

Systematic Review

Europe's Large-Scale Land Acquisitions and Bibliometric Analysis

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Abstract: The agricultural sector in the European Union is largely characterized by a declining number of farms and an increasing size of surviving farms. The land is concentrating under the usage of fewer large agricultural producers. Meanwhile, a broad distribution of land ownership is the basis for the welfare of local economies and rural communities. Land distribution is one important component that guarantees our right to food, human rights, and sustainability in agriculture. The aim of this paper was to compile a systematic review of the existing literature on large-scale land acquisitions in Europe. The results are based on two different search methods. Firstly, documents and articles on large-scale land acquisitions were studied and, secondly, keyword research from the SCOPUS database and analysis using VOSviewer were performed. This study shows that large-scale land acquisitions are closely related to food security, human rights, global governance and international law, land tenure, biofuel production, and financialization through European Union common agricultural policy subsidies and foreign direct investments.

Keywords: land concentration; land grabbing; large-scale land acquisition; food security; EU agriculture; sustainable land use



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1. Introduction

Recently, sustainable agricultural production and land use in the agricultural sector have been the subject of discussion for several reasons. The COVID-19 pandemic and Russian invasion of Ukraine are the latest reasons to address this issue. The pandemic situation disrupted the global supply chains, closed the borders between countries (albeit for a short period), and restricted movement inside countries. It indicated the need for domestic agricultural production to use short supply chains (where production occurs close to the consumers). A study by Benedek et al. [1] showed that around 19% of small-scale farmers in Estonia, Hungary, Portugal, and Romania were actually able to boost sales during the first wave of the pandemic. Farm gate sales were one of the most important marketing channels both before and during the first wave [1]. However, our knowledge on how the COVID-19 pandemic affected land-use change is limited. Nolte et al. investigated the impact of the COVID-19 pandemic on the livelihoods of agricultural households and their land-use decisions [2]. The outcome of the study showed that smallholders' risk-coping capacities are weak and have been further weakened by the pandemic.

The COVID-19 pandemic provided the needed push for the European Green Deal. As a result, the EU is moving towards a more sustainable society and accelerating its transition to climate neutrality. The European Green Deal [3] strives for a climate-neutral economy by 2050, and its ambition is to apply more climate-friendly land use. The aim is to achieve emissions reductions of at least 55% by 2030 compared to 1990 levels. It has been recognized that the land-use sector has a critical role in reaching long-term climate mitigation objectives. The land use, land-use change, and forestry (LULUCF) sector can provide long-term climate benefits [4]. Nevertheless, there is a need to find a coherent strategy that will achieve both the Union's food security and climate change objectives.

The Russian invasion of Ukraine and the sanctions that were applied with the aim of crippling the Russian economy are already affecting the agricultural sector and our food supply. In this situation, a country's self-sufficiency in food is becoming increasingly important.

Europe, and especially its eastern region, is undergoing creeping agricultural land concentration. The concentration of agricultural land has an adverse effect on the availability of food supplies. It is distorting production and market processes.

The issue of land concentration in the EU and many parts of the world remains basic and is one of the most serious land issues in the district today [5,6]. Over the years, many review papers have been published in the large-scale land acquisition (LSLA) literature [7–18]. The aim of this paper is to compile a systematic analysis of the existing literature on land grabbing and concentration in Europe. It is important for mapping the cumulative scientific knowledge on the topic of LSLA and its relations to other subjects. This study included document and article analyses, keyword research from the SCOPUS database, and analysis via VOSviewer (Version 1.6.17, Nees Jan van Eck and Ludo Waltman, Centre for Science and Technology Studies Leiden University, Leiden, The Netherlands).

2. Materials and Methods

Different documents and scientific articles (30 materials in total) on the topic of LSLA were studied for Section 3.1. The aim of this section is to give a general review on Europe's large scale land acquisitions.

The SCOPUS database was used for Section 3.2. The aim of this section is to present a bibliometric analysis on land concentration and land grabbing. Firstly, some previously studied articles (used in Section 3.1) were used to determine popular keywords that could be used to search SCOPUS for articles on the topic. Keywords were chosen for this work assuming that the selected works were provided with keywords that successfully connect their research with their target audience.

