

Social risk and the social insurance system in agriculture

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Abstract

A sector that is particularly susceptible to various risks is agriculture. These are primarily production-related, institutional as well as social risks. The risks which can substantially compromise the operational stability of farms, and therefore the entire sector, are social risks, which has been confirmed by numerous studies. Hence, it seems important to answer the question of whether the current social security system operating in agriculture and implemented within the Agricultural Social Insurance Fund (KRUS) is successful in addressing current economic, health and welfare challenges.

The study is intended to review and assess the solutions existing in the social insurance system for farmers with a view to mitigating social risk in agriculture.

Key words: KRUS, agriculture, social risk, social insurance system in agriculture.

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Introduction

Humans have been searching for ways to address the consequences of contingencies since they became aware of the various risks that determine their existence. Initially, risks identified in local communities were of no interest to state institutions. Once their usefulness was recognised by public authorities, the key issue was to place these risks and their consequences within a specific legal framework so that they could be the subject of protection. It should be noted here that one of the sectors which is particularly susceptible to various risks is agriculture. This is due to the fact that specific hazards emerging in agriculture, such as: climate risks, natural disasters, pollution, increasing specialisation of farms, liberalisation and globalisation of the economy, occupational diseases and ageing of the rural population are amplifying the changes in its environment. Faced with these multiple hazards, public policies offer a set of diverse instruments to reduce risks and their consequences, such as insurance coverage for cultivated crops, the natural disaster system, social insurance, etc.

Hence, in order to effectively manage risk in agriculture at a strategic level, it is necessary to undertake a comprehensive assessment of the nature of hazards to which farms are exposed. It is through a comprehensive risk assessment that decision-makers can make informed decisions on how to mitigate risk and foster mechanisms that allow people to survive the most severe periods of crisis. This is particularly important because the current decade has been a very turbulent period in human history, in which – according to the authors of *The Global Risks Report 2023*¹ – the return to the so-called “new normal” after the COVID-19 pandemic was quickly disrupted by the outbreak of war in Ukraine, which set off a new series of energy and food crises, thus triggering further problems. These problems can especially affect the agricultural sphere.

As it is impossible to eliminate all hazards in agriculture, it is of particular importance that risk management mechanisms contribute to economic growth through agricultural activity and enable widespread participation in economic growth. A group of risks that play an essential role for security of a farm and, above all, of a farmer and their family, are social risks. Awareness of the existence of social risk in agriculture and defining it are essential to rationalise the way this risk is managed within the framework of the social security policy designed for farming families.

1. *The Global Risk Report 2023*, World Economic Forum, 18th edition, January 2023, <https://www.weforum.org/reports/global-risks-report-2023/>, access 30.05.2023.

In this respect, it should be noted that it is not only efficient functioning of the social insurance system, but also other forms of social protection that are particularly important for viable social security.

The importance of social risk research is demonstrated by the results presented in “The Global Risks Report”², which identifies the most important risks of varying global scope and degree of materialisation³ broken down into five categories: economic, environmental, geopolitical, social and technological risks. The results presented in the report indicate that social and environmental risks, driven by underlying geopolitical and economic trends, will prevail among the risks that may materialise in the near future and become a critical threat to the world. The threat of the cost-of-living crisis, compounded by inflationary pressure, is forecast to be the most acute in the near term (up to 2025) among the 10 global risks listed. The breakdown of social cohesion and the polarisation of society leading to a decline in social stability, welfare and economic productivity are ranked fifth. The list of these risks is completed by large-scale forced migration, which poses a major challenge in the long term.

When this is superimposed with critical environmental risks that will dominate the next decade and exacerbate social risks (especially failures to mitigate climate change as well as escalating natural disasters leading to biodiversity loss and ecosystem collapse), research in this area seems inevitable and even indispensable. Moreover, regarding this risk as a common one helps to highlight the problem of farms that are not immune to the impact of social risks. Hence, it seems important to answer the question of whether the current social security system for farmers, implemented within the Agricultural Social Insurance Fund (KRUS), is successful in addressing current economic, health and welfare challenges.

The study is intended to review and assess the solutions existing in the social insurance system for farmers, operated by KRUS with a view to mitigating social risk in agriculture.

Literature sources and KRUS statistical data were used to analyse the research material.

2. Ibidem.

3. In the report, the identified risk categories are analysed within a timeframe of three periods of potential risk materialisation, i.e. the short term (critical risks expected to materialise within the next 2 years), the medium term (materialisation within 5 years) and the long term (existential risks expected to materialise within the next 10 years).

Social risk and its interactions with other risk categories in agriculture

In the literature, there is neither a uniform definition of risk nor a uniform risk classification. It is an interdisciplinary category, and each discipline tries to establish its own breakdown and tailor it to its needs so that specific events can be easily classified into a particular category. We also face this problem in agriculture.

In the most general terms, risk is an intrinsic property of any activity perceived as the probability of a negative outcome or an undesirable event⁴. In this context, risk applies to virtually any entity that makes a negative assessment of an event. The economic actors exposed to risk and involved in risk management are both businesses and households. Reference to being a subject of risk is important to define and classify it appropriately. Hence, the primary areas of risk include: macro-environmental risks (including i.a. political, technical, economic, environmental, social risks), micro-environmental risks (e.g. suppliers, customers, clients, competitors) and internal corporate risks (e.g. organisational, legal, financial risks).

Central to the discussion of this study is social risk occurring in the macro-environment, which has attracted a great deal of interest in recent years in deliberations within social insurance and social security doctrine, including in the area of social responsibility. Moreover, analysing this risk from the perspective of agricultural activity means that the problem of social risk also affects those actors who have been deprived of welfare protection for many years.

When looking into the issue of social risk, it is worth emphasising that one of the elements that distinguishes social risks from other risks is that of risky behaviour, which should be seen as a manifestation of the drive for development and satisfying one's needs. R. Opora⁵, referring to Merton's theory, explains the occurrence of risky behaviour as a normal reaction to an abnormal situation. The factors that are implicit in risky behaviour are individual characteristics of the person, features of both the social and economic milieu, the external environment and the effects of their interaction, all of which are associated with an increased risk of a range of causal abnormalities. They can be non-specific – those whose occurrence can cause a range of adverse events, or specific – those whose occurrence increases the likelihood of certain types of events. Indeed, the essence of risk is to relate it to the consequences that

4. B.W. Husted, *Risk management, real options and corporate social responsibility*, "Journal of Business Ethics" 2005, Vol. 60.

5. R. Opora, *Nieletni niedostosowani społecznie, lecz odporni psychicznie* [in:] *Resilience. Teoria-badania-praktyka*, red. W. Junik, Warszawa, Wydawnictwo PARPA, 2011.

a certain phenomenon or event may have. Ch. Yoe⁶ specifies two types of risk sources: natural and man-made. Both, despite their different driving forces, entail similar effects. Thus, for example, the increase in extreme weather events (hurricanes, storms, torrential rain, droughts), the increase in natural disasters or human ageing, disease, etc. – with regard to human beings – cause the risk of loss of life, property, health, work. Likewise, high levels of unemployment/structural over-employment, income disparities, an increase in man-made environmental disasters (oil spills in the seas, forest fires), pandemic outbreaks or unmanageable chronic diseases linked to improper human actions result in similar losses. For the latter, however, the damage to the ecosystem's balance, the occurrence of an economic crisis, increased unrest, human rights violations and political and social chaos, among others, must be additionally factored in. This means that the negative effects of human activity have a much wider range and often deeper negative consequences for the stability of individual economic sectors than those arising from risks of natural origin.

