

Cooperation of Fruit Farms with the Institutional Environment

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The relationship between fruit growers and agricultural organizations is limited. The size of the indicator depends on the level of education of fruit growers and the area of the orchards. Fruit growers most often use advice and seek information about European Union programs. The development of cooperation between fruit farms and institutional environmental organizations reduces the mismatch between the offers of these organizations and the needs of fruit growers.

Keywords: fruit production ; organizations ; institutions ; relationship index ; development ; barriers

1. Introduction

With the increase in the population's awareness about the value of fruit, their consumption also increases. Therefore, the fruit sector faces a serious challenge: producing sufficient quantities of fruit of a good quality that is affordable and sustainable. The need for the sustainable production of nutritious food is crucial for human health and the environment ^[1]. For many years, Poland has been the world's largest producer of apples, blackcurrants, raspberries and chokeberries, and highbush blueberries, as well as a significant producer of strawberries. In this respect, it ranks behind Italy, Spain, and France among the European Union (EU) countries, and is ahead of Greece and Germany. In 2019, Poland's share in the EU-28 fruit harvest was 6.0% ^[2]. According to the data from the Central Statistical Office, in 2021, the harvest of fruit from trees amounted to 4,493,535 tonnes, while the production of berries amounted to 565,805 tonnes ^[3]. The largest fruit-growing regions in Poland include the Grójecko-Warecki region in Mazovia, the vicinity of Łódź and Lublin, and the region of southern Małopolska.

Fruit production is an important direction of agricultural production in the country, and the share of fruit in the market value of plant production in 2021 was 15.0% ^[4]. The increase in fruit production is supported by adequate land resources, a large group of producers, fruit consumption, and export opportunities to new markets (North Africa, the Middle East, India, and China). The increase in competition in the fruit market forces marketing activities by fruit producers and their industry associations together with local government authorities, promoting the region as well as products from a given fruit-growing area. After Poland acceded to the European Union, the fruit sector in the country developed dynamically due to factors resulting from the market situation, solid competitive position, and significant cash flows transferred to this market under European funds ^[5]. Proper use of European Union (EU) funds for the development of production and storage contributed to increasing the competitiveness of Polish fruit and fruit preserves. Currently, EU support for farms is linked to sustainable development.

To meet climate challenges, protect the environment, and improve the health of citizens, the EU has published a plan for sustainable development in all sectors of the economy, the so-called European Green Deal (EGD). The Farm to Fork Strategy and the 2030 Biodiversity Policy are at the heart of this plan, which stresses the need to improve the balance between biodiversity and food systems in order to increase competitiveness and resilience ^[6]. The implementation of the EGD strategy will generate challenges and opportunities. Its implementation will require the support of the institutional environment. According to Muhammad and others, the quality of the institutional environment positively impacts sustainable development ^[7].

The organization concept was adopted after North ^[8], according to which an organization is made up of groups of individuals who are related by a common goal to achieve and provide a structure for the contact between people. They include political (e.g., political parties, parliament, government agencies), economic (e.g., companies, trade unions, and cooperatives), social (e.g., churches, clubs, and sports associations), and educational (e.g., schools, universities, and training centres). In this context, the proximity of the organization and its direct impact are important. Thanks to the actions taken, they can stimulate the activity of owners of fruit farms, as well as shape their mentality.

In turn, the institutional environment was defined as a set of institutions supporting market processes. It allows for the presentation of connections, expectations, and aspirations of agricultural producers for their proper functioning and further development. The institutional environment consists of all institutions that externally surround a farm and help it develop and improve its economic situation, e.g., by supporting the acquisition of EU funds, the sale of products, or the acquisition of new outlets for manufactured products ^[9].

