

# The Problems of Mountain Area Agricultural Development in the Face of the Challenges of the European Green Deal

## A Summary



'European Agricultural Fund for Rural Development: Europe investing in rural areas'.

The project co-financed from the European Union funds under Scheme II of the Technical Assistance measure 'Polish Rural Network' of the Rural Development Programme for 2014–2020.

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The content is supervised by the Foundation for the Development of Polish Agriculture.

# **The Problems of Mountain Area Agricultural Development in the Face of the Challenges of the European Green Deal A Summary**

Authors

Bogdan Pomianek • Wiesław Musiał • Kamila Musiał  
Wojciech Sroka • Janusz Kilar • Wojciech Krawczyk

Scientific editors

Wiesław Musiał • Wojciech Krawczyk

### Scientific editors

Wiesław Musiał, *University of Agriculture in Kraków*

Wojciech Krawczyk, *National Research Institute of Animal Production in Kraków*

### Authors

Bogdan Pomianek, *Ministry of Agriculture and Rural Development, Common Agricultural Policy Department*

Wiesław Musiał, *University of Agriculture in Kraków, Faculty of Agriculture and Economics, Department of Food Economy and Economics*

Kamila Musiał, *National Research Institute of Animal Production in Kraków, Department of Production Systems and Environment*

Wojciech Sroka, *National Research Institute of Animal Production in Kraków, Faculty of Agriculture and Economics, Department of Food Economy and Economics*

Janusz Kilar, *Jan Grodek State University in Sanok, Faculty of Agriculture and Forest Ecosystems Management*

Wojciech Krawczyk, *National Research Institute of Animal Production, Department of Production Systems and Environment*

### Reviewers

Prof. Józef Kania, *University of Applied Sciences in Tarnów*

Prof. Piotr Frączek, *Jan Grodek State University in Sanok*

### Translation

Dorota Szmajda

### Proofreading

Joanna Bilmin-Odrowąż

### Cover design

Katarzyna Juras

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Foundation for the Development of Polish Agriculture  
ul. Gombrowicza 19, 01-682 Warszawa  
phone: +48 22 864 03 90; e-mail: [fdpa@fdpa.org.pl](mailto:fdpa@fdpa.org.pl); [www.fdpa.org.pl](http://www.fdpa.org.pl)




Project partner: National Research Institute of Animal Production



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What follows is a summary of the multi-author monograph entitled: *The Problems of Mountain Area Agricultural Development in the Face of the Challenges of the European Green Deal*, which discusses institutional, agricultural, economic and social issues associated with mountain farming. Although the monograph provides many references to the mountain areas of the European Union's countries and to its regulations (including the delimitation and valorisation of mountain areas), it focuses primarily on the mountain areas in Poland, particularly the Carpathian Mountains range (the mountains and foothills). The publication presents synopses of four papers delivered during the seminar entitled: *The problems of marginalisation and deagrarianisation of agricultural production space, with particular emphasis on mountain areas – structural problems*, which was held in the village of Kombornia in Podkarpackie Province (Poland) on 12–13 October 2022.

In addition, the publication presents two experts' studies that expand on the analyses and syntheses dealing with mountain areas. It also offers summaries of papers given by officials from the Marshal's Offices (from Podkarpackie, Małopolskie and Śląskie Provinces), representatives of the Magura National Park and Oikos International. The Polish version of the publication is provided with photographs, diagrams and figures, not included in the English synopsis.

The first paper, entitled *The European Green Deal – opportunities and threats for mountain areas*, is an overview of fundamental economic policy issues at the EU and national levels. The European Green Deal (EGD) is an ambitious plan of action adopted in response to the economic, environmental and social challenges of the day. It is tailored to meet the objective of mitigating greenhouse gas emissions and achieving climate neutrality by 2050. Its major areas of interest include designing a fair, healthy and environmentally-friendly food system, and preserving and restoring ecosystems and biodiversity.

As part of the EGD, in 2020, two strategies were made public: the Farm to Fork Strategy and the EU Biodiversity Strategy 2030. Both these strategies informed the negotiations of the Common Agricultural Policy (CAP) for 2023–2027. Admittedly, although the very ambitious goals enshrined in those documents, and in particular, the proposed departure from the industrial model of agriculture, shortening of the food chain, and making food safer for humans and the environment, raise some concerns, they can also provide opportunities for growth.

The EGD is a political strategy that puts at its heart the interests of future generations. Therefore, the intended main beneficiaries of the planned measures are people living in Europe or, possibly, even the whole world. Its proposed restrictions in the use of, e.g. plant protection products, antibiotics and mineral resources will help enhance the condition of the natural environment and improve food quality, which in turn will translate into better quality of life and health of the EU population. Other expected benefits include greater biodiversity, better access to a clean environment and containment of the negative consequences of climate change.

