Towards a new policy narrative for agriculture: capturing social sustainability issues

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Highlights:

- Climate change analysis has created a new agri-environmental policy narrative.
- Tackling social and inequality issues has gained increasing policy relevance.
- Missing definition and metrics of social sustainability in agriculture is a bottleneck (92 characters)
- Measuring income inequalities could trigger change towards inclusive transition.

Abstract:

Awareness about issues related to inequality and well-being in agriculture is increasing, with some evidence of inequalities affecting e.g. women, youth, and migrant farmworkers, that hinder their access to income, land, health, education, and training. Despite the increasing

policy interest around social sustainability, tackling social issues in agriculture is complex due to lack of consensus in definition, contextual specificities, data gaps and needs to apply non-sectoral policies. Two decades ago, environmental sustainability faced similar challenges but is now mainstreamed in agricultural policy making. Climate change measurement and analysis played a pivotal role in creating a new agri-environmental policy narrative. Expanding agricultural sustainability from the green transition towards a just transition will require a game changer that is measurable and highly correlated with main social issues. Could an investment in measuring income inequalities play this role and facilitate a new social sustainability perspective in agricultural policies?

Keywords: Social sustainability, green transition, income inequalities, inclusiveness, well-being

1. Introduction

The goal of sustainability over time is recognised as one of the most fundamental principles in global policy making, typically covering three pillars: economic, **environmental** and **social sustainability** (Giddings, et al., 2002). To advance sustainable development, the agricultural sector thus needs to contribute to all three dimensions (Janker & Mann, 2020; FAO, 2022). Traditionally, the sustainability debate in agriculture has focused mainly on economic aspects and, more recently, on the environment. Economic sustainability, building competitiveness and productivity growth, has been prominent in agricultural policies. Over the past two decades, together with other environmental concerns, climate change and its effects on economic growth and environmental outcomes have come to the forefront of global agriculture policy dialogues (Olesen & Bindi, 2002; Howden, et al., 2007). The need to accelerate a green transition in agriculture has led to an increased focus of agriculture and food systems policies on climate-smart strategies to move farms and rural communities towards net zero emissions and better management of the environment (Asai, et al., 2023).

48 The income gap between agriculture and other economic sectors has been a long-lasting
49 argument to justify support to farmers, in particular in the early times after the Second World
50 War (Gardner, 1992). Recent data show that farm income in the EU Member States has been
51 increasing, even if there may still be in some cases a gap compared to other sectors
52 (Matthews, 2024). On the other hand, the lack of economic opportunities for the farming
53 sector, declining services and lower well-being standards in rural areas remained prominent,
54 witness the farmer protests that emerged in Europe in 2023-2024 (Finger, et al., 2024;
55 Matthews, 2024).

56 In recent decades, the **social aspects** have been rarely discussed as main policy drivers in
57 agriculture and are seen as a cause or a consequence of environmental or economic
58 problems, rather than a stand-alone goal. However, recent evidence shows that farmers,
59 farmworkers and their families in rural areas of OECD countries are facing a diversity of social
60 issues that are of an increasing concern for policy makers (Asai & Antón, 2024). For instance,
61 in Switzerland, female farm family workers work around 75-80 hours a week, but only about
62 half of them (55%) are paid for their work (Moser & Saner, 2022). In the United Kingdom, over
63 50% of workers in agriculture, forestry and fishing were suffering from work-related
64 Musculoskeletal Disorders (MSDs) (HSE, 2023), while in Australia one farmer dies by suicide
65 every 10 days, a rate 59% higher than non-farmers (Sartor, 2021). In the United States, the
66 net farm income of African American farmers is 10% of the average of other farmers (Collins,
67 et al., 2023).

68 Most of these issues are related to **inequality and quality of life** (e.g. physical and mental
69 health) that are not a new phenomenon in agriculture. However, people's awareness of the
70 related risks is increasing. For instance, more frequent extreme weather events result in farm

income losses, which may be perceived as critical risks by famers, exacerbating the uncertainty on the sustainability of the sector and, potentially, impacting mental illness and higher rates of suicide (Daghagh Yazd, et al., 2019; Riethmuller, et al., 2023). Social issues are returning from a new lens: skewed distribution of income and of low-income risk among farmers and farmworkers reflect inequalities and potential social exclusion, which is a concern for citizens and policy makers.

Tackling social issues has gained **increasing policy importance**, also in agriculture, as reflected in the food systems approach (OECD, 2021). However, the lack of data and evidence has been identified as a constraint to identify and address some social issues, including related to gender, illness and injuries in the farm, and immigrant farmworkers (Giner, et al., 2022; Merisalu, et al., 2019; Antonioli, et al., 2023). Accordingly, there is no widely acknowledged methodology for quantifying and analysing the social dimension of sustainability, neither on the criteria to be used when assessing the concept (Saleh & Ehlers, 2023; Janker & Mann, 2020).

The overall goal of this paper is to **identify opportunities to advance towards social sustainability goals in agriculture** when designing, implementing and monitoring policies[1]. How can the agriculture and food policy community develop a narrative and the required evidence to respond to existing social sustainability issues? We first review the green transition in agriculture according to recent agricultural policy trends in OECD countries. In particular, we assess critical conditions that transformed the policy narrative by mainstreaming environmental sustainability, led by climate change and the efforts to

[1] This paper is mainly built on the findings from the recent OECD works on agricultural policy reviews (OECD, 2023; OECD, 2024) and social issues in agriculture (Asai & Antón, 2024), and on a keynote presentation at the AIEAA Conference in Bari (Italy) in July 2024 (Antón, et al., 2024).

measure its linkages to agriculture. Second, we explore the main dimensions of social issues in agriculture, and their data and measurement challenges that impede further understanding and analysing social sustainability concerns. Finally, we explore the role of income as potential catalyst to advance on the social sustainability agenda. Income is measurable and could be analysed from a new social sustainability perspective, focused on income inequalities and well-being, facilitating the advancement of the policy agenda from a necessary green transition to a green and inclusive transition in agriculture.

2. How the environment became a main driver in recent agricultural policy trends

Agricultural policies were significantly reformed in the 1990´s and 2000s in the United States, the European Union and in other OECD countries. For instance, the reforms of the EU´s Common Agricultural Policy (CAP) prior to the mid-2000s were successful in reducing producer support, notably market price support, while progressively "decoupling" support from production, with payments per hectare that do not require any specific production and are more effective in transferring support to farmers. The main goal of these reforms was of an economic nature: reducing the distortions associated to the government support to the sector and reaching farmers more effectively.

A shift on composition and level of support was observed not only in the European Union, but across OECD countries, where successive reforms have led to increased market orientation and more efficient forms of support. It is also reflected in the share of the most production- and trade-distorting forms of support, which has also decreased. Given that such support (market price support, coupled direct payments and input support) potentially also contributes to negative environmental outcomes, these reforms also contributed to improve environmental sustainability, even if this was not the main objective (Bureau & Antón, 2022)

Since these reforms took place, there has also been an increasing scope of environmental requirements attached to the CAP payments (Figure 1). Since 2010, the European Union's Producer Support Estimate (PSE) level and composition have remained almost unchanged, though increasingly with input constraints attached to payments, reflecting a greater integration of environmental and climate objectives (OECD, 2023; OECD, 2024).

