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Social issues in agriculture in rural areas

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Social issues in agriculture in rural areas

Masayasu Asai and Jesús Antón

Ensuring the well-being of farmers, their families, farmworkers, and that of their communities is high on the agenda of governments and policy makers in OECD countries. The quality of agricultural jobs (e.g. working conditions) and quality of life aspects such as environmental quality, health, depopulation of rural areas, isolation, crime, discrimination, and access to knowledge together determine the well-being of those active in the agricultural sector. Relevant policy design has tended to be hampered by serious data gaps. By focusing on different dimensions of well-being, this paper proposes a framework for social issues in agriculture to identify cross-cutting challenges. Seven policy examples, covering diverse social issues such as mental health, developing social connections in isolated rural areas, and inclusiveness of Indigenous Peoples and those with disabilities, confirm the need to look beyond traditional sectoral policies and to address social issues from a broader policy perspective. Only a multipronged approach can successfully remove the barriers that hinder opportunities for all farmers and their communities.

Key words: Social sustainability; Well-being; Inclusiveness; Rural development; Data gaps

JEL codes: H7, I3, J81, Q13**,** Q18, R2

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Key messages

- Policy makers are interested in social inclusiveness as part of the triple challenge facing food systems as an important dimension of sustainability. This concept includes improvement of the well-being of farmers, their families, farmworkers, and that of their communities, in general and through the lenses of women, Indigenous Peoples, and specific social groups.
- Focusing on the dimensions of well-being can help frame social issues. These go beyond income issues to include both the quality of jobs (e.g. working conditions), and quality of life issues such as environmental quality, health, depopulation of rural areas, isolation, crime, discrimination, and access to knowledge.
- Limited availability of data impedes the visibility and the analysis of social issues in agriculture. Farmers make up only a small part of economy-wide surveys, while farm surveys are usually focused on economic issues. This especially affects minority racial and ethnic groups and small farmers. Targeted efforts at data collection are shining a light on specific social issues, for example in Colombia for women, Ireland for health and Canada for Indigenous Peoples. However, limited understanding of underlying causes can make targeting of some issues for the purposes of data collection difficult.
- Social issues are often sensitive, and survey participants may not be willing to provide information to avoid stigmas around health issues, the negative image of farming practices or other prejudices. Yet expressing and addressing these concerns is important for farmers to maintain social connections, and so special care is needed when crafting questions.
- Consultation and participation of stakeholders is a critical element in defining and targeting social issues in agriculture. Understanding the perspectives and sensitivities of stakeholders in different locations is needed because of existing complex relationships that go beyond the agricultural sector, the importance of local context, and the scarcity of tailored data.
- Current policy approaches to addressing social issues use measures targeting health, skills, training, social protection, legal reforms, research and data. Social and economic barriers and biases harm the well-being of women, Indigenous Peoples, and specific social groups in agriculture and can hinder access to income, land, food, health and other services.
- Indeed, policy makers need to look beyond traditional sectoral policies to target social issues in agriculture from a broader policy perspective, further strengthening partnerships with other social policies and with a broader set of stakeholders. If sector policies are used, they need to be carefully targeted to the social issue of concern. Untargeted or market distorting agricultural support is unlikely to be the first best policy and maybe counterproductive for some social issues.

Executive Summary

Improving the well-being of farmers, their families, farmworkers and communities is a growing concern. Inclusiveness, income inequality, working conditions, physical and mental health, access to education and training, the attractiveness of the sector for youth and the need for promoting generational renewal, the role of women, and inequalities affecting Indigenous Peoples and specific social groups such as migrant workers are all issues that can affect the social sustainability of the sector.

Social concerns are not specific to the agricultural sector, but there is a growing interest in understanding their nature and role in the sector. However, defining and tackling social issues in agriculture is complex for three different reasons. First, they require policies that go beyond traditional sectoral programmes. Second, social issues are often context specific and addressing them requires taking into account different perspectives and sensitivities from stakeholders. In particular, they can benefit from a place-based approach. Finally, social issues are often poorly measured and understood.

The purpose of this paper is to draw attention to social issues of relevance to the agricultural sector and identify ways in which countries are trying to address them. Building on previous OECD work, a simple framework is proposed as a tool to zoom from specific policy examples to cross cutting challenges. The method draws information from multiple sources, including a literature review, a sample of policy interventions obtained via a questionnaire and experts' views collected through focussed discussions in the OECD Farm-Level Analysis Network (FLAN).

An approach focusing on well-being and its constituent elements proves to be useful. This requires looking at different layers of well-being of farmers and their communities and understanding issues from the perspective of the targeted social group. This framework is used to highlight and define the relevant social issues in agriculture; to identify data and knowledge gaps that hinder the policy making process; and finally, to understand the lessons contained in seven examples of policy interventions provided by selected OECD countries.

The OECD well-being framework identifies 11 dimensions of well-being. There are many relevant social issues affecting these dimensions of the well-being of farmers and their communities. Some important ones include:

- *Safety and health concerns*. These apply not only to farmers but also farmworkers who may be at higher risk of accidents, injuries and illness.
- *Rural labour shortages and increasing variabilities in weather and markets*, which are a source of stress for farmers and their communities.
- *Farm income issues*. These garner the most public attention, but real solutions require a deeper understanding of, for example, the incidence of low income or poverty in the context of net farm household income.
- *Isolation and deteriorating social connections and trust*. This is aggravated by depopulation of rural areas, crime or discrimination.
- *Women, Indigenous Peoples, and specific social groups* in agriculture often face unique challenges due to social and economic barriers and biases that hinder their access to income, land, foods, health and other services.

The circumstances and context for these issues differ across countries and locations, but there are also similarities. Although agriculture is principally undertaken in rural areas, it typically accounts for a small and diminishing proportion of rural output and employment in OECD countries.

There are serious data gaps for most of the social aspects that are relevant to agriculture and rural communities. The farm population can be lost in surveys or data that cover the whole economy, something that is especially true for minority groups within the agricultural sector. Furthermore, many incidents (e.g.

accidents, injuries, illness, suicides) in the farm community are likely to be under-reported due to lack of incentives for farmers to report and social stigma. These data gaps make it harder to tackle social issues and identify target groups.

To tackle these data problems, governments can build platforms that match data between sector-specific and general sources and, more generally, facilitate linking statistical and government data from different sources. There are examples of where this has been successfully done, and governments can draw on those policy and research communities with experience in designing surveys on sensitive topics to build initiatives to develop more uniform data collection and reporting systems.

The framework for analysis in this paper has been applied to seven policy examples, from Canada, Italy, Japan, New Zealand, and Switzerland. These cover a diverse set of social issues such as mental health problems, social connections in isolated rural areas, and inclusiveness of Indigenous Peoples and people with disabilities in agriculture. Results show that this systematic approach helps to define and analyse social issues in a comparable manner across countries, while at the same time respecting their local specificities. These examples confirm the need to look outside traditional sectoral policies with a broader policy perspective with measures focused on health, skills, training, social protection, legal forms, research and data.

If sector policies are used, they need to be carefully targeted to the social issue of concern. Untargeted or market distorting agricultural support is unlikely to be a first-best approach and may be counterproductive for some social issues, hindering rural and agricultural innovation and slowing needed structural change. The best policy is likely to be case specific, requiring analysis beyond the scope of this report. Continued learning from different policy experiences will help develop successful policies, paying particular attention to policy impacts and spillovers, as well as synergies and trade-offs between policies targeting different social issues.

1. Introduction

1.1 Setting the scene

The well-being of farmers, their families, farmworkers and their communities has recently attracted significant attention from governments and policy makers in OECD countries. These well-being concerns are based on social issues that differ across countries, regions, groups, and individuals. These social issues include (but are not limited to): the role of women in farming and in rural areas; the needs and vulnerabilities of Indigenous Peoples and specific social groups such as migrant workers, youth and people with disabilities; the attractiveness of rural areas for youth and the need for generation renewal; labour conditions of agro-food workers; the health of farmers and their communities, including mental health; and income inequalities. Addressing these issues is critical to ensure the important social dimension of sustainability and to foster greater inclusiveness as part of addressing the triple challenge of food systems.

Social concerns are not specific to the agricultural sector and need to be understood in particular places and contexts (Asai et al., 2023[1]).[1] While they are part of the triple challenge facing food systems of ensuring food security and nutrition, addressing environmental challenges, and providing opportunities for livelihoods (OECD, 2021[2]), they also relate to the wider local conditions of the communities in which farmers live. Understanding these issues can benefit from a place-based approach: the benchmark to define the social issues is often with reference to a specific place, and the potential solutions often come from and need to be designed taking account of the conditions in that place, and drawing upon policy levers outside of traditional agricultural policy toolbox (OECD, 2020[3]). Although agriculture is predominantly undertaken in rural regions, it is not the main sector in these regions for OECD countries, either in terms of output or employment (OECD, 2006[4]; OECD, 2020[3]). The focus of this report is on social issues on agriculture, particularly in rural areas.

That said, while a place-based approach has benefits, there may be aspects of these social concerns that have a specific sectoral angle relating to farmers or workers in food systems. For instance, concerns have grown globally about farmers' mental health, including specific risk factors associated with farming (Daghagh Yazd, Wheeler and Zuo, 2019[5]; Le Monde, 2021[6]). Farming activities may also raise specific challenges in relation to wider social issues such as gender equality, inclusion of vulnerable groups, migrant labour, poverty, attracting younger workers, and filling skills gaps.

In some countries, some of these social concerns have been incorporated in agricultural policy goals and related initiatives (Asai et al., 2023[1]). The EU Common Agricultural Policy (CAP) 2023-27 includes generational renewal as one of its ten specific objectives[2] and, for the first-time, social conditionality (in particular, related to employment conditions and on-farm health and safety) as part of the cross-compliance requirements for direct payments (OECD, 2023[7]). The New Zealand Ministry for Primary Industries' Māori agribusiness team supports Māori landowners and agribusinesses through programmes such as those aiming at building skills and knowledge. The United States Department of Agriculture administers several programmes that focus on "socially disadvantaged farmers and ranchers" (Todd et al., 2024[8]). In response to the ageing population in certain rural areas of Japan, several programmes have been introduced to attract young entrants to the sector and foster generational renewal (OECD, 2016[9]; Ryan, 2023[10]).

[1] Asai et al. (2023[1]) was produced by the Trade and Agricultural Directorate (TAD) and the Centre for Entrepreneurship, SMEs, Regions and Cities (CFE). It was discussed and approved by two OECD Working Parties representing two different policy communities: Agricultural Policies and Markets (APM); and Rural Policies (WPRUR).

[2] Generational renewal is understood as the successive retirement of older farmers who are replaced by a younger or newer cohort of farmers (see [TAD/CA/APM/WP(2023)19/FINAL]).

Identifying and addressing social concerns requires appropriate data and measurement of progress. Lack of information and evidence has been identified as a constraint to identifying and addressing some of these social issues. This is particularly the case when applying a gender lens to food systems (Giner, Hobeika and Fischetti, 2022[11]). Reducing evidence gaps is thus seen as a necessary first step for identifying and promoting positive synergies towards greater gender equality and well-being in agriculture and rural areas (Deconinck and Giner, 2023[12]; Blandford, 2007[13]).

