

SHERPA
Rural Science-Society-Policy
Interfaces

MAP Position Paper

CHANGE IN PRODUCTION AND DIVERSIFICATION OF THE RURAL ECONOMY



SHERPA has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No. 862448. The content of the document does not reflect the official opinion of the European Union. Responsibility for the information and views expressed therein lies entirely with the author(s).

Authors

ERDN | Barbara Wieliczko and Paweł Chmieleński

Contributors

Anna Łukasiewicz, Sylwia Dąbrówka

Citation: Wieliczko, B., Chmieleński, P. (2021) MAP Position Paper (Poland) - Change in production and diversification of the rural economy. DOI: 10.5281/zenodo.5920897

Paper finalised in October 2021

Find out more about the Zielone Sąsiedztwo Multi-Actor Platform in Poland!
<https://rural-interfaces.eu/maps/poland-zielone-sasiedztwo/>



Topic and headline messages

Diversification of the rural economy in Mazowieckie should take different paths – bioeconomy, smart village, new models of business, farm diversification, and short food supply chains. The encompassing theme for all these approaches should be a just green transition which can succeed only with community empowerment and engagement build on trust.

Different types of rural areas in Mazowieckie should take different paths to economy diversification as they have different potential and capacity. The more peripheral the area, the more agriculture dependent it is. Yet, all the ways of diversifying the economy are good for all the rural neighbourhoods as long as they pass the test of environmental, social and economic sustainability.

The main message should be to pursue smart diversification by activating citizens to create new business solutions that are agile and capable of not only adapting to social, environmental and economic challenges, but also of creating positive change through innovative approaches, for the good of society, in the local and global space.

Problem being addressed and key questions

Diversification of the rural economy in the Mazowieckie (Mazovia) region of Poland is a complex issue. The region requires entrepreneurship and new business models that ensure both smart rurality and sustainable management of resources. These needs can most effectively be addressed by enabling policies. The citizens should encounter a friendly business environment to be able to undertake new business activities. These policies should support local community members in founding new businesses and diversifying already existing ones in line with the developmental needs of local community and the whole region. This approach offers a significant level of sustainability as local businesses with direct contact with their clients need to ensure quality to build trust and good neighbourly relations.

The general recommendation for policies is “trust”. Trust should act both ways. The citizens – entrepreneurs, consumers and other stakeholders – should trust that regulations and execution of these regulations by different public institutions is impartial. At the same time, the public administration in designing and executing different policies and regulations should give a leap of faith to its citizens and not to put them in a position of someone who has to prove their innocence.

The main questions related to the future development of Mazovia relate to the issues that make up the community's pre-collective attitudes, nimbly adapting to environmental, socio-demographic and economic challenges, while at the same time creating new added value from the point of view of the local community and on a regional scale.

1. What opportunities do public administrations offer to make new ideas visible, promoted and realised (which tools)?
2. How to provide local communities with a platform for a better exchange of ideas and concepts?
3. Where to get better information about needs and opportunities which could be used to create new business models?

1. Diversification of the rural economy: Entrepreneurship, employment & new business models

1.1. Key scientific evidence

Diversification of the rural areas in the Mazowieckie region is progressing and leading to special polarisation (Bański, 2018) and this is also related to differences in rural economy and its structure. The dynamics of changes in "traditional" rural areas, i.e. those located at a greater distance from Warsaw, is lower and is connected mainly with the development of the food sector. New economic functions emerge less frequently than in areas close to Warsaw and other big towns. The new functions in peripheral parts of the region are generally related to agriculture – food processing, renewable energy generation, agro-tourism.

The currently implemented "Development Strategy for the Mazowieckie Voivodeship by 2030. Innovative Mazovia" puts as the main objective "the territorial cohesion understood as reduction of disproportions in development in the Mazowieckie Voivodeship" (Samorząd Województwa Mazowieckiego, 2014). According to the Strategy, the development of rural areas in the region should be stimulated "by increasing the importance of production and industry as well as agri-food processing. The success of the Mazowieckie Voivodeship is not possible without making use of human capital in creating a modern economy. The development of higher and secondary vocational education will be a basis for an innovative economy". To support development and diversification of the rural economy the Strategy envisages a number of measures:

- Creation of cooperation networks and rural clusters developing sectoral specialisations.
- Enhancing the commodity and productivity of farms.
- Restoring the quantitative level of bee colonies.
- Improving the economic efficiency of the agricultural sector, including through the development of organic farming.
- Support for investment in infrastructure facilitating business activity economic activity.
- Development of entrepreneurship and creation of non-agricultural jobs.

