Bulgarian Journal of Agricultural Science, 29 (Suppl. 1) 2023
Agricultural Academy

Land relations: social impacts and projections

Pavlina Ivanova

University of economics – Varna, 9000 Varna, Bulgaria
Corresponding author: p.ivanova@ue-varna.bg

Abstract

Ivanova, P. (2023). Land relations: social impacts and projections. *Bulg. J. Agric. Sci., 29* (Supplement 1), 64–70

Land has always been a major asset, fulfilling multiple social, economic, ecological and cultural functions. It provides living space, contributes to food security, poverty reduction and eradication, and can be a factor of social cohesion and cultural identity. Access to land is seen as an important, determining factor in the income and food security of rural households, where there are few alternative livelihood options. In this context, the aim of this paper is to present some reflections on the social aspects of agricultural land ownership, access and use as a resource. The social impacts whose trends are most indicated are in the direction of providing employment, income from land cultivation, rent or lease, from sale of farmland, livelihood security and social environment.

Keywords: land relations; social aspects; demographic issues; incomes; labor charge

Inroduction

As one of the main factors of production along with labour and capital in the economy, land is the main driver of agricultural economies. Land relations influence the state and socio-economic changes in the agricultural system, having a major significance for the state of rural areas and for the economic activity of different categories of agricultural actors in the sector (Yovchevska et al., 2021). Land tenure and land relations have significant social benefits in addition to economic ones (Meyfroidt et al., 2022). Agricultural land plays a vital role in providing the population with food, income and space to live. Beyond its basic functions, the social use of agricultural land offers multiple benefits that positively impact communities, regions and society as a whole. Agricultural traditions have a significant impact on land relations, as well as on the attitudes of society and individuals towards land and its use (Yovchevska et al., et al., 2020).

The factors influencing agricultural land use are many, but land tenure, expansion and intensification of agriculture are often identified as the main ones. Land is valued as one of the most important governance issues in agriculture, and land rights and their constraints are expressed through the socially constructed land tenure system in each country. Land tenure is understood as a relationship, whether legal or customary, between people regarding access to and use of land and other resources. Access to land is considered an important determinant of income and food security in rural areas where there are few alternative livelihood options (Holden and Otsuka, 2014). A number of research studies have pointed out (Holden and Ghebru, 2016; Petrescu-Mag, 2019) that security of tenure, sustainability of land resources and good land governance have the capacity to enhance community well-being, including food security. Other authors (Deininger, 2003) identify that good land governance is a prerequisite for sustainable economic development and social and environmental justice in a number of ways, and can include tenure security, transparency of land decision-making, access to strategic environmental services, and food security.

Kirechev (2016) points out that territorial rural development strategies will increasingly become a tool for coordination, cohesion, job creation and a new sense of identity, enhancing the attractiveness of rural areas, their products and services, as well as being a full part of the integrated development of these areas.

In this context, the aim of the paper is to present some reflections on the social aspects of agricultural land ownership, access and use as a resource.

The social impacts whose trends are most indicated are in the direction of providing employment, income from land cultivation, rent or lease, sale of agricultural land, food security and social environment (Figure 1).

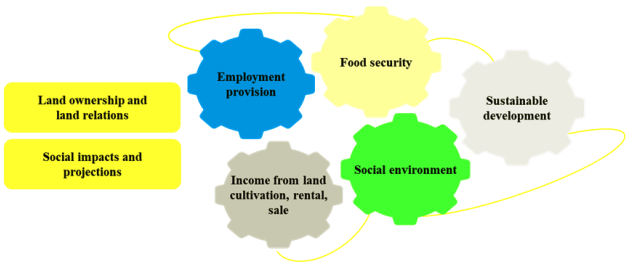

Fig. 1. Social impacts and projections of land relations
Source: author's elaboration

Materials and Methods

General scientific methods are used in the study: theoretical generalization, methods of positive and normative analysis and methods of statistical analysis. A critical review of the literature in terms of problem representation is conducted to clarify the social impacts and projections that are the focus of the paper. Both qualitative and quantitative approaches are used. Data from the National Statistical Institute (NSI), Agricultural Statistics and Agrarian Reports from the Ministry of Agriculture (MA), FADN are used. The data are presented using a graphical method.