The keywords identified were "agricultural land use", "land concentration", "land grabbing", "family farms", "large-scale farming", "smallholder farms", "smallholder agriculture", "farm size", "farm ownership", "smallholder", and "small family farming". Some of those keywords yielded results that were too broad and had to be excluded.

The first search from the database was performed with four keywords ("land concentration" OR "land grabbing" OR "large scale farming" OR "small family farming") and yielded 390 records. After screening those results, the search had to be narrowed down to only English written articles for which the content was restricted to within Europe, and to which we had free access through our institution or which were open access journals. This search yielded 112 results, of which 45 articles were not accessible (no free access, not digitized, etc.), and 15 were outside the current scope. Finally, there were 40 articles, published from 1982 to 2020, included in the study. A detailed description of the query made in the SCOPUS database is shown in Figure 1. The methodological approach for this study is presented in Figure 2.

The VOSviewer software was used to provide an overview of the terms used in the LSLA literature. The keywords from the last SCOPUS database search results (112 articles) were entered into VOSviewer, and the keywords represented at least three times were visualized.

KEY("land grabbing") OR KEY ("land concentration") OR KEY ("large-scale farming") OR KEY ("small family farming") AND NOT KEY ("Asia") AND NOT KEY ("Africa") AND NOT TITLE("Brazilian") AND NOT TITLE("Amazonian") AND NOT TITLE("Laos") AND NOT TITLE("India") AND NOT TITLE("China") AND NOT TITLE("Indonesia") AND NOT TITLE("Brazil") AND NOT TITLE("Thailand") AND NOT TITLE("America") AND NOT TITLE("Rwanda") AND NOT TITLE("Mapuche Huilliche") AND NOT TITLE("Ethiopia") AND NOT TITLE("Malawi") AND NOT TITLE("Uganda") AND NOT TITLE("Egypt") AND NOT TITLE("Sudan") AND NOT TITLE("Africa") AND NOT TITLE("Argentina") AND NOT TITLE("forest") AND NOT TITLE("medicine") AND NOT TITLE("Sierra Leone") AND NOT TITLE("Colombia") AND NOT TITLE("Sumba") AND NOT TITLE("Colombian") AND NOT TITLE("Iraq") AND NOT TITLE("Mozambique") AND NOT TITLE("Pakistan") AND NOT TITLE("Cameroon") AND NOT TITLE("Uruguay") AND NOT TITLE("Cambodia") AND NOT TITLE("Sri Lanka") AND NOT KEY("Kaiowa") AND NOT TITLE("ASEAN") AND NOT TITLE("Tanzania") AND NOT TITLE("Honduras") AND NOT TITLE("Ghana") AND NOT TITLE("Chongqing") AND NOT KEY("Brazil") AND NOT KEY("Laos") AND NOT KEY("Nigerian") AND NOT KEY("Mozambique") AND NOT TITLE("Zimbabwe") AND NOT TITLE("Ethiopian") AND NOT TITLE("Guatemala") AND NOT TITLE("Zambia") AND NOT TITLE("Mali") AND NOT TITLE("Peru") AND NOT TITLE("Guinea") AND NOT TITLE("Kenya") AND NOT TITLE("Ocean") AND NOT TITLE("Water") AND NOT KEY("Myanmar") AND NOT TITLE("Mexico") AND NOT TITLE("Bolivia") AND NOT TITLE("Algeria") AND NOT TITLE("Japan") AND NOT TITLE("Alabama") AND NOT TITLE("Bengal") AND NOT TITLE("Costa Rica") AND (LIMIT-TO (PUBSTAGE,"final")) AND (LIMIT-TO (LANGUAGE,"English"))

Figure 1. Search of the SCOPUS database.