Organizations and institutions in the agricultural environment provide farmers with knowledge on the use of new varieties and production technologies in the field of sustainable development, the possibility for selling fruit, participation in the transfer of funds from the EU budget for the purchase of new equipment for production and storage, and/or carrying out campaigns promoting increasing fruit consumption in domestic and foreign markets. Farmers' relations with these organizations may be conducive to making specific decisions regarding changes in farming, thus stimulating transformation processes in the economic structure and methods of operation.

2. The Importance of the Institutional Environment in the Development of Farms

Since Poland's accession to the EU, farms, including orchard farms, have had to adapt to new market conditions related to the modernization and upgrading of production techniques. Particular challenges are the concept of sustainable development, i.e., meeting the needs of current and future generations with specific attention to the need to combine aspects of economic, social, and natural development harmoniously. Various organizations operating in the vicinity of farms are helpful in this respect. Thanks to them, farms can: (a) adapt faster to changing economic and organizational conditions, (b) engage in effective market activities, (c) have access to information about the situation in agricultural markets, and (d) reduce transaction costs ^[10].

An important element in the functioning of fruit farms is the institutional environment. The increasingly complex and dynamic economic environment means that the results of farm activity largely depend on the impact of various organizations and institutions in the agricultural environment. Topics related to the issue of institutionalization of the agricultural market in Poland were taken up by Zalesko ^[11]. Identifying institutions operating in rural areas and assessing their impact on socio-economic development were made in the works of Kołodziejczyk and Wasilewski ^[12] and other authors under the direction of Kołodziejczyk ^[13]. A team of authors edited by Kołodziejczyk ^[9] also identified institutions operating in agriculture and described their importance in implementing the sustainable development of agriculture and rural areas. In turn, the team led by Czyżewski defined the role of institutions in the process of farm modernization and assessed their impact on this process ^[10].

The influence of institutions on the development of farms and rural areas with a fragmented agrarian structure was studied by Czudec, Kata, Miś, and Zając ^[14] and Miś ^[15]. Their research showed that farmers' relations with institutions were relatively strong, especially with Agricultural Advisory Centres, especially in the case of larger farms, but the effects of this cooperation are hardly visible. These institutions' most important activities were aimed at the multifunctional development of agriculture. According to Rani and Reddy ^[16], in the case of small-scale farms, especially organic farms, the institution's task is to support the group activities of agricultural producers and to increase their bargaining power. The research of Gołębiewska ^[17] showed that in farms, there was a relationship between the scale of ties with the environment and the economic and financial results, as well as farming efficiency. Farms characterized by more links with the environment achieved higher production and financial results.

Research conducted, e.g., by Czudec, Kata, Miś, and Zając ^[14], as well as the team led by Czyżewski ^[10] and Pizło ^[18], confirmed that organizations operating in the environment of farms contributed to their modernisation, development, and improvement of functioning on the free market. Organizations operating in the environment of farmers could use various organizational and legal forms and different mechanisms of operation. According to Czyżewski and his team ^[10], state organizations (government and local government administration) played the most significant role in the functioning of farms. There were also private organizations in the vicinity of farms, which could be associated formally (e.g., cooperatives, companies, and industry associations) or informally (e.g., mutual aid organizations). In order to be effective, the activities of state and private organizations should be adapted to the functioning of farms in a market economy.

All previous studies mainly concerned all farms without any indication of the type of farming activity. Only in the research conducted by the team led by Czyżewski ^[10] was it mentioned "that certain production types of farms have a greater impact on the number of contacts with the institution. This is particularly evident in the case of horticultural and orchard farms, which may mean that this nature of production requires frequent contact with local institutions".

3. Institutions in the Development of Sustainable Agriculture

Sustainable agriculture is a farming system that combines economic, social, and ethical priorities with ecological security. This is achieved through appropriate management, rational use of self-regulation mechanisms in ecosystems, and scientific and technical progress results. In practice, this primarily means limiting intensive production with a high degree of chemicalisation and excessive, heavy mechanization ^[19].