Results and Discussion

Agricultural land use in Bulgaria

The development of modern agriculture is characterized not only by constant changes in the organization and specialization of agricultural enterprises, but also by significant dynamics of development, constant modernization of the material and technical base, business and technological processes, the need to strengthen environmental and social priorities for further functioning.

Changes in land use are the result of a complex interaction of many factors, including politics, human behaviour, economics, culture and the environment. Land use is a major factor in the process of economic development, with socio-economic impacts. Land use decisions in the short and long term can be influenced by a variety of factors and changes in the environment, and can be manifested in changes in the area used for certain agricultural purposes (e.g., expansion or reduction of arable area) as well as changes in the way land is used (e.g., intensification or extensification of agriculture) (Gomes et al., 2019). One of the decisive factors is access to markets. Changing market access has been found to strongly influence household land use decisions. Constraints on output markets are thought to hinder agricultural expansion, while imperfections in input markets can have ambiguous effects. On the one hand, they can also constrain extension; on the other hand, imperfections in such markets can lead to agricultural extension as smallholders attempt to substitute other inputs for land (Hettig et al., 2016). Another factor is the degree of use of agricultural technologies – some technologies save land while others expand agricultural areas Hettig et al., 2016). Mihailova (Yovchevska et al., 2021)

Table 1. Arable land, utilised agricultural area and area under agricultural use for the period 2017-2021, ha

	2017	2018	2019	2020	2021
ARABLE LAND:	3 473 825	3 463 370	3 461 615	3 477 514	3 486 748
Family gardens	15 258	14 836	14 636	14 231	13 728
fruit plantations	84 320	88 829	90 221	91 339	90 261
vineyards – pure crop	53 251	53 787	53 005	51 356	50 252
mixed permanent crops	8220	8312	7813	7120	6820
nurseries	2304	2100	1699	1703	1709
Total permanent crops:	148 094	153 029	152 738	151 518	149 042
Permanent grassland and meadows – Orchards	1 392 352	1 399 041	1 408 481	1 403 988	1 397 079
UTILISED AGRICULTURAL AREA:	5 029 529	5 030 276	5 037 470	5 047 252	5 046 597
Uncultivated land	194 873	195 918	185 455	180 651	180 753
AREA IN AGRICULTURAL USE:	5 224 402	5 226 194	5 222 925	5 227 902	5 227 350

Source: Agrarian Report 2022, MA, Department of Agricultural Statistics

point out that land use in Bulgaria is strongly influenced by EU policy and the introduction of new measures and policies change the shape of Bulgarian agriculture there is a high correlation between EU policy and land use.

Data from the Agrarian Report (2022) indicate that between 2017 and 2021, arable land averaged 3.42 million ha and utilised agricultural area 5.03 million ha (Table 1).

The total area under agricultural use in Bulgaria is 5.2 million ha on average, occupying almost half of the country's territory (Figure 2). Over 96% of this is used agricultural area (arable land, permanent crops, nurseries, permanent grassland and family gardens), and only less than 4% is uncultivated land.

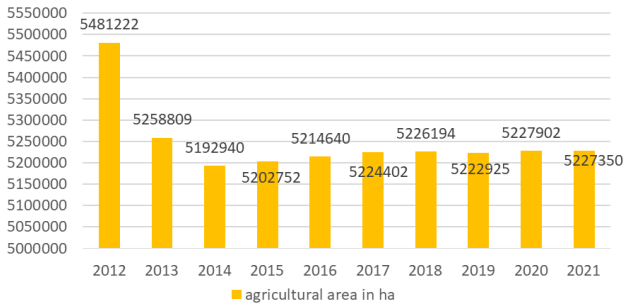

Fig. 2. Area in agricultural use for the period 2012-2021, ha
Source: Agrarian Report 2017, 2022, MA, Department of Agricultural Statistics

The realities of recent decades prove that as the financial well-being of the population increases, there will be a demand for holiday homes and houses in rural areas and therefore nearby infrastructure (e.g. schools, hospitals, motorways), which will put pressure on land use, often at the expense of agricultural land. A trend in recent years has been the emergence of new elite groups of landowners (a solvent section of the urban population) who are discovering the attractions of rural life and the effects of producing their own food to become part of local stakeholders (Csurgó et al. 2018; Vávra et al. 2018; Gyori, 2023). In this context, population growth and the process of urbanization are associated with the conversion of large areas of agricultural land to urban development, which is a common trend in many countries, including European countries (Ustaoglu et al 2023).