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Regrettably, the majority of those benefits will not materialise any time soon, while some of them are even questioned. For instance, some researchers and policymakers fear that if the restrictive EGD provisions are fully enacted, food production in the EU will decrease, while greenhouse gas emissions and environmental pollution will be relocated to other regions of the world, where such 'missing' food will be produced. Nonetheless, if this will actually be the case largely depends on the stance these countries will take and their pro-environmental and pro-climate activities.

Transformation of the EU's economy and its achievement of climate neutrality will require all stakeholders to get involved and, unfortunately, is going to be very costly. The consumers will bear the brunt of these costs, being the group who will, for all intents and purposes, finance these ambitious environmental and climate objectives. The stringent food production standards are bound to drive food prices up (by as much as 20%), and could temporarily negatively affect the EU's food security. In view of Russia's ongoing invasion of Ukraine, this may give rise to anxiety or concern among the public at large.

Another potential threat lies in increased imports of cheaper goods from outside Europe. The EGD, and in particular, the provisions laid down in the Farm to Fork Strategy, are bound to have a strong bearing on both the agricultural sector and the situation of farmers who will put this policy into operation. The new assumptions of the agricultural policy represent an opportunity on the one hand, and a threat on the other. Those farmers who provide pro-environmental and pro-climate services will receive more funding and topical support for implementing innovations (precision farming, state-of-the-art digital and satellite technologies, etc.). The position of farmers in the food chain is expected to be improved, while greater demand for healthy, more expensive foods is anticipated to adequately compensate them for their efforts.

It has to be admitted, however, that not all entities will emerge as net beneficiaries of the new agricultural policy. Those agricultural holdings that are able to fully adapt their farming practices will gain the most, while smaller entities will need to increase their share in the processing and shorten their distribution channels. However, the literature on the subject maintains that Polish agriculture is not well-prepared to introduce the European Green Deal measures. Low farm productivity, a high level of fragmentation and inferior natural conditions in Poland may mean that many of the perceived threats and risks will come true. Farmers are frequently presented as the group that will incur the bulk of the costs of agricultural transition, while receiving less financial support from CAP Pillar II than in the previous financing perspectives.

The analyses conducted so far have found that the balance of opportunities and threats the new agricultural policy entails may, at the end of the day, prove unfavourable for mountain agriculture. Mountain areas are noted for their extensive biodiversity and wealth of natural and cultural assets. Therefore, the special focus given to the environment in the new agricultural policy ought to provide a huge development opportunity.

Unfortunately, the deficient and ill-suited agrarian structure (particularly farm fragmentation) and the unfavourable natural conditions for farming (poor-quality soil, slope gradients and climate) strongly curtail the absorption of funding, and therefore the impact of EGD interventions. Despite certain changes aimed at promoting quality and introduced in the successive financing perspectives (such as increased subsidies for livestock farms), the CAP measures used so far have not been able to overcome that impasse. And, although the new CAP 2023–2027 places greater emphasis on environmental and climate issues, it largely relies on the 'old' solutions. For that reason, if 'old methods' are continued, it is hard to expect any different results. Even where mountain farmers are identified as being in Areas facing Natural or other specific

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Constraints (ANC), entitling them to ANC payments and a whole gamut of pro-environmental support (eco-schemes, organic farming, etc.), small farms with an area of several hectares most likely will not be able to attain parity of income and make sorely needed investments aimed at improving their competitive edge or helping them to implement new technologies (digital or satellite).

What could offer a feasible opportunity for growth is the production and processing of top-quality products, drawing on the (local) asset, which is a clean and unique natural environment. This, however, would call for creating demand and raising the profile of new products (e.g. functional foods), as well as relentlessly fighting food adulteration. In conclusion, the author stresses that neither the existing nor planned (2023–2027) agricultural policy can create real and long-lasting opportunities for development, and that for this reason, it needs to be revised, at least regarding some aspects.

Efforts should be made to ensure ‘soft’ regionalisation of the CAP. As a minimum, this would involve adopting separate criteria for supporting agriculture in areas of valuable natural assets (e.g. investments, support to generational renewal). As part of the national programmes, additional funds need to be identified that would help resolve specific regional/local problems (e.g. stimulating the leasing of land, resolving unsettled property ownership issues). The payment systems for areas of valuable natural assets, including mountain areas, need to be modified and the level of support ought to be made more dependent on particular crops (e.g. with a preference given to environmentally beneficial crops as part of eco-schemes) and animals (by increasing the role of animal payments at the expense of other measures). Payments under CAP Pillars I and II ought to be addressed solely to active agricultural holdings, i.e., those that can provide documentary evidence of the sales of their own products (e.g. for a minimum amount of EUR 2,000 per year).

Consideration should also be given to bold and radical activities aimed at impelling fast and sustainable structural change. Such measures ought to increase the threshold of land eligible for area and ANC payments to three or even five hectares. Increasing the agricultural tax on farmland that is not maintained in good agricultural condition, and limiting the rights and privileges (e.g. in insurance) of smallholders are also worth considering. When agricultural land no longer generates additional benefits, the majority of ‘quasi-farmers’ will opt to lease or even sell their land. In the author’s opinion, only drastic measures aimed at forcing the transfer of land to those who want to expand their farming activities can accelerate transition in the agricultural sector. The experiences gained so far suggest that this cannot happen without some pain.