1.2 The approach

A social issue, sometimes called a social problem or concern, can be defined as "a state of affairs that negatively affects the personal or social lives of individuals or the well-being of communities or larger groups within a society" and "can rarely be cleanly divided into discrete categories and often have intersectional causes and effects" (Kulik, 2023[14]). The emphasis is put on issues that affect "well-being defined as a positive state experienced by individuals and societies… Well-being encompasses quality of life and the ability of people and societies to contribute to the world with a sense of meaning and purpose" (WHO, 2021[15]). In line with this approach, the OECD Rural Well-being place-based approach looks beyond the usual economic factors such as income and encompasses the environmental and social dimensions of well-being to deliver a more holistic, people-centred approach of rural development (OECD, 2020[3]).

Tackling social issues entails a focus on the well-being of farmers, their families and communities, on tackling the inequalities that affect them and seeking inclusiveness. Yet these challenges are complex and require policies beyond traditional agriculture sectoral approaches. Policies focused on social issues in rural places and food systems could in turn also impact overall national inclusive growth and well-being (OECD, 2020[3]).

Fostering synergies between agricultural, rural and social policies is needed to efficiently and effectively address social issues. Previous work has noted that "high levels of agricultural support, particularly if untargeted or market distorting, may hinder rural and agricultural innovation and are likely to have a significant impact on structural change, diversification opportunities and the environmental sustainability of rural areas" (Asai et al., 2023[1]). Agricultural policies are often not designed to tackle social issues and policy makers need to look beyond sectoral policies to target the issue from a broader policy perspective.[3] Sectoral agricultural policies are traditionally focused on economic and/or environmental outcomes, while it is the role of other policies to consider social issues in agriculture. For these social policy partners, the sector is only a small player and thus its specificities may not be taken into account.

This study focuses on the well-being of farmers and their communities and, following the OECD Well-being Framework (OECD, 2020[16]), develops a common framework for the analysis. The roadmap developed in Giner, Hobeika, Fischetti et al. (2022[11]) to systematically analyse social issues and the corresponding policy approaches is then adapted into a three-step roadmap for the purposes of this study,[4] namely:

[3] Agriculture-based policies are not designed to harness the potential of rural economies, for which, according to the OECD New Rural Paradigm, a focus on places rather than sectors and on investments rather than subsidies is more appropriate (OECD, 2006[4]; OECD, 2020[3]). OECD (2006[4]) reported that "Evidence from the US and EU suggests that subsidies-based policies are not effective in addressing some of the most pressing socioeconomic challenges facing rural communities and had uneven impacts across the rural territory".

[4] The method in Giner, Hobeika and Fischetti (2022[11]) was developed for policies to effectively address the gender evidence gaps in food systems. Five different consecutive steps were proposed, ranging from identification of issues to monitoring and evaluation. The aim of this study is to define the social issues at stake and search for potential policy approaches to tackle them. Thus, Step 4 of "monitoring and evaluating policy impacts and effectiveness" and Step 5 of "Adjusting policy responses", proposed by Giner, Hobeika and Fischetti (2022[11]), are not covered in this study.

- Step one: Identify social issues related to agriculture, in particular in rural areas, and analyse the factors that drive the different dimensions of well-being.
- Step two: Identify evidence gaps with examples.
- Step three: Look at the policy rationale of specific instruments that aim to address identified social issues.

This study attempts to look at diverse social issues based on a common framework focused on the well-being of farmers, their households and their communities. The common framework developed in Section 2 serves as reference to navigate through the three steps. In step one, potential social issues related to agriculture in rural areas are identified through the factors that may affect the different dimensions of well-being highlighted in Section 3. This discussion of the drivers of well-being is based on a literature review. In step two, the data gaps on different social issues are analysed based on several country specific examples and evidence gathered from discussions in meetings of the OECD Farm-Level Analysis Network (FLAN) (Section 4). Finally, in step three, seven case studies are analysed, drawing on information from experts and policy makers in capitals responding a common questionnaire (Section 5). The discussion seeks to better understand the rationale of specific examples of policy interventions in Canada, Italy, Japan, New Zealand, and Switzerland, each presented in an Annex (see Annexes A to G). Section 6 provides conclusions.

2. A framework for analysing social issues related to agriculture in rural areas

2.1 A focus on well-being

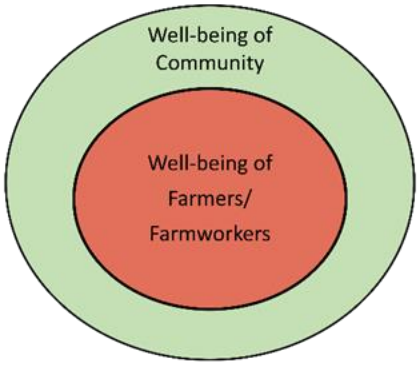
The proposed framework for defining and identifying key social issues is based on a well-being approach that defines social issues in agriculture as a state of affairs that negatively affects the well-being of farmers and their communities. In line with previous OECD work (OECD, 2020[16]; OECD, 2023[17]), the framework includes two complementary concepts. First, different layers of the framework respond to the following question: Whose well-being is at stake? This includes the well-being of individual farmers, farmworkers and their communities, and of specific social groups within farming. Second, the framework encompasses different dimensions that refer to a set of economic and quality of life aspects of well-being, including income, wealth, work, job quality, health and safety.

The layers of well-being

Social issues in agriculture and rural areas refer both to the well-being of farmers and the well-being of the communities in which farmers and food system workers live (Figure 1). These two layers are presented in concentric circles in the figure, meaning that the outer layer encompasses inner layers: community well-being is of course the result of the well-being of individuals, but is also based on social capital that encompasses institutional and social links between groups and individuals.

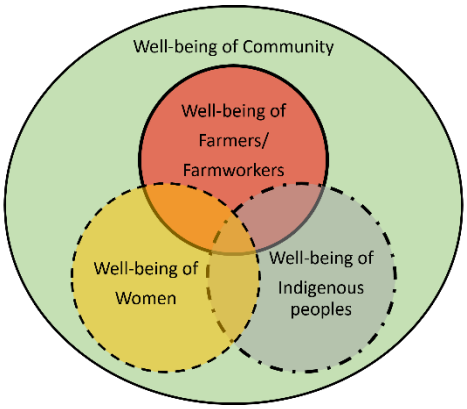
This characterisation is in line with previous studies on measuring social sustainability that propose two scopes of well-being in agriculture: internal and external well-being (Brennan, Hennessy and Dillon, 2020[18]; Calker et al., 2005[19]; Lebacq, Baret and Stilmant, 2012[20]; Herrera Sabillón, Gerster-Bentaya and Knierim, 2021[21]). Internal well-being is oriented to the farmer and includes the health and quality of life of farmers and their families. External well-being is community-oriented, relating to the values, concerns and demands of the wider rural society (Brennan, Hennessy and Dillon, 2020[18]). These two scopes correspond to the inner and outer layers of “farmers and community well-being” in Figure 1.

Figure 1. Well-being in agriculture and rural areas



Applying the same logic of well-being layers, the framework also considers a gender lens or the lens of specific social groups, such as those identified by age, race, ethnicity, migration status, and disability. Social issues related to the well-being of specific social groups typically refers to social and economic barriers and biases that affect the access of these groups to income, land, healthcare, and other services, as they are a concern for the whole well-being of the community. Some of these barriers could be specific to farming, but others are broader and apply regardless of the economic sector of activity. In this latter case, the factors affecting well-being of Indigenous Peoples and specific social groups go beyond those affecting farmers (Figure 2), and policy approaches may also need to be further broadened (Cornia et al., 2017[22]).

Figure 2. Well-being of agriculture and well-being through the lens of women, Indigenous Peoples and specific social groups



Note: The diagram is illustrative and does not represent the size of the overlap between groups. Specific social groups, such as youth and migrants, could also respond to the most important social concerns in each country.

The dimensions affecting well-being

Multiple dimensions affect the well-being of those working in agriculture and their communities. The OECD Well-being Framework provides a useful metrics of well-being, taking a multidimensional approach, and measuring the outcomes that matter for people, the whole society, and future generations. Based on theory, practice, and consultation, this OECD framework proposes 11 dimensions to measure well-being, ranging from health to social connections (OECD, 2020[16]).

These 11 dimensions relate to material and economic conditions that shape people's economic options (i.e. *Income and Wealth*, *Work and Job* Quality, *Housing*) and quality-of-life factors that encompass how

well people are (and how well they feel they are), what they know and can do, and how healthy and safe their places of living are (*Health*, *Knowledge and Skills*, *Environmental Quality*, *Subjective Well-being*, *Safety*). Quality of life also encompasses how connected and engaged people are, and how and with whom they spend their time (*Work-Life Balance*, *Social Connections*, *Civic Engagement*) (Figure 3).

Figure 3. Two clusters of well-being dimensions

Source: OECD (2020[16]).

Global megatrends and urban-rural settings

Global megatrends, including demographic changes, technological advances and digitalisation, and climate change, can generate challenges for wellbeing in agriculture and rural areas (OECD, 2020[3]). Many OECD countries are seeing demographic trends of declining and ageing populations, particularly in rural areas. Retired workers require more resources in the form of social services, but regional mechanisms to replace these workers will also be needed (Cervantes-Godoy, 2022[23]). At the same time, upskilled workers need to be attracted in light of technological advances and digitalisation (Campi et al., 2024[24]). Climate change is leading to a higher frequency and magnitude of extreme weather events, such as heat waves, droughts and heavy rainfalls. Given that agricultural yields are highly vulnerable to climatic shifts, climate change and the recent policy responses strongly impact farmers' livelihoods and thus their wellbeing.

Linkages between urban and rural areas also influence the well-being of rural areas (Meloni et al., 2024[25]; OECD, 2020[3]). OECD (2020[3]) argued that, in general, rural places that are in closer proximity to urban centres benefit significantly from infrastructure development and transportation that allows them greater access to human capital, external markets, and a wide array of services and environmental amenities. Remote areas, in contrast, face the largest connectivity barriers due to their geographical location far away from transportation nodes. Lack of connectivity then results in higher transportation, infrastructure and service provision costs that affect the well-being of residents in these areas (OECD, 2020[3]; OECD/EC-JRC, 2021[26]).

In this report, these global megatrends and issues of urban-rural settings are treated as context for analysis of social issues, notwithstanding that their linkages with the 11 dimensions of wellbeing potentially shape those very social issues. Infrastructure such as hospitals and schools play an important role in shaping well-being of rural residents, including farmers. While are not the focus of this study, as these more place-based issues are appropriately treated by rural or regional policies, they need to be considered as alternatives or complements to sectoral policies as part of an overall policy package for addressing social issues in agriculture (OECD/EC-JRC, 2021[26]; OECD, 2020[3]).

