to 'quality of life', 'health', 'rural environment', and other values as basis for small farm prosperity. This extension

of prosperity meanings into social values can build so called ‘value communities’ between small farmers and citizens/consumers who share similar values that subsequently can be basis for certain products and services value chains and contribute also to farm resilience.

Governance in RETHINK is addressed from governance regimes, formal and informal institutions and policy networks perspective. The national stakeholder seminar highlighted the role of local administrations as development enablers for small farmers. With regard to knowledge and learning RETHINK framework distinguishes between explicit / formal and implicit / tacit knowledge and emphasises relevance of collaborative learning in which farmers engage in different networks and relationships of joint knowledge production with other farmers, researchers, consumers, NGOs, retail chain actors, etc. These networks are also places of innovation. Therefore farmers’ participation in communities of practice, networks of practice, learning and innovation networks is highly relevant for the success of their development strategies.

Relations between farm strategies and agricultural modernisation: models of integration

In this section we present some emerging relations between the identified small farm development strategies and components of agricultural modernisation and illustrate these by examples. We apply the method based on comparing farm strategies and modernisation processes and outcomes evaluated as degree of integration between prosperity and resilience. We distinguish between high, medium and low level of integration between prosperity and resilience that can be achieved through farmers’ individual and collective strategies. Below we shortly describe the development of three farms as examples of linkage between chosen farming strategies and resilience and prosperity outcomes. All farms are relatively small scale and engaged in integrated fruit growing.

Model 1 – Active integration in mainstream and alternative food chains through farms investment, learning, innovation and cooperation resulting in high level of integration between farm prosperity and resilience.

The example is Dace’s farm specialising in fruit growing and having a side production of crops and cereals. The farm is run by a married couple in their 40s, it is 26 ha in size of which 6 ha are occupied by an orchard. Apart from fruit farming Dace works as part time consultant in fruit growing at the Latvian Rural Advisory and Training centre which gives her a good access to other knowledge institutes and farmers networks. Dace is also board member of the Latvian Association of Fruit growing and a leader of producers group which recently has undertaken a joint investment project for building a cooperative fruit storage facility. Dace is actively taking part in training activities organised by Latvia State Institute of Fruit Growing (LSIFG) and Pure Horticultural Research Centre and collaborating with the specialists from these organisations in organising farmers training events. Thus she acts as a knowledge broker between farmers and AKIS organisations and learns much herself. The farm is growing and after a period of technical development (planting and orchard, buying equipment, learning technical skills and standards of integrated fruit growing) now Dace together with the producers group are more engaged with building a more efficient market chain for local apple. The market channels include sales through the cooperative, direct supplies to bigger consumers (schools), participation at farmers markets (e.g. Kalnciema Quarter in Riga). The farm uses family labour and occasional seasonal workers. Dace evaluates the economic conditions of her farm as favourable and living standard as decent, and she is optimistic about the farms’ future.

Model 2 – Integration in alternative food chains through gradual growth, limited investment, individual entrepreneurship and innovation resulting in medium level of integration between resilience and prosperity.

An example is Livija's organic fruit farm in Tukums district. Livija discovered growing buckthorn as her niche and specialisation through experience exchange with other farmers interested in organic fruit. The knowledge was acquired through personal contacts mostly. The farm development process was slow, as Livija used few subsidies and public support programmes recently introduced for fruit growers. Her farm development trajectory represents a gradual accumulation of knowledge and increase in productive capacity. New impetus for a more rapid growth has been the recent regulation on artisanal production which favourably affected small producers, like Livija, who want to process part of their production. Livija started to produce homemade jams, juices and confectionery from organic buckthorn, apple, cranberries and other fruit grown on the farm. These are sold directly to consumers on farmers and open markets or directly on the farm. Livija continuously experiments with new recipes and consults specialists from LSIFRG regarding new product development. Her farms resilience and family well-being are well connected and the farm has solid basis to continue with this mode of operation, however Livija complains about the difficulties to find credible workers and excessive government regulations for home producers.

Model 3 – Sustaining small scale farming through family persistence, self-production, partial market engagement, farmers learning and participation in community based peer networks resulting in little or moderate economic income but relatively high integration between resilience and prosperity.