In the literature, social risk is also defined in terms of the changes that take place in people's education, views or behaviour, with the result that we can regard it – according to B. Kytte and J.G. Ruggie⁷ – as a result of the threat emanating from the actor affected by an issue and their vulnerability to impact. Hence, social risk can create new patterns for consumers and thus influence their expectations⁸.

A definition which is extremely relevant for understanding the social nature of risk was presented by H. Mamzer⁹, who argues that risk is linked to a sense of uncertainty arising from the fragmentation of reality and its fluidity, the impossibility of comprehending and grasping it in cognitive terms. In her view, risk is conceived as uncertainty and a growing sense of lack of control over the world which constantly is and will be changing. This definition explains that the way an individual copes with a given risk depends on psychological, social and environmental determinants, as well as the nature of the risk in question.

The above definitions indicate that social risks should be considered as threats. Indeed, it is difficult to find arguments indicating tangible (economic, financial) opportunities that may arise from the materialisation of such risks. It should be noted, however, that when analysing the phenomenon of social risk through the psychological

6. Ch. Yoe, *Principles of Risk Analysis: Decision Making Under Uncertainty*, Boca Raton, CRC Press, 2012.

7. B. Kytte, J.G. Ruggie, *Corporate Social Responsibility as Risk Management. A Model for Multinationals*, Corporate Social Responsibility Initiative, Working Paper No. 10, J.F. Kennedy School of Government, Harvard University, Cambridge MA, 2005.

8. A. Adamska, *Ryzyko w działalności przedsiębiorstw – podstawowe zagadnienia* [in:] *Ryzyko w działalności przedsiębiorstw*, Wybrane zagadnienia, red. A. Fierla, Warszawa, Oficyna Wydawnicza SGH, 2009.

9. H. Mamzer, *Poczucie bezpieczeństwa ontologicznego, Uwarunkowania społeczno-kulturowe*, Poznań, Wydawnictwo Naukowe UAM, 2013.

perspective, it is also possible to see some positive aspects that may arise from the occurrence of this type of risk. An example of this is a change of job due to the onset of an occupational disease, which can result in finding a new job, a much better salary and, therefore, the emergence of a much higher sense of satisfaction. However, when viewed through the perspective of a farm, and in particular of a person who manages it, such a situation must be analysed much more broadly, as it may involve serious risks to the efficient operation of an entity, particularly a small family farm.

Given the above, and the fact that contingencies that affect the economic life of individuals, causing a reduction in their income or an increase in their expenditure, constitute a social disruption which must be responded to, state intervention in this area seems inevitable. In this context, state policy directed at various entities cannot disregard farms, which in Polish conditions should also be treated as households and, moreover, an element of the rural community which is not immune to the effects of risk.

However, as J. Kulawik¹⁰ notes, the management of social risks by the states generates serious motivational problems among citizens, especially in the context of weakening their impulse for self-defence¹¹ and self-insurance¹² as a result of putting in place non-market tools. This is also emphasised by M.N. Rothbard, who points out that state intervention promotes the growth of inactivity¹³. This situation gives rise to two phenomena described in the literature as the Samaritan's dilemma¹⁴ and the threat posed by charity¹⁵. Both phenomena present a situation where the availability of public assistance, support provided to those affected by catastrophic and systemic risks demotivates individuals to improve their situation over long periods of time and leads to underinsurance. This results in any budgetary aid for disaster victims supplanting not only property insurance, but also social insurance¹⁶. As J. Kulawik¹⁷ notes, such a phenomenon occurs when supporting Polish farmers after drought and

10. J. Kulawik, *Wybrane problemy zarządzania ryzykiem społecznym*, "Ubezpieczenia w rolnictwie – Materiały i Studia" 2021, nr 2(76).

11. Self-defence – a risk management strategy involving the reduction of social risk probability.

12. Self-insurance – a risk management strategy involving the reduction of impact of social risk materialisation.

13. M.N. Rothbard, *Interwencjonizm, czyli władza a rynek*, Chicago – Warszawa, Fijorr Publishing, 2009.

14. J.M. Buchanan, *The Samaritan's dilemma* [in:] *Altruism, Morality and Economic Theory*, ed. E.S. Pelps, New York, Russel Sage Foundation, 1975, p. 110–115.

15. T. Lewis, D. Nickerson, *Self-insurance against natural disaster*, "Journal of Environmental Economics and Management" 1989, Vol. 16, p. 1–12.

16. P.A. Raschky, F. Zahn, *Natural hazard insurance in Europe: tailored response to climate change are needed*, "Environmental Policy and Governance" 2011, Vol. 21, No. 1, p. 820–823. D. Osberghaus, *The determinants of private flood mitigation measures in Germany – evidence from a nationwide survey*, "Ecological Economics" 2015, Vol. 110, p. 1105–1110. M.A. Andor, D. Osberghaus, M. Simora, *Natural disaster and governmental aid: is there a charity in hazard*, "Ecological Economics" 2020, Vol. 169, p. 330–335.

17. J. Kulawik, *Wybrane problemy zarządzania ryzykiem społecznym*, "Ubezpieczenia w rolnictwie – Materiały i Studia" 2021, nr 2(76).

other weather anomalies, which is a serious barrier to the uptake of agricultural insurance. Moreover, this also translates into weakening the farmers' social insurance system which introduces intervention measures in the event of natural disasters.

The literature distinguishes several different criteria for risk classification and, in the context of the discussion presented here, attention is drawn to the category of generic (personal and property) risks, which are the distinguishing features of the so-called welfare risk, recognised as social risk because of the social reach and social consequences of the perceived threats and the losses they cause¹⁸. These losses can be considered in financial terms: those of cost, shortage, expense, profit (income) reduction. It is more precise and capacious for the categorisation of social risks to state that the emergence of a personal risk can also have a non-financial effect (e.g. bereavement of a loved one). This means that social risk can also be categorised in financial and non-financial terms. It is therefore possible to conclude that social financial risk in the economic sense refers to the individual household, while social non-financial risk should be referred to the family and persons who are bound together emotionally (Table 1). Risks that affect households are inherently social risks.

Table 1. Classification of social risks

Criterion	Classification of risks		
Subject type	Corporate risk	Household risk	Individual/family risk
Risk type	Business risk	Social risk	
Economic	Financial risk		Non-financial risk

Source: Own compilation based on J. Pawłowska-Tyszkó, *Ryzyko społeczne i KRUS jako instytucja nim zarządzająca w rolnictwie polskim* [in:] *Identyfikacja podstaw, przemian i problemów ubezpieczeń rolnych*, red. nauk. M. Soliwoda, Warsaw, Institute of Agricultural and Food Economics – National Research Institute, 2020.

The classic catalogue of social risks recommended by the International Labour Organisation (ILO)¹⁹ includes the following risks:

- sickness – a complex, heterogeneous risk, involving entitlement to health and cash benefits related to loss of earnings due to disease;
- maternity – material support and health benefits for loss of earnings during pregnancy, childbirth, the postpartum period and health care needs during these periods;

18. T. Szumlicz, *Szkola ubezpieczenia społecznego – założenia teoretyczne i konsekwencje praktyczne*, Warsaw, SGH, Chair of Social Insurance, 2001.

19. Recommendation No. 67, *Recommendation concerning Income Security* [in:] *Convention and Recommendation Adopted by the International Labour Conference 1919–1966*, Geneva 1966, p. 461 ff.; *Social Security (Minimum Standards) Convention*, No. 102, Geneva 1952.