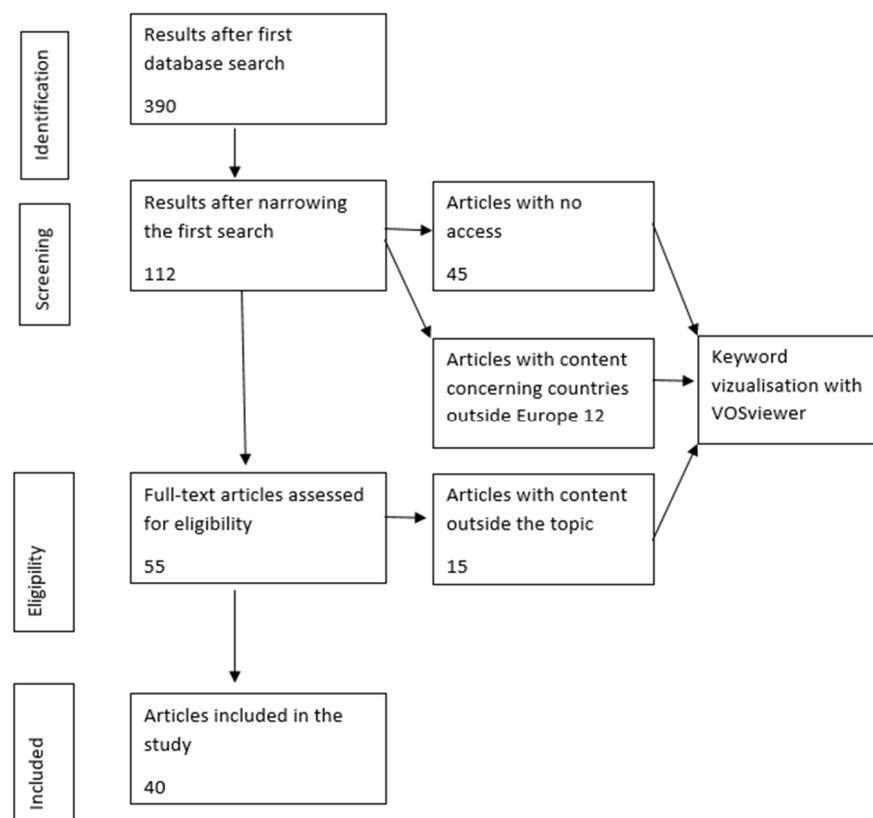


Figure 2. Methodological approach used for analyzing the literature.

3. Results

3.1. Europe's Large Scale Land-Acquisitions

The ever-growing world population and increasing consumption puts high pressure on the EU's agricultural land through competition for agricultural land use. For instance, agricultural land is used to grow products for biofuel production, and rapid urbanization also needs space [19].

Agriculture is a serious user of natural resources [20,21], although in diverse ways and to diverse extents depending on the operating system. This raises a question: are family farms the ones that will lead us to the future of sustainable agriculture and feed the population, or should we depend on large corporate agricultural businesses or mega-farms? Either way, there is a need to take actions towards greener agriculture. In the move towards sustainability, the European Green Deal and Sustainable Development Goals (SDGs) [22] set out necessary goals. Some of the objectives in the SDGs are directly linked with agriculture and its sustainability. Their aims include ending world hunger and ensuring sustainability in agriculture. In the 2019 United Nations Decade of Family Farming 2019–2028 [23] report, it is stated that family farming supports the SDGs by:

- Making food systems more sustainable;
- Creating income generation opportunities in rural areas;
- Implementing resilient and highly productive agricultural practices;
- Delivering inclusive rural services and contributing to territorial development;
- Promoting food systems that are more resilient to climate change;
- Preserving biodiversity;
- Strengthening sustainable integration between urban and rural areas.

From the beginning of the 2007–2008 financial crisis, land was acquired not only by investors keen in agriculture of food crops but also by financial institutions that awaited an increase in its value [24–27]. Suddenly, many influential economic actors started to invest in farmlands by buying them up or renting as much farmland as possible. International and domestic large-scale land deals became a growing global phenomenon. Today's structural arrangement in agriculture has seen resources transfer from smaller and less productive farms to larger ones. This increase, driven by a need for survival, will lead to larger farms, sometimes creating larger parcels, and this upscaling can lead to a decrease in landscape diversity and ecological value [28].