The paper entitled *Economic, environmental and social characteristics of Poland’s mountain areas in the context of agricultural production*, analyses the conditions that need to be fulfilled in order to maintain and develop production. The author points out that the natural conditions can also determine or underpin the delimitation of problem areas, so-called first-order factors. These are, however, not the sole or exclusive determinants for the emergence of disparities in the development of the food economy, and hence (or primarily) agriculture.

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Second-order factors can also underlie the lagging development and various economic problems encountered by agriculture. These include historic situations and circumstances and refer mainly to events that took place in the recent past, but nevertheless have some bearing on the present day.



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Factors of the third-order play an important role in a variety of aspects in the emergence of problem regions. Altogether, they represent diverse conditions taking place 'here and now' that are directly linked to the recent and current economic policies of the state (or economic blocs), globalisation and the recent hostilities started by Russia in Ukraine, which borders Poland and some of its mountain areas.

The author's long-lasting and reproducible studies conducted in mountain areas have helped formulate a number of challenges that are interesting in both conceptual and practical terms. One such challenge, which is of a major importance in mountain areas, is the need to stop the decline in livestock herbivore population and increase the population, mainly of cattle and sheep, in subregional areas. Another major challenge is the still-evident need to change the mindset of many farmers, especially older ones. Even though the system of agricultural education in Poland is well-developed, research suggests that farmers' openness to innovation, new technologies and organisational solutions remains a serious problem.

Traditional mountain farming takes place on land passed down to each generation. As a result, the successor becomes a farmer, an agricultural entrepreneur who operates the farm on his own account and at his own risk, sometimes against his will. Such farmers who inherit small farms can be ill-prepared to manage their farm on their own within a market economy. If any positive agrarian and structural changes are to be made in agriculture, the social benefits associated with being a farmer need to be curbed.

The current health and pension insurance system is the main factor that renders land ownership the major element of social security both among smallholders, those who simply want to tick over until they retire and those who do not see any economic opportunities for themselves outside agriculture. Land ownership also provides the basis for health and pension coverage for those who work illegally or in the 'grey economy', e.g. a husband or wife who no longer breeds cows, pigs or poultry but enjoys the farmer's status due to being a landowner. Another challenge for the agricultural policy quoted by participants of the seminar is the urgent change needed in the tax system for agriculture. Such change ought to introduce some incentives to discourage abandoning agricultural land (especially fertile land), prevent its overgrowth with shrubs and bushes and help avoid uncontrolled forestation.

But the real problem – and challenge – for Polish agriculture is how to improve the scale, range and effectiveness of land integration. Poland was able to address this problem quite efficiently during the inter-war years. After World War II, plot integration, or rather enclosure, was an instrument widely used in subregions in the delimitation of larger plots and creation of larger state-owned farms. In the author's opinion, the recent three decades, if not longer, have been a period that has witnessed a string of failures in that process. The villages of southern Poland also have a rather bad experience in this regard, and the scale of scale-up is very small. In the situation of agricultural land consolidation, especially in areas of open fields separated from villages, the interests of farmers – agricultural producers – should be paramount.

Depopulation is becoming yet another challenge that mountain areas are facing. It poses the greatest threat to the Sudeten Mountains and the peripheral parts of the Carpathian Mountains in Poland and Slovakia. Both have experienced the abandonment of higher altitude, less accessible and economically unviable hamlets and outlying farms located far from larger human settlements. Nonetheless, mountain areas, both mountainous and those in the foothills, have at their disposal many development assets in selected sectors of the economy, particularly broadly understood services, including tourism and leisure.

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However, the numerous, if not prevalent disadvantages or weaknesses should not be overlooked, especially if the natural conditions are viewed in terms of their utility for agricultural production. For centuries, these conditions have moulded the natural ecosystems and agrisystems maintained by farmers. This is why the continued use of farmland is among the key tasks that agricultural policy (and the CAP) ought to address. Some of the mountain areas, heavily demographically loaded (and hence extremely poor) in the past, were considerably deforested (e.g. Orava and Spiš). In those areas, grassland was converted into arable land. Currently, the share and acreage of grassland needs to be significantly increased, so as to grow the population and density of herbivorous livestock.

The multifunctionality of villages in mountain areas, especially those located in strongly urbanised subregions, should go hand-in-hand with the multifunctionality of farms, while new initiatives to stimulate agriculture and related activities need to be supported by EU assistance funds. There are many dilemmas that mountain agriculture is currently facing. However, when one is resolved, another one will appear – similar but differently oriented.

Among the important and pressing issues to be resolved, the study identifies (among others) the urgent need for structural changes and an increase in the size of farms that could carry out commercial production, but on a significantly larger scale. Hence, financial support for farms from national and EU funds should be clearly linked to actual or potential commodity and animal production commensurate with environmental conditions.