- invalidity – incapacity to engage in any occupational activity to a specified degree if it can be presumed to be permanent, resulting in a loss of earnings;
- death of breadwinner – loss of means of subsistence by the widow or children due to the death of the breadwinner;
- occupational accidents and diseases – a complex, broad and precisely defined risk (a broad catalogue of benefits);
- unemployment – loss of earnings due to the inability of a protected person who is capable and able to work to obtain suitable employment;
- old age – provision of a livelihood beyond a specified age;
- emergency expenses;
- child support obligations – material and in-kind support for families raising children.

T. Szumlicz²⁰ emphasises that the catalogue of social risks is constantly updated and flexible, thus adding to the above-mentioned risk groups the risk of old-age infirmity as a functional impairment of old age (thereby dissociating the risk of illness or old age from the risk of infirmity). J. Kulawik, in turn, points out that the list of social risks mentioned by Polish researchers is currently too narrow and proposes that it be extended to include climate risks and the corresponding risks of natural disasters²¹. Such an approach seems justified, as climate and systemic risks entail a range of material, social, health and psychological problems, and require state institutions to intervene. J. Kulawik notes that such a situation has direct relevance to the farmers' social insurance system, and indicates that farmers' social insurance contribution payments are prolonged or suspended after each disaster²². As a result, in the long term, the emergence of such solutions may undermine the foundations of a system in which the benefits are only loosely linked to the contributions paid. This approach is also confirmed by the research of A. Giddens, who notes that the transformations that have been taking place in recent decades should be linked to the so-called development of modernity, which brings about changes in the nature of threats²³. He distinguishes between two types of risks: natural and manufactured. A natural risk is one that is generated by natural forces external to humans and society, and involves climate change, diseases. Manufactured risks are risks that

20. T. Szumlicz, *Świadomość ryzyka społecznego jako podstawowa wiedza o systemie ubezpieczeń społecznych*, "Ubezpieczenia społeczne. Teoria i praktyka" 2017, nr 1(132).

21. J. Kulawik, *Wybrane problemy zarządzania ryzykiem społecznym*, "Ubezpieczenia w rolnictwie – Materiały i Studia" 2021, nr 2(76).

22. *Ibidem*, p. 10.

23. A. Giddens: *The Constitution of Society. Outline of the Theory of Structuration*, Cambridge 1984. Polish edition translated by: S. Amsterdamski, *Stanowienie społeczeństwa. Zarys teorii strukturalizacji*, Poznań, Zysk i S-ka Wydawnictwo, 2003.

arise as a result of human actions, generated by the modernisation process itself. These risks are intertwined and amplify the rise of social problems (e.g. diseases, social inequality, etc.). In conclusion, Giddens believes that while natural disasters continue to occur, any crises (climate change, increasing food prices, COVID-19, changes in energy markets, etc.) are the result of human decisions.

All of the aforementioned risk groups communicate a permanent or temporary inability to secure gainful employment, which, due to the rights of citizens to work, as well as the prevalence of this risk, is limited by more or less extensive state security systems. In most countries, protection from welfare (social) risk is mandatory, legally defined, exercised by public-private institutions and state authorities. The problem, however, is to adapt the catalogue of social risks covered to the socio-economic conditions of the country in question and to prioritise them, especially in the context of the increasing importance of the risk of old age. This is confirmed by research by Statistics Poland (GUS)²⁴, which shows that the share of the elderly in the population of Poland is steadily on the rise. At the end of 2020, the number of people aged 60 and over will be 9.8 million, representing an increase of 1.0% compared to 2019. The percentage of seniors in the Polish population has reached 25.6%. According to a forecast by GUS, the population aged 60 and over in Poland is expected to increase to 10.8 million in 2030 and 13.7 million in 2050. These people will make up around 40% of the total Polish population. According to GUS²⁵, the process of ageing of the population is more advanced in the Polish countryside than in the cities, which is connected with the outflow of the young part of the population from rural areas in search of work and generally better living conditions, as well as wider opportunities for the fulfilment of their dreams and life aspirations.

The circumstances described above, the existence of various social and climatic risks and the escalating ageing process of the population pose daunting multi-faceted challenges, not just in the economic sphere, but also in the psychological, health and, above all, welfare spheres. As indicated above, the ILO Convention lists the various risks recognised and covered by welfare rights. Their mitigation is important in the management of social risk by the state. In fact, it is worth emphasising that a household should manage its risks taking into account the state-organised social security system it uses to achieve a certain level of welfare security. For viable social security, the efficient functioning of the social insurance system, i.e. those solutions of the social security system that refer to the catalogue of social risks and the

24. E. Kamińska-Gawryluk (leader), *Sytuacja osób starszych w Polsce w 2020 r. Analizy statystyczne*, Warsaw-Białystok, GUS US Białystok, 2021.

25. Ibidem.

insurance principles for organising risk communities, is of particular relevance. As Jończyk²⁶ points out, the concept of a risk community makes sense insofar as it refers only to those members of the risk community who are healthy, economically active and willing to bear the cost. Moreover, he stresses that the asymmetry in which the sense of solidarity is expressed is characteristic of the risk community. This means that, in a risk community, there is no link between the contribution and the benefit delivered, which results from the diversified capacity to bear the burden of risk and the varying degrees of community members' susceptibility to risk and its impact. The above indicates that the social security system, including the social insurance system, plays an essential role in reducing social risk. It is based on a catalogue of social risks and insurance principles for organising risk communities. The problem remains that these systems are limited to identifying social risk and financing its impact, leaving out the aspect of managing it, i.e. the three risk management strategies (prevention, precaution, active risk management).

In this context, the question arises as to whether the risk community organised within the framework of the farmers' insurance system implemented by KRUS fulfils the above conditions? The answer is crucial, as it is only in exceptional cases that salaries, income from agricultural or business activities allow people to accumulate sufficient savings to survive once they have lost their jobs or are no longer working. According to S. Kawula²⁷, in most cases the lack of a primary source of income (in the absence of alternative sources of livelihood for the household) results in the economic dysfunctionality of the family, and in extreme cases can put the very basis of the biological existence of its members at jeopardy.

However, when constructing social security systems in agriculture, it is important to take into account the fact that actors in agriculture and agribusiness, regardless of their legal and organisational form, size or experience, are exposed to various types of risk, including both social and business ones. This situation is due in particular to the unpredictability of economic events, weather, climate change, price volatility, trade restrictions, changes in food standards and norms, and increasing environmental concerns. These and other factors result in a constant risk to agricultural activity and can thus undermine the welfare security of farming families. This is emphasised by T. Szumlicz, who notes that the risk arising at the household level

26. J. Jończyk, *Ubezpieczenia społeczne i zdrowotne, bezrobocie i pomoc społeczna*, Zakamycze, Kantor Wydawniczy Zakamycze, 2001.

27. S. Kawula, *Kształt rodziny współczesnej: szkice famiologiczne*, Toruń, Wydawnictwo Adam Marszałek, 2006.

may cause a loss not only in terms of the assets already owned, but also includes the threat of losing the expected resources of that household²⁸.

However, the approach of T. Szumlicz to social risk management in the context of new challenges is too narrow, as J. Kulawik²⁹ points out, suggesting that it be extended to include the holistic concept of social risk management (SRM) developed by R. Holzmann and S. Jorgensen³⁰. The SRM concept not only identifies social risks and how the public sector can finance their negative impacts, but above all helps various economic entities to manage the risk and provide support to those who are extremely poor. This means that SRM makes use of different types of public, market and informal instruments, creating different kinds of their combinations to contribute to socio-economic growth and development that guarantee an adequate standard of living (e.g. access to basic education and social care). Thus, it fosters a more risk-taking approach, drawing attention to the synergies between various intervention programmes that can be helpful in reducing poverty and deprivation.