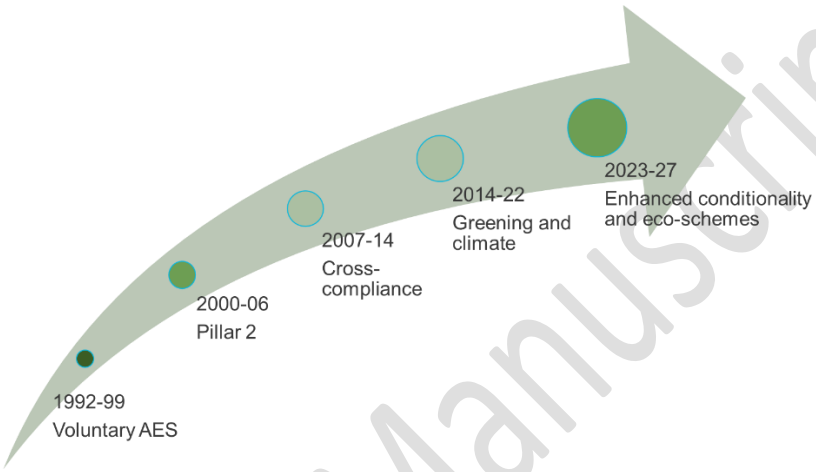

Figure 1 Integration of policy instruments with environmental and climate objectives in the Common Agricultural Policy in the European Union

(Bureau & Antón, 2022)To reflect this evolution of agricultural policy objectives and impacts, a variety of agri-environmental indicators has been developed by countries and international organisations to track the environmental performance of the farming sector, particularly during the last two decades. For instance, the OECD agri-environmental database (OECD, 2023) shows trends and levels of a broad range of indicators, including on agricultural land use change, fertiliser use, water abstraction, on-farm energy consumption, GHG emissions and nutrient balances (Figure 2). These indicators were selected on the basis of data availability, and environmental and policy relevance. They provide an accurate comparable measurement of the main environmental pressures associated with agricultural activities. The OECD agri-environmental database allows to assess performance comparing trends across countries and between agricultural output growth and environmental outcomes. For

instance, in the last three decades OECD countries significantly increased output while, at the same time, reduced nutrient balances. Trends in other environmental outcomes such as GHG emissions and farmland bird index are less promising.

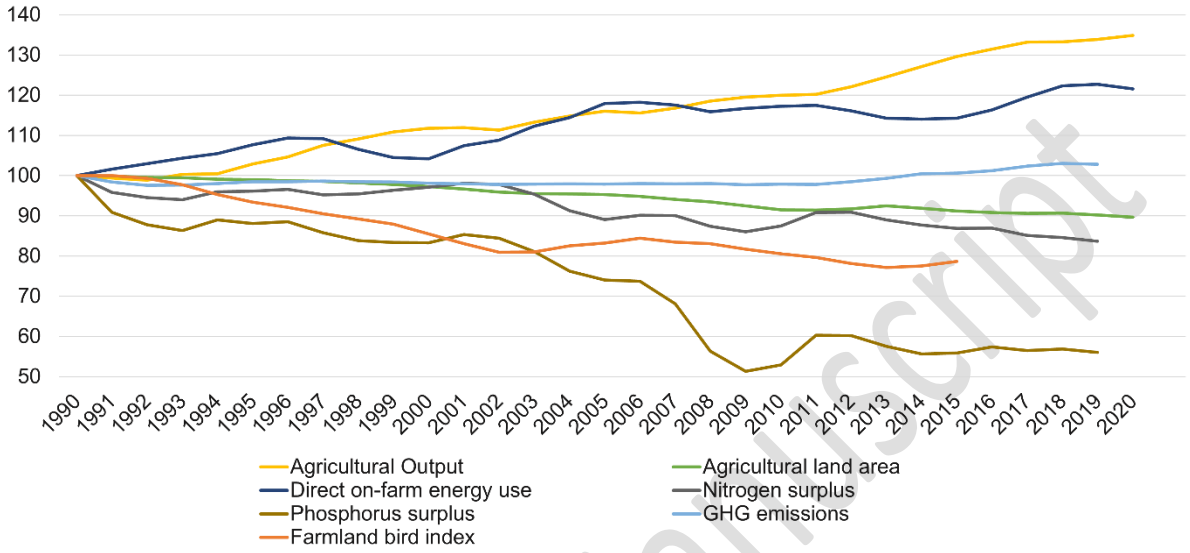

Figure 2 OECD Agri-environmental database

Source: OECD Agri-Environmental Indicator data base (OECD Data Explorer)

Regardless of the performance of each country, the development of agri-environmental indicators has been an integral part of a new narrative that has increased the focus of agricultural policies on environmental sustainability. The measurement of these sustainability outcomes helps to develop a common understanding of the environmental goals and their links with agricultural production, practices and policies. These indicators have also inspired and informed attempts to combine economic and environmental performance into an environmentally sustainable productivity index in agriculture (Cobourn, et al., 2024).

Climate change has been a global game changer or "catalysts" in the environmental policy agenda and, to a great extent, also in the agricultural sustainability debate. Indeed, climate change is a shared environmental concern and a global public good that has contributed to growing awareness on environmental sustainability (Figure 3) reflected in the European

Green Deal EGD. Each country's and each sector´s GHG emissions contribute cumulatively to the increase of the overall concentration of GHGs in the atmosphere, and then mitigating climate change through reduced emissions is a common goal for which there are already comparable methods to measure, and relevant indicators have been developed accordingly. Climate change also brings multiple related agri-environmental issues together because there are significant correlations among them. For instance, there are links between different emissions, water quality and nutrient imbalance, and between emissions and biodiversity. The work of the International Pannel on Climate Change (IPCC) has informed policymaking and international negotiations, including the UNFCC and the Paris Agreement, and has triggered and embedded a large body of research on measuring and understanding the environmental impacts of different economic activities and alternative policies (Guerrero, 2021) (Lankoski, 2016) (OECD, 2022) (DeBoe, 2020). The analysis of climate change and of its relations to the agricultural sector not only has contributed to a new narrative that increasingly puts farmers in the driving seat of the contribution of agriculture to the environment, but it has also stimulated the development of a broad range of agri-environmental policies and regulations.

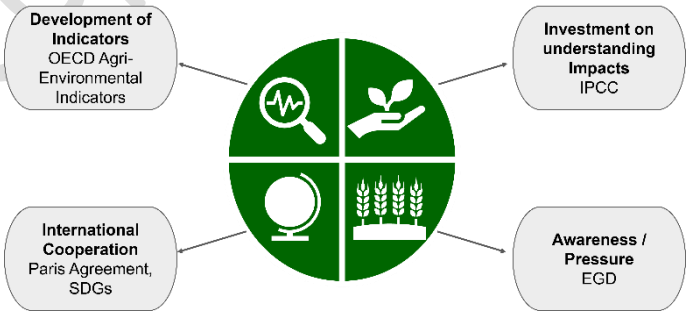

Figure 3 Climate change as a game changer in environmental sustainability

3. What are the policy challenges to advance towards social sustainability?

The food systems approach to policy making has incorporated not only agri-environmental concerns, but also consumer concerns and social issues (OECD, 2021), resulting in a growing concern for policy makers and research communities to improve well-being of farmers and their communities (Asai & Antón, 2024). Well-being of farmers is affected by a broad range of factors, which can be classified in four main groups: (1) Factors affecting farmers' economic well-being (such as income and wealth); (2) Factors affecting the quality of life, including work and job quality; (3) Factors affecting the well-being of the community; and (4) Factors affecting the well-being of women, Indigenous Peoples and specific social groups.