Structural change in the agricultural sector in the EU is also largely characterized by a dropping number of farms and a growing size of surviving farms [4,29–31]. In consequence, the critical choice of farms can be summarized as “grow or go”. Therefore, the EU faces land concentration, but there are no reliable data about its scope [32–34]. Different studies showed that, in recent years, the number of agricultural producers has dropped in the EU, while the size of farms has increased [31,32,35]. These qualitative case studies on the effect of land concentration, pushed by further investments in rural societies, can rather be found in post-socialist EU countries [32]. For example, in 2001, there were 55,748 agricultural producers in Estonia; this number decreased each subsequent year to 18,755 in 2013 and 16,696 in 2016, while, concurrently, the area of utilized agricultural land remained almost stable [31,32,35]. This decrease took place largely at the expense of small producers [35].

In Romania, small-scale farms have been vanishing quickly, and between 2002 and 2010, 150,000 small-scale farms disappeared, while large-scale farming increased by 3% [6]. In 2020, the average monocultural land parcel situated in Slovakia reached a size of 12 hectares [13]. In 2010, the number of farms in Hungary was 351,000, which dropped to 235,000 by 2020 [14]. Meanwhile, these numbers do not show how much land the agricultural producers own and how much they rent.

LSLA transforms land use and food systems in their targeted regions worldwide [15]. It is found that LSLA threatens socio-economic loss, including income generation and food access [16]. The European farming model is built on the recognition of the multifunctionality and diversity of European agricultural systems [17]. It is estimated that, by 2040, an additional 6.4 million farms may disappear in Europe [17]. Toma, Redman, Czekaj et. al. found that the programming of the EU's Common Agricultural Policy at national and regional level does not respond to small farms' needs [18]. At the FAO regional conference for Europe 2022 it was suggested that member states strengthen their resilience by investing in smallholders and family farms, and updating agrifood systems to be better prepared, adaptable and autonomous [36].

Different studies are searching for the answer to the question of which farming model (large-scale agriculture or small farms) is most suitable for the environment and will ensure food security in the future. Ren et al. [37] found that farm size has a large influence on agricultural sustainability from the aspects of economy, environment, and society. Some studies have found that environmental harm resulting from large-scale industrial farming practices includes the loss of soil fertility, pollution of water sources, loss of biodiversity, and draining of wetlands, and large-scale landowners in the agricultural labor market depress labor income in the primary sector [33,38,39]. Wuepper, Wimmer, and Sauer [40] found, on the contrary, that small-scale farming does not lead to more sustainable farming practices. The result of this study was that small-scale farms are less likely to conserve structural elements, leave a higher share of their soils bare during winter, and use more of their fields for monoculture.

Therefore, land policy is severely important in shaping who farms, how farming is done, and the future of rural communities. For example, there are congruous land policy tools with direct intervention in the land market in Estonia. Restrictions on the acquisition of immovables used as profit-yielding land were enacted through the Restrictions on Acquisition of Immovables Act under Chapter 2. There are limitations for legal persons of the Contracting States and persons of third countries. In Poland, there are strict rules maintained for potential buyers, in order to scare the mass buy-out of land after the regulations restricting land purchases by foreigners were eased [41]. Restrictions on agricultural land acquisitions are necessary to avoid large tracts of land ending up in the ownership of a few large companies.

Nevertheless, even if there are restrictions against companies acquiring large tracts of land, the links between companies can be very complicated, and through complex relationships between different companies, agricultural land can still end up in foreign companies' portfolios. It also makes it challenging to track down how much land different companies (foreign or domestic ones) really use (own or rent).

The problem of the complexities of evaluating land use concentration regarding closely related companies was addressed by Rea [42]. The study's outcome showed the complexity of the relationships between companies in Estonia, and the result was that it is hardly possible to estimate the land use concentration based on simple and easy inquiry. Schemes based on extracts included simple systems containing one company and more complicated ones [42]. Finally, the thesis pointed out that it is essential to develop a methodology that would allow us to determine the scope of land use concentration concerning connections between companies. Visser, Mamonova, and Spoor [43] also described these complex relations between companies. A broad distribution of land ownership is the basis for the welfare of local economies and rural communities [13]. An increase in the area of agricultural land farmed by large agricultural producers raises concerns that agricultural development may not be favoring small-scale farming and has an important environmental footprint [44]. Farming should provide livelihoods for farmers, while retaining natural ecosystems and services [45].