2.2 Emphasising the multiple factors and interlinkages

The framework used in this study aims to systematically review how economic, social, relational, civic and environmental factors impact the different layers and dimensions of well-being. In many cases, social issues are derived from interactions among different material and non-material dimensions. This multi-dimensional framework is useful particularly to address the livelihoods challenge facing food systems. Achieving higher economic well-being such as through higher income or better quality of jobs is important for farmers' livelihoods, but it is also highly interlinked with quality-of-life dimensions (such as *health*, or *environmental quality*), all of which are part of the triple challenge facing food systems (OECD, 2021[2]).

The OECD Well-being framework measures well-being though more than 80 indicators across 11 dimensions. These can potentially be used as references for further discussions on measuring the social dimension of sustainability in agriculture. Existing indicators can be also used to identify evidence gaps on social issues in agriculture and rural areas.

This multi-dimensional approach aids understanding of the spillover effects of a policy intervention on other dimensions of well-being. For instance, an *environmental quality* intervention such as a pesticide use regulation could also lead to reduction of environmental exposure to agrochemicals and a loss in productivity. This would contribute to *health* dimension of well-being for farmers, their families and communities (a synergy) but detract from *income* (a trade-off). The synergies and trade-offs across multiple dimensions and policy objectives are at the core of this approach, and also enable consideration of policy levers outside of traditional agricultural policy that have been implemented to address social issues that nonetheless are still highly relevant in the context of agriculture.

3. Highlighting relevant social issues in agriculture and rural areas

Systematically identifying and analysing social issues affecting farmers' well-being and that of farming communities and specific social groups requires addressing the following questions: What dimensions of the well-being of farmers and their communities could be negatively affected by the current state of affairs? This includes economic, environmental, social, and relational dimensions. Among these dimensions, which factors are of particular relevance for the agricultural sector? Which factors have specificities related to farming systems and structure, farming activities and related working and life conditions?

Following the 11 dimensions of well-being, potential factors and social issues for those working in agriculture and living in farming communities can be identified (Table 1). These include opportunities and challenges generated by megatrends and urban-rural settings. These issues may refer to farmers, communities or overlapping social groups, including those related to gender, Indigenous Peoples, ethnic minorities, youth groups or migrant workers. There is a social issue when there is potential for a negative effect on well-being. The following literature review looks at evidence of such negative effects for the purposes of identifying categories for analysis. However, these effects are specific for each piece of analysis, and should not be interpreted as factors negatively affecting the well-being of all or most of farms.

Table 1. Well-being dimensions and potential social issues related to farmers and their communities

Dimensions	Examples of social issues in agriculture for farmers and their communities	Example of opportunities and challenges generated by megatrends and urban-rural settings
Income and wealth	Low income, income variability and inequality Lack of safety net Rural poverty Limited access to land and credit High debt	Climate change, such as extreme weather events, leads to income variability. A lower overall level of economic prosperity in particular in isolated areas may increase risks of rural poverty.

Dimensions	Examples of social issues in agriculture for farmers and their communities	Example of opportunities and challenges generated by megatrends and urban-rural settings
Work and job quality	Social protection Long working hours Low wages Safety hazards Informal employment Job tenure	Demographic changes could drive more dependence on hired labour, and in some cases bring poor working conditions. Adoption of advanced technologies could address labour shortages, and improve working conditions in e.g. working hours and safety.
Housing	Access to adequate housing Rural infrastructure (e.g. high-speed internet access) Access to amenities	Growing digitalisation across the economy could lead to greater broadband deployment even in isolated areas.
Health	Farmers' exposure to agrochemicals Farming accidents and injuries Mental health Deaths from suicide Limited healthcare access Isolation risk	Climate change can lead to increased physical health problems such as heat exposure, as well as mental health problems caused by income concerns and traumatic experiences due to extreme weather events. New technologies may reduce the mental workload on farmers.
Knowledge and skills	Access to education and training Access to knowledge (e.g. advisory services) Financial and non-financial barriers to skills development Lower educational attainment	Technological advances and digitalisation may accelerate skills gaps between those who can adopt new technologies and those who cannot.
Environmental quality	Exposure to air, water, soil pollution Lack of access to nature due to conversion to farmland	Public criticism of negative environmental impacts of farming (e.g. GHG emission) may increase social isolation of farmers.
Subjective well-being	Job satisfaction Life satisfaction	Demographic changes in rural areas may accelerate low life satisfaction.
Safety	Rural crime Discrimination	Number of crimes may increase due to depopulation in rural areas.
Work-life Balance	Gender gaps in long unpaid working hours Access to leisure and services Seasonal labour	Digitalisation and automation may help address labour shortages and provide more leisure time.
Social connections	Community engagement Stigma and discrimination Social isolation	Ageing and depopulation in local community may limit organisation of collective events. Digitalisation may improve communication between people over distance.
Civic engagement	No engagement in unpaid voluntary work Feel left out of society No trust in the government	Ageing and depopulation may challenge local communities to maintain their sense of community.

Source: Authors' elaboration based on a review of the relevant literature. While presented separately for clarity, there can be interactions among these dimensions.

3.2 Factors affecting the well-being of farmers

Factors affecting farmers' economic well-being (such as income and wealth, and work and job quality)

Farmers' well-being is affected by the *income and wealth* and the *work and job quality* of themselves and of their families and farm employees. These issues are often at the top of the policy agenda and the subject of explicit policies in several OECD countries.

The "farm income issue" has been debated for a long time among policy makers and research communities, and has been used to justify policy support aiming to address the traditional assumption that

income in agriculture is systemically lower than in other production activities (Rocchi, Marino and Severini, 2020[27]; Katchova, 2008[28]). Yet farm income provides only a partial view of the income of a farm household, and there is reason to consider that all sources of income should be taken into account to more accurately reflect the income situation of farm households (OECD, 2003[29]). For instance, many farm households primarily rely on off-farm income in the United States (Mishra et al., 2002[30]; USDA ERS, 2023[31]), and income sources such as farm-connected 'nonfarm' activity, from e.g. agri-tourism and energy production, are of increasing importance for many European farm households (Finger and El Benni, 2021[32]). Despite challenges in acquiring robust information on disposable income (derived from both on-farm and off-farm income within the farm household), several studies show that farm household incomes are not particularly lower on average than non-farm household incomes in most of the ten selected OECD countries (de Frahan, Dong and De Blander, 2017[33]), and under certain circumstances, farm units can even be richer than their counterparts (Rocchi, Marino and Severini, 2020[27]; Marino, Rocchi and Severini, 2021[34]; Mittenzwei et al., 2024[35]). However, others have shown that income inequality and poverty are greater in the farm community compared to the non-farm community (de Frahan, Dong and De Blander, 2017[33]). A study from Ireland (Hennessy et al., 2013[36]) defined a farm household as vulnerable if the farm business is not viable, and neither the farmer nor spouse is employed off-farm.

Income variability is also a concern to be addressed. Farming can be a risky entrepreneurial activity, including because of high weather variability and market price volatility. For instance, an Australian study on the financial position of agricultural households illustrated that agricultural households experience more interannual income volatility on average than households in other sectors (Chancellor and Zhao, 2020[37]). Income variability reduces the well-being of farm households and lowers farmers' incentives to produce, invest and innovate (Finger and El Benni, 2021[32]).

Long hours in paid work (e.g. over 50 hours per week) is a common indicator of poor welfare for the *work and job quality* dimension, and there is evidence to show that some farmers work extremely long hours, even though there are some variations among types of production (e.g. crop and livestock) and seasons (e.g. peak production seasons) (Elliott et al., 2022[38]). For instance, a study from Saskatchewan, Canada shows that owner-operators reported a median of 60 to 70 hours of farm work per week during the spring, summer, and autumn, with a substantial decline in the winter months (Marlenga et al., 2010[39]). In France, livestock farmers are burdened with a particularly heavy workload: a reported 61 hours per week, compared to 46 hours for cereal farmers (Hostiou et al., 2020[40]). In family farms, it is difficult to obtain accurate information about "hours in paid work", including that of the spouse.

Factors affecting the quality of life of farmers

The above material conditions largely affect quality of life dimensions, such as health status, educational attainment, life satisfaction, and the opportunity to reside in safer, cleaner environments. For instance, a review article on working conditions of agriculture, forestry and fishing industry found that those who work longer than 40 hours per week may be at higher risk for fatigue-related injury and illness (Elliott et al., 2022[38]).

Starting with the *health* dimension, agriculture ranks amongst the most hazardous industries worldwide, and many studies observe high rates of occupational fatalities, injuries, and illnesses (WHO, 2004[41]). For instance, the United States Bureau of Labor Statistics (BLS) reported that in 2022 the number of fatal work injuries in the agriculture, forestry, fishing and hunting sector was the fourth-highest in the whole economy, while its rate of fatal work injuries was the highest with 18.6 fatalities per 100 000 full time equivalent workers (USBLS, 2023[42]).The same phenomena are observed in Europe (Ramos et al., 2020[43]). Injuries are related to farm-specific work tasks such as operating machinery, handling animals, and transporting goods (Jadhav et al., 2017[44]; Kjestveit, Aas and Holte, 2021[45]). Occupational exposure to chemical pesticides is linked to chronic illnesses such as cancer, and heart, respiratory and neurological diseases (Dhananjayan and Ravichandran, 2018[46]), as well as increased risks of depression, anxiety and suicide

(Zanchi, Marins and Zamoner, 2023[47]). Livestock farmers and farmworkers are also exposed to a variety of physical, chemical and biological hazards, directly linked to the production system (Hostiou et al., 2020[40]; Kouimintzis, Chatzis and Linos, 2007[48]). For example, workers in animal confinement buildings are exposed longer and more intensely to indoor dust and gases, unlike traditional herdsmen (Basinas et al., 2013[49]). Climate change also brings a number of changes in the agricultural workplace which have direct impact on working conditions and safety, and the health and well-being of farmers. These, include, for instance, higher risks related to heat and solar UV exposure.

Many studies in OECD countries report that occupational stress, associated with longer working hours, compliance with government regulations, and financial pressures, can lead to *mental health issues* for farmers (Farm Management Canada, 2020[50]; Brennan et al., 2021[51]; Daghagh Yazd, Wheeler and Zuo, 2019[5]; Gruère and Sengupta, 2011[52]) and their families (Rudolphi and Berg, 2023[53]). The systematic review of studies comparing farmers' mental health with that if other occupational groups found that over 70% of studies suggested farmers have worse mental health than the general population (Daghagh Yazd, Wheeler and Zuo, 2019[5]). Climate variability is becoming a large risk factor in causing mental health problems for farmers. For instance, studies from Australia report that more frequent extreme weather events such as droughts are leading to critical risks of famers suffering from mental illness and committing suicide (Daghagh Yazd, Wheeler and Zuo, 2019[5]; Daghagh Yazd, Wheeler and Zuo, 2020[54]; Riethmuller et al., 2023[55]).