As regards as the economic factors, regional inequalities and the urban-rural divide challenge the well-being of rural areas (Meloni, et al., 2024; OECD, 2020). Based on the analysis of household disposable income in 25 European countries, Meloni et al. (2024) found that the income of rural households is lower than that of non-rural households. The proximity to urban centres plays an important role in shaping well-being of rural residents, including farmers (OECD, 2020). Rural places situated in closer proximity to urban centres exploit benefits from infrastructure development (e.g. hospitals and schools) and transportation because of improved access to human capital, external markets, and a wide array of services and environmental amenities. Remote areas, in contrast, face the largest challenges regarding connectivity, causing higher costs for transportation, infrastructure and service provision that affect the well-being of residents in these areas (OECD, 2020; OECD/EC-JRC, 2021).

Given that agricultural sector faces double challenges of aging and rural depopulation, encouraging generational renewal is a top priority for many countries. Nevertheless, young farmers encounter multiple obstacles both prior to entry and once in the sector (Campi, et al.,

2024). These obstacles include capital constraints, regulatory complexities, access to land and housing, lower access to services compared to other jobs, and lack of the networks needed to access resources. Negative social views of farming due to e.g. hard-working conditions, degrade the attractiveness of the profession and discourage new entrants (Campi, et al., 2024). Furthermore, a 'brain drain' of young talents from rural areas challenges generational renewal (Kalantaryan, et al., 2021; Zagata & Sutherland, 2015). Other studies also show that farms in more isolated regions are less prone to be inherited by the following generation (Aldanondo Ochoa, et al., 2007).

As for the factors affecting the quality of life, agriculture is known for one of the most hazardous sectors worldwide, with numerous studies reporting elevated levels of occupational fatalities, injuries, and illnesses (WHO, 2004). As regards the working conditions, farmers may face long working hours, in particular during peak production seasons and under labour shortages (Marlenga, et al., 2010; Hostiou, et al., 2020). It was recently found that farmers working longer than 40 hours per week may be at higher risk for fatigue-related injury and illness (Elliott, et al., 2022). In many cases farmers and those working in agriculture are also exposed to chemical pesticides, and this is linked to chronic illnesses such as cancer, and heart, respiratory and neurological diseases (Dhananjayan & Ravichandran, 2018).

Occupational stress, associated with longer working hours, compliance with increasing government regulations, weather volatility, and financial pressures is another factor that may have negative effects on quality of life and in some cases it can lead to mental health issues for farmers and their families (Farm Management Canada, 2020; Brennan, et al., 2021; Daghagh Yazd, et al., 2019). A range of ongoing occupational stressors associated with farming may contribute to place farmers at an elevated risk of suicide (Purc-Stephenson, et

al., 2023): evidence from Australia, France and the United States shows higher suicide rates of farmers than those working in other sectors (Miller & Rudolphi, 2022; Page & Fragar, 2002; Bossard, et al., 2016; Hostiou, et al., 2020).

Securing equal opportunities to work in safe conditions and the same access to care and health services is highly important for the individual well-being. The literature shows that in the farming sector such conditions are not always met and are challenged by climate change and structural transformations. Studies in Canada highlight three barriers for providing mental care services for farmers: accessibility of health services in rural areas; stigma around mental health in the agricultural community; and lack of health professionals who are familiar with the agricultural context (Farm Management Canada, 2020; Hagen, et al., 2019).

Social capital is another important dimension of social sustainability and is key for higher community well-being. Inclusiveness may be achieved through better connections between people and in particular cultural events and leisure activities can lead to a higher sense of civic engagement for farmers and improved co-operation with other members of the community (Halstead, et al., 2021; Rivera, et al., 2018). Moreover, community involvement, trust and support can help people tackle challenges and opportunities, and contribute to improve individual well-being and resilience, helping individuals and communities to recover from, and more successfully adapt and transform in response to adverse events (Aldrich & Meyer, 2014; Adger, 2010). In contrast, rural crime, discrimination and social isolation lead to distrust among community members and lack of a sense of belonging, adversely impacting community well-being (Deller & Deller, 2010; Smith, 2020). The ongoing ageing and depopulation trends in rural areas may exacerbate this negative phenomenon.

Finally, there are unique challenges often faced by Women, Indigenous Peoples, and specific social groups, such as migrant farmworkers and people with disabilities, due to social and economic barriers and biases that hinder their access to income, land, food, health, education and training, and other services (OECD/FAO, 2016; Todd, et al., 2024; ILO, 2023). Women tend to encounter longer unpaid working hours more often than men and have lower social security entitlements (FAO, 2020). In the European Union, only 31.6% of farm managers were female in 2020 (OECD, 2023), while in the United States, 7% of all farms were operated solely by women in 2017-2020 (Todd, et al., 2024). These figures imply that women's role in agricultural decision making, and farm and land ownership remains relatively modest.

For Indigenous Peoples the main inequalities concern their access to land (including land that was taken from their ancestors), education and training, as well as capital, which remains a significant barrier for Indigenous entrepreneurs and business owners (OECD, 2019). Migrant farmworkers often are (informally) hired on a casual, piecework or seasonal basis, and their work often involves long hours and difficult conditions under high risk of illnesses and injuries, while being insufficiently covered by social security (UN, 2009; Martin, 2016).

The actors and territories involved on these social issues are very heterogeneous and the challenges facing farmers and farmworkers are diverse. Different social circumstances may require different policies and tools and need targeted analysis. Furthermore, the bargaining position of farmers and farmworkers differs across locations and sectors and is a main source of inequalities both along the agrifood value chain and within the farming sector.

In the past decade, several OECD countries have incorporated social issues in the policies and programmes led by their respective ministries of agriculture. For example, generational renewal and social conditionality on employment conditions and on-farm safety and health

are part of the goals and measures included under the European Union's Common Agricultural Policy 2023-27 (OECD, 2023). Both Canada and New Zealand implement specific agricultural measures for Indigenous Communities, while, in the United States, the Department of Agriculture administers programmes that benefit the so defined "socially disadvantaged farmers and ranchers" (Todd, et al., 2024; Asai & Antón, 2024). In Italy and Japan, the ministries fund "social farming" initiatives to create more inclusive opportunities for vulnerable groups at community level, such as promoting agricultural employment for persons with disabilities (Guirong & Oba, 2023; Borsotto & Giarè, 2020).

Table 1 presents an overview of five case studies from OECD countries with examples on how governments have approached issues of inequality and other social issues in agriculture: the definition of the issue, the policy rationale and the specific policy measures. Across these policy examples, policy makers have looked beyond traditional sectoral policies and seek to target social issues from a broader policy perspective, as agricultural policies are often not designed for the purpose of tackling these issues. The main types of policies in the toolbox applied in these examples are targeted measures on health, skills, training, social protection, legal reforms, research and data. Existing agricultural policies are not targeted to identified social issues and they are used only as accompanying measures (Switzerland) or potential sources of funding (Italy).