Arnis' farm in Jelgava district is representative to this model. It is a small farm of 10 hectares of which 2 hectares are occupied by an orchard. Arnis developed his farm slowly after restitution of land ownership after the collapse of socialist collective farms. He is a man in his 70s doing farming mostly alone, his children live in cities. However, Arnis has been innovative and entrepreneurial in making choices how to invest the step-by-step accumulated family savings, how to specialise and manage his farm. He is a member in local fruit growers community and attends occasionally training seminars; he also follows the news in fruit growing disseminated by the Association of fruit growers and fruit research institutes. Support from public funds has been marginal at his farm; however it was used to buy plants and establish an orchard. He acquires new knowledge predominantly by self-learning and education from books, as well as attending training events organised by fruit research institutes and the Association of fruit growers. Production is mostly sold individually through small shops and open markets in nearby towns and Arnis is not a member in any agricultural marketing cooperative. This farm shows a slow modernisation process, mostly privately generated and with limited investment in farm buildings, machinery and other productive capacities. Resilience and prosperity outcomes are in fact well integrated, however their meaning is culturally and socially attuned. For example Arnis is affected by landscape contribution of his orchard, its beauty; he cares of health benefits of sustainably grown apple. He can make a decent livelihood and family wellbeing through this style of small farming. However, the farm's future might be challenged as Arnis' age, the farm succession and willingness of children to continue farming is unclear and demand for agricultural land by large scale grain producers in vicinity is increasing.

Conclusion

Our research in progress allows to formulate some preliminary conclusions.

Certain farmers' strategies and especially combinations of strategies and their component activities lead to better integration of resilience and prosperity as outcomes generally achieving particular farms sustainability profiles. Active learning in combination with cooperation in marketing notoriously contributes to farm income, wellbeing and resilience, and in the end increases farm sustainability contributions.

Particular farmers strategies identified are ideal type orientations. In reality farmers may combine various strategies or their elements. Relationship between small farm development strategies and farm modernisation outcomes are not straightforward. Even moderate economic performance can produce high degree of integration of resilience and prosperity at small farm level. Small farms surprisingly exhibit salient resilience potentials, and this in practice contradicts with the policies of absence and neglect, we highlighted in introduction.

It is possible to identify several subsets of the above identified small farmers strategies of market, territorial, and social integration:

- Subsets of market strategies
 - Market engagement through cooperation
 - Development and integration in nested alternative food chains and civic food networks through building direct links with consumers, other SMEs and NGOs
- Subsets of learning strategies
 - Self-driven farmers learning through sharing with peers and sporadic use of professional knowledge sources and AKIS services
 - Active use of multiple knowledge and information sources through participation in associations, cooperatives, knowledge networks of AKIS organisations and various learning and innovation networks
- Subsets of governance strategies
 - Membership in agricultural organisations
 - Representation, policy networking and lobbying through alliance building among agricultural organisations and bridging with policy and governance institutions (Ministry of Agriculture, local governments, state controlling institutions)

Knowledge and governance in different ways infuse small farmers strategies and integration between these and modernisation outcomes (resilience–prosperity – sustainability integration). Learning in small farms segment is often based on informal networks and peer relationship. By engaging in more organised forms of learning (associations, cooperatives, collaborative projects, wider knowledge networks, etc.) small farmers get access to knowledge pool of different kinds (technical, economic, issue specific, etc.) and learning processes intensify with positive impact on farm resilience.

We argue that small farms are 'nests' of rural resilience, prosperity and sustainability. They are also places of learning and innovation especially if network processes are activated. They are also places of rural innovation especially in sectors and areas where bigger farms have difficulties due to economies of scale and technological path dependency. Small farms are pioneering in niche products, special quality products, organic farming, fruit production, new labelling and certification systems, etc. However, in turbulent market and political contexts they need social and political recognition and a kind of 'transition partners' in their difficult ways towards resilience, prosperity and sustainability.