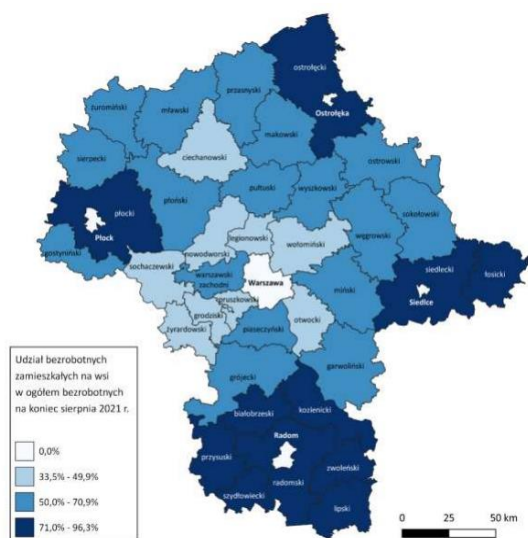
The diversification of the rural economy can be also supported by supporting the development of an information society in rural areas, as envisaged in the Strategy.

Despite the implementation of the Strategy, much still needs to be done. Data concerning unemployment serves as a good example.

In August 2021, 44% of the total number of unemployed people in Mazowieckie lived in rural areas. Among them 52% are women. The unemployed residing in rural areas prevailed in 28 districts, and in 13 districts they accounted for 70% and more of the total number of unemployed. Outside cities with district rights, the share of the unemployed residing in rural areas in the total number of the unemployed ranged from 33.5% in Otwock district (a district bordering with the Warsaw district) to 96.3% in the Siedle district (far to the east of Warsaw) (Fig. 1). These statistics show that despite the low unemployment rate in the region – 4.9% in August 2021 – the problem of unemployment in more peripheral rural areas is still to be tackled by supporting entrepreneurship and development of new skills and business models in rural areas not close to the big job market of Warsaw.

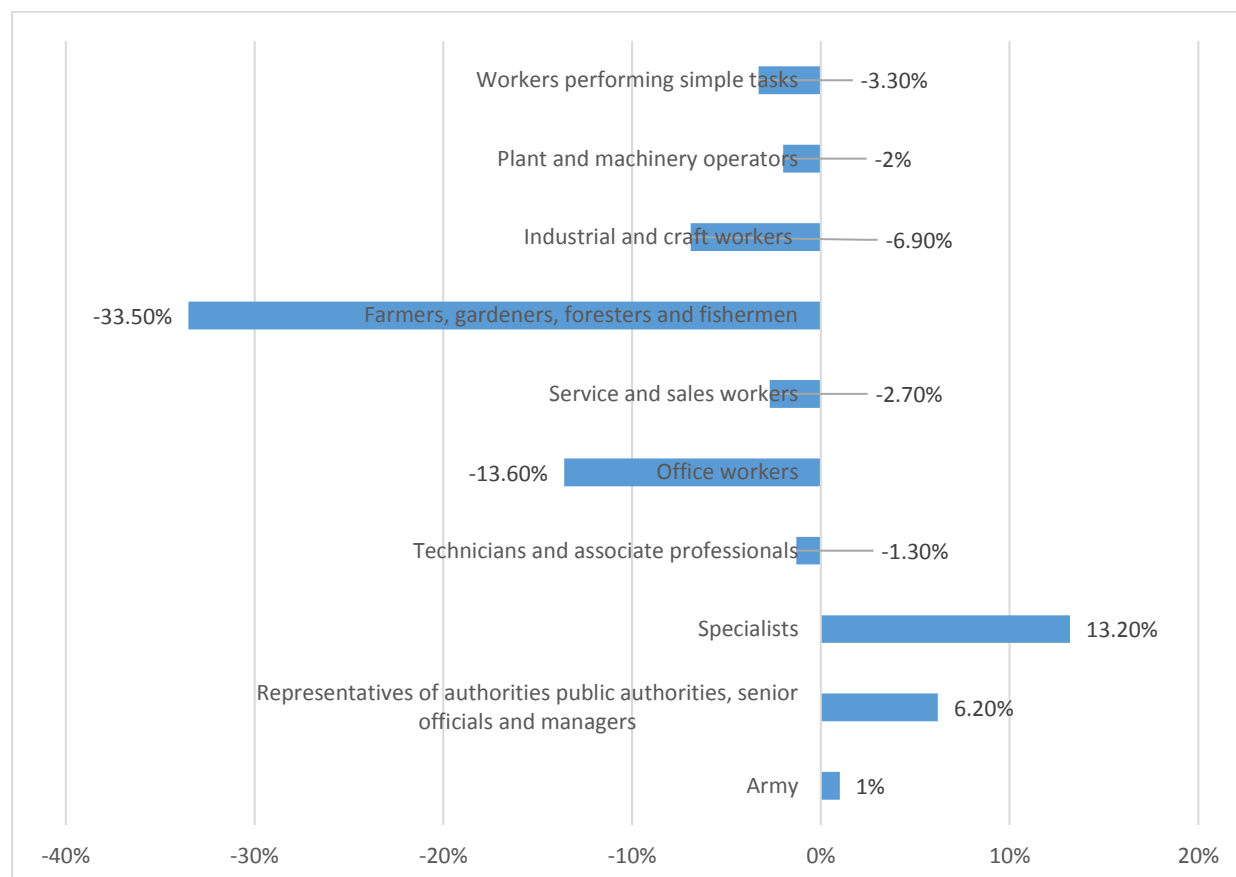
The forecasted changes in the labour market in Mazowieckie show that in the coming years the demand for well-qualified experts will significantly increase in the region, while for farmers and less qualified workers the demand will decrease (Fig. 2).