A range of ongoing occupational stressors associated with farming may place farmers at an elevated risk of suicide (Purc-Stephenson, Doctor and Keehn, 2023[56]). There is evidence that farmers tend to have higher suicide rates than those working in other occupations (Milner et al., 2013[57]), as reported in, for example, Australia (Page and Fragar, 2002[58]), France (Bossard, Santin and Guseva Canu, 2016[59]; Hostiou et al., 2020[40]), and the United States (Peterson et al., 2020[60]). For instance, a recent Australian study of coronial data (2009-2018) found that one farmer dies by suicide every 10 days, a rate 59% higher than non-farmers (Sartor, 2021[61]), while farmers in France have the highest suicide mortality rate among all social categories (Hostiou et al., 2020[40]). Between 2003 and 2021, roughly 3 000 US farmers and ranchers died by suicide (Miller and Rudolphi, 2022[62]). Aside from the occupational stressors, some studies show that suicide rates increase with greater remoteness, where farmers may be located hundreds of kilometres from a hospital or mental health services (Riethmuller et al., 2023[55]). The specific conditions of farming may also accelerate the phenomena: for instance farmers tend to have ready access to firearms (Miller and Rudolphi, 2022[62]) and pesticides (Zanchi, Marins and Zamoner, 2023[47]).

Some studies identified that the level of *knowledge and skills* attained by the farmer or members of the farm family affects the well-being of farmers as it shapes their attitude towards technology adoption and thus potential future productivity improvements (Giannakis and Bruggeman, 2018[63]; Hoang-Khac et al., 2021[64]; Paltasingh and Goyari, 2018[65]; Lebacq, Baret and Stilmant, 2012[20]; Kelly et al., 2018[66]). Farmers often face both financial and non-financial barriers (e.g. training costs, barriers related to gender inequality, geographic accessibility) to skills development, including digital skills (Comer, 2018[67]; Comer, 2021[68]; ILO, 2023[69]; Rose, 2021[70]). According to the OECD PIACC survey, only 30% of adult workers from the agro-food sector of OECD countries participated in some form of further education or training over the previous 12 months, compared to over 50% for the entire economy (OECD, 2023[7]). Moreover, agricultural extension is an important policy instrument for diffusing knowledge and increasing profitability among farmers. Yet, despite recent improvements, evidence from the EU CAP shows that EU-funded farm advice only reaches a small proportion of farmers (Beck et al., 2020[71]), and there are "hard-to-reach farmers" in terms of farm advice, such as smaller scale farmers, female farmers, and farmers at the extremes of the age spectrum (i.e. older and younger) (Labarthe et al., 2022[72]; Prager et al., 2016[73]). Lack of access to knowledge and training opportunities for, e.g. safely handling pesticides, may interlink with the higher risk profiles farmers and farmworkers and lower health and safety status.

Technological advances and digitalisation can play a role in lessening some of the social issues in agriculture that contribute to farmers' well-being. For example, automated pesticide applications and

precision agriculture to monitor for pests, while primarily an environmental intervention, could also be important in helping reduce farmers' workloads and exposure to agrochemicals by lessening direct exposure and reducing use overall. Other examples include monitoring of animal behaviour performed automatically rather than manually (through accelerometers), and milking robots. These labour-saving advanced technologies reduce the menial workload of farmers, and offer adopters the ability to use the saved time for additional on-farm work, off-farm work or leisure (*work-life balance*) (McFadden et al., 2022[74]; Campi et al., 2024[24]).

Advanced technologies, however, are costly – many involve steep up-front fixed costs, operational fees, and recurring variable expenses (McFadden et al., 2022[74]). Human capital costs, in the form of worker trainings, "how-to" agricultural extension/advisory presentations, and time-consuming learning-by-doing with trial and error, are also costly (Miller et al., 2018[75]). Such costs increase if there is a mismatch between the farmworker's level of human capital and the skills required to operate the technology safely and efficiently (Campi et al., 2024[24]). These may cause other types of social issues in multiple dimensions of *income and wealth* (e.g. only high-income farmers can adopt such new technologies), *knowledge and skills* (e.g. farm advisors are well-trained to play a role in disseminating new technologies) and *work and job quality* (e.g. requirement of skilled workers results in offering of higher wages).

3.3 Factors affecting the well-being of the community

Community well-being relates to the needs of all community members as a whole. It is based on the collective aspects of a placed-based community and how the *social connections* between its members can improve their well-being. Here, the social impact of agriculture incorporates factors that extend beyond the farm gate, such as the contribution of farming to the rural economy and to the social life of communities, through creation of employment opportunities, maintenance of the land and rural landscape, provision of public goods, and active social and economic links with the rest of the community (Asai et al., 2023[1]; Brennan et al., 2021[51]; Kelly et al., 2018[66]).

Higher community well-being is a function of individual well-being and may be achieved if there are better connections between people through e.g. cultural events and leisure activities (*work-life balance*) and higher sense of *civic engagement* and co-operation with other members of the community (Halstead, Deller and Leyden, 2021[76]; Rivera et al., 2018[77]). Better community relations also depend on access to key public services and amenities such as health, education, nutrition, utility services (e.g. water, energy and transport), access to nature and green areas, and opportunities to meet, learn and face challenges together (Asai et al., 2023[1]; OECD, 2018[78]). In contrast, issues such as *rural crime (safety)* and *social isolation (social connection)* may lead to distrust among community members and lack of a sense of belonging, adversely impacting community well-being (Deller and Deller, 2010[79]; Besser, Jurt and Mann, 2017[80]; Smith, 2020[81]).

Social isolation or a lack of social connection may also limit knowledge diffusion through social/learning networks. Several studies show that farmers engage with different types of social capital, based on bonding (e.g. friends and neighbours), bridging (e.g. farm advisors) and linking (e.g. researchers) ties, and they draw on these networks for incorporation of new technologies and practices (Díaz-José et al., 2015[82]; Cofré-Bravo, Klerkx and Engler, 2019[83]). The shortage or collapse of social capital in the community may lead to failure of agricultural innovation, while lower levels of, for example, e.g. high-speed internet connection in the community can leave farmers behind in the digital economy (Marshall et al., 2020[84]; OECD, 2021[85]).

Social connection at a community level is also important for building resilience; that is, the ability to prepare and plan for, absorb, recover from, and more successfully adapt and transform in response to adverse events (Aldrich and Meyer, 2014[86]; Adger, 2010[87]). A community of people that supports one another through a crisis or change is likely to be more resilient. Community involvement, trust and support can

help people tackle challenges and opportunities as they arise and can contribute to improve well-being and resilience.

Environmental quality has a well-being dimension as most people value the beauty and healthiness of the place where they live, and care about the diversity of resources in rural areas, such as biodiversity and water supplies (OECD, 2020[16]). In this sense, the role of farmers in e.g. preserving traditional agricultural landscapes would contribute to the well-being of community (OECD, 2013[88]), while their farming practices, in many cases, aimed for increased agricultural production has often been associated with negative externalities (Lankoski and Thiem, 2020[89]). These include deforestation, the deterioration of wildlife habitats, and over-usage of fresh water sources, agrochemicals, and nutrients, leading a major source of pollution – contaminating water, soil and air, and driving biodiversity loss. However, the recent escalating criticisms of agriculture in e.g. social media negatively affect farmers' well-being in the community, leading to further risks of social isolation.

The demographic viability of farm households and rural areas is another issue of concern for policy makers and farmers. The ageing farm population in primary agriculture is a common trend in many OECD countries (OECD, 2019[90]), and a 'brain drain' of young talent from rural areas into urban settings challenges generational renewal (Kalantaryan et al., 2021[91]; Zagata and Sutherland, 2015[92]). This can particularly be the case for family-owned farms; indeed, some studies report that the farm succession, or the fear of losing the ability to pass on the farm to subsequent generations, is a cause of stress for some farmers (Truchot and Andela, 2018[93]; Brennan et al., 2021[51]). Previous studies argue that the probability of succession among family farms largely depends on farm size: larger farms are more likely to have an appointed successor within the family (Suess-Reyes and Fuetsch, 2016[94]; Kerbler, 2012[95]; Mishra and El-Osta, 2008[96]). In contrast, the absence of a potential successor often leads to disinvestment and passive management styles, resulting higher tendency in abandoning or idling farmland (Sottomayor, Tranter and Costa, 2011[97]). Other studies show that farms located in more remote areas are less likely to be taken over by the next generation because of better job prospects in cities (Aldanondo Ochoa, Casanovas Oliva and Almansa Sáez, 2007[98]).

3.4 Factors affecting the well-being of women, Indigenous Peoples and specific social groups

There are several issues and concerns around gender as well as for Indigenous Peoples and specific social groups whereby, for different reasons, they face specific barriers and biases and find themselves in a disadvantaged situation or experience discrimination.

In particular, *women* face higher constraints in access to land and productive resources including inputs, technology, business and financial services, education and training (*housing, knowledge and skills*) (ILO, 2023[69]; Ball, 2019[99]). Women in the agri-food sector typically earn less than men and frequently face discrimination at work, particularly during pregnancy (*income and wealth, safety*) (ILO, 2023[69]). In addition, they are more often confronted with longer unpaid working hours than men and have limited entitlements to social security (*work-life balance, work and job quality*) (FAO, 2020[100]). Reflecting these conditions, some studies found that female farmers were more likely to report mental health problems (*health*) (Daghagh Yazd, Wheeler and Zuo, 2020[54]). While they contribute significantly to the sector, women's role in agricultural decision making and farm and land ownership remains relatively modest. In the European Union, only 31.6% of farm managers were female in 2020 (OECD, 2023[7]), while in the United States, 7% of all farms were operated solely by women and 44% were joint operations (both women and men operators) in 2017-2020 (Todd et al., 2024[8]).

Indigenous Peoples face a number of complex issues in relation to agriculture. Access to land in general is a barrier, including land that was taken from their ancestors. They also face some barriers to trade: for instance, resulting from traditional food products not being accepted under sanitary and phytosanitary regulations. Lack of access to capital also remains a significant barrier for Indigenous entrepreneurs and business owners (OECD, 2019[101]). Yet, agricultural activities may also provide an important source of

economic empowerment and employment for Indigenous communities in rural areas, as well as supporting food security and the importance of cultural connection to the land. The inclusion and leadership of Indigenous Peoples in conservation and natural resource management may provide opportunities to generate economic development (e.g. land stewardship, ecosystem services and cultural and tourism activities). Moreover, Indigenous Peoples often face discrimination and a range of disadvantages which may increase the likelihood that they will face precarious working conditions (*work and job quality*) and limited access to skills and training (*safety, knowledge and skills*) (OECD/FAO, 2016[102]; UN, 2014[103]). Opportunities to develop their skills and knowledge, directly linked to their interests, are still scarce, and Indigenous Peoples are often not offered training in different formats such as in-community workshops and non-degree programs, and shorter training durations. Finally, the Indigenous or Traditional Knowledge of Indigenous communities, for example in relation to land management and environmental stewardship, is increasingly recognised as containing important lessons for agriculture.

In some OECD countries, governments are committed to improving the well-being of minority producers subject to prejudice based on membership of *racial and ethnic groups*. In the United States, those who identify as Black or African American, American Indian or Alaska Native, Asian, Native Hawaiian or Pacific Islander, and Hispanic or Latino are defined as "socially disadvantaged farmers and ranchers" (Todd et al., 2024[8]), and efforts have been made to have a better understanding of the factors contributing to differences in farm performance by race and ethnicity. For instance, a study using data from the 2009–2020 Agricultural Resource Management Surveys (ARMS) found that, relative to others, the average African American farm has lower total value of production, net cash farm income, government payments, assets, and debts (Collins et al., 2023[104]). Some factors contributing to the differences in financial position for African American farmers are their smaller farm size and limited access to financial resources (*income and wealth*) relative to other farmers, as well as their commodity specialisation.