The social function of land tenure has at its core the idea of social solidarity rather than property as a right (Duguit, 2017). As observed, what really matters is not necessarily the type of ownership (e.g. open access, public ownership, individual ownership, cooperative ownership), but the recognition of the advantages of different forms of ownership and their eligibility for flexibility among community members.

Demographic changes

The study of the social impacts of agricultural land use shows that among the impacts over time, the largest are related to demographic change, migration, threats to lifestyles and traditions.

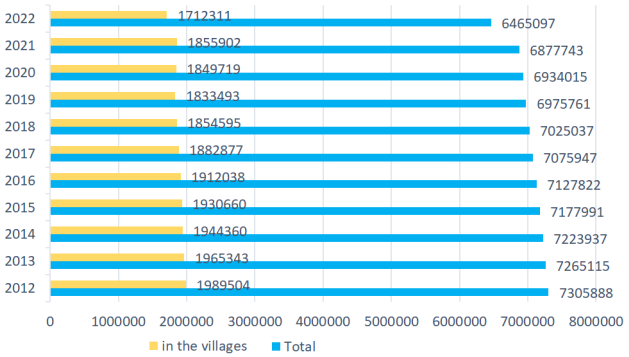

Fig. 3. Average annual population by place of residence for the period 2012–2022
Source: NSI

The data show that over the last 10 years the permanent population in the villages has declined by nearly 13%, with the most significant decline in the last year (Figure 3). This is due both to reduced birth rates, ageing of the population and migration processes to cities elated to the search for work and education.

The data in Figure 4 shows that over the last year, the number of people moving out of villages has fallen by around 16%, since 2021.

The demographic changes caused by migration also affect the labour available in households for agriculture (Lambin &

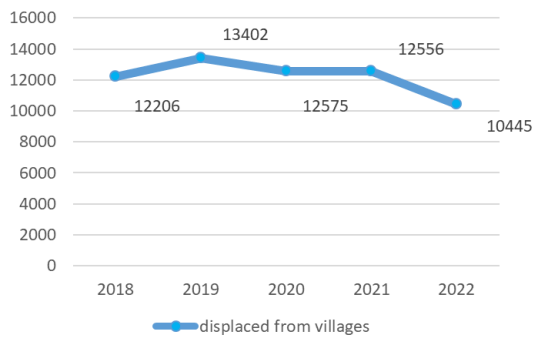

Fig. 4. Number of people displaced from villages between 2018 and 2022
Source: NSI

Table 2. Number of registered farmers

	2015/2016	2016/2017	2017/2018	2018/2019	2019/2020	2020/2021	2021/2022
Total number of registered farmers	98 303	96 476	93 023	88 162	80 905	76 965	71 947

Source: Agrarian Report 2022, Ministry of Agriculture, Department of Agricultural Statistics

Meyfroidt, 2011) to compensate for lost job opportunities in other areas (urban for example) local employment remains the most effective and sustainable means of poverty alleviation.

Some authors (VanWey et al., 2013) point out that the composition of households over their life cycles influences land-use decisions; when households are composed of young members of working age, they are typically most engaged in labour-intensive agriculture. Level of education can also influence household land use decisions (Hettig et al., 2016). High levels of education are typically associated with more intensive and innovative farming practices (Amare & Shiferaw, 2017; VanWey et al., 2013).

The number of farmers has been steadily declining, with a drop of nearly 27% for the last business year listed in Table 2, 2021/2022, compared to 2015/2016.

Income

Farmland serves as the economic backbone of many rural communities. Agricultural activities generate income and employment opportunities, allowing people to earn a living close to their homes. This in turn helps to mitigate urban migration, supports local economies and preserves traditional rural lifestyles. In addition, the diversity of agricultural activities, from crop growing to livestock rearing, provides a wide range of employment opportunities for people with different skills.

The number of persons employed in the agriculture, forestry and fishing sector is 193.6 thousand, forming about 6.3% of the employment structure by economic activity. According to NSI data, employment in the agriculture, forestry and fishing sector has been declining in recent years (Figure 5).