Figure 1. The share of rural citizens in the total number of unemployed people in Mazowieckie districts in August 2021



Source: Statystyka rynku pracy województwo mazowieckie (2021), Map 3.

Figure 2. Predicted changes in the number of employed persons in 2019-2025 (in %) in Mazowieckie Voivodeship



Source: Statystyka rynku pracy województwo mazowieckie (2021), Fig. 14.

Box 1. Cooperation with high-tech companies for better use of natural resources in agriculture

SAT-AGRO (a Warsaw based company): We provide access to satellite observations from NASA, the European Space Agency and private operators. We process the data separately for each of your fields and provide you with the information you need to manage your farm more effectively. With the SatAgro app, you will be able to monitor crop development in real time, observe the effects of weather and agronomic treatments, and draw conclusions from historical data. The application maps tailored to your requirements will enable you to sow, fertilise and spray accurately, and automatic alerts will warn you of sudden changes in crop condition and weather. With our help you can make the most of your fields, save on fertilisers and other inputs, and protect the environment.

Source: <https://satagro.pl/#mission>

Box 2. Innovative agrotourism – Beaver Valley

Innovation in the agrotourism farm is the undertaking of educational activities. The "Beaver Valley" offers many interesting programmes about life and work in the old and contemporary countryside. Participants can bake bread in a real bread oven, they can make their own butter and cheese, make toys out of hay or ornaments for festive occasions, take part in field work such as potato digging, and harvesting crops from the vegetable garden.

In the barn, the hosts have collected many historical exhibits connected with the Polish countryside. In the old, wooden, thatched cottage, you can see and even try working on a loom or learn how to do traditional paper cut-outs. For the youngest visitors there is a playground with swings, slides, trampolines.

Source: Mazowiecki Ośrodek Doradztwa Rolniczego (2020).

New business models are seen as a much needed way for diversification of the rural economy in Mazowieckie. They were the most called for way of diversifying the rural economy by the members of the MAP. However, there is need to support the creativity of citizens and the exchange of ideas. Local communities must have public spaces where people can meet, integrate and plan common activities. There is also a need for public support for entrepreneurs. This should not only include funding for launching a business but also to decrease the administrative burden for microenterprises.

The knowledge gaps include the sustainability of new models and their compatibility with the approaching green transitions. The new business models also need to take account of the demographic structure changes in rural areas. The question for research is which of the new models are best for the silver economy. There is also a question of social impact and social costs of new business models. The new business models must be socially responsible solutions not only in terms of their current impact but also given the next generations' well-being.