The assurance of decent working conditions in the agricultural sector is often not guaranteed to hired workers, particularly to *migrants*. In comparison to nationals, migrant workers can face unequal access to labour and poor working conditions (*income and wealth, work and job quality*) (Roux, 2020[105]; Castracani, Decosse and Nieto, 2021[106]). They often are (informally) hired on a casual, piecework or seasonal basis and can face abusive or poor working conditions (*safety*). Their work is often heavy, involves long hours and difficult conditions under high risk of illnesses and injuries, while being insufficiently covered by social security (*health, work-life balance*) (UN, 2009[107]; Martin, 2016[108]). Foreign-born and migrant farmworkers are considered to be vulnerable work populations as they face high risk in job-related injuries due to issues related to language proficiency, limited job-related training and formal education, and often lack legal authorisation to work (Ramos et al., 2021[109]). Empirical analysis from EU Member States found that migrant workers in rural areas and the agricultural sector often face more challenges than locals (Kalantaryan et al., 2021[91]) (Box 1).

Given ageing and the declining population of farmers, promoting generational renewal is one of top priorities for many OECD countries. However, *youth groups* face various barriers both before entering and once in the sector, compared with established farmers (Campi et al., 2024[24]). These barriers 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 (Creaney, Hasler and Sutherland, 2023[110]). In addition, farmers' working conditions and the lack of social recognition that can arise from negative views of farming and degrade the attractiveness of the profession can discourage new entrants (Ryan, 2023[10]; Campi et al., 2024[24]). Finally, evidence shows that beginning farmers (less than five years of experience), regardless of age, are at greater risk of job-related injuries due to limited experience, lack of safety training and emergency preparedness skills, and economic pressure from major investments (Ramos et al., 2020[43]).

Box 1. Labour market issues related to non-EU migrants in the EU agricultural sector

Kalantaryan et al. (2021[91]) looked at the integration of EU mobile citizens and non-EU migrants in rural areas and agricultural sectors. Despite their modest presence in rural areas (2.6% compared to 9.3% in cities) non-EU migrants are doubly disadvantaged across many indicators considered, performing worse both (i) compared to non-EU migrants in cities and towns, and (ii) compared to natives and EU mobiles in rural areas.

For instance, the share of the population at risk of poverty is commonly used as an indicator to measure the living conditions of the EU population. Non-EU migrants have a higher incidence of living under the poverty line (34%) compared to non-EU migrants in cities (31%) and towns (33%), and to natives and EU mobile citizens in rural areas (19% and 28% respectively). Non-EU migrants also experience the highest unemployment rate and overcrowded housing conditions across the board.

Furthermore, two out of three non-EU migrants employed in agriculture are in elementary occupations compared to only 12% among natives, which implies more limited career prospects and lower income. Almost all of non-EU migrants employed in agriculture (90%) have employee status compared to 56% of natives who are self-employed. More than half of non-EU migrants employed in agriculture are on temporary contracts, a much higher figure than for non-EU migrants in other sectors or natives working in the agricultural sector (Table 2).

Table 2. Selected set of characteristics of employed in agriculture, EU, 2017

	Natives	EU mobile	Non-EU migrants
Total employed in agriculture			
% among employed	93.5%	2.5%	4.0%
Population (1 000)	8 352	221	357
By occupation			
Other	7.7%	4.6%	4.7%
Skilled agricultural, forestry fishery workers	74.5%	36.7%	25.7%
Craft and related trades workers	1.5%	1.4%	1.1%
Plant and machine operators, and assemblers	4.2%	4.5%	3.0%
Elementary occupations	12.2%	52.9%	65.5%
By professional status			
Self-employed	56.1%	11.9%	8.4%
Family worker	16.5%	3.0%	1.7%
Employee	27.4%	85.1%	89.9%
Incidence of temporary employment			
Other sectors	13.8%	13.8%	19.9%
Agriculture	30.2%	52.8%	60.2%

Source: Kalantaryan et al. (2021[91]).

4. Exploring evidence and data gaps in social issues

Social issues may remain hidden if there is no data able to capture them. Greater understanding of social issues and the best policy approaches to address them requires appropriate data and measurement. This section explores the data available and the need for additional data to inform the policy making process, both for identifying the relevant social issues and for designing appropriate policy instruments to address them. The surveys and databases built for sectoral purposes are the first reference source to analyse social issues on agriculture in rural areas. However, other non-sectoral sources can be critical for specific social issues.

4.1 Reference sectoral data sources

This report focuses on these two types of data on the social aspects that are relevant for agriculture: data collected through sector-specific and through economy-wide surveys. For the sector-specific data, the Census of Agriculture (CA) is the most common source of data on agricultural holdings. The FAO World Programme for the Census of Agriculture (WCA) supports the implementation of national CA by promoting the use of standard international concepts, definitions and methodology (FAO, 2017[111]). In alignment with the guidance made by the WCA, many OECD countries conduct the CA on a 10-year basis, while others such as Australia, Canada, Germany, Japan, Korea, and the United States engage in data collection every five years. On top of the CA, various types of farm-level microdata are collected in OECD countries, such as the Farm Accountancy Data Network (FADN) in the European Union (EU) (Box 2) and the Agricultural Resource Management Survey (ARMS) in the United States. Because of its annual collection and specificity in the questionnaire, data from such as ARMS complement the American CA and are widely used for socio-economic analysis such as farm household income and equality assessment of the socially disadvantaged farmers.

Data from economy-wide surveys can highlight the severity of a specific type of issue in the agricultural sector in comparison with other sectors or the whole economy. For instance, the EU-Statistics on Income and Living Conditions (EU SILC) is the EU reference for comparative statistics on income distribution and social inclusion at the European level.[5] The EU SILC data have been used for exploring e.g. income gaps between farm household and non-farm household (Marino, Rocchi and Severini, 2023[112]) and attributes of migrant farmworkers (Kalantaryan et al., 2021[91]).

Due to the complex nature of social issues, existing data may capture some aspects of an issue but may not cover all the relevant dimensions (Deconinck et al., 2021[113]). For some social issues, data is completely missing, hindering any possibility of defining the concerns and tackling them with effective policies. Furthermore, data gaps on social issues in agriculture have been rarely discussed in the OECD, with the exception of issues related to farm income (OECD, 2003[29]) and gender (Giner, Hobeika and Fischetti, 2022[11]). To fill this knowledge gap, two specific sessions on social issues were held in meetings of the OECD Farm-Level Analysis Network (FLAN) in 2023 and 2024.[6]

[5] EU Member States and the European Free Trade Association (EFTA) countries conduct the EU SILC survey annually. Given the use of NACE sector classification code to classify the main job for each individual above 16 years old in the household, it is possible to identify people employed in agriculture, forestry and fishing sectors.

[6] Experts were invited to the meetings of the OECD Farm Level Analysis Network (FLAN) to share their experiences on addressing social issues in agriculture and ideas on microdata analysis in rural areas. A total of 17 presentations from ten OECD countries covered the layers and dimensions of well-being discussed in the framework. The main findings from the presentations and overall discussion, plus results from extensive literature, are given in this section.

Box 2. Farm-level data in the European Union

The Farm Accountancy Data Network (FADN) monitors farms' income and business activities. It also serves as the most important information source for understanding the impact of the measures taken under the Common Agricultural Policy (CAP). The FADN is a unique source of microeconomic and accountancy data collected from more than 80 000 farms in the European Union every year. It covers nearly 90% of the total utilised agricultural area (UAA) and total agricultural production in the European Union. Data are collected through national surveys and are harmonised through bookkeeping principles to provide a comprehensive source of microeconomic data.

Reflecting the CAP's evolution towards more environmental and social policies, the European Commission has proposed a process of converting the FADN to the Farm Sustainability Data Network (FSDN) (EC, 2023[114]). The FSDN's objectives are to improve policy analysis along environmental and social sustainability dimensions and provide feedback and advice to farmers. For this purpose, the FSDN plans to introduce new environmental and social variables to its data collection (OECD, 2023[7]).

In addition to the FADN, the Eurostat has been collecting the EU Farm Structure Survey (FSS) microdata since 1990 through both the agricultural census (every ten years) and sample surveys (every 3-4 years) using a common methodology across the Member States plus other European countries such as Iceland, Norway, and Switzerland. For the FSS, the countries collect information from individual agricultural holdings about land use, livestock, rural development, management and farm labour input. In addition, social indicators such as age and gender of farm holders, management and labour are available in the FSS and aggregated by different geographic levels, which could be used to measure social and economic performance of rural areas in the European Union.

4.2 Data on the well-being of farmers

Income

Income is an essential component of well-being and farmers' standards of living. Two main concerns related to farm incomes are "a fair distribution of income" and "a fair income for farmers". A fair distribution of income, with a focus on addressing particularly low incomes in the sector, matters to help alleviate low income or poverty and promote equality within the sector (Cervantes-Godoy and Dewbre, 2010[115]). In contrast, a fair income for farmers can refer to the idea that disposable farm household income levels should align to those of other households, although income objectives are seldom well defined in national policies, either in terms of the income variable being targeted or the intended recipients (OECD, 2003[29]). Here, the interest is not only in agricultural income but on the disposable household income of farmers including non-farm income, e.g. from hired labour or non-agricultural economic activities (Finger and El Benni, 2021[32]; Poppe and Vrolijk, 2019[116]). The total available income within a household determines the standard of living of the farming family and thus should be considered, as well as the long-term sustainability of income, relating to the underlying productivity and profitability of farming (OECD, 2003[29]).

The availability of high-quality microeconomic data is essential to look at the distribution of income or the incidence of low income among farm households compared to other households, at the change in income over time, and the impact of agricultural, social and tax policies. This information may come from specific farm specific surveys, general surveys (household expenditure, or income surveys), or from tax and social transfers files (OECD, 2003[29]).

Specific farm surveys, such as FADN in the European Union, provide useful structural information on farm households, including farm income (OECD, 2003[29]). However, FADN has no data on the disposable

income of farm households. Only a few Member States, for example Ireland and the Netherlands, have started gathering farm household income data. Yet, approaches vary widely and there is no reliable system for comparisons between agricultural incomes and those in other sectors of the economy (Poppe and Vrolijk, 2019[116]; OECD, 2023[7]). In the absence of complete data on off-farm income, existing evidence on livelihoods may understate actual incomes for farm households and may mislead policy conclusions (Finger and El Benni, 2021[32]).