3.2. Bibliometric Analysis

According to the 40 articles that were included in this study, the number of publications written about LSLA has increased over the years (Figure 3). Between 1991 and 2011, there was one article written on the topic, but between 2019 and 2020, there were 16 publications on LSLA.

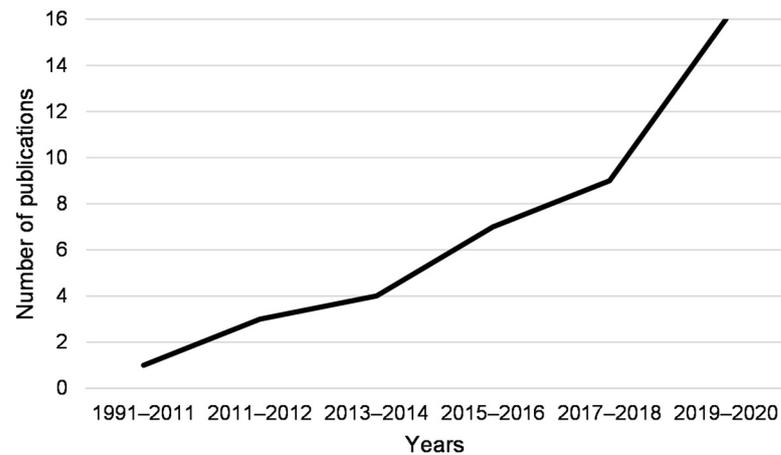


Figure 3. Number of publications written about LSLA between 1991 and 2020.

VOSviewer visualized 20 keywords, of which the earliest, most-used keywords emerged before 2013 and between 2013 and 2014 (Figure 4). The most-used keywords at that time were “land concentration”, “land tenure”, “global governance”, and “governance”. From 2013, the number of publications written on the topic started to increase more quickly (Figure 3). Between 2014 and 2015, the keywords “land”, “biofuels”, and “food sovereignty” started to emerge as the most-used keywords.

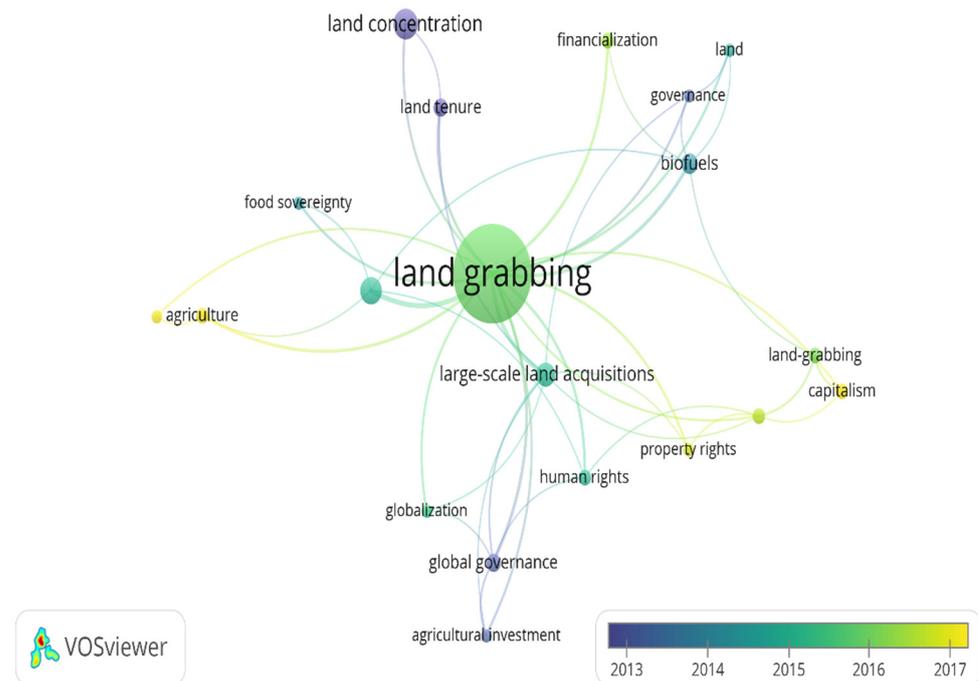


Figure 4. Keyword overlay visualization through VOSviewer.