2. Smart rurality, smart communities and digitalisation

2.1. Key scientific evidence

There are examples of smart village solutions in Mazowieckie region, but there is no regional strategy for supporting such projects and initiatives. In 2021 the regional authorities financed a project "Implementation of the Smart Villages concept in the Mazowieckie Voivodeship". The project includes two stages – research and implementation. In the research stage consists of:

- Studies and analyses including:
 - characterising the situation of rural areas in Mazowieckie, identifying elements slowing down their development and indicating the needs and directions of actions;
 - identifying areas (not) in need of complex transformations and development as well as development of model/effective farms for different areas of the voivodeship and their dislocation (definition of regional specialisations);
 - development of solutions for the initiation of modern agriculture in the voivodeship (organic farming, precision farming, direct sale);
 - development of solutions necessary for comprehensive development of villages and farms, improvement of living and working conditions of the population (priorities for intervention in rural areas, schemes/models of action for transition from agriculture to other areas of the economy, changes in the functions of rural areas);
 - identifying needs and opportunities for implementation of Smart Villages solutions for the Mazowieckie Voivodeship and dissemination of innovation.
 - Popular and scientific publications, conducting surveys on the level of awareness of selected issues, articles in the monthly magazine "Wieś Mazowiecka".
 - Standards for eco-certification (organic farming/healthy product certificate - a quality mark would be given to a plant product grown in an environment with specific, specified parameters).
 - Providing experts (and eventually building and training teams consisting of local government leaders) for farmers and rural residents, allowing the local community to learn about good examples and better assess their situation, disseminating Smart Villages solutions and indicating opportunities to obtain EU funds.
 - Contribution to the Rural Development Strategy of the Mazowieckie Voivodeship (synthesis of studies carried out within the project).
 - Web portal for dissemination of project results and training, creation of a multi-level communication campaign, workshops, newsletter, electronic materials, information points, etc. The project also plans to carry out training in all sub-regions of the voivodeship.

The products of the implementation part will be, ordered on the basis of conducted research, analysis, developed concept and functionality description, the following tools:

- A mobile application on soil quality and a mobile centre for soil and crop diagnostics, including a mobile application for ongoing monitoring of the quality of key environmental and crop parameters, in order to grant and maintain the eco-certificate.
- An application (or portal) providing farmers with information on the natural variability of the area using satellite data and GIS and GPS techniques (for the development of precision agriculture).

- Server infrastructure, archiving, internet connections and knowledge transfer and exchange systems.

Box 3. Smart village – smart use of modern green technologies

Kielpin (Kielpin is a village in Poland situated in Mazowieckie, in the district of Warszawa Zachodnia, in the municipality of Łomianki): Bench with photovoltaic cell to power small electrical appliances, ground trampoline set, Hot Spot in the playground area, modern bike shelter.

Source: <https://smartwies.pl/articles/technologie/niedrogie-smart-rozwiazania-na-przykladzie-wsi-kielpin/>

Box 4. Smart village = people

“For me, a smart village is not only about modern solutions, applications or infrastructure, but first and foremost about people who can find their way in it. Each initiative of this kind should lead to tightening the bonds and integration of residents, no matter whether we are talking about a street, village or municipality. Smart village means people who are able to cooperate (often overcoming divisions) so that they can live better using as many innovations as possible from the wide range of services available in today's world. Smart village means integration through cooperation.” – Paweł Stasiak from Kielpin

This statement won the competition “What means smart village for me?”

Source: <https://smartwies.pl/articles/spolecznosc/smart-wies-dla-mnie-wyniki-konkursu/>

2.2. Summary of position of the regional Multi-Actor Platform

Smart village solutions are a vital part of the toolbox that can help bring the desirable future of rural areas in Mazowieckie region described in the previous MAP's position paper. The “smart” is not always and not necessarily all about modern IT solutions. In most cases it is all about ‘out of the box’ thinking, thinking putting people and environment as partners and making everybody count.

Smart village solutions must take into account the needs of different groups of citizens in the local community and try to bring them together, help them understand one another and cooperate despite their differences.

There is still not much knowledge about smart village solutions in Poland. The knowledge gaps include the drivers of such solutions and their sustainability as well as their green credential and compatibility with the European Green Deal.

Smart Villages (and Smart Towns) is an approach that needs to be promoted in our community, as a modern dimension of entrepreneurship and collaboration for the benefit of the local community that takes advantage of the latest advances in development processes.