Economy-wide surveys allow for comparison between farm households and other households. For instance, a group of European researchers apply data from the European Union Statistics on Income and Living Conditions (EU SILC, see also Box 9) to investigate income gaps between farm and non-farm households in EU Member states (Rocchi, Marino and Severini, 2020[27]; Marino, Rocchi and Severini, 2021[34]; Marino, Rocchi and Severini, 2023[112]). EU SILC is a harmonised household survey that collects multidimensional microdata on income, poverty, social exclusion and living conditions in Europe. Although it has not been developed for the assessment of farmers' welfare, it enables identification of farmers and farm households (Marino, Rocchi and Severini, 2023[112]). Another example is the microeconomic dataset from the Luxembourg Income Study (LIS) used by De Franhan et al. (2017[33]) to examine the income level and distribution of farm households compared to those of non-farm households in 12 OECD countries. One disadvantage, highlighted by these economy-wide surveys, is that the sample of farm households proves to be too small to allow for a detailed and representative distributional analysis.

Income tax files are also a potential source of information to analyse farm household income. However, in some countries, farmers are exempt or have simplified treatment for income taxes (OECD, 2020[117]). To explore the disposable income of farm households in France, researchers in the National Research Institute for Agriculture, Food and Environment (INRAE) are using a new dataset which merges national tax databases with the French Agricultural Census 2020. The recent study (Delame, 2023[118]) assessed standards of living and monetary poverty levels of about 400 000 farm households that include one or several people who work on a farm (including small scale farms for which there was previously no economic data). Mittenzwei et al. (2024[35]) used tax household income data from tax returns of all Norwegian taxpayers in the period 2006–2015 to make income comparisons between farm and non-farm households. This dataset enables an income comparison across the entire population of Norway, instead of only a sample, and accounts for personal characteristics (e.g. age and education).

Health

Agriculture is known as one of the most hazardous industries worldwide (ILO, 2011[119]). As discussed in the previous section, numerous studies and reports have documented the hazardous nature of the agriculture industry, leading to occupational fatalities, injuries, and illnesses, impacting the well-being of individual farmers and resulting in higher risk of suicide. For a better understanding of safety and health issues in agriculture, as well as for designing the most appropriate prevention interventions, reliable and timely statistics are necessary. However, there are significant challenges in accessing even simple data such as the number of incidents at work.

Table 4.1 summarises some examples of available data on farmers' injuries, illness, mental health problems, and suicides in selected OECD countries. Most data are collected by national public health organisations through national surveys, but some include results of farm-specific surveys.

Table 3. Examples of health-related data on farmers and farmworkers in selected OECD countries

	Australia	Canada	EU Member States	Japan	Switzerland	United Kingdom	United States
Work-related injuries and illness	**Safe Work Australia (SWA)** Periodicity: Annual Coverage: National data mainly on fatal injuries	**Canadian Agricultural Injury Reporting (CAIR)** Periodicity: Annual Coverage: National and provincial data on fatal and hospitalised agriculture-related injuries	**European Statistics on Accidents at Work (ESAW)** Periodicity: Annual Coverage: Fatal and non-fatal injuries, collected by national accident insurance systems, private insurance carriers for accidents, etc.	**Agricultural fatal injuries investigation** Data source: Calculated by Ministry of Agriculture, Forestry and Fisheries by using the Vital Statistics of the Ministry of Health, Labour and Welfare Periodicity: Annual Coverage: Fatal accidents only	**Swiss Agency for Accident Prevention in Agriculture** Coverage: Collect serious and fatal accidents, but there are no comprehensive statistics on agricultural accidents[1]	**Health and Safety Executive (HSE)** Data source: Labour Force Survey (LFS) on self-reported injuries, and work-related illness Periodicity: Around 27 000 households each quarter	**Census of Fatal Occupational Injuries (CFOI)** Periodicity: Annual Coverage: Fatal accidents only **National Agricultural Workers Survey (NAWS)** Periodicity: Annual Coverage: About 1500-3600 workers in crop agriculture each year. Questions include their work-related injuries and illness.
Mental health status	**The National Farmer Wellbeing Report** by Norco (Farmer owned dairy co-operative) Periodicity:2023 Coverage: 1 338 farmers across Australia	**National survey of farmer mental health** Periodicity:2015/16 and 2021 Coverage: About 1 100 farmers	**European Health Interview Survey (EIH)** Periodicity: Every six years Coverage: self-perceived health **EU statistics on income and living conditions (EU-SILC)** Periodicity: Annual Coverage: self-perceived health	**Survey of dairy farm managers mental health** Periodicity: 2018 Coverage: 81 dairy farm managers in Hokkaido, northern Japan	**National survey of farmer mental health by the Swiss Federal Office for Agriculture** Periodicity: 2016 Coverage: 1 321 persons (316 women and 1 005 men)	**The Big Farming Survey: Mental health and well-being** by The Royal Agricultural Benevolent Institution Periodicity: 2020/21 Coverage: 15 296 respondents across England and Wales.	**Farm and Ranch Health and Safety Survey (FRHSS)** by the Central States Centre for Agricultural Safety and Health Periodicity: 2018/20 Coverage: About 3 500-4 400 farm and ranch operators in a seven-state region (IA, KS, MN, MO, NE, ND, and SD)
Suicides	**The National Coronial Information system by National Rural Health Alliance** Periodicity:2009-2018 Coverage: 370 cases of farmers' suicides	No collection of data at occupational level	**The Agricultural Social Security and Health Insurance (CCMSA) in France** Periodically: 2007–2009 Coverage: Incidents of 417 men (15%) and 68 women (6.8%)	**The Status of Suicide by the Ministry of Health, Labour and Welfare and National Police Agency** Periodicity: Annual Coverage: In 2023, 382 suicides by agricultural, forestry and fishery workers	**The Swiss National Cohort** Periodically: 1991–2014 Coverage: Special focus on male farmers, 447 occurred in 89 303 male farmers	**The Office for National Statistics "Suicides by Occupation"** Periodically: 2011-19 in England and Wales. Results: In 2019, 102 suicides (2.2% of all cases) were found in agriculture	**The CDC National Violent Death Reporting System Restricted Access Database** Periodically: 2003-2018 Coverage: Fatal data from 40 states, resulting ca. 3 000 suicides by farmers and ranchers

1. In Switzerland, agriculture is covered by private insurance and a centralised communication of accident figures from the various insurance companies is not mandatory. As a result, there are no comprehensive statistics on agricultural accidents.

Due to high-risk profiles of farmers and farmworkers, many OECD countries collect data on the number of fatal and non-fatal farming accidents. For instance, the European Union collects data on accidents at work, called the European Statistics on Accidents at Work (ESAW). The database is built on national accident insurance systems, private insurance carriers for accidents at work, or other relevant national authorities. Based on the analysis of the data, Merisalu et al. (2019[120]) found that similar neighbouring countries have shown over ten-fold differences in agricultural accident rates, raising questions about the accuracy of the reporting of accidents in agriculture. Lack of uniform data collection and reporting systems is one of reasons. Under-reported incidents is another reason because farmers and farmworkers are unlikely to report injuries if they do not have an incentive such as insurance benefits (Merisalu et al., 2019[120]).The same phenomena is found in the United States, and improving data quality, timeliness and flexibility will provide reliable and valid injury estimates and increase the usefulness of these surveys for surveillance and prevention of farm injuries (Patel et al., 2017[121]).

Compared to accidents in agriculture, data on occupational illness is even more scarce. This is probably due to difficulties in counting actual illness cases in agriculture, as well as lack of clear evidence on the cause-effect relationship between illness and farming practices; that said, there are numerous specific studies on Musculoskeletal Disorders (MSDs) (Osborne et al., 2011[122]) and pesticide-related risks (Daghagh Yazd, Wheeler and Zuo, 2019[5]). In the United Kingdom, self-reports of work-related ill health from the Labour Force Survey found that over 50% of workers in agriculture, forestry and fishing were suffering from work-related MSDs (HSE, 2023[123]).

There are increasing numbers of surveys conducted in OECD countries to investigate the mental health of farmers. These revealed that many farmers are seriously suffering from multiple stress factors, and these are worse than in other occupations. Although most of these surveys have a specific focus on mental health, the Irish Government has included mental health questions as a part of the national farm structural survey in 2018 and 2021 (Box 3). Experiences from Ireland and Canada (see Policy example in Annex A) discuss several data challenges: first, one-time data collection limits the analysis to a single year and recurring stressors; second, it is difficult to ask sensitive questions such on personal health or quality of social relations through a survey; third, a large share of actual cases of mental illness may be underreported due to stigma around mental health in rural areas; finally, collected data have limited granular basic information, such as on gender.

Box 3. Understanding farmers' stress in Ireland

In many OECD countries, farmers and farmworkers have been found to experience high levels of stress because of their hard work under challenging conditions, such as "financial pressures," "poor weather", and "farm workload". Addressing this concern requires identifying the prevalence of stress and assessing the demographic, farm, and social characteristics that impact the incidence of stress. Irish researchers have responded to these needs by including questions in a nationally representative survey of farm enterprises in Ireland (Brennan et al., 2021[51]; Dillon, Brennan and Moran, 2023[124]).

In 2018 and 2021, a supplementary survey on occupational stress was added to the core survey of the Teagasc National Farm Survey (NFS), the Irish survey that feeds into FADN. It collects data from approximately 900 farms annually. Each farmer participating in the survey provided their informed consent for the use of such data for research purposes. The supplementary survey had a small number of additional questions to determine whether farmers experienced stress from any aspect of their farm business within the past five years.

The results show that the biggest stress factors were weather, workload, and finances, although animal welfare and workforce issues were also important for some. Those self-reporting higher levels of stress tended to be older, have agricultural education, have debts and lack off-farm employment. The reported

incidence of stress among farmers decreased from 57% in 2018 to 40% in 2021. However, among farmers who experienced stress in 2021, 40% reported a deterioration in their stress levels over recent years. While weather conditions had a widespread impact on all farms, intensively stocked grassland farms, in particular dairy farms, were impacted by a notable increase in feed expenditure in 2018.

While the survey facility within the NFS provided a robust method of gathering data on farm level stress and its sources, its one-time collection limits the analysis to a single year. Moreover, the conventional FADN survey methodology is not conducive to collecting more subjective and sensitive data, such as personal health or the quality of social relations. However, the inclusion of an annual stress inventory within the core NFS and FADN would assist researchers and policy makers in understanding the levels and causes of stress and developing strategic well-being support measures.

Recent data shows that suicide has become a serious issue among farmers in many OECD countries, but data collection and reporting systems vary among countries. Countries like the United States collect mortality data from death certificates and combine this data with additional information from, for example, coroner and medical examiner records to better understand the circumstances and characteristics associated with violence-related deaths, such as homicides and suicides (Miller and Rudolphi, 2022[62]). This data is linked with a set of standardised industry and occupation codes so that the incidents related to farmers can be identified and compared with those for other workers (Box 4). In contrast, France has compulsory Agricultural Social Security and Health Insurance (CCMSA) data that provide information on social, demographic and occupational characteristics and vital status (as well as cause of death) of farmers and their partners (Bossard, Santin and Guseva Canu, 2016[59]). Several studies show that suicide rates among farmers may be even higher than reported. In addition to errors in reporting systems, the stigma on mental health and cultural values of stoicism and self-reliance among farmers, may lead farm families to portray instances of suicide as accidents (Purc-Stephenson, Doctor and Keehn, 2023[56]; Miller and Rudolphi, 2022[62]). In addition, both US and French studies focused only on incidents involving farmers but those by hired farmworkers or others with a primary occupation off-farm were excluded.