Between 2015 and 2016, the keywords “food security”, “large-scale land acquisitions”, “human rights”, and “globalization” were the most used in the publications. Between 2016 and 2017, the keywords “land grabbing”, “financialization”, “international law”, and “land-grabbing” started to emerge strongly in publications. After 2017, the keywords “property rights”, “capitalism”, “agriculture”, and “land fragmentation” started to emerge as the most-used keywords.

The majority (85 + 4) of the literature studies included the keywords “land grabbing” or “land-grabbing”, which are linked with the other 19 keywords visualized in Figure 4.

The term “land grabbing” started to emerge strongly in the literature after 2016. Before that, the term “land concentration” was primarily used in these studies.

4. Discussion

There is no commonly accepted definition for the concept of “land grabbing”; nevertheless, since 2000, it has become a crucial concern for the academic community, civil society, governments, corporations, and financial institutions [46–49]. Land grabbing is frequently associated with the disempowerment and loss of local farmers, involving violence in some cases [11,50–54]. Nonetheless, land grabbing is not illegal or immoral in all cases [46,53].

In the EU, land grabbing takes place mainly in the Eastern and Central countries, but there are no reliable data about its scope. The Land Matrix Global Observatory includes only transactions that involve over 200 ha and are made in severe economic situations [32]. The EU’s directives, including the common agricultural policy (CAP), fuel land grabbing and concentration [46,55]. Currently, 80% of direct payments are concentrated only in the hands of 20% of the EU’s farmers [56]. This means that the principles on which the EU has been established require appropriate changes within the CAP. The CAP has a series of precise objectives, both economic and social, which basically pursue the protection of producer and consumer interests [57]. The post-2020 CAP reform has promised to deliver a fairer CAP and to change the abovementioned distribution [56].

As the CAP is closely related to land grabbing and land concentration in Europe, it is interesting that it did not come up as a keyword in Figure 4. After undertaking a new analysis (to find out if there was at least one CAP keyword) with VOSviewer and entering all keywords that had even one occurrence, the keyword CAP came up (it occurred once). There was only one article containing the keyword CAP, from 112 articles and 419 keywords.

The term “land concentration” was used as a keyword in 12 articles (Table 1), and it has been used in the LSLA literature since 1984. This keyword is linked with the terms “land tenure” and “land grabbing” (Figure 2). Land concentration is a process in which large agricultural corporations increasingly buy up or lease land from other agricultural producers [31]. The concentration of agricultural land makes it really challenging for the younger generations to buy or lease agricultural land, and the aging of the population employed in agriculture threatens the viability of rural communities [46]. Land should be regarded not as a commodity, but rather as a crucial resource for food security and safety. Therefore, land is fundamental to existence for the generations of today and tomorrow.

Various factors drive land concentration. As a result of the present form of the EU subsidy scheme CAP, where a subsidy is paid for each hectare of land, small-scale farms become weaker, and large-scale farms grow stronger [5,55]. Large agricultural enterprises are increasingly flooding our markets with low-cost food and agricultural commodities, and through this, small farms become less capable of competing in the market. This means that growing numbers of farms are likely to go out of business and have to sell their lands. Large and rapidly expanding farms are more likely to go bankrupt because their high debt-to-asset ratios make them more sensitive to market volatility [5]. This, in turn, may result in huge tracts of land coming on the market at a time when other farmers will find it difficult to buy additional land [5]. To avoid this, a relationship between large agricultural enterprises and small-scale farms must be enabled so that both farming types can stay in fair market competition [58]. This means that LSLA can be, to some extent, good for the local population [59].

“Food security” was used as a keyword in 10 studies and “food sovereignty” was used in three studies. These keywords are directly linked with the keyword “land grabbing”. The Food and Agriculture Organization of the United Nations (FAO) defines food security as “a situation that exists when all people, at all times, have physical, social and economic access to sufficient, safe and nutritious food that meets their dietary needs and food preferences for an active and healthy life” [60]. Movement toward global food security is strongly related to agriculture, as most of the poor depend on agriculture and related activities for a significant part of their livelihoods. Food security is compromised by “land

grabbing” and “land concentration”. Local food security and food sovereignty, especially in developing countries, can be undermined by the export of agricultural products [61]. Moreover, the outbreak of COVID-19 and the restrictions that followed it have shown us that it is imperative that countries have their own food supply [62,63]. This means that relying only on food imports from other countries can threaten a country’s food security. It has also been noted that several mechanisms accompanying LSLA may contribute to the emergence of zoonotic diseases [64].