The sustainable development of farms is a process of structural changes that changes the relationship of production factors on a farm, the structure of economic activity or the nature of its relationship with the market towards achieving a new point of balance at a higher level of economic efficiency with external conditions, including the need to protect natural resources ^[20].

In Poland, this type of farming is quite important because many farms are located in environmentally valuable areas or they are close to such areas. In addition, agriculture in Poland is characterised by a lower level of use of crop-forming agents (mineral fertilizers and plant protection products) than in other European Union countries, which is a factor conducive to the development of sustainable agriculture. According to Slangen, a properly constructed institutional system significantly impacts the agricultural production process, food consumption patterns, changes in society's preferences for environmentally friendly goods, shifts in property rights relations, etc. ^[21].

From the point of view of the interests of enterprises or a farm, respecting the integrated dimensions of sustainable development makes sense if it contributes to building the value of an economic entity and improving its reputation on the market, both locally and nationally or internationally. On the other hand, each host entity functions in a strictly imposed institutional environment whose task is, among others, to correct the imperfections of market mechanisms, regulate responsibility for the environment and social issues, or rationalize the management of limited resources. Institutional conditions, therefore, seem to be one of the key factors for the functioning of economic entities regarding the requirements of sustainable development, perhaps also for the selection of adequate strategies of conduct on the market by enterprises and farms: the use of external resources and transferring part of the costs to business partners, or also relying on their own resources ^[22]. Agri-environmental programs (AES) are the main policy instrument aimed at sustainable agriculture ^[23]. Through AES, farmers are encouraged to protect the environment on their farmland in exchange for specific compensation ^[24]. However, agricultural producers are characterized by different preferences in terms of alternative environmental programs on agricultural land, and they are spatially differentiated ^[25].

Sustainability criteria are best met by family farms, which are generally environmentally friendly, economically viable, and socially acceptable ^{[26][27]}, while being an integral part of the local community ^[28]. In order to be sustainable, orchard farms must produce appropriate high-quality crops, be profitable, protect the environment, save resources, and be socially responsible in the long term ^[29].

Sustainable fruit and vegetable production requires knowledge, especially with regard to maintaining soil fertility, managing water resources, developing and implementing biodiversity strategies to combat pests and diseases, and ensuring stable market links ^[30]. The integrated nature of sustainable development poses challenges to institutions. This is because institutions are an integrated network of connections functioning in various economic and social systems; on a local, regional, and national scale; and at the level of individuals, organizations, and society as a whole. The quality of institutions influences investment decisions and organization production and determines how communities distribute the benefits resulting from implemented development strategies and policies ^[31].

In the EU institutional system, the most important role in the sustainable development of rural areas is played by the European Commission, which coordinates and manages EU funds and monitors their practical implementation by Member States. At the national level, the most important institutions include the Ministry of Agriculture and Rural Development of the Ministry of Agriculture and Rural Development (MARD), which is responsible for implementing the government's policy for sustainable development of rural areas, and the Ministry of Development Funds and Regional Policy, which acts as a coordinator for the objectives of the Sustainable Development of Rural Areas Policy. Both ministries cooperate with each other and other institutions, considering the principle of subsidiarity. The National Rural Network, Agricultural Advisory Centers, and the National Chamber of Agriculture support the activities of MARD aimed at implementing sustainable development. They perform an advisory and information function, and through their branches in the field, they contribute to coordinating all initiatives to support and disseminate the idea of sustainable development ^[32].

Institutions are now playing an increasingly important role in creating sustainable development policy at macro- and microeconomic levels. They shape principles related to social development and social issues, environmental protection, individual development of individuals, and competitiveness of enterprises. However, the key entity in the

business–institution system, which depends on respect for the principles of sustainable development, is the enterprise itself or the farm [22].