It is worth emphasising at this point that social risk, and, moreover, its management, should be considered very broadly, as it is related to the losses incurred by specific social groups due to more or less foreseeable events. This approach can contribute to the design of dedicated social security systems that fit in with the nature of the risk in a particular sector, or have the potential to mitigate it. It should also be noted that well-structured dedicated social security systems, synergised with other market-based solutions to provide protection from social risks, understood in their broadest sense (as mentioned above), can be the foundation for increasing social welfare and stimulating economic development and growth. Indeed, it must be clearly emphasised that losses in agriculture result in an economic weakening of the food industry, an increase in the price of food products and, consequently, the payment of compensation to entrepreneurs involved in the processing and sale of food.

This broad approach to the issue of risk is particularly relevant in agricultural activity, which provides both a workplace and source of income for the farmer's family, as well as a welfare base for the household. As a matter of fact, it is difficult to separate the farmer's household from the farm. As a result, agricultural activity may be subject to the aggregation of various risks. This is due to the fact that, on the one hand, agricultural activity is the main source of income for agricultural households, which, in the event of the emergence of business or production-related risks may well entail the emergence

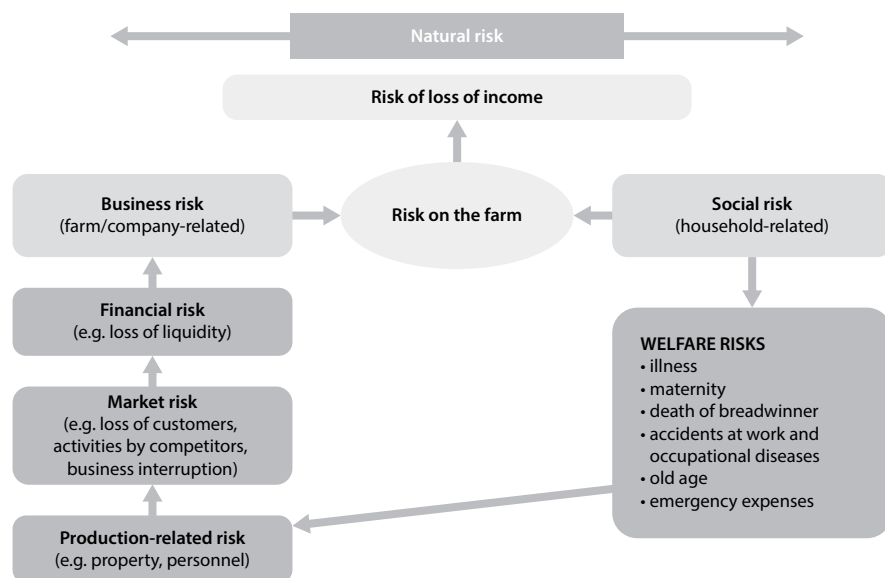
28. T. Szumlicz, *Ubezpieczenia społeczne: teoria dla praktyki*, Bydgoszcz – Warsaw, Oficyna Wydawnicza Branta, 2005.

29. J. Kulawik, op. cit.

30. *Managing Risk in Agriculture. A Holistic Approach*, Paris, OECD, 2009; *Managing Risk in Agriculture. Policy Assessment and Design*, Paris, OECD, 2011, p. 22–27.

of social risks, in particular the risk of a sudden loss of income and, consequently, the risk of losing one's job. On the other hand, welfare hazards (illness, disability, old age, etc.), in turn, affect the inability to perform farm work and thus provide the basis for upsetting the financial stability of the farm and the emergence of income risk as well. This means that in agriculture – looking from the perspective of the types of risk occurrence and the relationships that exist between them – it seems important to classify risks according to the subject type criterion into risks relating to the household and risks relating to the company, alongside an analysis of the links between them. This approach allows for a broader view of the situation and appropriate action to be taken from preventive, precautionary strategies to active risk management. Figure 1 shows a schematic representation of the links between various risks in the agricultural sector.

Figure 1. Interactions of social risk with other risks in agriculture



Source: Own compilation based on J. Pawłowska-Tyszko, *Ryzyko społeczne i KRUS jako instytucja nim zarządzająca w rolnictwie polskim* [in:] M. Soliwoda, *Identyfikacja podstaw, przemian i problemów ubezpieczeń rolnych*, Institute of Agricultural and Food Economics – National Research Institute, 2020.

The analysis of the occurrence of risk on the farm and its impact on various aspects of the farmer's and their family's life, combined with a range of links that will emerge between different types of risk, indicates the need for a holistic approach to risk management in agriculture, as highlighted by the SRM concept, described

above and analysed more extensively by J. Kulawik and other researchers³¹. However, the approach should cover three areas of risk: environmental, economic and social one, none of which can be addressed in isolation. However, it should be clearly emphasised that the starting point for securing the basic needs of farmers is the provision of welfare security, which, in turn, allows for the efficient management of the business and natural risks in the area of agriculture. Such security can be provided by a well-structured social insurance system within the insurance communities, which should be considered as part of a social risk management system.

Social security and its role in mitigating social risk in agriculture

Directing to agriculture various public measures and actions referred to as social security and aimed at protecting citizens bears the hallmarks of the state's social responsibility to mitigate various social risks. It is, therefore, the state's response to the farmers' social expectations in terms of discharging its statutory functions. We can consider this accountability at different levels. The first level is that of legal accountability, i.e. the obligation to comply with regulations arising from the established legal system. The next level is voluntary accountability, i.e. the state taking on the role of a welfare state which is concerned with the society's welfare. The third level, the most complex one, is the strategic accountability of the state related to value creation and the pursuit of sustainable agriculture through economic efficiency.

However, all of these actions must be derived from, and can be constructed on the basis of, legislation. The tasks and responsibilities of the competent ministers, i.a. in various areas related to social security, are regulated by the Act of 4 September 1997 on Government Administration Departments³². This Act refers to the body of public measures and actions by means of which the State seeks to protect its citizens from the threat of being unable to meet their basic needs, in shared recognition of their importance³³. The motive behind the emergence of the concept of social security was the achievement of a social objective and the creation of a social structure in which everyone can benefit from prosperity, in line with the potential of their productive forces³⁴.

31. J. Kulawik, op. cit.; *Managing Risk in Agriculture. A Holistic Approach*, op. cit.; R. Holzmann, S. Jorgensen, *Social risk management: A new conceptual framework for social protection, and beyond*, "International Tax and Public Finance" 2001, Vol. 8, p. 12–13.

32. Ustawa z 4 września 1997 roku o działach administracji rządowej, Dz. U. 2020 poz. 1220, 2327.

33. G. Szpor (sci. ed.), *System ubezpieczeń społecznych, Zagadnienia podstawowe*, Warszawa, Wolters Kluwer, 8th edition, 2013.

34. I. Jędrasik-Jankowska, *Pojęcia i konstrukcje prawne ubezpieczenia społecznego*, Warszawa, LexisNexis, 2010.

Social security takes its origin from social assistance and social insurance. It is an important element of state policy to protect citizens against the risk of incapacity due to old age, disability, accident, illness, etc. This is stated in the Constitution of the Republic of Poland, which stipulates that “a citizen shall have the right to social security whenever incapacitated for work by reason of sickness or invalidism as well as having attained retirement age”. A citizen who is unemployed involuntarily and without means of subsistence is entitled to social security³⁵. According to the Act on Government Administration Departments³⁶, social security covers the following areas:

- social insurance and social provision;
- pension funds, social assistance and benefits for individuals and households in financial and social distress;
- counteracting pathologies;
- government social assistance programmes, particularly for individuals and households in financial and social distress, as well as for groups at risk of social exclusion;
- welfare benefits, employment, social and vocational rehabilitation for people with disabilities;
- social economy, social entrepreneurship, including social cooperatives;
- veterans and persons subjected to repression;
- coordination of social security systems, with the exception of therapeutic benefits in kind.