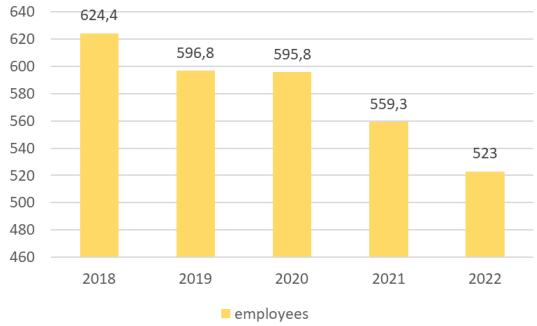

Fig. 5. Number of persons employed in the agriculture, forestry and fishing sector in thousands 2018-2022
Source: NSI

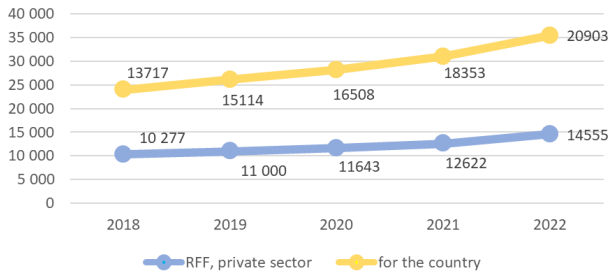

Fig. 6. Average annual wages in the agriculture, forestry and fishing sector (RFF) (private sector) in BGN
Source: NSI

Average annual wages in the sector lag behind national wages, with the gap widest in 2022 (Figure 6).

Economic factors are some of the key drivers behind smallholder land use decisions. Most farmers find it unacceptable not to cultivate the land they own and miss the opportunity to produce something that can support their families and contribute to savings. Tsvyatkova (Yovchevska et al., 2021) identifies this as a rational behaviour of a large proportion of people living in rural areas and a potential source of synergy effects. Realized entrepreneurial income in the sector for 2021 amounted to BGN 3,260.8 million, 35.1% above the previous year's level (Figure 7).

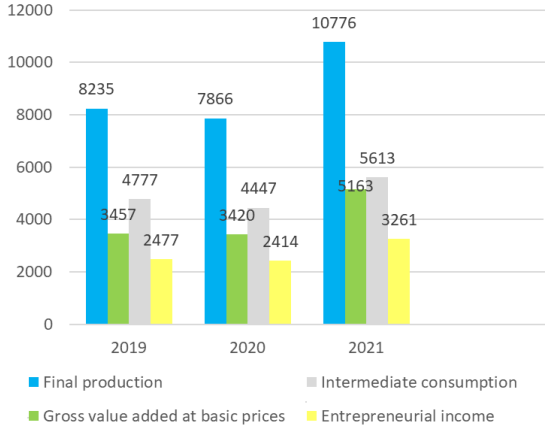

Fig. 7. Key economic indicators for the Agriculture sector for the period 2019–2021, including entrepreneurial income, in million BGN
Source: Agrarian Report 2022, Ministry of Agriculture, Department of Agricultural Statistics

The question arises – what is the social function of land transactions? In this context we can point out that it is expressed in:

– in relation to the owner of agricultural land;
– solidarity in relation to land transactions;
– with regard to the measures to be taken by the State with regard to the management of agricultural land.

Some authors – Stanimirova, Kirechev, Ivanova (Yovchevska et al., 2021), also draw attention to the fact that easy access to the market and the possibility of smooth market transactions are important for agricultural land transactions, as well as the need for legal and institutional frameworks, and adequate regulatory and fiscal policies.

In terms of generating income from agricultural land transactions in 2021, the average price of transactions with fields in Bulgaria reaches BGN 1 192 per acre, which is 14.4% more compared to 2020. The average price of transactions between natural persons and legal entities reaches BGN 1 184 per acre, and of transactions between legal entities – BGN 1 133. The average price of transactions with permanent grassland (natural and artificial grassland, meadows and pastures) in 2021 reached BGN 278 per hectare and also increased compared to the previous year – by 3.9% (NSI, 2022). The market price of land is associated with the transfer of land ownership rights from one economic entity to another. This price is determined by supply and demand, most often taking into account the possible future rental income that the land may generate. The rental price is formed when the land is granted for temporary use to third parties and concerns the right of use over another's property, i.e. it is formed in the case of rent or lease (Stanimirova, 2021). In 2021, the average rent/lease price per one acre of fields reaches 55 BGN, which is 20.5% more than in 2020. The average rent/lease price per acre of permanent grassland is 25 BGN and is 19.4% higher than the previous year (Figure 8).