3. Bio-economy and sustainable management of resources

3.1. Key scientific evidence

Mazowieckie Voivodeship is characterised by varied landscapes. It covers an area of 35 558.47 km² and is inhabited by 5.4 million people, of which 33% of the total population of the voivodeship lives in rural areas. The Mazowieckie Voivodeship is the largest and most populous voivodeship in the country and at the same time belongs to the most internally diversified ones. It has the highest economic development, but also the highest disproportions of social and economic development, and a part of the voivodeship is characterised by the economic development indicators below the national average.

The main advantages of Mazovia are:

- the largest economic potential among the voivodeships of the country (generated over 22% of the total GDP);
- high pace of development and the largest expenditure on research and development (R&D) activities;
- highly qualified personnel.

The concept of smart specialisation of Mazovia is one of the tools for programming innovation policy. It consists of the concentration of material and knowledge resources existing in the region on a limited number of economic priorities.

Due to a large economic and scientific diversity of the region, four areas of Mazovia's regional specialisation have been adopted and selected, in which individual industries, technologies and service processes merge or are jointly used, i.e.:

- safe food,
- intelligent management systems,
- modern services for business,
- high quality of life.

The safe food specialisation is understood as high-quality food products, produced in accordance with the idea of sustainable development, safe for the end user and the environment throughout the production and distribution cycle.

The area of smart specialisation - intelligent management systems includes advanced infrastructure solutions, allowing, in particular, to increase the efficiency of raw materials and energy, characterised by a high degree of adaptability, leading to increased automation and enabling effective monitoring of processes.

In 2021 Mazovian Energy Agency published a project of a bioeconomy strategy for the region (Wersja finalna wizji biogospodarki na Mazowszu, 2021). The priority areas include:

- bio-innovation, including in agriculture, to develop new chemicals, products, processes and value chains for biotechnology markets in rural areas, with the participation and increased benefits of primary producers;
- new opportunities for the forest-based sector to replace unsustainable raw materials in construction, packaging in biomaterials and provide more sustainable innovation in sectors such as textiles, furniture and chemicals that rely on forest resources, as well as new business models based on the valuation of forest ecosystem services;

- addressing issues such as food waste, waste and by-products (including ensuring nutrient recycling), resilience, the need to ensure nutrient-sensitive food production.

The strategy envisages rational use of agricultural production space and maintaining the production potential of soils and waters as well as increasing the use of renewable biological resources in high added value sectors.

The following challenges have been identified for the bioeconomy:

- preventing food waste,
- reducing the weight of mixed municipal waste in favour of selectively collected waste,
- reducing the weight of waste sent to landfill,
- increasing the mass of secondary raw materials recovered from municipal waste and obtained in the process of waste recycling,
- building new biogas plants,
- constructing and expanding composting plants for green and other bio-waste,
- the target assurance of production from green and other bio-waste of a product having fertilising properties or of a plant cultivation aid,
- introducing closed loop economy principles,
- promoting the development of eco-industries and eco-innovations,
- further development of renewable energy production,
- ensuring sustainable development and preserving a high environmental value,
- development of an ecologically-conscious society,
- according to the RED II Directive, the so-called Winter Package, renewable energy sources (RES) in 2030 should amount for 35% of the total consumed energy, including for transport at the level of 1.5% (from RES) in 2021 and increase to 12% in 2030, and the obligation to produce advanced biofuels 3.6% by 2030. On the other hand, there should be a decrease in the share of 1st generation biofuels from a max. 7% in 2021 to a max. 3.6% in 2030.

Bioeconomy priority areas include:

- management of waste from plant and animal production,
- management of waste from food processing,
- municipal waste management, especially bio-waste,
- sewage sludge management,
- use of wood waste.

The addressees of the activities are public entities, especially self-governments fulfilling their tasks aimed at the region's development.

3.2. Summary of position of the regional Multi-Actor Platform

Bioeconomy is everywhere presented as an opportunity for rural areas. However, despite much publicity and an increasing number of strategies, there seems to be no public policy actively supporting implementation of these strategies. With no support, the implementation of the bioeconomy is not possible. The bioeconomy

strategy for Mazowieckie names EU and national funds as a way of financing, but does not demonstrate which policy measures are exactly aimed at implementing the bioeconomy in the region.

The region can benefit from the high potential of research institutions present in Warsaw, as they will verify and test their research findings and innovative solutions in their neighbourhood. This can help knowledge transfer. However, the cooperation between research and other sectors is still highly underdeveloped in Poland.