The present high inflation and changes in price levels and ratios, particularly the increasing costs of energy, fertilisers, pesticides, etc., will pose new challenges for mountain agriculture. This could step up deagrarianisation of production, but also foster the process of farms becoming organic. Excessive farm fragmentation is an issue that could be resolved by the lease of land. However, there is a lack of strong incentives to facilitate the process because there are no adverse institutional or economic consequences for farmers who abandon remotely situated, fragmented farmland on which no agricultural tax is due (mountain areas).

The next paper, entitled *Specific production constraints of Polish agriculture and support opportunities in overcoming marginalisation and unfavourable conditions for farming*, discusses the present problems experienced in mountain agriculture. The author points out that the main factors underlying spatial disparities in Polish agriculture include the quality of the natural conditions, organisational aspects such as: agrarian structure, labour supply, the level of agricultural engineering, technical farm infrastructure, traditions and agricultural culture. Economic factors are as important and include: prices and price ratios, fixed assets, capital expenditure, level of public subsidies and other payments.

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The smallest farms account for the largest share of farms in the provinces of: Podkarpackie, Małopolskie, Świętokrzyskie and south-eastern part of Śląskie Province. Farms with an area of 5–10 hectares represent nearly one-third of all farms in Mazowieckie Province. Areas with constraints caused by less conducive natural conditions for production or an unfavourable agrarian structure have a much smaller share of households where over 50% of income comes from farming activity. This means that unfavourable



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conditions for farming and rural areas can be overcome mainly by tapping into the local development potential.

Teams were gathered to conduct SWOT analyses to assess the strengths, weaknesses, opportunities and threats to mountain and foothill areas and examine barriers and potential development directions through to 2030. The team for the restoration of agriculture in mountain areas from the provinces with such areas, comprised representatives of farmers, rural residents and farming experts, worked out a Farmers' Agreement and made a valuable contribution to the work that helped streamline the Regional Development Programme 2014–2020.

The ANC payments for mountain and foothill areas were linked to animal production. As a result of this change, farms with minimum livestock density (no less than 0.5 LSU/ha) will receive higher payments: (i) PLN 750 ha/p.a. – mountain ANC, (ii) PLN 550 ha/p.a. – foothill ANC. Moreover, ANC support was extended to include farmland in urban areas, an important solution in the mountain areas. The amount of the Premium for Young Farmers was raised to PLN 150,000. The paper also highlights the need to tailor the regulations on direct sales and agricultural retail trade to the needs of farmers, also those who are producers in mountain and foothill areas. The tax-free earnings amount was raised to PLN 100,000; the list of places where retail trade is permitted was expanded with shops, restaurants, canteens and similar outlets, and such sales may now be made in all the regions and also online. Furthermore, small farm abattoirs need to be set up in those areas. To address this issue, relevant regulations were promulgated: The Regulation of the Minister of Agriculture and Rural Development dated 18 February 2020 on certain veterinary requirements to be fulfilled during the production of animal products in low-capacity abattoirs situated on farms.

The CAP Strategic Plan 2013–2023 also highlighted the need for supporting income related to the production of young cattle. Payments linked to cow or calf production are intended mainly to prevent a decline in the profitability of production in farms breeding them.

This type of support is particularly important for farms with small herds and is intended to alleviate the disparity of income between the farmer's family's and the average income in the national economy. Payments of this kind may slow down a continued fall in the ruminant population in mountain and foothill areas and will help maintain permanent grassland in good agricultural condition. The amount they can receive is based on the actual number of cows on the farm eligible for payments, but no more than 20 animals, while payments in Podkarpackie, Małopolskie, Świętokrzyskie and Śląskie Provinces can be made to farmers who breed just one animal. Annual payment per head will be ca EUR 96 for cows and ca EUR 74–76 for calves (beef).

Another pressing issue is the need to support the income earned from sheep and goat production. Earmarking support for farmers breeding sheep is intended to prevent difficulties in the sector that could lead to discontinuing production and negatively affect other elements of the supply chain or related markets. To be eligible, farmers need to keep at least 10 ewes or five female goats of at least 12 months old. Annual payments per head, flat-rate across the country, are ca EUR 26 for sheep and ca EUR 11 for goats. Mountain and foothill areas ought to be regarded as unique locations for organic production. It is assumed that support will be awarded to organic agricultural crops, vegetable crops, herbaceous crops, fruit crops, forage crops on arable land, and permanent grassland.

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Furthermore, to be eligible for payments for forage crops in arable land and permanent grassland, farmers need to demonstrate that they breed animals. To receive the payment of the bonus for sustainable crop and animal production, farmers need to keep animals with a density of 0.5–1.5 LSU per 1 AA hectare. Programmes aimed at stimulating tourism and enterprise based on grazing can also serve as important tools to support sustainable development of mountain and foothill areas; they are planned to be rolled out in Podkarpackie, Małopolskie and Śląskie Provinces.