Food security

Agricultural land is the main source of food production, making it indispensable for ensuring food security. A well-managed agricultural landscape reduces food insecurity, contributes to a balanced diet and minimises the risk of malnutrition and hunger, especially in vulnerable populations. It is the use of agricultural land that is the turning point in food security. Some authors define that control over agricultural land means control over food (Petrescu-Mag et al., 2018). Food security means availability, people's access to good quality and sufficient quantity of food, stability and good use of resources (Barrett, 2013; Petrescu-Mag et al., 2018). Access to food is seen in relation to affordability and availability, and also as an opportunity for food production that can be linked to land relations. In practice, food security has two components: quantitative (supply and access) and qualitative (nutritional characteristics and stability, which implies constant and sustainable access to food) (Bazgă, 2015).

The food security debate coalesces around several topical issues such as redistributive land reform, the relationship between trade and distance or between producers and consumers, farming systems that seek to be both food secure and environmentally sustainable, and food access for those in need (Edelman et al., 2014). Europe is a food secure continent and the focus here is on how to improve food security, not so much on how to create security as happens in other parts of the world (e.g. Africa, South Asia).

Three main determinants of food security can be identified Figure 9: an enabling policy environment that improves smallholder rural development, sustainable measures to address declining soil fertility, and the need for more intensive and diversified land use, which should focus on agroecosystem resilience.

It is farming that is identified as one of the possible ways of producing food and finding solutions to some of the prob-

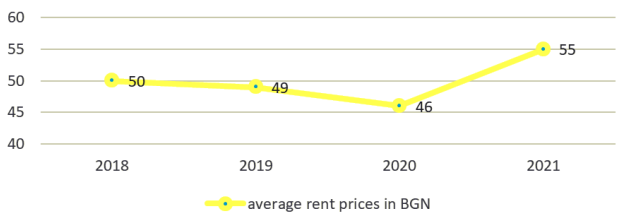

Fig. 8. Average field rent prices in the period 2018–2021 in BGN
Source: NSI

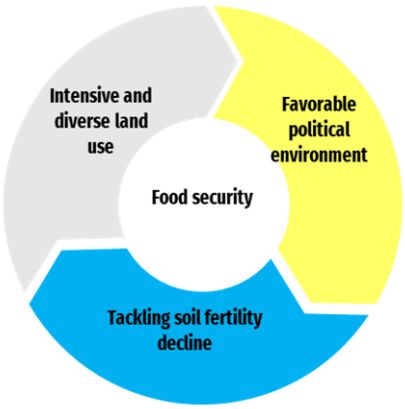

Fig. 9. Key determinants of food security
Source: author's elaboration

lems associated with poverty reduction and improving food security in rural areas (Mdiya & Mdoda, 2022; Mihailova et al. 2022). They are a pillar of resilience first economically during crises and then socially, revitalizing rural areas and creating better communities (Mihailova et al. 2022).

Social environment

Cultivating farmland often requires cooperation among community members. These shared activities build relationships between neighbours and create a shared identity that contributes to social stability. Community-based agriculture can also be a catalyst for cultural preservation as it encourages the continuation of traditional practices and knowledge. The rural social environment is determined by all stakeholders directly or indirectly involved in agricultural processes (Janker, 2019). They interact with each other, with people on the farm and with those off the farm (Figure 10).

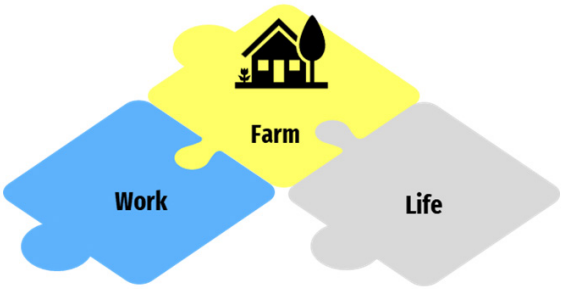

Fig. 10. The social environment in rural areas
Source: author's elaboration

One of the essential social projections of agricultural land management is the preservation of the local, adapted to the environment, gene pool and the conservation of biological wealth as an element of traditions and cultural heritage in rural areas (Tsvyatkova (Yovchevska et al., 2021).