This means that social insurance is one element of the broader state social policy tool – the social security system, which is a fundamental element of the social (welfare) security³⁷ of citizens. However, the concept has various definitions.

The most general definition of social security is presented by J. Piotrowski³⁸, who defines it as the entirety of public devices which offer protection against deprivation. An extensive definition of social security, indicating protected risk groups, was provided by the International Labour Organisation³⁹. According to ILO's definition,

35. Konstytucja Rzeczypospolitej Polskiej z 2 kwietnia 1997 roku, Dz. U. z 16 lipca 1997 roku, art. 67.

36. Ustawa z 4 września 1997 r. o działach administracji, op. cit.

37. In the literature, there is a distinction between the concept of social security and welfare security. According to A. Rajkiewicz (1998), the essence of welfare security consists in guarantees of obtaining external assistance in cases of contingency and other situations defined by law or by contract. Social security, in turn, is defined i.a. as targeted activity of the state and other organisations in the area of shaping the living and working conditions of the population and social relations, aimed i.a. at ensuring welfare security, satisfying higher-order needs, ensuring social order (B. Szatur-Jaworska, G. Firlit-Fesnak, 1994), or as activity of the state, local government and non-governmental organisations aimed at levelling drastic welfare differences between citizens, giving them equal opportunities and insuring them against the effects of welfare risk (J. Auleytner, 2011). In socio-economic terms, social safety is associated with social security.

38. J. Piotrowski, *Zabezpieczenie społeczne. Problematyka i metody*, Warszawa, Książka i Wiedza, 1996.

39. International Labour Organisation, *Introduction to social Security*, Switzerland 1984.

it is the protection which society provides to its members through a series of public measures protecting against economic and social risks resulting from the interruption or significant reduction in the level of earnings due to illness, maternity, work accident, unemployment, disability, old age and death, the provision of medical care and benefits to families with children.

In view of the multiplicity of risk groups, as well as the social need to mitigate these risks, the security mechanism is composed of multiple subsystems (pillars), embedded in the protection of the citizen at different levels of their needs, using different support instruments depending on the actual situation of the beneficiary. The main types of social benefits that are associated with the materialisation of individual social risks are shown in Table 2.

Table 2. Social benefits in the social security system vs. social risk types

Social risk type	Events	Loss	Basic cash benefit
Sickness	Sickness preventing work or gainful activity	No remuneration for work	Sickness benefit
Maternity	No work due to childbirth	No remuneration for work	Maternity benefit
Disability	Incapacity to work	No (or limited) earning capacity	Invalidity (work incapacity) benefit
Death of breadwinner	Death of breadwinner	Loss of means of subsistence	Family allowance pension
Work accident, occupational disease	Work accident causing illness or incapacity or death of breadwinner	No remuneration for work; limited (or no) earning capacity; loss of means of subsistence	Sickness benefit; invalidity benefit; family allowance pension
Unemployment	No gainful employment opportunities (not enough jobs) for people who are able to work	No work-related income	Unemployment benefit
Old age	Decision to claim the retirement pension	Limited or no work-related income earned to date	Retirement pension
Deprivation	Accumulation of various contingencies	No means of subsistence	Family benefit

Source: Own compilation based on J. Pawłowska-Tyszko, *Ryzyko społeczne i KRUS jako instytucja nim zarządzająca w rolnictwie polskim* [in:] M. Soliwoda, *Identyfikacja podstaw, przemian i problemów ubezpieczeń rolnych*, Institute of Agricultural and Food Economics – National Research Institute, 2020. The compilation draws on material from: T. Szumlicz, *Ubezpieczenia w systemie zabezpieczenia społecznego*, *Ubezpieczenia podręcznik akademicki*, red. nauk. J. Handschke and J. Monkiewicz, Warszawa, Wydawnictwo Poltext, 2010, and K. Bielawska, *Ubezpieczenia społeczne w systemie zabezpieczenia społecznego*, *Ubezpieczenia*, red. nauk. M. Iwanowicz-Drozdowska, 2nd edition, Warszawa, Polskie Wydawnictwo Ekonomiczne, 2018.

All types of social benefits are statutory in nature, and the way they are operated depends on the legislator and is tailored to the needs of the benefit recipients. The elements of social security are: social insurance (retirement, disability, sickness, accident insurance); social provision (benefits for disabled persons and veterans) and, in a complementary way, social assistance (cash benefits – permanent benefits, periodic benefits, targeted benefits, etc. and non-cash benefits – preventive benefits).

The above elements form the social security system, which is one of the elementary human rights. Its task is to implement the state's socio-economic policy, which means that the system is the state's guarantee to provide citizens with a minimum subsistence⁴⁰. Between the three areas of social security there are obvious differences, but also some similarities. The issue which is common to all these areas is their public law nature. Social security is, on the one hand, a set of activities and forms implemented in the public interest, and on the other hand, it is delivered by entities falling within the broadly understood state administration (including private entities appointed to provide social assistance). Among the similarities, we should also distinguish identical prerequisites for providing support, which in all cases amount to a catalogue of risks peculiar to each element (in the case of insurance, these are contingency risks – old age, incapacity, accident at work; in relation to welfare assistance, we speak of welfare risks – poverty, homelessness, unemployment, disability, i.e. so-called difficult life situations). The risk that accompanies difficult life situations is also normatively associated with social provision benefits. Among the features that clearly indicate that the three areas differ are the manner and source of their funding, on the basis of which the elements of social security are distributed. A social security system organised in this way can be the starting point for building a holistic social risk management system along the lines of the SRM concept mentioned above. The superstructure for such a system should be a sound macro-economic policy, good governance, access to basic social services, a well-structured system of incentives for professional activity – with more favourable profit-risk relations, and strong links between public, market and informal instruments.

The most prevalent social security instrument is insurance, which can be defined in various ways. In economic terms, insurance is an economic device aimed at mitigating or fully eliminating the financial consequences of contingencies by allocating the burden of these consequences among multiple actors who are threatened by these contingencies⁴¹. From an organisational and financial perspective, insur-

40. Z. Salwa, *Prawo pracy i ubezpieczeń społecznych*, Warszawa, Wydawnictwo Naukowe PWN, 1995.

41. E. Bogacka-Kisiel, *Finanse osobiste. Zachowania – Produkty – Strategie*, Warszawa, Wydawnictwo Naukowe PWN, 2012.

ance is a centralised insurance fund derived from contributions made to the fund by its participants⁴². In legal terms, insurance is a legal relationship between the insurer and the insuring party, whereby the insurance company undertakes to provide a specific performance in the event of an event provided for in the contract, and the insuring party undertakes to pay a premium⁴³.

Forms of social risk mitigation in the social insurance system for farmers⁴⁴

In most European countries, the tasks of social risk reduction and the organisation of security systems (including insurance systems) have been delegated to the state (they are also partly taken over by the private sector). The functions of social security are implemented through the following three techniques: insurance, provision and care, which have been distinguished primarily on the basis of financing methods and the rights and obligations of beneficiaries and obligors. The insurance function is performed by means of public insurance schemes, initiated and organised by the state, which thereby wishes to ensure a certain standard of welfare security for the majority of the population. These schemes are very sensitive to the extent to which they are fair, solidary and communitarian.

General insurance schemes require the payment of risk- and income-adjusted contributions in order to become eligible, and the resulting fund provides coverage for benefit expenditure (which follows from the principle of social solidarity). The amount of benefits and the conditions under which they are granted are determined by law using objectivised criteria, and the benefits as such are differentiated and dependent on the amount of contributions paid (income earned). The right to the benefit is acquired when the conditions are met, as provided for in the social insurance acts, in the case of KRUS – the Act on Social Insurance for Farmers⁴⁵.