Table 1 Policy examples and their policy interventions to address social issues

Country	Social issues at stake	Rationale for policy interventions	Main policy instruments
Canada (Case 1)	Increasing number of farmers suffering from mental health problems.	Mitigate factors of farmers' stress that could affect mental health	Support farmer mental health research Promote mental health literacy in agricultural communities
Switzerland (Case 2)	Many family members (e.g. wives) who work on the farm receive no financial renumeration and social protection.	Equal treatment across workers in agriculture and with other sectors	From 2027, extend social protection coverage to partners on farms as a precondition for direct payment

Italy (Case 3)	Lack of effective social and health services in some rural areas, and limited care services for vulnerable groups.	Inclusiveness opportunities for vulnerable groups through the Social Farming (SF) practices	Set-up networks for diversification of agricultural activities, (e.g. healthcare, education) and to carry SF
New Zealand (Case 4)	Economic pressures, demographic and social changes, and mental health challenge well-being of farmers and other citizens in remote rural communities.	Support "rural community hubs" to build social relationships and rural resilience	Start-up funding to help establish the "rural community hub" where people meet, discuss issues, have workshops etc.
Japan (Case 5)	Limited job opportunities for people with disabilities while agricultural sector faces an acute shortage of labour force.	Equal access to jobs and sources of income for persons with disabilities. Reduce labour shortages in agricultural sector	Provide training courses and support to develop user-friendly facilities that reduce barriers to employment faced by persons with disabilities.

279 Source: Based on Asai & Anton (2024)

280 Note: Information covers a selection of case studies from Table 2 collected from governments and experts in those case
281 study countries/regions in the period of June 2023 - Feb 2024.

282 4. Measuring social sustainability performance

283 The lack of appropriate data is a further challenge to advance in the social sustainability
284 agenda in agriculture, making important social issues invisible to both policy makers and
285 citizens. Greater understanding of issues around inequality and inclusiveness and the best
286 policy approaches to address them requires appropriate data, indicators and measurement
287 (Asai & Antón, 2024; Giner, et al., 2022). , which is challenging due to complexity, a missing
288 social sustainability framework, lack of data and unstandardized indicators (Brennan, et al.,
289 2020; Janker & Mann, 2020). Figure 5 summarises the three main challenges associated with
290 measuring social sustainability performance in agriculture: the lack of a clear and agreed
291 definition of social sustainability; the data gaps to define and identify social issues; and the
292 challenge to quantify social issues in indicators. Even if agri-environmental sustainability faces
293 similar challenges, there has been a significant advancement in the last two decades as
294 reflected in the set of agreed OECD agri-environmental indicators in Figure 2.

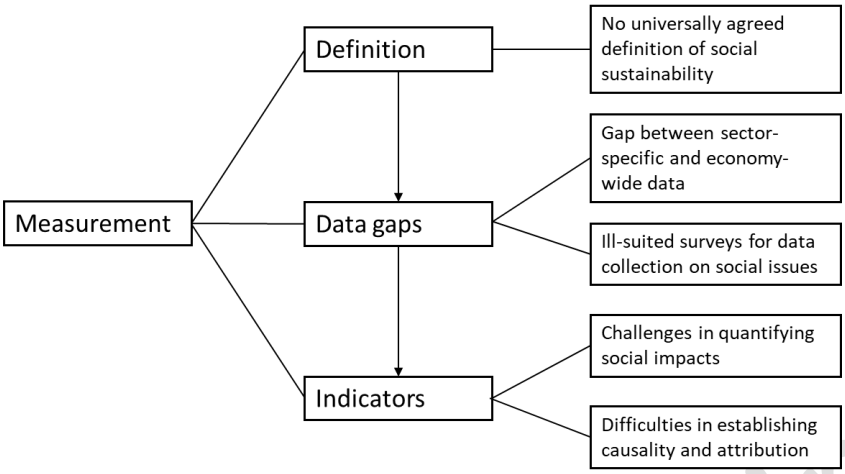

Figure 4 - Schematic presentation of the challenges for the measurement of social sustainability in agriculture

Despite the increasing interest, the common understanding of what constitutes social sustainability and how it might be achieved is limited (Janker, et al., 2019; Asai & Antón, 2024; Nowack, et al., 2022). Social sustainability is still considered as subjective and there is no consensus on the different aspects it should entail (Janker & Mann, 2020; Saleh & Ehlers, 2023). A universal definition is lacking and there is no widely acknowledged methodology for quantifying and assessing the social dimension of sustainability. Indicators on contracts, gender gaps and socioeconomic characteristics of the farming population are a good starting point. However, Janker & Mann (2020) performed an analysis of 87 farm-related social sustainability assessment tools finding a diversity of approaches: some tools are based on human rights and working rights according to the UN and ILO conventions and look for working conditions indicators, while others assess farmers' perceptions of their quality of life.

Social issues may remain hidden if there is no data able to identify and define them. Evidence suggests that there is still a large gap between agricultural sector-specific (e.g. the Census of Agriculture) and economy-wide data on social issues (Asai & Antón, 2024). In many OECD countries, farmers represent a very small share of the total population and they are often under-sampled in general surveys that tend to be non-representative of the farmer

314 population. For instance, although the EU's Income and Living Conditions survey (EU-SILC)
315 was not created for the assessment of farmers' welfare, it allows for the identification of
316 farmers and farm households (Marino, et al., 2023). An attempt to analyse the income gaps
317 between farm and non-farm households in EU Member states using EU-SILC was confronted
318 to too small samples of farm households to allow a representative distributional analysis
319 (Rocchi, et al., 2020; Marino, et al., 2021; Marino, et al., 2023)[2].

320 Having a small sample size poses a critical limitation on the use of general datasets for
321 exploring social issues in agriculture, especially when focusing on smaller sub-groups within
322 farming populations, notably those that are disadvantaged or vulnerable. Considering that
323 the family farm remains the most common type of farm in many countries, women often
324 engage in family unpaid labour that might not be recorded in statistics, which makes it
325 difficult to acknowledge and assess (Giner, et al., 2022). Regarding the racial and ethnic
326 minorities in agriculture, some countries like the United States have a questionnaire on racial
327 and ethnic, under- or un-reported cases are frequent due to incomplete survey responses
328 with respect to race and ethnicity information (Lacy, 2023).

329 The surveys regularly conducted in the agricultural sector, including the Farm Accountancy
330 Data Network (FADN) in Europe and the Agricultural Resource Management Survey (ARMS)
331 in the United States, are primarily intended for economic purposes. Although there are
332 ongoing initiatives to expand the scope of these surveys (e.g. from FADN to Farm
333 Sustainability Data Network (FSDN) reflecting the CAP's evolution towards sustainability),
334 they may still not be well-suited to analyse social issues. Furthermore, most of the existing

[2] EU-SILC is a harmonised household survey that collects multidimensional microdata on income, poverty, social exclusion and living conditions in Europe.

sectoral surveys focus on farmers, yet there are substantial data gaps regarding farmworkers, especially migrant and seasonal farmworkers, despite their important role in the agricultural sector in many countries (Ryan, 2023; Ramos, et al., 2020). In economy-wide household surveys farm households are under-sampled, and migrant and seasonal farmworkers are not captured because they normally focus on the resident population (Kalantaryan, et al., 2021). Some countries like Italy and the United States collect some data on seasonal foreign farmworkers (Antonioli, et al., 2023; Castillo, et al., 2022).