In the case of agriculture, the barriers include:

- problems with waste management,
- excessive chemicalisation of agriculture,
- low quality of agricultural land,
- high acidity of soils,
- unfavourable area structure of agricultural holdings,
- low level of protection and storage of water resources and low use of renewable energy resources.

Apart from funding, educational and training activities are needed to increase the capacity of rural areas to benefit from the bioeconomy.

Natural conditions in the region favour development of ecological, traditional, regional production and agrotourism (large wooded area, thermal waters and geothermal, clean environment). Possibilities of development of crops for biofuel production together with development of alternative natural energy sources (solar, biomass, water). It is desirable to develop R&D, biotechnology, biomedicine, services also in rural areas. Further development of organic and genetically modified food free agriculture. Another objective should be the growth of organic, traditional and regional food production of particularly high quality.

4. Farm diversification and food chains

4.1. Key scientific evidence

In most parts of the Mazowieckie region traditional farming still prevails. This relates to the most peripheral parts of the region. The closer to Warsaw and other regional growth centres, the agricultural function of rural areas is less visible (Stanny et al., 2018).

In Mazowieckie there is a large number of different undertakings and initiatives for direct sales of agricultural produce. Warsaw, as a big market with consumers with much higher incomes than the Polish average, offers a good opportunity for farmers interested in direct sales of both organic and non-organic products. The number of fairs in Warsaw has significantly increased in recent years but there are still needs related to developing fair markets and making them available free of charge to local producers.

Organic farming may not be a way of farm diversification but a welcomed specialisation. Given the higher average incomes in Warsaw than in other regional capital cities in Poland, Warsaw has the best potential as a market for organic products. Therefore, organic specialisation of farms can be a good opportunity, especially when combined with diversification of farm activity to offer a wider range of products and/or service.

Organic farming is still less popular in Poland than the EU average, which makes the Polish government concerned about the ambitious goal of the Farm to Fork strategy to have 25% of EU agricultural land under

organic farming by 2030. In Poland the area of organic farming has been decreasing in recent years and covers only 3% of the agricultural land¹.

Box 5. Children in Mazovia know a lot about organic food

In 2021 there was an 18th edition of the "Taste of Organic Food" competition. It is aimed at children aged 10-14 in the Mazowieckie region. Participants presented and deepened their knowledge on food and climate change. At the same time, the competition promoted support for pro-environmental production methods. Thanks to the involvement of teachers and tutors who prepared their pupils for the competition, the level of competition was really high. The competition is organised by the self-government of Mazowieckie Voivodeship.

Source: <https://mazovia.pl/pl/konkursy/smak-ekologicznej-zywnosci-wyniki-konkursu.html>

Box 6. Agricultural masters have diversified farms

The title of the Mazovian champion of the AGROLIGA 2021 competition in the AGRICULTURAL category went to Dorota and Rafał Niesłuchowski, who run a farm located in Bylice (Świercze commune, Pułtusk powiat), which has been in the family since the mid-19th century. The owners are already the sixth generation living and working here. The basic profile of the farm is crop production on over 100 ha. The main crops are winter wheat, winter triticale, grain maize, winter rape and lupine. Within the framework of cooperation with Syngenta, demonstration fields for growing new maize varieties are maintained. On part of the land, plough-free cultivation and machine aggregation have been used for 10 years. This reduces evaporation of water from the soil, thus maintaining good soil moisture. Farmers use certified material of varieties that are adapted to the climate and soil conditions. Modern machinery equipped with navigation systems allows for precise application of fertilisers and plant protection products. The farm follows the principles of regenerative agriculture in pursuit of sustainable development.

Source: <https://www.modr.mazowsze.pl/143-aktualnosci/3089-pszczoly-i-rolnictwo-regeneratywne-wybrano-najlepszych-na-mazowszu>

Short supply chains are a deliberate reduction in the number of intermediaries needed to deliver the final product to the final consumer (KSOW, 2021). There are different types of short food supply chains in the market - from farm direct sales, to collective direct sales, online shopping, collective feeding and distribution to shops or supermarkets. Any shortening of this chain is a gain for both the consumer and the producer.

Current food legislation, both at EU and national level, gives farmers the opportunity to apply the following forms of activity. The choice of one of the following forms depends on the individual decision of a farmer who intends to carry out the activity of food production and marketing.