The use of social insurance makes it possible to diffuse the impact of a specific social risk over the entire population, and thus stabilise household consumption levels. Access to financial products, including insurance, is recognised by the European Commission as an important part of the normal functioning of modern society,

42. T. Szumlicz, *Ubezpieczenia społeczne: teoria dla praktyki*, Bydgoszcz – Warszawa, Oficyna Wydawnicza Branta, 2005.

43. Kodeks cywilny, Dz. U. 2014 poz. 121.

44. The chapter is based on J. Pawłowska-Tyszko, *Ryzyko społeczne i KRUS jako instytucja nim zarządzająca w rolnictwie polskim* [in:] M. Soliwoda, *Identyfikacja podstaw, przemian i problemów ubezpieczeń rolnych*, Institute of Agricultural and Food Economics – National Research Institute, 2020.

45. Ustawa z 20 grudnia 1990 r. o ubezpieczeniu społecznym rolników, Dz. U. 2008 nr 50 poz. 291.

intended to provide protection and combat social exclusion and poverty⁴⁶. If insurance is unavailable or difficult to access, it can disrupt the normal functioning of the household. This is due to the increasing demand for the rational management of various risks, including social risks.

An analysis of social insurance in Poland shows that two independent insurance systems are operating in parallel:

- 1) the system designed for the employee sector, administered by Social Insurance Institution (ZUS), and
- 2) the system designed for farmers, administered by KRUS.

The current social insurance system for farmers is regulated by the Act of 20 December 1990 on Social Insurance for Farmers, which came into force on 1 January 1991⁴⁷. In Poland, the agricultural population – as in other European countries – was the last socio-professional group covered by social insurance. The process of establishing the social insurance system for farmers took many years, and three phases can be distinguished in it⁴⁸:

- the first phase, which preceded the establishment of an insurance system proper, covered the period 1962–1977; farmers were entitled to an annuity in exchange for land transferred to state ownership⁴⁹;
- the second phase in 1977–1990, which saw the operation of an insurance system based on the principle of awarding pensions when a certain volume of goods was sold to the state⁵⁰;
- the third phase initiated in 1991, with the right to benefits becoming conditional on the payment of contributions; the reform of the social security system at the beginning of the 1990s excluded farmers from the general social insurance system, and the distinctiveness of the system was emphasised by the establishment of a specialised institution – the Agricultural Social Insurance Fund (KRUS) – responsible for the implementation of tasks relating to farmers' insurance only.

46. Karta praw podstawowych UE, OJ EU C 303/17 – 14.12.2007, Article 34 – Social security and social assistance, 2007.

47. Ustawa z 20 grudnia 1990 r. o ubezpieczeniu społecznym rolników, Dz. U. 2008 nr 50 poz. 291.

48. B.M. Wawrzyniak, B. Wojtasik, *Przejawy aktywności ekonomicznej ludności związanej z rolnictwem*, "Acta Scientiarum Polonorum, Oeconomia" 2005, nr 4(1).

49. Ustawa z 28 czerwca 1962 roku o przejmowaniu niektórych nieruchomości rolnych w zagospodarowanie lub na własność państwa oraz o zaopatrzeniu emerytalnym właścicieli tych nieruchomości, Dz. U. nr 38 poz. 166; ustawa z 24 stycznia 1968 roku o rentach i innych świadczeniach dla rolników przekazujących nieruchomości rolne na własność Państwa, Dz. U. nr 3 poz. 15; ustawa z 29 maja 1974 roku o przekazywaniu gospodarstw rolnych na własność Państwa za rentę, Dz. U. nr 21 poz. 118.

50. Ustawa z 14 grudnia 1982 r. o ubezpieczeniu społecznym rolników, Dz. U. nr 40 poz. 268; the 1988 amendment to the Act abolished the "pension for goods" principle.

The system was developed during the initial period of system transformation as a result of the demands of rural communities, and was based on models from farmers' social insurance schemes in place in EU countries. It took the form of a provision and welfare system, typical of European social insurance schemes for farmers.

Looking from the perspective of the insurance system functions, e.g. to hedge the effects of social risk, the farmers' social insurance scheme was reviewed in terms of its ability to mitigate social risks through a variety of benefits while maintaining the insurance organisation principles of risk communities. Particular attention was paid to the types of risks protected under the scheme.

A review of the statutory provisions⁵¹ indicates that the system distinguishes between two types of social insurance (retirement and disability insurance vs. accident, sickness and maternity insurance), which are financed under separate rules and provide different benefits. Retirement and disability insurance is financed by the Retirement and Pension Fund (FER), which is a state special purpose fund. The fund's income consists of retirement and disability insurance contributions paid by insured farmers and household members, supplementary subsidies from the state budget for retirement and disability benefits under the Act on Social Insurance for Farmers, a special purpose subsidy for health insurance contributions for insured persons on farms below 6 equivalent hectares, a refund from the Social Insurance Fund to cover expenses for benefits from other social insurance, together with supplementary allowances. It should be mentioned that the share of the insured in the financing of this fund is small, amounting to roughly 8–10%. The fund is mainly supported by a subsidy from the state budget.

Accident, sickness and maternity insurance is an extra-budgetary scheme, self-financed from the Farmers' Social Insurance Contribution Fund (FS). The FS's income comes from farmers' contributions and the fund's capital investment activities. Accident, sickness and maternity insurance is aligned with the self-financing capacity of the contribution fund. Its role is to provide liquidity and ensure that farmers are paid the one-off and short-term accident, sickness and maternity insurance benefits to which they are entitled.

Long-term benefits, i.e. farmer retirement pensions, farm work incapacity benefits and family allowance pensions, are paid from the retirement and disability insurance. Accident-related incapacity benefits and family allowance pensions are also paid from this insurance, even though they are typical accident insurance benefits. Retirement insurance also qualifies for a funeral payment, a nursing supplement to retirement pension and incapacity benefits and an additional payment to a family allowance pension for a double orphan. Table 3 shows the instruments for mitigating selected social risks by the above-mentioned funds.

51. Ustawa z 20 grudnia 1990 roku o ubezpieczeniu społecznym rolników, op. cit.

Table 3. Mitigation of social risks in the social insurance system for farmers

Risk type	Fund	Benefit type	Conditions for benefit payment
Risk of illness	Contribution Fund	Sickness benefit	<ul style="list-style-type: none"> – Covers the insured farmer, their spouse and household members – Sickness resulting in incapacity for a continuous period of at least 30 days but not exceeding 180 days. If, after the 180-day benefit period has elapsed, the insured is still incapable of work and, as a result of further treatment and rehabilitation, there is a prospect of regaining the ability to work, the benefit period shall be extended for the time necessary to restore the ability to work, but no longer than for a further 360 days. – Benefit paid for each day of incapacity for work, not excluding off work days, lasting for a continuous period of at least 30 days but not exceeding 180 days.
Risk of maternity	Contribution Fund	Maternity benefit	<ul style="list-style-type: none"> – Being the mother or father to a child – Adoption of a child in the case of taking into care a child up to the age of 14 and, in the case of a child in respect of whom a decision has been taken to postpone compulsory education, up to the age of 14 – Taking into care a child and applying to the guardianship court to initiate adoption proceedings, in the case of taking into care a child up to the age of 14 – Taking into care a child up to the age of 7 within a foster family, with the exception of a professional foster family, and, in the case of a child in respect of whom a decision has been taken to postpone compulsory education, up to the age of 10
		Maternity benefit for the father	<ul style="list-style-type: none"> – The father shall be eligible for maternity benefit on account of the adoption/taking into care of a child in respect of whom an adoption order has been made by a guardianship court, up to the age of 14 at the latest – Maternity benefit shall be granted to the father of the child if the mother previously received maternity benefit due to childbirth – For 9 weeks, and paid in continuation of the maternity benefit received by the mother