Table 1. Keyword occurrences in the examined studies.

Keyword	Occurrences
Land grabbing	85
Land concentration	12
Food security	10
Large-scale land acquisitions	8
Biofuels	6
Global governance	5
Land tenure	5
International law	4
Human rights	4
Agriculture	4
Capitalism	4
Financialization	4
Land-grabbing	4
Agricultural investment	3
Governance	3
Globalization	3
Land	3
Property rights	3
Food sovereignty	3
Land fragmentation	3

“Large-scale land acquisitions” occurred as a keyword in eight studies (Table 1) and is linked with eight keywords (“land grabbing”, “land tenure”, “governance”, “globalization”, “agricultural investment”, “global governance”, “property rights”, and “international law”) (Figure 4). In general, terms like “land grabbing”, “land concentration”, and “large-scale land acquisition” are used to mark the takeover of large land areas; nevertheless, these terms are not synonymous. LSLAs have been promoted as a mechanism to support rural development through the increased input of financial capital, job creation, agricultural technology transfers, and gains in agricultural productivity [65]. However, these developments may come at the expense of reducing water access for local farmers and their future ability to irrigate [65,66].

LSLAs have been widely reported during the last two decades across Africa, Asia, Latin America, and even Eastern Europe. The Land Matrix reported that, since 2019, EU-based companies have been engaged in 909 land deals globally, involving a total of 29 million hectares of land [34]. The results of research by Burja et al. [46] showed that land concentration and land grabbing pose a serious threat to the sustainable development of agricultural holdings and rural areas due to their inimical social effects.

“Biofuels” was used as a keyword in six studies, and it is linked with six other keywords (“land”, “governance”, “financialization”, “land-grabbing”, “land grabbing”, and “food security”). Biofuel production may harm food security [67]. Its production influences the food supply by increasing greenhouse gas emissions and food prices [67]. As the EU biofuel directive requires that 10% of all transport fuel should come from biofuel by 2050, its production has tripled in the last decade [61]. This directive does not help relieve hunger and may increase both the rate of land grabbing and food prices [61,67].

“Global governance” was used as a keyword in five studies, and it is linked with five other keywords (“land grabbing”, “agricultural investment”, “large-scale land acquisitions”, “human rights”, and “globalization”). Global governance as an academic notion arose in the 1990s in response to new global-scale problems (HIV, climate change, international migration, etc.). As land grabbing and land concentration is a global-scale phenomenon that is taking place in all regions and parts of the world, and has become a matter of public concern, it has provided the political sense of urgency to move forward on global land governance [68,69]. There has been criticism of the lack of a binding and consistent regulatory regime for LSLA [47].

Growing concentration has shaped governmental agricultural policies, including the different modalities of the CAP subsidy scheme, which has favored long time large-scale holdings, marginalized small-scale farms, and blocked the entry of possible future farmers [5]. The voluntary nature of different regulatory instruments is seen as being weak for protecting against human rights violations caused by LSLA and poor for facilitating sustainable development [47].

“Land tenure” was used as a keyword in five studies, and it is linked with the keywords “land concentration”, “land grabbing”, and “large-scale land acquisitions”. There is no international definition of land within the context of tenure [70]. The meaning of the word may be defined within the national context. This keyword mostly arose in studies where FAO’s voluntary guidelines on the responsible governance of tenure of land, fisheries, and forests in the context of national food security (VGGT) were discussed. For instance, Margulis et al. [68] wrote that the VGGT are the most concrete element of emergent global governance related to LSLA. Their overarching goals are to achieve food security for all and support the progressive realization of the right to adequate food in the context of national food security [70].