In the era of the COVID-19 pandemic, when it is necessary to reduce face-to-face contacts and apply social distance, shortening the supply chain seems to be the necessity of the moment and is gaining value day by day for both producers and consumers. Just start reading labels. Just take a stroll to your local market. It is enough to look online for more and more interesting and comprehensive mail order offers. One of the many on offer is, for example, www.mazowieckiebazarek.pl led by Mazovia Agricultural Advisory Centre. It enables the creation of short supply chains between producers and consumers. It is an excellent form of free

¹ Own calculation based on: <https://eagronom.com/pl/blog/rolnictwo-ekologiczne-w-polsce/> and <https://stat.gov.pl/files/gfx/portalinformacyjny/pl/defaultaktualnosci/5507/8/14/1/uzytkowanie-gruntow-i-powierzchnia-zasiewow-w-2018.pdf>

promotion for farmers, producers of regional and organic food, service providers, creators of handicrafts and farmers' housewives' circles.

The Mazovian e-bazaar helps the inhabitants of rural areas to sell their products and services and to implement the motto "WHAT'S WHERE YOU LOVE, RECOGNIZE YOURS". The use of the e-bazaar is free of charge. It is possible to sell: vegetables and fruit and their preserves, herbs, oils and olives, honey and bee products, beverages, dairy products, flowers/plants/seeds, cereals, bread, cereal products, meat and cured meat products, fish, coniferous trees and bushes, machinery and equipment, and even promote educational and tourist offers.

The Mazovian e-bazaar enjoys great interest from both producers and consumers; it already features more than 2 000 products. We encourage you to take advantage of this offer and expand it with new products.

As part of the activity to diversify farm activities, various activities are promoted under the short supply chains:

- direct sales - where the consumer, at any time and date, buys products directly from the farm;
- selling at the farmers' market - sales take place daily or on designated days of the week, and the seller may be the farmer or a group (team) of farmers jointly renting space at the market;
- roadside sales - the sale of seasonal produce, in particular fruit and vegetables;
- door-to-door sales - goods of usually known assortment and size are delivered to known, often regular consumers;
- collect/pick yourself - sales in the form of "collect yourself" are mainly used as an auxiliary form of sales, for the harvest of soft fruit, especially strawberries, stone fruit, apples, pears;
- internet sales - carried out in various forms, by accepting orders electronically, including individual delivery or dispatch to the consumer;
- neighbourhood sales - i.e. "from farmer to farmer" may concern both plant products, e.g. cereals, hay, as well as livestock and products for household needs which the farmer does not produce themselves but purchases from a neighbour.

More and more institutions, organisations and local governments are encouraging the creation and use of short supply chains. We, too, see it as a move in the right direction - so that only produce of good quality, freshness and a good price are on our tables.

4.2. Summary of position of the regional Multi-Actor Platform

The members of the Polish MAP strongly emphasised the need for support for local farmers in a form of giving them free access to local markets so that they can sell their products without any intermediaries, to the benefit of both them and the local community. The support should also come in the form of smaller administrative burden and tax allowances. The possibility to sell directly should also encourage farmers to seek higher added value by processing their products for the needs of local communities who may lack the time to be able to prepare winter preserves which used to be a Polish tradition.

The research gaps include the specific recommendations of what agricultural products are the most suitable for the current environmental conditions in Mazowieckie. The region is not the most endangered by droughts among the Polish regions but it also suffers from them, especially atmospheric droughts (Mazowieckie Biuro Planowania Regionalnego w Warszawie, 2021), and from other unfavourable weather conditions. Therefore, farmers need much more support in adapting to climate changes. Also, other citizens should be aware of the production limitations to be able to accept potential increases in prices and market shortages.

It is important to familiarise children, not only in rural areas, but also in cities, with the work of farmers, so that they can understand the need to prevent food waste and become conscious buyers and consumers of agricultural produce.