The self-employed status of many farmers is likely resulting in the under-reporting of incidents (e.g. accidents, injuries, illness and suicides). Studies from European countries found that farmers and farmworkers are unlikely to report injuries if they do not have an incentive such as insurance benefits (Merisalu, et al., 2019). In areas such as mental health, it is difficult to ask sensitive questions on personal health or social relations through a survey (Brennan, et al., 2020). Several studies highlight that a large share of actual cases of mental illness or suicide may be underreported due to social stigma in rural areas (Purc-Stephenson, et al., 2023; Miller & Rudolphi, 2022). Finally, there are personal and social sensitivities that are country specific and make data collection on social issues particularly challenging. For instance, some countries such as Finland, Norway and Sweden, explicitly forbid the collection of statistics on ethnic identity (OECD, 2019). These data gaps make it harder to develop indicators to monitor and tackle social issues and to identify target groups.

Because social issues are complex and vary across countries and regions, context-specific data and analytical methods are used, requiring more qualitative indicators than for environmental and economic issues. Such indicators are subject to a high degree of subjectivity (Kelly, et al., 2018) and are difficult to harmonise. The choice of social sustainability indicators is not only

the result of a neutral scientific analysis, but also of societal choice reflecting a diversity of views.

Finally, another challenge is identifying drivers that hinder some aspects of well-being in a manner that is specific for farmers or their communities (Asai & Antón, 2024). This analysis is critical to identify the need for policies that specifically tackle social sustainability in an agricultural context. Information regarding these driving factors and causal relations is frequently limited. There is a risk of a vicious circle between the shortage of data for identifying policy demands and the lack of clear policy priorities for funding data initiatives.

5. Looking for a catalyst on social sustainability

Therefore, despite the increasing policy interest around the dimensions that affect the well-being of farmers, their families and farmworkers, and that of the communities in which they live, defining and tackling social issues in agriculture is complex. There are four main bottlenecks summarised in Figure 5. First, there is no consensus on what constitutes a social issue. The nature of social sustainability includes social processes and interactions that emerge within a community and makes it difficult to identify a coherent, clear and utilisable definition (Eizenberg & Jabareen, 2017). Moreover, subjectivity often comes into play in people's judgments that a particular state of affairs constitutes a social issue (Kulik, 2023). This is frequent in any analysis of agriculture, but in the case of social issues the driving factors go beyond complex production conditions into personal, health and community linkages.

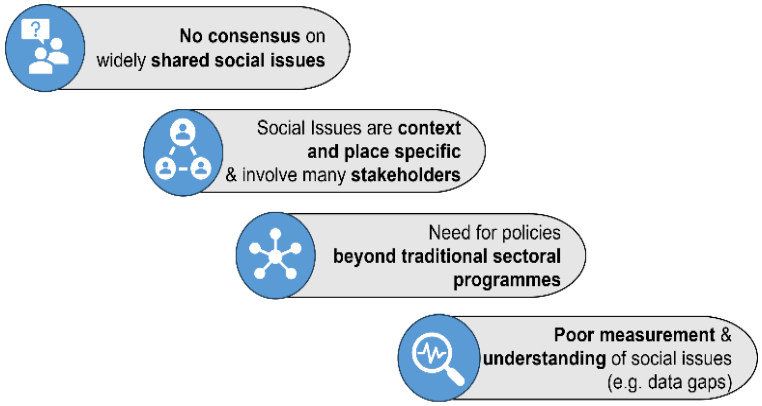

Figure 5 – The four main bottlenecks in addressing social issues

Second, social issues are often context specific and addressing them requires considering different perspectives and sensitivities of stakeholders. Urban-rural inequalities play an important role in shaping well-being of rural residents, including farmers (OECD, 2020; Meloni, et al., 2023). Thus, social issues can benefit from a place-based approach because they are associated with a specific location. Possible solutions often derive from the local context, and policy interventions are often away from the traditional agricultural policy areas (OECD, 2020; Asai, et al., 2023).

Third, tackling social issues requires policies that go beyond traditional sectoral programmes. Agricultural policies focus mainly on economic and environmental outcomes of the sector, often leaving social objectives and implications to other policy areas. However, the agricultural sector is only a small player for social policy partners and its specificities and policy context may be overlooked. As confirmed by the five policy examples in Table 1, defining and tackling social issues in agriculture requires policies beyond traditional sectoral programmes (Asai, et al., 2023; Janker & Mann, 2020; Saleh & Ehlers, 2023).

Finally, as discussed in section 4, social issues are often poorly measured due to the lack of data and data infrastructure, and subsequent unstandardised indicators. The trade-offs

between social and economic sustainability are, therefore, difficult to assess. For instance, how better working conditions affect productivity.

Considering these bottlenecks, a game changer seems necessary to advance on the social sustainability agenda in agriculture, similarly to what climate change measurement and analysis represented in the context of the green transition. This does not mean that social sustainability must come after environmental sustainability in a sequential manner. Policy trends towards environmental and social sustainability may have the same policy roots, but they may need different triggers to effectively become main drivers of policy changes and impacts.

The policy agenda for a more inclusive transition could benefit from an indicator that is easily measurable and highly correlated with social sustainability issues, and that allows cross-comparison among countries, regions and social groups. Income inequality has a good potential to play a catalyst role on social sustainability, since it meets several critical conditions. Although not perfect, income inequality is a widely social concern and affects all the population, and it is also correlated to many dimensions that are currently characterising the social sustainability debate in agriculture, including health, gender, marginalized groups, decent work and social capital. Of course, a complete analysis of social issues should also include access to public services and infrastructure that also contribute to well-being.

Together with wealth, income largely determines the ability of individuals to meet their basic needs (e.g. food, housing, healthcare, transportation, education) and to make choices that contribute to security, satisfaction and personal fulfilment (Meloni, et al., 2024; OECD, 2020; Meloni, et al., 2023). Thus, addressing income-related inequalities is critical to achieve overall economic well-being. In the agricultural policy debate, such issues have been discussed for a

418 long time to justify policy support aiming to address the assumption of lower income in
419 agriculture business as compared to other production activities (Rocchi, et al., 2020; Katchova,
420 2008). However, the social sustainability debate would benefit from a broader perspective on
421 income, by looking not only at the level of farm income, but also looking at: the farm
422 household income and income of those working in farming and food sector; the income
423 distribution differences by gender and with other sectors; and the differences among
424 agricultural, rural and non-rural households. It should also entail by focusing on policies
425 tackling income inequalities and their impacts on low household income and poverty among
426 those making their living from agriculture, rather than focusing solely on increasing farm
427 income (OECD, 2023; OECD, 2003).