Social risk and the social insurance system in agriculture

Risk type	Fund	Benefit type	Conditions for benefit payment
Risk of accident at work and agricultural occupational disease	Contribution Fund	One-off compensation for chronic or permanent damage to health or death as a result of an accident at work	<ul style="list-style-type: none"> – Covers the insured farmer, the household member, the farmer's assistant and the family member of the insured – Chronic or long-term damage to health as a result of an accident at agricultural work or an agricultural occupational disease – Death as a result of an accident at agricultural work or an agricultural occupational disease
Risk of death of breadwinner	Retirement and Pension Fund	Family allowance pension	<ul style="list-style-type: none"> – Death of a breadwinner who was insured with KRUS, a retirement pensioner or a disability pensioner with an established right to a retirement pension. The family allowance pension is granted to: own children, children of the spouse and adopted children, grandchildren, siblings and other children taken into care before reaching the age of majority, spouse (widow, widower), parents, including stepfather and stepmother and adoptees
		Additional payment for a double orphan	<ul style="list-style-type: none"> – The additional payment is due in the amount specified in the provisions of the Act of 17 December 1998 on Retirement and Disability Pensions from the Social Insurance Fund – If double orphans are entitled to a family allowance pension, the portion of the family allowance pension to which each orphan is entitled shall be increased by such an additional payment
Risk of disability	Retirement and Pension Fund	Farmer disability pension	<ul style="list-style-type: none"> – Permanent or temporary total incapacity to work on the farm – Total incapacity to work on the farm arose during the period of retirement and disability insurance or no later than 18 months after such periods were terminated
		Ex-farmer training disability pension	<ul style="list-style-type: none"> – Incapacity resulting in the necessity of vocational retraining due to permanent or temporary total incapacity to work on the farm

Continued on the next page.

Table 3. Mitigation of social risks in the social insurance system for farmers (cont.)

Risk type	Fund	Benefit type	Conditions for benefit payment
Risk of old age	Retirement and Pension Fund	Farmer retirement pension	<ul style="list-style-type: none"> – Reaching the retirement age, which from 1 October 2017 is 60 for a woman and 65 for a man – Being covered by retirement and disability insurance for at least 25 years – Cessation of agricultural activity (in the case of a so-called “early” farmer retirement pension) – Being a mother who is aged 60 or over, has given birth to and raised or is raising at least four children and has no income that provides the necessary means of subsistence
		Supplementary parental benefits (from 31 January 2019)	<ul style="list-style-type: none"> – Being a father who is aged 65 or over, has raised at least four children in the event of the death of the children's mother or the abandonment of the children by the mother, or in the event of the mother ceasing to raise the children for a long period of time, and has no income that provides the necessary means of subsistence
		Supplement to the farmer retirement pension due to payment of a double or additional contribution	<ul style="list-style-type: none"> – For persons engaged in an auxiliary non-agricultural activity apart from agricultural activity – Supplement due to payment of double or additional retirement and disability insurance contributions, amounting to 0.5% of the basic retirement pension for each full year of such contributions (from 1 March 2023)
Risk of emergency expenses	Retirement and Pension Fund	Funeral payment	<ul style="list-style-type: none"> – Compensation for funeral expenses following the death of: an insured person, a person entitled to a retirement or disability insurance pension, a family member of a person, a person who at the date of death did not have an established right to a retirement or disability insurance pension but fulfilled the conditions for granting and receiving the same

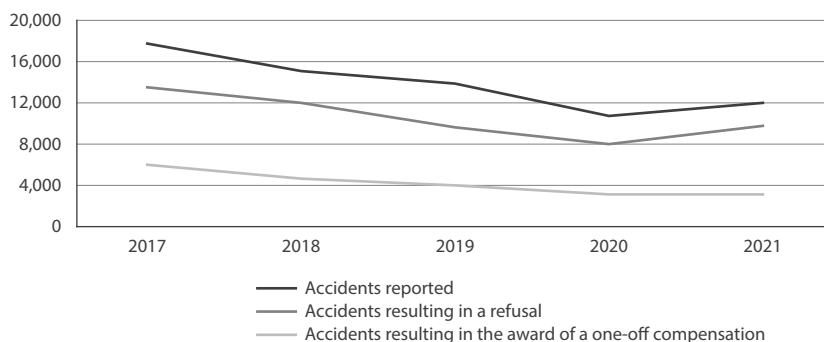
Source: Own compilation based on KRUS data.

It should be noted that all members of the risk community in the farmers' social insurance system enjoy the same benefits and are subject to the same obligations under the applicable legislation as other citizens participating in the general system. Such a solution does not violate the principles of social solidarity and is in line with the insurance principles of the risk community. The types of benefits paid by KRUS

presented in Table 3 are intended to mitigate the effects of various risks. A review of these benefits indicates that farmers covered by KRUS are adequately protected against the effects of social risks and can fully benefit from the broad catalogue of risks, which is consistent with the classic catalogue of social risks recommended by the International Labour Organisation.

In order to assess the system in terms of mitigating social risks, a comparison was made between selected agricultural accident claims and benefits paid (Figure 2). The information in the figure shows that there was a downward trend in accidents reported to KRUS over the period analysed, with the exception of 2021. Consequently, the number of refusals as well as the number of compensations paid decreased. Research also shows that, over the period examined, the proportion of positive decisions related to benefit payments in relation to reported accidents slightly increased, ranging from 73% in 2017 to 79% in 2021. Simultaneously, the percentage of refusals is also decreasing from 32% in 2017 to 27% in 2021. Refusals involve i.a. incidents that did not result in chronic or permanent damage to health – ca. 50%, failure to recognise an incident as an accident at work due to not being related to agricultural work within the meaning of the Act – ca. 27%. The relatively high number of refusals relates to the applicant's failure to meet their obligations, i.e. 19%. However, in the years 2019–2021 the amount of one-off compensation decreased from PLN 6,161 in 2019 to PLN 4,801 in 2021 – a decrease of approximately 12%, and an even deeper decrease of 4 p.p. in relation to 2020. This example shows that KRUS is properly performing its tasks in terms of fulfilling its protective function concerning occupational diseases and work accidents. It should be added that the number of agricultural accidents has also been decreasing over the last few years, which can be linked, among other things, to the modernisation of infrastructure, which has largely contributed to the reduction in the number of hazards. However, the increasing prevalence of large-scale production has resulted in the emergence of new ones. For more than thirty years now, KRUS has undertaken extensive prevention activities to raise safety awareness among farmers and their families, taking into account commonly occurring hazards as well as newly emerging ones. These activities should also be considered as a form of social risk mitigation in agriculture.

Figure 2. Work accidents in agriculture



Source: Own compilation based on KRUS data.

It is also worth emphasising that, in a risk community, there is no link between the contribution and the benefit delivered, which results from the diversified capacity to bear the burden of risk and the varying degrees of community members' susceptibility to risk and its impact. In the farmers' social insurance system, the amount of retirement and disability insurance contributions varies and depends on the size of the farm. The basic monthly retirement and disability insurance contribution rate for each insured person amounts to 10% of the basic retirement pension. A farmer whose farm covers an agricultural area of 50 equivalent hectares or more shall pay for themselves and their spouse an additional monthly contribution which varies depending on the size of the farm area⁵². Table 4 shows the amount of social insurance contributions and its relationship to farm size. In addition, for persons who are subject to social insurance for farmers by the law and at the same time engage in non-agricultural activity or cooperate in such activity, the retirement and disability insurance contribution is calculated at double the basic contribution rate. The monthly contribution for accident, sickness and maternity insurance for each person (including those engaged in non-agricultural activity or holding a farm of more than 50 equivalent hectares) subject to this insurance to the full extent is calculated at the basic rate.