References

1. Duralija, B.; Putnik, P.; Brdar, D.; Bebek Markovinović, A.; Zavadlav, S.; Pateiro, M.; Domínguez, R.; Lorenzo, J.M.; Bursać Kovăčević, D. The Perspective of Croatian Old Apple Cultivars in Extensive Farming for the Production of Functional Foods. *Foods* 2021, 10, 708.
2. GUS. Rocznik Statystyczny Rolnictwa; GUS: Warszawa, Poland, 2021.
3. Bank Danych Lokalnych, GUS. Available online: <https://bdl.stat.gov.pl/BDL/dane/podgrup/tablica> (accessed on 12 January 2023).
4. GUS. Rocznik Statystyczny Rzeczypospolitej Polskiej; GUS: Warszawa, Poland, 2021.
5. Filipiak, T.; Maciejczak, M. Uwarunkowania rozwoju sektora owoców i warzyw w Polsce w latach 2004–2007. *Rocz. Nauk. Rol.* 2008, 95, 97–109.
6. Dobbs, M.; Gravey, V.; Petetin, L. Driving the european green deal in turbulent times. *Polit. Gov.* 2021, 9, 316–326.
7. Azam, M.; Hunjra, A.I.; Bouri, E.; Tan, Y.; Saleh Al-Faryan, M.A. Impact of institutional quality on sustainable development: Evidence from developing countries. *J. Environ. Manag.* 2021, 298, 113465.
8. North, D.C. *Institutions, Institutional Change and Economic Performance*; Cambridge University Press: Cambridge, UK, 1990.
9. Kołodziejczyk, D. (Ed.) *Znaczenie Instytucji w Procesie Wdrażania Zrównoważonego Rozwoju Rolnictwa i Obszarów Wiejskich*; Program Wieloletni 2011-2014, nr 131; IERiGŻ-PIB: Warszawa, Poland, 2014.
10. Czyżewski, B. (Ed.) *Rola Instytucji w Modernizacji Gospodarstw*; Program Wieloletni 2005-2009, nr 103; IERiGŻ-PIB: Warszawa, Poland, 2008.
11. Zalesko, M. *Instytucjonalizacja Rynku rolnego w Polsce*; Wydawnictwo Wieś Jutra: Warszawa, Poland, 2006.
12. Kołodziejczyk, D.; Wasilewski, A. *Identyfikacja Instytucji Działających na Obszarach Wiejskich*; Program Wieloletni 2005-2009, nr 8; IERiGŻ-PIB: Warszawa, Poland, 2008.
13. Kołodziejczyk, D. (Ed.) *Ocena Wpływu Rozmieszczenia Instytucji Wiejskich na Lokalny Rozwój Społeczno-Gospodarczy*; Program Wieloletni 2005-2009, nr 41; IERiGŻ PIB: Warszawa, Poland, 2006.
14. Czudec, A.; Kata, R.; Miś, T.; Zając, D. *Rola lokalnych Instytucji w Przekształcaniach Rolnictwa o Rozdrobnionej Strukturze Gospodarstw*; Wydawnictwo Uniwersytetu Rzeszowskiego: Rzeszów, Poland, 2008.
15. Miś, T. *Instytucje Doradcze w Rozwoju Obszarów Wiejskich w Regionach Rozdrobnionego Rolnictwa w Warunkach Integracji Europejskiej*; Wydawnictwo Uniwersytetu Rzeszowskiego: Rzeszów, Poland, 2011.
16. Rani, C.R.; Reddy, A.A. Rola instytucji i systemów wsparcia w promowaniu rolnictwa ekologicznego–przypadek grup producentów ekologicznych w Indiach. *Asia-Pac. J. Rural. Dev.* 2013, 2, 37–46.
17. Gołębiowska, B. *Organizacyjno-Ekonomiczne Skutki Zróżnicowania Powiązań Gospodarstw Rolniczych z Otoczeniem*; Wydawnictwo SGGW: Warszawa, Poland, 2010.
18. Pizło, W. *Gospodarowanie w Sadownictwie Grójca i Warki: Społeczno–Ekonomiczne Uwarunkowania Rozwoju Gospodarstw Domowych*; Cz. 2, Raport z badań jakościowych; Wydawnictwo SGGW: Warszawa, Poland, 2013.
19. Kutkowska, B. *Wdrażanie Koncepcji Zrównoważonego Rozwoju Rolnictwa i Obszarów Wiejskich w Sudetach*; Studia i Monografie, nr 2; IRWiR PAN: Warszawa, Poland, 2007.
20. Wieliczko, B.; Kurdyś-Kujawska, A.; Sompolska-Rzechuła, A. Savings of Small Farms: Their Magnitude, Determinants and Role in Sustainable Development. Example of Poland. *Agriculture* 2020, 10, 525.
21. Slangen, L.H. *Sustainable Agriculture-Getting the Institutions Right*; CEESA Discussion Paper, 1; Humboldt-Universität Berlin, Institut für Wirtschafts- und Sozialwissenschaften des Landbaus, Fachgebiet Ressourcenökonomie: Berlin, Germany, 2001; Available online: <https://nbn-resolving.org/urn:nbn:de:0168-ssoar-115615> (accessed on 12 December 2022).
22. Sagan, M. Instytucjonalne uwarunkowania funkcjonowania przedsiębiorstw a zrównoważony rozwój, Institutional determinants of enterprise operation in respect of sustainable development. *Kwart. Nauk. O Przedsiębiorstwie* 2021, 2, 27–39.