In summary, the author highlights three issues that foster the deagrarianisation of mountain and foothill farming: globalisation, concentration of production and specialisation in agriculture. These factors also pose a threat to the philosophy of sustainable development being implemented, particularly in areas of valuable natural and landscape assets. Landscape changes due to a declining ruminant population are already visible here. In addition to the existing ones, Poland has implemented a number of measures aimed at levelling development barriers, which also make it possible to embrace new and diverse opportunities offered by mountain and foothill areas.

Since the agriculture in mountain and foothill areas provides public services such as water management, protection of biodiversity and landscape and preservation of grazing traditions, it ought to receive continued support from public funds. Importantly, the requirements and transfers ought to be tailored, not only to the needs of farmers and rural residents, but also to the broader public who can benefit from and enjoy the beauty and diversity of the mountains and their resources.

The next paper, entitled *Deagrarianisation and deanimalisation in the Polish Carpathian Mountains and threats to sustainable development*, looks at the issues of deagrarianisation and deanimalisation in the Polish Carpathian Mountains in the context of threats to sustainable development. The author points out that the ongoing, recessive changes in agriculture and rural areas, which include deagrarianisation and deanimalisation as their component parts, are considerably advanced at regional and subregional levels. They are largely visible in areas that still show a prevalence of small farms, combined with a dwindling income from agriculture. Such changes are manifested by an excessive extensification of agriculture, a process that has negative consequences for both biodiversity and cultural landscape, and is especially intensive in areas covered by various forms of area-based nature conservation, and therefore, by different legal regimes concerning the manner of their management. Due to their extended environmental functions, the consequences of deagrarianisation are greater in those areas.

At the same time, however, recessive processes taking place in rural areas, and by the same token in agriculture and individual farms, are largely beyond the scope of statistical observations conducted by the Polish central statistics office (Statistics Poland – GUS). For this reason, they are less visible, and sometimes even neglected, in both social and scientific discourse. Their diagnosis by means of a cause-and-effect analysis and methodological assessment would make an important contribution to designing measures aimed at preventing negative consequences for production and the environment, or at least mitigating their adverse effects.

The Polish part of the Carpathian Mountains is a region in need of production-related and organisational activities that aim, among others, to keep sustainable development alive. This can be done, for example,

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by reversing the process of biodiversity depletion and protection of seminatural habitats such as meadows and pastures. For this reason, the knowledge concerning agricultural production space needs to be further expanded and updated, including such issues as implications of backward processes in contemporary agriculture or monitoring such changes in the natural environment.

The study identifies recessive processes in agriculture and the resultant threats for sustainable development in Poland's mountain areas, particularly the Carpathian Mountains. Mountain areas are often viewed as problematic for a whole gamut of reasons. Their unique natural and economic character is manifested in the distinctive geological structure and land relief forms, which in turn, determines specific mountain climate features such as: shorter vegetation growth period, the presence of climatic belts, stacked thermal and precipitation zones as well as higher precipitation values than lowlands.

Furthermore, mountains are noted for specific, frequently skeletal soil and vegetation cover occurring at certain altitude levels. In the Carpathian Mountains, all these components of the natural world are interwoven with human activity, which is now predominantly responsible for shaping the character of these mountains. Traditional farming in those areas dates centuries back in the form of crop production and animal rearing, the latter playing a particularly important role in these areas. Currently, however, multifaceted recessive changes can be observed; in the Carpathian Mountains, they are primarily deagrarianisation and deanimalisation processes, with varying degrees of intensity.

Deagrarianisation is a phenomenon that shows the decreasing role of agriculture and agricultural production in a given region and in individual farms. It can be viewed as a natural consequence accompanying societal development; nowadays, it is largely due to economic reasons. It is also agreed that deagrarianisation is both the cause and the effect of the multifunctional nature of rural areas. Moreover, it comes as a response to the impossibility of ensuring continued socioeconomic development based solely on income from agricultural production.

With regard to the natural world, the ongoing deagrarianisation means also changes in the cultural landscape of rural areas, which are associated in particular with the earlier boundaries in the agricultural and forest space being blurred. This process has been observed for several decades in many regions, including mountain areas. Such changes are brought about by intensification measures such as a large share of corn in the crops (in foothills) on the one hand, and on the other, by an extreme extensification of agriculture or even discontinuance of agricultural production. The increasing abandonment of the use of farmland for agricultural purposes accelerates the rate of plant succession. In effect, uncultivated fields, unmowed meadows and pastures where grazing has been abandoned, give way to gradual overgrowing with shrubs and subsequent forestation. This means that the share of forests in the production space will increase at the expense of ploughed fields and grassland, while reversing this process can, as a rule, be costly and time-consuming.

The analysed process of deagrarianisation, which is a process of changes in certain belts of vegetation, in all probability is not neutral for its natural and geographical environment. This issue becomes of cardinal importance when it occurs in areas that are economically problematic but also very valuable in terms of their natural assets. The vast landscape and natural diversity of the Western Carpathians and a fraction of the Eastern Carpathians situated in Poland is best described by the variety of the types of protected areas

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designated within them. Plant succession, fostered by the ongoing deagrarianisation of production, ought to be prevented, particularly in the latter.