The short food chain is about organising the production, distribution and transactions between the food producer and the citizen who eats the food in a way that minimises the number of intermediaries involved in the process. A food producer can be a grower or a farmer, or a primary processor / artisan, such as a cheese or sausage maker, who uses raw materials produced, or harvested, or bought directly from producers. The word 'citizen', as opposed to 'consumer' is used to reflect on the idea that people should be treated as active participants in food systems. Citizens have a right to healthy, sustainable food, and a responsibility to shape the food system that is made available to them. The number of necessary intermediaries between producer and citizen varies for different types of products; for example, slaughterhouses are an important part of the meat supply chain, and a distributor may be crucial for producers in remote locations. Intermediaries can also be local organisers or animators (e.g. LEADER groups) whose role is to assist farmers; they can also be restaurants, hotels or other caterers.

Recommendations and Conclusions

The diversification of the rural economy in Mazowieckie is needed. It should go in the direction of the green transition. Therefore, a smart and sustainable approach to diversification should be among the factors determining the business and policy choices.

Citizens need different kinds of support to establish new businesses and to try to implement innovative solutions. They need both financial support and training. Upskilling and reskilling programmes are needed. They must be designed and implemented in line with market needs and green transition pathway.

The complex nature of new technologies and the difficult trade-off related to different practices and business models call for educational support for citizens, entrepreneurs and policymakers so that in their decision-making processes they can be supported by evidence.

An insufficient level of social capital is an important hindrance to the green transition. Therefore, any efforts to transform rural areas should be accompanied by activities increasing social capital – engagement of rural communities and building mutual trust among different stakeholder groups.

References

- Bański, J. (2018). Wyzwania rozwojowe na obszarach wiejskich w województwie mazowieckim. MAZOWSZE Studia Regionalne nr 25/. DOI: 10.21858/msr.25.03
- Gradziuk, P., Grzybek, A. (2021). Strategia rozwoju biogospodarki dla Województwa Mazowieckiego. Projekt. Mazowiecka Agencja Energetyczna, Warszawa.
- Mazowieckie Biuro Planowania Regionalnego w Warszawie (2021). Diagnoza sytuacji społeczno-gospodarczej województwa mazowieckiego do Strategii rozwoju województwa mazowieckiego 2030+Innowacyjne Mazowsze.
- Stanny, M., Rosner, A., Komorowski, Ł. (2018). Monitoring rozwoju obszarów wiejskich. Etap III. Struktury społeczno-gospodarcze, ich przestrzenne zróżnicowanie i dynamika. EFRWP, IRWiR PAN, Warszawa.
- Mazowiecki Ośrodek Doradztwa Rolniczego (2020). Agroturystyka wschodniego Mazowsza. Przykłady innowacyjnych rozwiązań. Mazowiecki Ośrodek Doradztwa Rolniczego.
- Samorząd Województwa Mazowieckiego (2014). Strategia rozwoju województwa mazowieckiego do 2030 roku Innowacyjne Mazowsze (synteza). Warszawa.
- Statystyka rynku pracy województwo mazowieckie (2021). Document available at: https://obserwatorium.mazowsze.pl/pliki/files/statystyki/2021/sierpie%C5%84_2021.pdf
- Mazovian Energy Agency (2021). Wersja finalna wizji biogospodarki na Mazowszu, Project POWER4BIO http://www.mae.com.pl/images/Artyku%C5%82y_Aktualno%C5%9Bci/Wersja_finalna_wizji_30.07.2019.pdf
- KSOW (2021). Krótkie łańcuchy dostaw – od pola do stołu, <https://mazowieckie.ksow.pl/rolnictwo/porejstrowe-doswiadczalnictwo-odmianowe-1>

Appendix

Table 1. Compilation of noteworthy projects / initiatives / tools / methods implemented

Name	Time of implementation	Contact & Internet address
Mazovian Instrument for Activating Villages	Since 2018	mias.mazowsze@mazovia.pl https://mazowieckie.ksow.pl/2020-mias-2
Project Smart Village	Since 2021	https://geodezja.mazovia.pl/projekty/smartv/smart-village.html
AGROLIGA competition	For 29 years	It is a national competition with a regional stage. https://www.modr.mazowsze.pl/143-aktualnosci/3035-agroliga-2021-etap-wojewodzki
Taste of organic food competition	For 17 years	https://mazovia.pl/pl/konkursy/smak-ekologicznej-zywnosci-wyniki-konkursu.html



www.rural-interfaces.eu



SHERPA has received funding from the European Union's Horizon 2020 Research and Innovation Programme under Grant Agreement No. 862448. The content of the document does not reflect the official opinion of the European Union. Responsibility for the information and views expressed therein lies entirely with the author(s).