Efforts in collecting farmers' safety and health related data are becoming more visible in some OECD countries. However, it needs to be highlighted that these data collections are often applied only to farmers, and there are still huge data gaps on other workers in the agricultural sector. They include foreign-born, migrant, and seasonal farmworkers, and most likely they are placed at greater risk for occupational illnesses and injuries than farmers due to lack of local language proficiency, cultural misunderstandings, and often limited formal education (Ramos et al., 2020[43]).

Box 4. Farmer disability and suicide in the United States

Capturing data on mental and physical well-being of farmers is challenging. Mental and physical health questions are currently not included in US national farmer-specific surveys. Yet, by using national health-related surveys, there are several studies that aimed to better understand how mental stress and physical strain associated with managing a farm or ranch may pose increased risks of health difficulties, disabling injuries, or even death.

Farmers and ranchers commonly suffer from chronic pain or permanent disability which may increase their risk of suicide. Using restricted access data from the Centers for Disease Control and Prevention (CDC) for the years 2003–2018, US researchers found that nearly half of the farmers who died by suicide were over 65 years old and 54% of those suicides may have been precipitated by physical health problems, such as terminal disease, debilitating illness, and chronic pain (Miller and Rudolphi, 2022[62]).

In a related study, US researchers examined the prevalence of disability in the farm population (Miller and Aherin, 2018[125]). Using data from the US Census Bureau's American Community Survey, researchers examined six questions related to health difficulty: vision (blindness or serious difficulty seeing), hearing (deafness or serious difficulty hearing), physical (serious difficulty walking or climbing stairs), cognitive (serious difficulty concentrating, remembering, or making decisions), self-care (difficulty dressing or bathing), and independent living (difficulty running errands, such as visits to the doctor's office or shopping). An individual was classified as disabled if he or she answered yes to at least one of the six health difficulty questions. US researchers found that, compared to the disability prevalence of 14.1% for the total US population, 19.2% of farmers and ranchers had a disability. The most common health difficulty among farmers and ranchers was physical difficulty. These findings may be related to the fact that farmers tend to be older on average; according to the 2022 Census of Agriculture, 64% of US producers are 55 years of age or older.

That said, national health-related surveys have some limitations. First, these surveys include only one occupation question in the survey to capture the job where the respondent spends the most time (at the time of the survey), so farmers who also work in an off-farm job may not be captured in the data. In addition, many national health-related surveys, due to small sampling frames, combine agriculture, forestry, and fishing into one industry.

4.3 Data on the well-being of community

Social connections and social capital

Social issues related to community well-being are those related to the lack of social capital and trust in the communities in which farmers work and live. The economic and social links between community members are a source of well-being and resilience for community members including farmers and their families, and there is a rationale for policies to contribute to building this social capital.

The OECD defines social capital as the "networks together with shared norms, values and understandings that facilitate cooperation within or among groups" (OECD, 2001[126]). Hence, when discussing social issues, it is necessary to think about the relationships that are created in a society or community, and how these relationships can be built (through e.g. network, trust, norms, sense of togetherness and belonging) or destroyed (through e.g. crime, deprivation, exclusion, or discrimination).

The OECD has identified four main ways in which the concept of "social capital" has been conceptualised and measured: 1) personal relationships; 2) social network support; 3) civic engagement; and 4) trust and co-operative norms – reflecting different views of social capital and areas of policy interest (Scrivens and Smith, 2013[127]). Regarding these four areas of social capital, Table 4 lists a number of indicators used for the dimension of "Social connections and social capita" in the OECD Well-being Framework (OECD, 2020[16]). Based on the national household surveys among OECD countries, these indicators are measured and used for international comparison.

Although these indicators can be applied to measure social capital for agricultural and rural communities, data is scarce. A main challenge is the trade-off between producing internationally comparable statistics and also having data at the subnational level for rural areas with different situations and degrees of rurality. This is probably why there are many qualitative or case-based studies representing a relatively small number of communities (Rivera et al., 2018[77]; Koutsou, Partalidou and Ragkos, 2014[128]; Teilmann, 2012[129]), but studies on quantitative measurement of social capital among farmers in rural areas are rare.

Table 4. Four aspects of social capital and related indicators

Aspects	Definition	Indicators used for "social connections and social capital" in the OECD Well-being Framework
Personal relationships	This refers to the "structure and nature of people's personal relationships", and is concerned with who people know and what they do to establish and maintain their personal relationships	Time spent in social interactions (Average number of hours spent in social interactions per week)
		Satisfaction with personal relationships (Mean average on a 0-10 scale)
Social network support	This refers to "the level of resources or support that a person can draw from their personal relationships"	Social support (Share of people who report having friends or relatives whom they can count on in times of trouble)
Civic engagement	This refers to "the actions and behaviours that can be seen as contributing positively to the collective life of a community or society".	Volunteering through organisations (Share of the population who volunteered through an organisation at least once a month over the preceding year)
Trust and co-operative norms	This refers to the trust and to the cooperative norms or shared values that shape the way people behave towards each other and as members of society.	Trust in others (Mean score on a scale from 0 (not at all) to 10 (completely))
		Trust in the police (Mean score on a scale from 0 (not at all) to 10 (completely))

Source: Scrivens and Smith (2013[127]), OECD (2020[16]).

This concern underscores the importance of community-level data. The FAO WCA recommends collecting community-level data with a view to building information on the infrastructure and services available to agricultural holdings as a part of the national agricultural census, and this is already done in some countries such as Japan, Korea and Mexico (FAO, 2017[111]). For instance, Japan has been collecting a unique dataset of community-based resource management activities as part of the Census of Agriculture and Forestry (CAF) (Box 5).

Box 5. The census of agriculture and forestry and social capital in Japan

Japan conducts the census of agriculture and forestry (CAF) every five years. The most recent CAFs were carried out in 2010, 2015 and 2020. Along with agricultural holding-level data, the CAF also collect "community-level data" from about 1 700 municipalities and 140 000 agricultural communities across the country. The community-level questionnaire asks about the "number of meetings held by farmers" and the "number of activities for revitalising communities"[1] in a year. Several studies use this information as proxy variables of social capital in Japanese rural communities (Takahashi, Fujie and Senda, 2022[130]; Takayama, Matsuda and Nakatani, 2018[131]).

The community-level data from the CAF serve to monitor how collective activities are changing. The data records the number of farmers, the cultivated area, the number of community meetings held and the nature and extent of collective management actions, as well as communities' receipt of government support for disadvantaged areas and for collective management of agriculture facilities.

Hilly and mountainous areas represent about 40% of both total agricultural land and total agricultural output in Japan (OECD, 2023[132]). Area-based direct payments go to farmers in these areas to compensate for the physical disadvantage for agricultural production with a view to averting the abandonment of agricultural land. Other payments are available to support collective engagement of local stakeholders in e.g. maintenance of dredging waterways, roadside mowing, activities strengthening resilience to natural disaster, minor repairs of farm roads, waterways and ponds, and activities for conservation of local ecosystems. CAF data also serves to analyse how social connections improve (or not) in light of the payment schemes.

A study using the data from 2010 and 2015 CAFs shows that those communities in receipt of government support for disadvantaged areas tend to meet more often than those without such support;

they also maintain their agricultural producers' union; and they work together for shared resource management such as water and drainage (Kusudo, 2021[133]).

The CAF community-level data is now part of the open database, organised by the statistical department of MAFF, and publicly available for those who work on rural development.

1. Activities for revitalising communities include eight categories: preservation of traditional festivals, culture, and arts; holding various local events; welfare activities for the elderly; conservation of the environment; green tourism initiatives; initiatives for the diversification of farm activities; initiatives to promote the settlement of residents; and renewable energy initiatives (Takahashi, Fujie and Senda, 2022[130]).

Rural crime

Crime is an important matter of concern for gauging the community-level of trust and safety. There are currently no comparable international data for agricultural and rural crime. Agricultural crime is currently not published at OECD level, but it is collected by some OECD countries. For example, the Northern Ireland Statistics and Research Agency (NISRA) and the Police Service of Northern Ireland publish data on agricultural crime, which is defined as "the offences of burglary, robbery and theft where the victim is involved in an agricultural-based activity". NISRA cautions that not all agricultural crime will occur in a rural area, hence the Rural/Urban crime split is published, whereby crimes are allocated to urban or rural by linking to available postcode information. This data is recorded monthly by the police.

At the European Union level, it is possible to find Eurostat data on rural crime in the "Degurb" database, which reports annually on "Crime, violence or vandalism" in the area by degree of urbanisation for the period 2003-2021. It allows to distinguish if crimes are happening in rural areas. These data do not report environmental crimes like polluting, illegal dumping of waste or forest arson, affecting the practical effectiveness of the EU Environmental Crime Directive 2008. The number of environmental crime cases investigated and sentenced has remained very low.

4.4 Data on the well-being of women, Indigenous Peoples and specific social groups

Women

Gender-disaggregated data are often missing, and this makes it difficult to acknowledge and assess women's contributions to agriculture and rural economy (Giner, Hobeika and Fischetti, 2022[11]). Given that the family farm is still the most frequent type of farm in many OECD countries, women often work as family non-remunerated labour that may not be registered in statistics. In addition, their role in the economy has been mainly oriented towards tasks traditionally considered to be of low productivity (e.g. care roles), but indispensable for the good functioning of rural communities (OECD, 2022[134]). A broader range of gender-disaggregated data can thus contribute to increasing the visibility of women in the sector (Giner, Hobeika and Fischetti, 2022[11]). For example, Colombia is currently running a project that aims to measure and provide monetary value to non-remunerated care and household activities that are mostly conducted by rural women (Box 6). In the European Union, the upcoming transition from the FADN to the Farm Sustainability Data Network (FSDN) will include a broader range of gender-disaggregated data (OECD, 2023[7]).

To ensure inclusive livelihoods in agriculture, analysis of intersectional dimensions (e.g. gender, age, race, ethnicity, class and disability) may assist in the identification of social issues. Statistics Canada used the Census of Agriculture 2021 data to explore multiple characteristics of female farm operators in terms of their farm type and size, ages, farm revenues, the prevalence of off-farm work, and the likelihood of new technology adoption (Aclan and Jia Chen, 2022[135]). In the United States, Pilgeram et al. (2022[136]) studied similar areas as the Canadian study using the Census of Agriculture 2017 data through the lens of race (white, Black, Indigenous, and Pacific Islander/Asian women farmers). Given that there were significant

differences in women's farms by race, the authors concluded that supporting "women in agriculture" may require tailored responses from agricultural policy that address unique needs in specific communities.

Box 6. Recognition and visualisation of care work by rural women in Colombia

Since the creation of the "Rural Women Directorate" in 2015 as part of the Ministry of Agriculture and Rural Development, Colombia is making significant progress in improving the shared understanding of the contribution of women to the Colombian agro-food system and of the problems they face, including the extent of non-remunerative labour, poverty, and violence (Giner, Hobeika and Fischetti, 2022[11]).