The above solutions indicate that in the farmers' social insurance system, the size of contributions varies and results from the diversified capacity to bear the burden

52. 12% of the basic retirement pension – in the case where the farm covers an agricultural area of up to 100 equivalent hectares; 24% of the basic retirement pension – in the case where the farm covers an agricultural area of over 100 equivalent hectares up to 150 equivalent hectares; 36% of the basic retirement pension – in the case where the farm covers an agricultural area of over 150 equivalent hectares up to 300 equivalent hectares; 48% of the basic retirement pension – in the case where the farm covers an agricultural area of over 300 equivalent hectares.

of risk by the farmers covered by the system. This solution is consistent with the principle of social justice and solidarity.

Table 4. Amount of social insurance contributions for farmers in Q2 2023 (in PLN)

Status of the insured and size of the farm	Amount of insurance contribution (in PLN)						
	retirement and disability				accident sickness maternity		Total contributions per insured person per quarter
	basic monthly contribution	supplementary monthly contribution	total monthly contribution (2+3)	per quarter	monthly contribution	per quarter	
Farmer/farmer's spouse engaged in agricultural activity on a farm with an area expressed in equivalent hectares of							
up to 50 ha	143.00	0.00	143.00	429.00	60.00	180.00	609.00
over 50 ha up to 100 ha	143.00	172.00	315.00	945.00	60.00	180.00	1,125.00
over 100 ha up to 150 ha	143.00	343.00	486.00	1,458.00	60.00	180.00	1,638.00
over 150 ha up to 300 ha	143.00	515.00	658.00	1,974.00	60.00	180.00	2,154.00
over 300 ha	143.00	686.00	829.00	2,487.00	60.00	180.00	2,667.00
Farmer's household member (in any area category)	143.00	0.00	143.00	429.00	60.00	180.00	609.00
Farmer/farmer's spouse engaged in non-agricultural activity and agricultural activity on a farm with an area expressed in equivalent hectares of							
up to 50 ha	286.00	0.00	286.00	858.00	60.00	180.00	1,038.00
over 50 ha up to 100 ha	286.00	172.00	458.00	1,374.00	60.00	180.00	1,554.00
over 100 ha up to 150 ha	286.00	343.00	629.00	1,887.00	60.00	180.00	2,067.00
over 150 ha up to 300 ha	286.00	515.00	801.00	2,403.00	60.00	180.00	2,583.00
over 300 ha	286.00	686.00	972.00	2,916.00	60.00	180.00	3,096.00
Farmer's household member engaged in non-agricultural activity (in any area category)	286.00	0.00	286.00	858.00	60.00	180.00	1,038.00

Source: Compilation based on KRUS data.

KRUS also responds to the current needs of its beneficiaries, which arise due to the materialisation of various risks, such as the COVID-19 pandemic, and which materially entail the emergence of welfare risks. In 2020, by the Act of 14 May amending certain acts with respect to protective measures related to the spread of the SARS-CoV-2 virus (Journal of Laws 2020, item 875, as amended), the Agricultural

Social Insurance Fund has granted farmers and household members covered by the farmers' social insurance scheme rights to the COVID-19 quarantine benefit. Such a benefit is available to the insured (by the law or upon request) farmer and household member due to hospitalisation with COVID-19. Table 5 provides a summary of benefits paid by KRUS during the COVID-19 pandemic. The data presented shows that KRUS paid out almost PLN 432 million between 2020 and 2022, with an average benefit of just over PLN 1,000. More than 58% of the total amount was spent on care benefits, with the highest value paid in 2020, followed by almost 39% on benefits paid due to compulsory quarantine, epidemiological surveillance or hospitalisation, and just 2% on sickness benefits paid in connection with COVID-19. The introduction of this solution demonstrates the flexibility of the social system implemented by KRUS and its strong links with the general socio-economic situation of citizens.

Table 5. Benefits paid by KRUS during the COVID-19 pandemic in 2020–2022

Period		2020	2021	2022	Total
Benefits due to compulsory quarantine, epidemiological surveillance or hospitalisation	Number of benefits	25,978	58,456	36,616	121,050
	Amount of payments	33,771,400	80,370,775	53,898,834	168,041,009
	Average benefit amount	1,300	1,375	1,472	1,388
Care allowances	Number of benefits	145,458	80,743	10,048	236,249
	Amount of payments	178,991,017	68,361,026	6,450,320	253,802,363
	Average benefit amount	1,231	847	642	1,074
Sickness benefits	Number of benefits	3,024	20,000	22,857	45,881
	Amount of payments	458,151	2,890,168	6,437,092	9,785,411
	Average benefit amount	152	145	282	213
Total	Number of benefits	213,220,568	151,621,969	6,678,6246	431,628,783
	Amount of payments	174,460	159,199	69,521	403,180
	Average benefit amount	1,222	952	961	1,071

Source: Own compilation based on KRUS data.

It should also be emphasised that KRUS is only one of the actors involved in mitigating social risk in agriculture. During the COVID-19 pandemic, the state implemented a number of so-called financial shields, which also extended to agriculture. After the COVID-19 pandemic, in turn, i.e. the anti-crisis shield and during the energy crisis, the solidarity shield were implemented, and agricultural fuel subsidies were increased to PLN 2 per litre of diesel. All these activities are intended to contribute to maintaining the stability of farms, which are one of the most important sectors of the economy when viewed through the perspective of the country's food security. However, when assessing such activities, it is important to consider the current benefits on the one hand, and the described "Samaritan's dilemma" and the "charity issue" on the other hand, which may have long-term and irreversible consequences in terms of the development of the sector.

Summary

The occurrence of risk on the farm and its multi-faceted impact on various aspects of the farmer's family's life, combined with a range of links that will emerge between different types of risk, indicates the need for a holistic approach to risk management in agriculture. The approach should cover three areas of risk: environmental, economic and social one, none of which can be addressed in isolation. It would therefore be reasonable to introduce the Social Risk Management (SRM) concept by R. Holzmann and S. Jorgensen into social risk management.

However, it is social risks that may originally contribute to the deterioration of the welfare of farmers and thus threaten the survival of their farms (including households).

The existence of social risk provides a basis for policy makers and other institutions managing welfare security to make decisions with regard to the organisation of social security systems. The existence of the social security system plays an essential role in reducing social risk. It is based on a catalogue of social risks and insurance principles for organising risk communities.

Analysis of the farmers' social insurance system from the perspective of reducing welfare risks indicates that farmers covered by KRUS are adequately protected against the effects of social risks and can fully benefit from their broad catalogue which is consistent with the classic catalogue of social risks recommended by the International Labour Organisation. This system is also highly flexible, which allows its protection and insurance function to be fully achieved. Farmers receive a full range of benefits under a broad catalogue of welfare risks.

A review of systemic solutions indicates that in the farmers' social insurance system, the size of contributions varies and results from the diversified capacity to bear

the burden of risk by the farmers covered by the system. Simultaneously, all members of the risk community in the farmers' social insurance system enjoy the same benefits and are subject to the same obligations under the applicable legislation as other citizens participating in the general system. Such a solution does not violate the principles of social solidarity and is in line with the insurance principles of the risk community.

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