The process of departure from animal production is known as deanimalisation. The restructuring of production in a given subregion, which frequently means abandoning the breeding of livestock, particularly ruminants, leads to a mass-scale grassland deproductivisation, thus driving negative changes in the cultural landscape. Just as is the case with deagrarianisation, the increasing scale of the process means that the agricultural production space, soil and absolute fodder resources are used less rationally in terms of production and landscape. It can also disturb the food self-sufficiency as regards animal products, an aspect which is often overlooked both by decision-makers and consumers, who are happy to enjoy the open European market and a free flow of goods, which has a positive effect on prices in the shops. However, in situations of crises such as natural disasters or crop failures, the lack of a regional equilibrium in the food balance can pose a serious threat to the general public. Decreased livestock population also means a nationwide change in the structure of agricultural production, including the share of market output or clean production.

The next paper, entitled *The protection of the biodiversity of naturally valuable meadows and pastures and activation and integration of local communities – the example of the Podkarpackie Natural Grazing Programme*, discusses how these issues can be addressed through environmentally adequate agricultural activities.

The protection of biodiversity has become one of the crucial challenges that humankind is facing in the 21<sup>st</sup> century. The general public still needs to be reminded that biodiversity is the foundation of human life, health and economic activity. Many sectors of the economy rely on the biological diversity of fauna, flora and the labour of bees, among them, the most vital one – production of food. Not only conventional foods but also natural local foods and commodity products are increasingly being preferred by progressively more affluent societies. For centuries, biodiversity has shaped the vast richness of habitats and natural landscapes, which are also found in Podkarpackie Province, while such activities as pastoralism and extensive farming have helped preserve, protect and even expand it. There should be a subzone of socio-economic linkages in naturally valuable areas, enabling the integration of the protected area into the broader economic context, thus compensating for lost benefits.

In that regard, specialised programmes implemented as part of the public duties discharged by local governments can play an important role. One such initiative is the *Podkarpackie Natural Grazing Programme*, the overarching objective of which is to preserve, protect and restore the biological diversity of the region's distinctive landscape, as well ensure natural environment conservation based on grazing in areas of significant landscape and tourism value. At present, areas of high natural value are protected by law in a variety of forms due to their unique value. However, if they are to benefit humankind in the future, they need to be adequately used, nurtured and monitored with a view to the impacts such activities may have on their biodiversity.

The areas selected for biodiversity monitoring were identified within 12 villages situated in Podkarpackie Province, which were covered by at least one form of nature conservation and took part in the

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Podkarpackie Natural Grazing Programme. Monitoring activity was conducted on 20 research plots that offered a sufficient area for observation according to the adopted research methodology. The areas under monitoring were located as follows: county: Bieszczadzki, municipality: Lutowska, village: Smolnik (2 plots), municipality: Ustrzyki Dolne, village: Krościenko (2 plots); county: Krośnieński, municipality: Dukla, village: Mszana (2 plots), Zyndranowa (2 plots), Tylawa (2 plots), municipality: Rymanów, village: Puławy (2 plots), Wisłoczek (2 plots); county: Przemyski, municipality: Fredropol, village: Koniusza (2 plots), Rybotycze (2 plots); county: Sanocki, municipality: Bukowsko, village: Wola Piotrowa (2 plots). The research also included an evaluation of the outcomes of the programme in 2012–2021 as viewed by breeders participating in the programme.

Private farms accounted for the majority of farms participating in the research (99.03%). In the analysed group, most of the farms were medium-sized (27.64 ha), and as many as 85.71% were situated in ANCs, including 76.89% in mountain ANCs. Pastures and permanent meadows had the greatest share in land use (43.08% and 33.48%, respectively), whereas arable land crops occupied 17.57%. Of all the farms, 95.12% bred cattle, including 46.07% producing milk and live beef cattle. Only 39.59% farms were solely engaged in milk production, and 14.34% – in live cattle production. The majority of farms in the surveyed group were ones with varied agricultural production. Most breeders grazed their livestock in Natura 2000 areas (54.54%) and in the protecting zone of a national park (16.88%), while the lowest number of them used protected-species areas and natural and landscape complexes as pastures (1.62% and 1.94%, respectively). In addition, grazing was conducted in a landscape park (12.33%), protected-landscape area (13.63%) and ecological areas (4.87%).

According to the surveyed farmers, the most significant effects of the Podkarpackie Natural Grazing Programme in the Low Beskid Mountains were: increasing cattle population (51.19%), leaving calves for rearing (57.62%), increasing the grazing area (47.08%) and keeping suckler cows (32.76%). Others included: increasing production of milk (44.22%) and live beef cattle (40.11%) as well as regular pasture maintenance (38.22%). In the farmers' opinion, cheese production was of the least significance (11.20%). In conclusion, the research corroborates a positive impact of increased farmers' interest in cattle breeding in mountain areas. This is largely due to the programme being implemented, which promotes natural grazing and targeted payments to farmers.