428 Recent studies show that in the European Union farm household incomes on average are not
429 particularly lower compared to non-farm household incomes (Rocchi, et al., 2020; Marino, et
430 al., 2021; Mittenzwei, et al., 2024), while others have shown that income inequality and
431 poverty are greater in the farm community compared to the non-farm community (de Frahan,
432 et al., 2017). However, the lack of data is the main constraint for an accurate assessment.
433 Administrative, political, and technical obstacles hinder the collection of comprehensive farm
434 household data and currently there is no reliable system to allow income comparisons among
435 farmers, farm workers and those in other sectors of the economy (Hill & Bradley, 2015; ECA,
436 2016; OECD, 2023).

437 Improving the understanding of the income distribution issues related to farms, farm
438 households and rural households could help to move forwards the social sustainability agenda
439 also from an agricultural policy perspective. As showed in figure 6, in the context of the CAP,
440 direct payments to farmers decoupled from production, which represent an important part

of farm income, have been increasingly linked to several environmental requirements under conditionality. However, direct payments are distributed to households based on the amount of land used rather than on their overall household income. A full sustainable (social and environmental) transition would lead to a shift in the policy mix towards more targeted payments to farm households suffering from low-income, and to result-based agri-environmental payments (OECD, 2023).

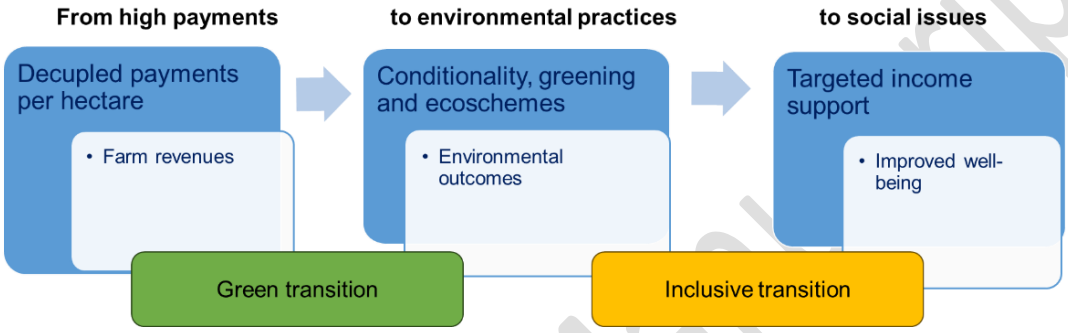

Figure 6 - Policy pathways towards a green and inclusive transition in agriculture

In addition to these targeted payments, other EU and national agricultural policies could contribute to the inclusive transition. For example, EU rural development policy includes a range of measures some of which may increase the attractiveness of rural areas and promote agricultural entrepreneurship. The provision of public services such as education, health and transport is particularly relevant to improve wellbeing and social sustainability. Social conditionality was also introduced in the CAP 2023-27, with the overall objective of linking farmer payments to compliance with certain labour laws. Although all these policy tools have potential to improve, among other, the well-being and working conditions of farmers and the agricultural labour force, they are not targeted to income distribution issues.

Stronger evidence on disposable income could allow to have a better understanding of the standard of living of farmers, since income is strongly interlinked with key dimensions of well-being including, among other, job quality, housing, health and work-life balance. Thus,

improving the availability and access to micro-economic datasets for the assessment of the income aspect of policies not only at farm level but at the household level could be a very important step in monitoring and tackling social sustainability issues in agriculture.

Such a data investment would provide policy makers with a proxy for the well-being of farm households and then a tool to better define the rationale of income support and to target it to legitimate social objectives (OECD, 2023). A more accurate measurement of total farm household income would also allow to assess the potential impact of agriculture policies as compared to non-sectoral policies such as social policies on income and ensuring livelihoods, as well as to contributing to other social sustainability objectives. Data availability and needed investments to measure farm household income deserves a separate in-depth analysis.

6. Conclusions

Social issues are gaining momentum in research and policy discussions on agricultural sustainability. This is the result of multiple drivers, including increasing anecdotal evidence of inequalities and quality of life issues that are specific to the agricultural sector. Similarly to environmental issues twenty years ago, social sustainability today lacks a clear and shared definition, and a common and well-established metrics to tackle its complexity and its multiple and interrelated dimensions. Measuring and analysing climate change, together with other agri-environmental indicators, has contributed to create a new agri-environmental policy narrative based on metrics related to the environmental sustainability of agriculture.

Recently, governments have made efforts to focus their policies on achieving agricultural "sustainable productivity growth" (SPG) (OECD, 2024). The concept of SPG is based on the idea of increasing productivity while reducing the pressures on the environment. The need to also cover the social aspects of sustainability has emerged in the discussion on measuring the

SPG (OECD, 2024). The main difficulty of measuring social sustainability performance is its many dimensions and context-specificity (Asai & Antón, 2024; Janker & Mann, 2020)

Despite this limitation and other existing bottlenecks in addressing social sustainability, an increasing number of governments has started to approach the issues of inequality, inclusiveness and other social issues in agriculture. Since agricultural policies are often not designed for the purpose of tackling social issues, seeking for cross-sectoral approaches and collaboration with other policy areas and stakeholders can help to design policy mixes targeted to the sector's social concerns. However, the lessons from agri-environmental sustainability show that to advance on the social sustainability agenda a new narrative is needed based on clear definitions and metrics. The design and implementation of suitable policy mixes needs an evidence-based approach to respond to the most pressing social issues.

In a context where available statistical tools are not sufficient to measure the well-being of farm households and farm workers, measuring income inequalities could be a catalyst to advance on the research and policy agenda on social sustainability through both a new narrative and a new set of indicators. In particular, more reliable data on agricultural household income could be an important first step to design more effective and targeted income support that responds to social sustainability concerns. Investing on data to build a new evidence-based narrative on the sustainable transition of agriculture, that needs to be greener, but also more inclusive and socially sustainable.

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References

Adger, W. N., 2010. Social Capital, Collective Action, and Adaptation to Climate Change. In: *Der Klimawandel.* s.l.:VS Verlag für Sozialwissenschaften, Wiesbaden, pp. 327-345.

Aldanondo Ochoa, A. M., Casanovas Oliva, V. & Almansa Sáez, C., 2007. Explaining farm succession: the impact of farm location and off-farm employment opportunities. *Spanish Journal of Agricultural Research,* 5(2), pp. 214-225.

Aldrich, D. P. & Meyer, M. A., 2014. Social Capital and Community Resilience. *American Behavioral Scientist,* 59(2), pp. 254-269.

Antonioli, F., Severini, S. & Vigani, M., 2023. Visa for competitiveness: foreign workforce and Italian dairy farms' performance. *European Review of Agricultural Economics,* 50(1), pp. 115-150.

Antón, J., Asai, M., Rasch, H. & Vanni, F., 2024. *Reconciling productivity and sustainability: are agricultural policies in OECD countries changing compass?.* Bari, 13th AIEAA Conference.

Asai, M. & Antón, J., 2024. *Social issues in agriculture in rural areas,* Paris: OECD Publishing.

Asai, M., Dwyer, J., Antón, J. & Garcilazo, E., 2023. Fostering agricultural and rural policy dialogue. In: *OECD Food, Agriculture and Fisheries Papers.* s.l.:OECD Publishing, Paris.