Sustainable development

Sustainable management of agricultural land contributes to the broader goals of sustainable development. It ensures that resources such as soil, water and biodiversity are conserved while reducing the environmental impact of agriculture. Sustainable agricultural practices, such as crop rotation, organic farming and agroforestry, promote soil health and minimise pollution, ultimately benefiting the environment and society in the long term. In addition, agricultural land can provide valuable ecosystem services such as carbon sequestration and water purification.

There is ample evidence that an agroecological approach can contribute greatly to the improved performance of agriculture as a source of renewable resources and ecosystem services (Kirechev, 2022). Achieving rural environmental competitiveness implies a new way of looking at natural resources and achieving environmental sustainability (Kirechev, 2016).

The use of land resources sometimes affects social and economic growth in opposite ways. Although land resources are an engine for development, their use can have negative environmental consequences (Wang et al., 2022). This suggests that when land resources are managed wisely it can not only promote the economic and social process to the fullest extent, but also reduce the harmful effects of use on the environment and ensure national and economic security.

Conclusion

The social benefits of agricultural land use are diverse and wide-ranging, affecting critical aspects of society. Food security, rural livelihoods, community cohesion and sustainable development are interlinked and dependent on responsible land use practices.

The main conclusions that emerge are that:

– Land is and will remain a key asset for national development, fulfilling multiple social, economic, environmental and cultural functions.
– The rational use of land resources contributes to the economic and social development of both rural areas and agricultural enterprises.
– Land can provide living space and shelter for people, contribute to the nation's food security and good nutrition for all citizens.
– Land can play a role in reducing and eradicating poverty and be a factor for social cohesion and cultural identity.

Acknowledgment

The author thanks the Scientific Research Fund for the support in carrying out the work on the POZESIN "Land Relations and European Policy: Synergy and Prospects for Bulgarian Agriculture,, project, contract № КП06-Н35/2-18.12.2019 National Research Fund at the Ministry of Education and Science of Bulgaria.

References

Agrarian Report (2017). Ministry of Agriculture, Department of Agricultural Statistics.

Agrarian Report (2022). Ministry of Agriculture, Department of Agricultural Statistics.

Amare, M. & Shiferaw, B. (2017), Nonfarm employment, agricultural intensification, and productivity change: empirical find-

ings from Uganda. *Agricultural Economics,* 48, 59-72. https://doi.org/10.1111/agec.12386.

Bazga, B. (2015). Food security component of sustainable development – prospects and challenges in the next decade, Institute of National Economy, Romania. *Procedia Economics and Finance*, 32, 1075-1082. DOI:10.1016/S2212-5671(15)01570-1.

Barrett C.B. (2013). Food Security and Sociopolitical Stability.

Csurgó, B., Kovách, I. & Megyesi, M. (2018). After a long march: The results of two decades of rural restructuring in Hungary. *Eastern European Countryside,* 24, 81–109.

Deininger, K. (2003) Land Policies for Growth and Poverty Reduction. World Bank, Washington DC.

Duguit L. (2017). Transformations générales du droit privé depuis le Code Napoléon.

Gomes, E., Abrantes, P., Banos, A., Rocha, J. & Buxton, M. (2019). Farming under urban Pressure: Farmers' land use and land cover change intentions. *Applied Geography, 102*, 58-70. ISSN 0143-6228. https://doi.org/10.1016/j.apgeog.2018.12.009.

Gong, J., Wang, Y. & Shen, Y. (2022). The Causal Pathway of Rural Human Settlement, Livelihoodn Capital, and Agricultural Land Transfer Decision-Making: Is It Regional Consistency? *Land*, 11, 1077. https://doi.org/10.3390/land11071077.

Gyori, Á. & Kovách, I. (2023). The New Dimension of Social Inequality: The Agricultural Land Use Structure and the Development Level of Settlements. *Social Sciences*, 12, 88. https://doi.org/10.3390/socsci12020088.

Hettig E, Lay, J. & Sipangule K. (2016). Drivers of Households' Land-Use Decisions: A Critical Review of Micro-Level Studies in Tropical Regions. *Land*, *5*(4), 32. https://www.mdpi.com/160896.

Holden, S.T. ***et al***. (2014). The roles of land tenure reforms and land markets in the context of population growth and land use intensification in Africa Food Policy.