The paper *European solutions concerning structural, economic and institutional support for mountain and foothill areas* posits that mountain and foothill areas represent a significant implementation component of various EU strategies, i.e., the European Green Deal, Farm to Fork Strategy, Biodiversity 2030 Strategy, Common Agricultural Policy, and the interlinked measures pertaining to priority issues of the day in the field of environmental, climate and landscape protection.

The principal role of rural areas for the attainment of EU objectives laid down in the initiatives mentioned above is also reflected in regional programmes directed at mountain and foothill areas; they emphasise the multifaceted, and not necessarily food-related, functions that are, in practice, discharged by the local populations through various types of projects and schemes addressed to local governments, non-governmental organisations and individual farms. In this case, financing operations in mountain and foothill areas is of the greatest significance; at the CAP level, it is rather modest but encompasses all the



## The Problems of Mountain Area Agricultural Development...

EU Member States. This type of financing is offered at a much more substantial scale under the Cohesion Policy and its regional arrangements. Yet another form, but a priority one for mountain and foothill areas, is dedicated financing, successfully being utilised by the Alpine countries as part of the Interreg Alpine Space Programme. However, the countries involved in the Carpathian Convention have not, as yet, come up with a similar solution.

The European Parliament 2022 report, commissioned by its Agriculture and Rural Development Committee and entitled *The future of the European farming. Model socio-economic and territorial implications of the decline in the number of farms and farmers in the EU*, corroborates the earlier analyses published in the 2020 paper entitled *The challenge of land abandonment after 2020 and options for mitigating measures*. The report identifies mountain areas as regions increasingly suffering from depopulation, a process which is most acutely visible in the Carpathian and Balkan regions and the least so in the Alpine region. In those areas, depopulation trends in most cases stand in direct proportion to deagrarianisation processes taking place there, and also affect other mountain regions of Europe. The scale of these processes, however, depends on a number of factors, ranging from soil and climate to infrastructure and tourism, as evidenced by wider differences in the depopulation and deagrarianisation of some of the Alpine areas in Italy compared to those in France.

The findings from these reports, analyses and research studies suggest that specific measures need to be undertaken in order to counteract the negative processes and phenomena taking place in mountain and foothill areas. For such measures to be implemented, relevant strategies firstly need to be designed to consolidate future operational interventions. The role of such interventions is, among others, to compensate for the structural difficulties and diversify economic activities in mountain and foothill areas to facilitate their sustainable development.

The Alpine Strategy (EUSALP), adopted in 2016, is one of the four macroregional strategies intended to strengthen the EU's territorial cohesion, and the first addressed to a mountain region. Other types of collaboration are also pursued in the Alpine region under such initiatives as the Alpine Convention and the Interreg Alpine Space Programme. The Alpine Strategy is being implemented in the territories of Italy, France, Austria, Germany and Slovenia, and in two non-EU countries: Switzerland and Liechtenstein. The operations and investment projects being rolled out as part of the Alpine Strategy are feasible thanks to the establishment of a macroregional management model which permits cross-border cooperation in agriculture in mountain and foothill areas. Such an approach helps maximise the benefits, reduces administrative barriers and involve local governments and consumers alike.

There is little doubt that the provision of financing for a number of initiatives under the Interreg Alpine Space Programme during more than ten years of its operation can be viewed as the greatest benefit of the Alpine policy for mountain and foothill agriculture in those areas. The formula and terms of cooperation between nations and regions defined as part of the Alpine strategy facilitated many initiatives aimed at adopting the Carpathian Strategy in the region of Central and Eastern Europe. The strategy will strive to strengthen and promote cooperation between the countries and regions situated within the Carpathians mountain range, and to incorporate the macroregion into the four already existing EU's territorial strategies.

The premise for establishing the Carpathian Strategy was the adoption of the Carpathian Convention in 2003 and its ratification by Poland in 2006. The Convention, which strives to promote sustainable development



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of the Carpathian region, brings together five EU countries: Poland, Czechia, Slovakia, Romania, Hungary, and two non-members: Ukraine and Serbia. Besides the Alpine Convention, it is the only multilateral treaty for the protection and sustainable development adopted in a mountain region.

The institutional measures at EU level and international treaties do not preclude bottom-up initiatives by non-governmental entities which aim to support agriculture in mountain areas. One example of an association involved in such bottom-up projects is Euromontana – an international non-governmental organisation whose main objective is to improve the lives of mountain populations through: levelling the development opportunities of the European mountain areas, conducting socioeconomic and environmental research of the mountain populations, agriculture and forestry at local, national and international levels, representing mountain communities and defending their interests in EU organisations, and informing the general public about the problems of mountain areas. Thanks to the established political links of the association at international level, these initiatives can be promoted at European mountain conventions, and their issues of interest are reflected in the implemented projects, aimed primarily at promoting sustainable development of Europe's mountain areas.