Borsotto, P. & Giarè, F., 2020. L'agricoltura sociale: un'opportunità per le realtà italiane. In: *Rapporto 2020.* s.l.:Programma Rete Rurale Nazionale 2014-2020.

Bossard, C., Santin, G. & Guseva Canu, I., 2016. Suicide Among Farmers in France: Occupational Factors and Recent Trends. *Journal of Agromedicine,* 21(4), pp. 310-315.

Brennan, M., Hennessy, T. & Dillon, E., 2020. Towards a better measurement of the social sustainability of Irish agriculture. *International Journal of Sustainable Development,* 23(3/4), p. 263.

Brennan, M., Hennessy, T., Meredith, D. & Dillon, E., 2021. Weather, Workload and Money: Determining and Evaluating Sources of Stress for Farmers in Ireland. *Journal of Agromedicine,* 27(2), pp. 132-142.

Bureau, J. & Antón, J., 2022. Agricultural Total Factor Productivity and the environment: A guide to emerging best practices in measurement. In: *OECD Food, Agriculture and Fisheries Papers.* s.l.:OECD Publishing, Paris.

Campi, M. et al., 2024. *The evolving profile of new entrants in agriculture and the role of digital technologies,* Paris: OECD Publishing.

Castillo, M., Philip, M. & Zachariah, R., 2022. *The H-2A Temporary Agricultural Worker Program in 2020,* s.l.: U.S. Department of Agriculture, Economic Research Service.

Cobourn, K., O'Donnell, C., Antón, J. & Henderson, B., 2024. An Index Theory Based Approach to Measuring the Environmentally Sustainable Productivity Performance of Agriculture. In: *OECD Food, Agriculture and Fisheries Papers.* s.l.:OECD Publishing, Paris.

Collins, L. A., McDonald, T. M., Giri, A. K. & Subedi, D., 2023. The relative financial performance of African American farms in the United States since the Great Recession. *Applied Economic Perspectives and Policy,* 46(1), pp. 32-51.

Daghagh Yazd, S., Wheeler, S. & Zuo, A., 2019. Key Risk Factors Affecting Farmers' Mental Health: A Systematic Review. *International Journal of Environmental Research and Public Health,* Volume 16, p. 4849.

de Frahan, B. H., Dong, J. & De Blander, R., 2017. *Farm Household Incomes in OECD Member Countries over the Last 30 Years of Public Support,* s.l.: s.n.

DeBoe, G., 2020. *Economic and environmental sustainability performance of environmental policies in agriculture,* Paris: s.n.

Deller, S. C. & Deller, M. A., 2010. Rural Crime and Social Capital. *Growth and Change,* 41(2), pp. 221-275.

Dhananjayan, V. & Ravichandran, B., 2018. Occupational health risk of farmers exposed to pesticides in agricultural activities. *Current Opinion in Environmental Science & Health,* Volume 4, pp. 31-37.

ECA, 2016. *Is the Commission's system for performance measurement in relation to farmers' incomes well designed and based on sound data?,* Luxembourg: European Court of Auditors.

Eizenberg, E. & Jabareen, Y., 2017. Social Sustainability: A New Conceptual Framework. *Sustainability,* 9(1).

Elliott, K. C. et al., 2022. Working hours, sleep, and fatigue in the agriculture, forestry, and fishing sector: A scoping review. *American Journal of Industrial Medicine,* 65(11), pp. 898-912.

FAO, 2020. *Gender Equality and Women's Empowerment in the context of Food Security and Nutrition.* s.l.:s.n.

FAO, 2022. *Sustainable Food and Agriculture .* s.l.:s.n.

Farm Management Canada, 2020. *Healthy Minds, Healthy Farmers: Exploring the Connection between Mental Health and Farm Business Management.* [Online]
Available at: https://fmc-gac.com/wp-content/uploads/2020/07/finalreport.pdf

Finger, R. et al., 2024. Farmer Protests in Europe 2023–2024. *EuroChoices.*

Gardner, B. L., 1992. Changing Economic Perspectives on the Farm Problem. *Journal of Economic Literature,* 30(1), pp. 62-101.

Giddings, B., Hopwood, B. & O'Brien, G., 2002. Environment, economy and society: fitting them together into sustainable development. *Sustainable Development,* Volume 10, pp. 187-196.

Giner, C., Hobeika, M. & Fischetti, C., 2022. Gender and food systems: Overcoming evidence gaps. In: *OECD Food, Agriculture and Fisheries Papers.* s.l.:OECD Publishing, Paris.

Guerrero, S., 2021. Characterising agri-environmental policies: Towards measuring their progress. In: *OECD Food, Agriculture and Fisheries Papers.* s.l.:OECD Publishing, Paris.

Guirong & Oba, S., 2023. Potential People of Disability in Agriculture, as Social Farming in Japan, Compared with Other Countries. *Reviews in Agricultural Science,* Volume 11, pp. 181-202.

Hagen, B. N. M. et al., 2019. Research trends in farmers' mental health: A scoping review of mental health outcomes and interventions among farming populations worldwide. *PLOS ONE,* 14(12), p. e0225661.

Halstead, J. M., Deller, S. C. & Leyden, K. M., 2021. Social capital and community development: Where do we go from here?. *Community Development,* 53(1), pp. 92-108.

Hill, B. & Bradley, B. D., 2015. *Comparison of farmers' incomes in the EU member states,* Brussels: European Parliament.

Hostiou, N., Vollet, D., Benoit, M. & Delfosse, C., 2020. Employment and farmers' work in European ruminant livestock farms: A review. *Journal of Rural Studies,* Volume 74, pp. 223-234.

Howden, S. et al., 2007. Adapting agriculture to climate change. *Proc. Natl. Acad. Sci. USA,* Volume 104, p. 19691–19696.

HSE, 2023. *Agriculture, forestry and fishing statistics in Great Britain, 2023,* s.l.: Health and Safety Executive.

ILO, 2023. *Policy guidelines for the promotion of decent work in the agri-food sector – Meeting of Experts on Decent Work in the Agri-food Sector: An Essential Part of Sustainable Food Systems (Geneva, 8–12 May 2023),* s.l.: s.n.

Janker, J. & Mann, S., 2020. Understanding the social dimension of sustainability in agriculture: a critical review of sustainability assessment tools. *Environment, Development and Sustainability,* Volume 22, p. 1671–1691.

Janker, J., Mann, S. & Rist, S., 2019. Social sustainability in agriculture – A system-based framework. *Journal of Rural Studies,* Volume 65, pp. 32-42.

Kalantaryan, S., Scipioni, M., Natale, F. & Alessandrini, A., 2021. Immigration and integration in rural areas and the agricultural sector: An EU perspective. *Journal of Rural Studies,* Volume 88, pp. 462-472.

Katchova, A. L., 2008. A Comparison of the Economic Well‐Being of Farm and Nonfarm Households. *American Journal of Agricultural Economics,* 90(3), pp. 733-747.

Kelly, E. et al., 2018. Sustainability indicators for improved assessment of the effects of agricultural policy across the EU: Is FADN the answer?. *Ecological Indicators,* Volume 89, pp. 903-911.