23. McWilliam, W.; Fukuda, Y.; Moller, H.; Smith, D. Evaluation of a dairy agri-environmental programme for restoring woody green infrastructure. *Int. J. Agric. Sustain.* 2017, 15, 350–364.
24. Muradian, R.; Corbera, E.; Pascual, U.; Kosoy, N.; May, P.H. Reconciling theory and practice: An alternative conceptual framework for understanding payments for environmental services. *Ecol. Econ.* 2010, 6, 1202–1208.
25. De Salvo, M.; Cucuzza, G.; Cosentino, S.L.; Nicita, L.; Signorello, G. Farmers' preferences for enhancing sustainability in arable lands: Evidence from a choice experiment in Sicily (Italy). *New Medit* 2018, 17, 57–70.
26. FAO. Cultivating our futures. In *Proceedings of the FAO/Netherlands Conference on the Multifunctional Character of Agriculture and Land*, Maastricht, The Netherlands, 12–17 September 1999. Available online: <https://www.fao.org/3/X3577e/X3577e.htm> (accessed on 15 December 2022).
27. Woś, A.; Zegar, J. *Rolnictwo Społecznie Zrównoważone*; IERiGŻ-PIB: Warszawa, Poland, 2002.
28. Marsden, T. The road towards sustainable rural development: Issues of theory, policy and practice in a European context, In *Handbook of Rural Studies*; Clocke, P., Marsden, T., Money, P., Eds.; SAGE Publications: London, UK; Thousand Oaks, CA, USA; New Delhi, India, 2006; pp. 201–212.
29. Reganold, J.P.; Glover, J.D.; Andrews, P.K.; Hinman, H.R. Sustainability of three apple production systems. *Nature* 2001, 410, 926–930.
30. Fruit and Vegetables: Opportunities and Challenges for Small-Scale Sustainable Farming. Available online: https://knowledge4policy.ec.europa.eu/publication/fruit-vegetables-opportunities-challenges-small-scale-sustainable-farming_en (accessed on 27 December 2022).
31. Golejewska, A. The Role of Institutions in the Regional Knowledge Economy. *Proc. Comm. Ind. Geogr. Pol. Geogr. Soc.* 2013, 2, 65–92.
32. Kołodziejczyk, D. Instytucjonalny wymiar procesu zrównoważonego rozwoju obszarów wiejskich. *Eur. Reg.* 2015, 23, 77–86.

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