Holden S.T. ***et al***. (2016). Land tenure reforms, tenure security and food security in poor agrarian economies: causal linkages and research gaps Glob. Food Sec.

Janker, J., Mann, S. & Rist, S. (2019). Social sustainability in agriculture – A system-based framework, *Journal of Rural Studies, 65*, 32-42, ISSN 0743-0167. https://doi.org/10.1016/j.jrurstud.2018.12.010.

Kirechev, D. (2016). Ecological competitiveness of rural areas. Izv. of the Union of Scientists - Varna, 2, 2016, 191-202.

Kirechev, D. (2022). The agroecological approach to ensuring food system sustainability. Izvestia. Sp. University of Economics – Varna, Varna: *Science and Economics*, 66, 2022, 1, 42-61. ISSN (print) 1310-0343, ISSN (online) 2367-6949.

Lambin, E.F. ***et al.*** (2010). Land use transitions: socio-ecological feedback versus socio-economic change Land Use Policy.

Mălina Petrescu-Mag, R., Petrescu, D. & Olga Reti, K. (2019). My land is my food: Exploring social function of large land deals using food security–land deals relation in five Eastern European countries. *Land Use Policy, 82*, 729-741. ISSN 0264-8377. https://doi.org/10.1016/j.landusepol.2019.01.003.

Meyfroidt, P. (2022). Ten facts about land systems for sustainability *PNAS, 119*(7), e 2109217118https://doi.org/10.1073/pnas.2109217118j1of12PERSPECTIVE.

Mdiya, L. & Mdoda, L. (2021). Socio-economic factors affecting home gardens as a livelihood strategy in rural areas of the Eastern Cape Province, *South Africa. S. Afr. J. Agric. Ext. [online], 49*(3), 1-15. ISSN 2413-3221. http://dx.doi. org/10.17159/2413-3221/2021/v49n3a12823.

Petrescu-Mag, R.M. ***et al.*** (2017). Where to land fragmentation–land grabbing in Romania? The place of negotiation in reaching win–win community-based solutions Land Use Policy

Stanimirova, M. (2021). Market and lease of agricultural land in Bulgaria – trends and prospects for development. Innovative development of agribusiness and rural areas: National scientific conference with international participation, 22 April 2021, UNWE Publishing Complex, 2021, 52-57.

Ustaoglu, E. & Williams, B. (2023). Institutional Settings and Effects on Agricultural Land Conversion: A Global and Spatial Analysis of European Regions. *Land,* 12, 47. https://doi.org/10.3390/land12010047.

VanWey Leah, K., Spera, S., de Sa, R., Mahr, D. & Mustard, J. F. (2013). Socioeconomic development and agricultural intensification in Mato Grosso Phil. Trans. R. Soc. 368201201682012016 8http://doi.org/10.1098/rstb.2012.0168.

Wang,W., Vávra, J., Boldizsár, M., Duží, B., Craig, T., Klufová, R., Lapka, M & Cudlínová, E. (2018). Food selfprovisioning in Europe: An exploration of sociodemographic factors in five regions. *Rural Sociology,* 83, 431–461.

Xu, C., Wang, Q., Fahad, S., Kagatsume, M. & Yu, J. (2022). Impact of Off-Farm Employment on Farmland Transfer: Insight on the Mediating Role of Agricultural Production Service Outsourcing. *Agriculture*, 12, 1617. https://doi.org/10.3390/agriculture12101617.

Yovchevska, P., Penov, I., Koteva, N., Stanimirova, M., Georgiev, M., Stoeva, T., Krishkova, I., Sarov, A., Tsviatkova, D., Kirechev, D., Ivanova, P., Mitov, A., Rositsa, M., Mihailova, M. & Grozdanova, D. (2021). Land relations: challenges and opportunities for development. Sofia: Institute of Agrarian Economics. CSA, 2021, 139.

Yovchevska, P., Anastasova-Chopeva, M., Vzhohalska, A., Georgiev, M., Stanimirova, M., Dimitrova, D., Dimitrov, V., Tsviatkova, D. & Mihailova, M., (2020). Land relations: dynamics and future changes. Sofia: Institute of Agrarian Economics. CSA, 2020, 126.

Received: **November, 08, 2023**; *Approved*: **November, 09, 2023; *Published:*** **December, 2023**