The production of high-quality foods is a priority matter for the promotion of mountain areas. Their criteria were laid down in *Regulation EU 1151/2012 of the European Parliament and of the Council of 12 November 2012 on quality schemes for agricultural products and foodstuffs*. The Regulation defined the quality systems that set the framework for the identification and protection of names and terms, designation and description of agricultural products that have value-adding attributes on account of their agricultural methods or technologies of production. The Regulation also lays down the requirements concerning protected designations of origin (PDOs), protected geographical indications (PGIs), traditional speciality guaranteed (TSG), and 'mountain products', adopted as an optional quality term. These legislative arrangements were supplemented by *Commission Regulation (EU) No 665/2014 of 11 March 2014 supplementing Regulation (EU) No 1151/2012 of the European Parliament and of the Council with regard to conditions of use of the optional quality term 'mountain product'*.

In order to consolidate the development of agriculture and other sectors of the economy in mountain and foothill areas while respecting the environmental challenges enshrined in the European Green Deal, Farm to Fork Strategy and the Circular Economy, adequate financial programmes need to be put in place in those areas. Such funding can only be secured if a local, regional, social and administrative structure recognising and taking into account the distinctive characteristics of a mountain range or region is fully developed. This will help gradually incorporate the measures aimed at promoting the development of mountain areas into the time schedule and actions of the EU structures.

Ultimately, the centralisation of such bottom-up and institutional measures, preceded by cooperation, agreements and strategies developed within and between nations, will produce a targeted programme of financing agriculture in a given mountain region. Such staging of social, economic and institution development is now taking place in the Carpathian Region situated in the Central and Eastern European countries. The stage of designing a Carpathian Strategy in that area also bodes well for changes in the Polish mountain and foothill areas which, hopefully, in a few years' time, will reach a similar level of development to that of the Alpine areas covered by the Alpine Strategy and financed under the Alpine Space Programme.

## The Problems of Mountain Area Agricultural Development...

In summary, the monograph entitled *The Problems of Mountain Area Agricultural Development in the Face of the Challenges of the European Green Deal* offers a multifaceted collection of papers presenting a broad view of the threats and opportunities that highland areas (mountains and foothills) will need to deal with the challenges posed by the European Green Deal, and hence, the CAP Strategic Plan for 2023–2027. The analyses and synthesis it provides significantly contribute to the debate on mutual adjustment and clarification of the agricultural policy relating to mountain areas, its agriculture and farmers, who are the policy's actual beneficiaries.

The monograph provides institutional references to the delimitation of mountain areas at European and national levels; it also discusses their implications and controversies arising from the new EU and Polish solutions proposed in the Common Agricultural Policy for 2023–2027, and outlines the numerous challenges and threats posed for mountain areas by the ongoing (subregional) deproductivisation and deagrarianisation, including deanimalisation. The subsequent parts of the monograph also highlight the already existing and newly proposed specific organisational and production solutions intended to sustain and develop agriculture in mountain areas, in particular those that aim to preserve the multifunctional nature of their rural areas.

The Foundation for the Development of Polish Agriculture (FDPA) is a nongovernmental organisation with traditions dating back 35 years. Our mission is to support the sustainable development of rural areas, in particular, enterprise and the creation of jobs outside agriculture, and to ensure equal opportunities for women, the unemployed and young people. To this end, as one of the most active and largest loan funds in Poland, we engage in loan activities and services fostering the development of small rural enterprises.

We take part in local development programmes, community initiatives, information and education schemes. We also publish respected studies and specialist reports such as the biannual report on the state of Poland's rural areas (latest edition: *Polska wieś 2022. Raport o stanie wsi*) and numerous publications to promote the sustainable development of rural areas that deal with issues such as adaptation to climate change and effective resource management.

Since 2009, we have regularly organised a contest entitled *Rural Poland – the Legacy and the Future* for scientific and popular-science works on agriculture and rural areas and those that promote their history and cultural heritage. We initiated debates held as part of the cyclical event entitled *Rural Poland in the 21<sup>st</sup> Century*. We have also organised many international, domestic and local projects addressed to rural residents, farmers, local governments, agricultural advisory centres, public institutions, and small and medium-sized entrepreneurship.



**Foundation for the Development of Polish Agriculture**

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The authors discuss important topical issues associated with mountain agriculture, including marginalisation and deagrarianisation of the agricultural production space. The publication's added value lies in its presentation of research findings from Polish mountain areas alongside the data on selected mountain regions of other European countries.

Prof. Józef Kania

The monograph comes as a valuable contribution to the debate on the state of agriculture in the highlands of Poland and other countries, as well as on the measures needed to mitigate the risk of peripheralisation of those areas.

Prof. Piotr Frączek

The monograph is the second of five volumes compiled as part of a project titled *European Green Deal – Opportunities and Challenges for Polish Agriculture*, administered by the Foundation for the Development of Polish Agriculture (FDPA). The papers included here were originally presented at seminars focused on formulating guidelines for the implementation of the EU's new scheme, European Green Deal (EGD), through farming practices aiming to enhance opportunities for the development of Polish agriculture.