“International law”, “human rights”, “agriculture”, “capitalism”, “financialization”, and “land-grabbing” were used as keywords in four studies. All these keywords are linked with “land grabbing” or “land-grabbing”. In particular, “human rights” as a keyword is linked with “international law”, “land grabbing”, “food security”, and “global governance”. Throughout the world, human rights are pivotal in human development [71]. Secure tenure is an internationally recognized human right, and this right includes the human right to livelihood and land [72]. In the past few decades, several countries have adopted forceful land reforms to deal with poverty, equity, restitution for past expropriation, investment, and innovation in agriculture or sustainability [73]. For example, Scotland’s unusually concentrated pattern of land ownership is a matter of longstanding concern. In Scotland, 432 families (0.008% of the population) own 50% of the private rural land, and if only a small fraction of society owns the land, inequality will rise [74]. Scotland has made some progress on land reform, and the Scottish government, in consultation with a wide range of stakeholders and experts, is in the progress of specifying the maximum amount of land that any individual is permitted to hold. Nevertheless, this kind of land reform is complex and has already left behind exhausted communities and enriched landowners [74]. This means that it might be better for society to control land concentration before it reaches an extent (as has happened in Scotland) where there is a need for complex land reform.

“International law” as a keyword is linked with “capitalism”, “land grabbing”, “land-grabbing”, “human rights”, “property rights”, and “large-scale land acquisitions”. “Agriculture” as a keyword is linked with “land fragmentation”, “land grabbing”, and “food security”. “Capitalism” is linked with “land grabbing”, “land-grabbing”, and “international

law". "Financialization" is linked with "biofuels" and "land grabbing". "Land-grabbing" is linked with "biofuels", "capitalism", and "international law". "Agricultural investment", "governance", "globalization", "land", "property rights", "food sovereignty", and "land fragmentation" were used as keywords in three studies, and keywords that had linkages with them are aforementioned.

5. Conclusions

As the COVID-19 pandemic closed the world, and Russia invaded Ukraine at the beginning of 2022, domestic agricultural production to ensure short supply chains began to look more and more essential. Closed borders between countries, disrupted global food supply chains, and restricted movement inside countries showed that it is essential to keep food production as close to the consumers as possible from the viewpoint of food security.

As land concentration remains basic and is one of the most serious land issues today, the aim of this paper was to compile a systematic literature analysis literature on land grabbing and concentration. To fulfil this task, different documents and articles were first studied (Section 3.1), and, in Section 3.2, literature from the SCOPUS database was analyzed. In Section 3.1, the phenomenon of Europe's LSLA was described. It was found that the agricultural sector needs to change to reach the goals set out in the European Green Deal and SDGs. The trend in today's EU agricultural sector is characterized by a declining number of agricultural producers and an increasing size of farms. An increase in the area of agricultural land farmed by large agricultural producers raises concerns that agricultural development may not be favoring small-scale farming. Increase in the number of agricultural producers is coming at the expense of small farms. Although different studies have sought to determine which farming model is most suitable for the environment and will ensure future food security, there is no single answer to this question.

For Section 3.2, VOSviewer was used to visualize 20 keywords. Results showed that the majority (85 + 4) of the examined studies from the literature included the keywords "land grabbing" or "land-grabbing", which were linked with the other 19 keywords. The term "land grabbing" started to emerge strongly in the literature after 2016, but before that, the term "land concentration" was primarily used in these studies. The study also showed that the number of publications written on LSLA has increased over the years.

The land is a fundamental element for our existence, and, because of that, it is difficult to overstate its strategic importance to our wellbeing and prosperity. The ownership of land can make it available for community and business development, or keep it in the hands of a small number of large agricultural users. Investments in small agricultural producers remains one of the most direct ways to address food security and rural poverty. This study shows that LSLAs are closely related to food security, human rights, global governance and international law, land tenure, biofuel production, and financialization through EU CAP subsidies and foreign direct investments. This means that land distribution is one important component that guarantees our right to food, human rights, and sustainability in agriculture and other related areas. Equitable agricultural land distribution should ensure, in addition to food supply, a range of ecosystem services at prices that sustain a living income for producers of food.

As the topic of LSLA is broad, and different countries in various ways are involved, this topic needs successive studies. One way for developing the study further is by investigating the LSLA phenomenon in different countries and highlighting good practices in the discussed topic.

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