References

- Altieri, M. A. (1990). Why Study Traditional Agriculture? In *Agroecology*. R. C. Carroll et al (eds.). McGraw-Hill, New York: 551-564.
- Altieri, M. A. (2009). Agroecology, Small Farms, and Food Sovereignty. *An Independent Socialist Magazine* 61(3): 102-113.
- Beck, U. (1992). *Risk Society, Towards a New Modernity*. London, Sage Publications.
- Bird, G. W. & Ikerd, J. (1993). Sustainable Agriculture: A Twenty-First-Century System. *Annals of the American Academy of Political and Social Science* 529: 92-102.
- Cimdiņa, A &, Raubiško, Ieva (2012). *Cilvēks un darbs Latvijas laukos: sociālantropoloģisks skatījums*. Rīga: Apgāds Zinātne.
- Darnhofer, I. (2010). Strategies of Family Farms to Strengthen their Resilience. *Environmental Policy and Governance* 20: 212–222.
- Darnhofer, I., Fairweather, J. & Moller, H. (2010). Assessing a farm's sustainability: Insights from resilience thinking. *International Journal of Agricultural Sustainability* 8(3): 186-198.
- Darnhofer, I., De los Ríos, I., Knickel, K., Koopmans, M., Lamine, C., Almered Olsson, G., de Roest, K., Rogge, E., Šūmane, S. & Tisenkopfs, T. (2014). Rethinking the links between farm modernisation, rural development and resilience in a world of increasing demands and finite resources. Analytical framework.
- Feagan, R. (2007). The place of food: mapping out the 'local' in local food systems. *Progress in Human Geography* 31(1): 23-42.
- Folke, C., Colding, J., Olsson, P. & Hahn, T. (2008). Interdependent Social-Ecological Systems and Adaptive Governance for Ecosystem Services. In *Sustainable Agriculture and Food, Vol.II Agriculture and Environment*. J. Pretty (ed.). London, Sterling, VA: earthscan: 139-166.
- Galli, F. & Brunori, G. (eds.) (2013). Short Food Supply Chains as drivers of sustainable development. Evidence Document. Document developed in the framework of the FP7 project FOODLINKS (GA No. 265287) Available at https://knowledgehub.local.gov.uk/c/document_library/get_file?uuid=ba5c39b7-c158-43bf-9bbb-7121a3fb6fa5&groupId=6122532
- Jackson, T. (2009). *Prosperity without growth. Economics for a finite planet*. London: Earthscan.
- Jarosz, L. (2008). The city in the country: Growing alternative food networks in Metropolitan areas. *The Journal of Rural Studies* 24: 231-244.
- Kneafsey, M., Venn, L., Schmutz, U., Balázs, B., Trenchard, L., Eyden-Wood, T., Bos, E., Sutton, G. & Blackett, M. (2013). Short food supply chains and local food systems in the EU. A state of play of their socio-economic characteristics. Available at http://agrilife.jrc.ec.europa.eu/documents/SFSCchainFinaleditedreport_001.pdf
- Ministry of Agriculture (2007). *Latvia Rural Development Programme 2007-2013*. Available at http://www.lad.gov.lv/files/lap_7_versija_04_06_2010.pdf
- Lerman, Z. & W. R. Sutton (2006). Productivity and Efficiency of Small and Large Farms in Moldova. Selected Paper prepared for presentation at the American Agricultural Economics As-

- sociation Annual Meeting, Long Beach, California, July 23-26, 2006. Available at <http://ageconsearch.umn.edu/bitstream/21085/1/sp06le03.pdf>
- Lin, B. B. (2011). Resilience in Agriculture through Crop Diversification: Adaptive Management for Environmental Change *BioScience* 61(3): 183-193.
- Masterson, T. (2007). Productivity, Technical Efficiency, and Farm Size in Paraguayan Agriculture. The Levy Economics Institute. Available at http://www.levyinstitute.org/pubs/wp_490.pdf
- Maxey, L. (2006). Can we sustain sustainable agriculture? Learning from small-scale producer-suppliers in Canada and the UK. *The Geographical Journal* 172(3): 230–244.
- Maye, D. & Kirwan, J. (2010). Alternative food networks. *Sociology of agriculture and food entry for Sociopedia.ISA*.
- Mincyte, D. (2011). Subsistence and Sustainability in Post-industrial Europe: The Politics of Small-scale Farming in Europeanising Lithuania. *Sociologia Ruralis* 51(2):101-118.
- Ploeg van der, J. D. (2008). *The New Peasantries. Struggles for Autonomy and Sustainability in and Era of Empire and Globalization*, London: Earthscan.
- Renting, H., Marsden, T. & Banks, J. (2003). Understanding alternative food networks: exploring the role of short food supply chains in rural development. *Environment and Planning A* 35: 393-411.
- Rosset, P. M. (1999). The Multiple Functions and Benefits of Small Farm Agriculture In the Context of Global Trade Negotiations. Institute for Food and Development Policy. Available at <http://www.foodfirst.org/sites/www.foodfirst.org/files/pdf/pb4.pdf>
- Saraceno, E. (1994). The modern functions of small farm systems: An Italian experience. *Sociologia Ruralis* 34(4): 308–328.
- Seyfang, G. (2006). Ecological citizenship and sustainable consumption: Examining local organic food networks. *Journal of Rural Studies* 22(4): 383-395.
- Shucksmith, M. & Rønningen, K. (2011). The Uplands after neoliberalism? The role of the small farm in rural sustainability. *Journal of Rural Studies* 27: 275-287.
- Vēveris, A. & Kālis, I. (2011). The impact of EU agricultural policy on the competitiveness of the farms in Latvia. *Ekonomika ir Vadyba* 16 : 452-458.
- Walker, B., C.S. Holling, S. Carpenter, & A. Kinzig (2004). Resilience, adaptability and transformability in social-ecological systems. *Ecology and Society* 9(2): 5. Available at <http://www.ecologyandsociety.org/vol9/iss2/art5/>