Kulik, R. M., 2023. *"Social issue".* [Online]
Available at: https://www.britannica.com/topic/social-issue
[Accessed 4 October 2023].

Lacy, K., 2023. Race and Ethnicity of U.S. Farmers and Ranchers: Background, Data, and Recent Trends. *Presentation for the OECD Farm-Level Analysis Network (FLAN) 32nd Meeting.*

Lankoski, J., 2016. Alternative Payment Approaches for Biodiversity Conservation in Agriculture. In: *OECD Food, Agriculture and Fisheries Papers.* s.l.:OECD Publishing, Paris.

Marino, M., Rocchi, B. & Severini, S., 2021. Conditional Income Disparity between Farm and Non‐farm Households in the European Union: A Longitudinal Analysis. *Journal of Agricultural Economics,* 72(2), pp. 589-606.

Marino, M., Rocchi, B. & Severini, S., 2023. Assessing the Farm–Nonfarm Households' Income Gap along the Income Distribution in the European Union. *JCMS: Journal of Common Market Studies,* 62(2), pp. 318-340.

Marlenga, B. et al., 2010. Impact of Long Farm Working Hours on Child Safety Practices in Agricultural Settings. *The Journal of Rural Health,* 26(4), pp. 366-372.

Martin, P. L., 2016. *Migrant Workers in Commercial Agriculture.* s.l.:s.n.

Matthews, A., 2024. Farmer Protests and Income Developments in the EU. *The Political Quarterly,* Volume 95, pp. 344-349.

Meloni, C. et al., 2024. Are rural households poorer than non-rural households in Europe?. *Journal of Rural Studies,* Volume 106, p. 103214.

Meloni, C., Rocchi, B. & Severini, S., 2023. A systematic literature review on the rural-urban economic well-being gap in Europe. *Bio-based and Applied Economics,* 12(4), pp. 305-321.

Merisalu, E., Leppälä, J., Jakob, M. & Rautiainen, R., 2019. Variation in Eurostat and national statistics of accidents in agriculture. *Agronomy Research,* 17(5), pp. 1969-1983.

Miller, C. D. M. & Rudolphi, J. M., 2022. Characteristics of suicide among farmers and ranchers: Using the CDC NVDRS 2003–2018. *American Journal of Industrial Medicine,* 65(8), pp. 675-689.

Mittenzwei, K. et al., 2024. Decomposing household income differences between farmers and non‐farmers: Empirical evidence from Norway. *Journal of Agricultural Economics.*

Moser, R. & Saner, K., 2022. *Les femmes dans l'agriculture: Rapport sur l'étude 2022,* s.l.: AGRIDEA.

Nowack, W., Schmid, J. C. & Grethe, H., 2022. Social dimensions of multifunctional agriculture in Europe - towards an interdisciplinary framework. *International Journal of Agricultural Sustainability,* 20(5), pp. 758-773.

OECD/EC-JRC, 2021. Access and Cost of Education and Health Services: Preparing Regions for Demographic Change. In: *OECD Rural Studies.* s.l.:OECD Publishing, Paris.

OECD/FAO, 2016. *OECD-FAO Guidance for Responsible Agricultural Supply Chains.* s.l.:OECD Publishing, Paris.

OECD, 2003. *Farm Household Income: Issues and Policy Responses.* Paris: OECD Publishing.

OECD, 2019. Linking Indigenous Communities with Regional Development. In: *OECD Rural Policy Reviews.* s.l.:OECD Publishing, Paris.

OECD, 2020. How's Life? 2020: Measuring Well-being.

OECD, 2020. Rural Well-being: Geography of Opportunities. In: *OECD Rural Studies.* s.l.:OECD Publishing, Paris.

OECD, 2021. *Making Better Policies for Food Systems.* s.l.:OECD Publishing, Paris.

OECD, 2022. *Making Agri-Environmental Payments More Cost Effective.* s.l.:OECD Publishing, Paris.

OECD, 2023. *Measuring the Environmental Performance of Agriculture Across OECD Countries,* Paris: OECD Publishing.

OECD, 2023. Policies for the Future of Farming and Food in the European Union. In: *OECD Agriculture and Food Policy Reviews.* s.l.:OECD Publishing, Paris.

OECD, 2024. Agricultural Policy Monitoring and Evaluation 2024.

Olesen, E. J. & Bindi, M., 2002. Consequences of climate change for European agricultural productivity, land use and policy. *European Journal of Agronomy,* 16(4), pp. 239-262.

Page, A. N. & Fragar, L. J., 2002. Suicide in Australian Farming, 1988–1997. *Australian & New Zealand Journal of Psychiatry,* 36(1), pp. 81-85.

Purc-Stephenson, Doctor & Keehn, 2023. Understanding the factors contributing to farmer suicide: a meta-synthesis of qualitative research. *Rural and Remote Health.*

Ramos, A. K., Girdžiūtė, L., Starič, J. & Rautianinen, R. H., 2020. Identifying "Vulnerable Agricultural Populations" at Risk for Occupational Injuries and Illnesses: A European Perspective. *Journal of Agromedicine,* 26(3), pp. 340-345.

Riethmuller, M. L., Dzidic, P. L., McEvoy, P. M. & Newnham, E. A., 2023. Change, connection and community: A qualitative exploration of farmers' mental health. *Journal of Rural Studies,* Volume 97, pp. 591-600.

Rivera, M., Knickel, K., María Díaz‐Puente, J. & Afonso, A., 2018. The Role of Social Capital in Agricultural and Rural Development:Lessons Learnt from Case Studies in Seven Countries. *Sociologia Ruralis,* 59(1), pp. 66-91.

Rocchi, B., Marino, M. & Severini, S., 2020. Does an Income Gap between Farm and Nonfarm Households Still Exist? The Case of the European Union. *Applied Economic Perspectives and Policy,* 43(4), pp. 1672-1697.

Ryan, M., 2023. Labour and skills shortages in the agro-food sector. In: *OECD Food, Agriculture and Fisheries Papers.* s.l.:OECD Publishing, Paris.

Saleh, R. & Ehlers, M., 2023. Exploring farmers' perceptions of social sustainability. *Environment, Development and Sustainability.*

Sartor, L., 2021. *Farmer Suicides - Exploring Ten Yeas of Coronial Data (2009-2018).* [Online] Available at: https://www.ruralhealth.org.au/news/first-national-study-farmer-suicide-rates-using-coronial-data

Smith, K., 2020. Desolation in the countryside: How agricultural crime impacts the mental health of British farmers. *Journal of Rural Studies,* Volume 80, pp. 522-531.

Todd, J., Whitt, C., Key, N. & Mandalay, O., 2024. *An Overview of Farms Operated by Socially Disadvantaged, Women, and Limited Resource Farmers and Ranchers in the United States,* s.l.: s.n.

UN, 2009. Large-scale land aquisitions and leases: A set of minimum principles and measures to address the human rights challenge Summary.

692 WHO, 2004. *Health of workers in agriculture,* s.l.: s.n.

693 Zagata, L. & Sutherland, L. A., 2015. Deconstructing the 'young farmer problem in Europe': Towards
694 a research agenda. *Journal of Rural Studies,* Volume 38, pp. 39-51.

695