Recent efforts in capturing gender aspects in statistics illustrate several gender issues. In rural areas, only 31.2% of the employed population was female in 2023, although they represent 48% of the rural population in working age (DANE, 2023[137]). Consequently, the unemployment rate of rural women (53.8% in 2023) is 7.6% higher than the employment situation of men. That said, overall, women account for 82% of work in the home, as well as 59% of unpaid domestic work, compared to only 18% and 41% for men, respectively (OECD, 2022[134]).

This gender specialisation has implications for poverty rates, with women more exposed to poverty as they are more engaged in lower-paid economic activities (OECD, 2022[134]). By 2023, 29.8% of households headed by women were in a situation of monetary poverty, higher than the 25.9% for households headed by men (DANE, 2023[137]). Against this backdrop, focusing agricultural and rural policies on the needs of rural women, with recognition of their care roles, would have an important multiplier effect in reducing rural poverty and labour informality, unlocking thus new business opportunities in these economies (OECD, 2022[134]).

In order to recognise, redistribute, reduce and reward the activities related to rural care that are performed mainly by women, the Directorate proposed the definitions of care work: "*Rural care work* is comprised as the set of activities, paid or unpaid, that are carried out to support daily life, produce food and preserve the territories of those who live in rural areas". Data based on this definition incorporates direct and indirect care activities in the agricultural, livestock, fishing and forestry sectors, among others. Rural care work is carried out mostly by women. In general, rural care activities are carried out in the same space as consumption, residence and agricultural production, which generates that women simultaneously carry out reproductive and productive activities.

The Directorate is currently developing a project which works on measuring and providing monetary value to non-remunerated care and household activities and including these into the National Accounts Systems through Care Economy Satellite Accounts. Related surveys and focus groups involving rural women have been organised in different regions of the country to overcome some of the knowledge gaps. Based on this measurement effort, a review of the situation of rural women "Situation of rural women in Colombia" is published annually by the National Department of Statistics of Colombia (DANE).

Indigenous Peoples

"Indigenous peoples are defined by the United Nations as those who inhabited a country prior to colonisation, and self-identify as such due to descent from these peoples and belonging to social, cultural or political institutions that govern them" (OECD, 2019[101]). As the term "Indigenous" can have different connotations depending on the context, the definition matters for the collection of statistics and therefore impacts the effectiveness of public policies.

The simplest statistical definition is one that aligns with the principle of the International Labour Organization's (ILO) Indigenous and Tribal Peoples Convention 169 in terms of self-identification based on descent and belonging to a group (OECD, 2019[101]). Many countries, like Australia, Canada, New Zealand and the United States, align with this principle and use simple self-identification questions in their statistical frameworks (OECD, 2019[101]). Other countries, like Mexico, place various types of conditions and restrictions on the characteristics of Indigenous identity (e.g. linguistic, status and occupational, registration or recognition of groups by the state, and geography). Some countries such as Finland, Norway and Sweden do not collect statistics about Indigenous peoples because of laws prohibiting ethnic identification (OECD, 2019[101]).

Statistical identification methodologies based on specific objectives, such as the Census of Agriculture, are less inclusive and less likely to produce accurate estimates (OECD, 2019[101]). Specifically, statistical identification based on a population's ancestral territories, or embeddedness in traditional cultures and practices (e.g. traditional definition of agriculture in Canada), can lead to underestimation of the Indigenous population (Box 7).

Indigenous Peoples tend to have lower levels of income, even if this figure may be different if non-monetary income of Indigenous Peoples is taken into account (OECD, 2019[101]). Non-monetary sources of income include traditional activities such as subsistence hunting, fishing and farming, which are likely to be more significant for Indigenous Peoples than for non- Indigenous peoples, particularly in rural remote areas. Usually, the market equivalents of these income sources are difficult to estimate. This may be due to the reluctance of Indigenous populations to monetise these activities because of perceived risks associated with taxation of this income and intrusion of government institutions into customary and traditional activities (OECD, 2019[101]).

Box 7. Indigenous Peoples in Canada

In Canada, while efforts have been made to gather a wealth of information on Indigenous involvement in agriculture, there are still gaps in the data and the government continues to work with Indigenous partners to collect and maintain high quality data (both quantitative and qualitative) to inform policy and facilitate reporting on the progress that Canada is making with respect to its reconciliation goals.

The main data sources are the Census of Population and the Census of Agriculture, which are linked through the "Ag-Pop linkage" dataset and updated every five years. As of 2021, 3% of those working in agriculture self-identify as Indigenous, compared to 4% of the Canadian workforce as a whole. Two per cent of farm operators report an Indigenous identity, and 4% of farmworkers. Among the three Indigenous groups in Canada (First Nations, Métis and Inuit), the Métis have the highest representation among farmers – with 70% of the Indigenous farm population, which is twice their share in the total Indigenous population in Canada. There has been an upward trend in the number of self-identifying Indigenous persons in agriculture between 2016 and 2021. Compared to non-Indigenous farmers, Indigenous farmers tend to manage smaller farms, with most managing mixed farms (mixed crops and mixed livestock), or livestock ranches. Women represent a higher proportion of Indigenous farm operators, compared to the non-Indigenous population in Canada.

Some primary production activities of Indigenous Peoples are not included within the traditional definition of agriculture – this includes harvesting wild plants and animals (including for medicinal use). Moreover, the Census data does not capture the unique challenges and barriers faced by Indigenous producers, which have been identified through qualitative methods. These include high entry costs, lack of access to land and capital, skills and capacity-building needs, and limited access to labour. Some of these issues were also highlighted in the development of Canada's UN Declaration Act Action Plan (June 2023). The Action Plan was developed in consultation and co-operation with Indigenous partners from across Canada, and it includes measures to support Indigenous Peoples' food security, sovereignty and sustainability.

Specific social groups

To understand inequalities faced by specific social groups in agriculture and to address barriers that they face, granular disaggregated information is needed about these groups. For instance, regarding the racial and ethnic minorities in agriculture, in countries like the United States, a questionnaire on racial and ethnic identification of respondents has been added in the Census and other types of national farm survey (Box 8). On the other hand, some countries explicitly forbid the collection of statistics on ethnic identity, which highlights the different sensitivities on social issues across countries and locations.

Box 8. Data on race and ethnicity of farmers and ranchers in the United States

The United States Department of Agriculture (USDA) is committed to ensuring equity and fairness, as well as removing barriers that historically underserved or socially disadvantaged communities face in agriculture. To understand inequities faced by these communities, USDA collects data related to race and ethnicity through the annual Agricultural Resource Management Survey (ARMS), as well as the US Census of Agriculture. ARMS is USDA's primary source of information on production practices, resource use, and economic well-being of producers. ARMS collects ethnicity and race information for up to four operators on a farm using a two-question format. First, operators are asked if they are of Hispanic, Latino, or Spanish origin. Next, operators are asked to select their race identity: White, Black or African American, American Indian or Alaska Native, Asian, and/or Native Hawaiian or Other Pacific Islander. More than one selection is possible for the race question.

The two-question format is required in US federal surveys as defined by the Statistical Policy Directive No. 15 (SPD15) in 1997. SPD15 was initially developed in 1977 to provide consistent data on respondents' race and ethnicity throughout the Federal government, including the US Census, US Census of Agriculture, other household surveys, and federal administrative forms. Development of the data standards stemmed in large part from responsibilities to enforce civil rights laws. Specifically, data were needed to monitor equal access in housing, education, employment, and other areas for populations that historically had experienced discrimination and differential treatment because of their race or ethnicity.

Recent analysis focuses on examining differences in outcomes and participation rates among those who manage and operate farms based on their self-identified race and ethnic characteristics. With respect to race and ethnicity, socially disadvantaged (SDA) farms refer to those with at least one operator who identifies as having Hispanic ethnicity or a race of Black or African American, American Indian or Alaska Native, Asian, and/or Native Hawaiian or Other Pacific Islander. Between 2017 and 2021, the overall proportion of farms with at least one SDA operator in the United States is around 8% (Lacy, 2023[138]). The data suggest that farms across all socially disadvantaged producers are less likely to participate in USDA government programmes or to take part in federal crop insurance schemes than farms with all White producers (Lacy, 2023[138]). Additionally, Black-led farms are less likely to hold farm loans and have lower household income than White-led farms.

However, there are many challenges when analysing data related to socially disadvantaged farm operations. First, it is likely that race and ethnicity issues could be under- or un-reported due to incomplete survey responses with respect to race and ethnicity information. Second, there could be disclosure and reliability concerns, due to low sample sizes for socially disadvantaged operations. Finally, the data collected from current farm operators may not be the best source of data information for examining the relationships between race, ethnicity, and historical inequities or barriers to entry into farming or ranching.

As discussed in the health subsection, limited data exist on the population of foreign-born, migrant, and seasonal farmworkers although they make a significant contribution to the agricultural sector in many countries (Ryan, 2023[10]; Ramos et al., 2020[43]). Economy-wide household surveys which normally focus on the resident population do not capture migrant and seasonal farmworkers, as discussed in European studies (Kalantaryan et al., 2021[91]), while some countries like Italy and the United States collect data on, for example, seasonal foreign farmworkers to some extent (Antonioli, Severini and Vigani, 2023[139]; Castillo, Philip and Zachariah, 2022[140]) (Box 9).

Box 9. Data on migrant farmworkers and challenges encountered

EU SILC and EU LFS data in the European Union

To monitor labour market and social integration trends of immigrants in rural areas and the agricultural sector, Kalantaryan et al (2021[91]) used the EU Labour Force Survey (EU LFS) and EU Statistics on Income and Living Conditions (EU SILC) (see also Box 1). The two data sources are characterised by a high degree of harmonisation which allows for comparability across Member States. The surveys provide a rich set of information including, inter alia: the type of place of residence (cities, towns, and rural areas); labour market status; employment sector; and place of origin (country of birth and citizenship).

The approach with EU LFS and EU SILC surveys has certain limitations. As these surveys cover the resident population, they do not capture the third-country nationals who irregularly entered Member States and eventually found a job in agriculture, as well as seasonal employment which makes a significant contribution to the agricultural sector.

Immigrant farmworkers data in Italy

Beyond microeconomic data on farms, Italian Farm Accountancy Data Network (FADN) collects information on hired workers, including their immigration status, type of contract (seasonal vs non-seasonal) and their country of origin (e.g. within Europe, Asia, Africa). These worker data are specific to Italy, and similar types of data are not available in most other EU Member States. The latest official report on foreign workers in Italian agriculture calculates that in 2020, approximately one-fourth of total agricultural employees were foreigners (CREA, 2021[141]). These data have been used for e.g. assessing impact of foreign labour on the competitiveness of Italian dairy farms (Antonioli, Severini and Vigani, 2023[139]).

The reference population for the Italian FADN sample includes only those farms with an Economic Size (ES) above a certain threshold; that is, a sub-population of Italian farms that can be referred to as professional or commercial farms. Some studies argued that data from some Italian regions may be influenced by the higher presence of irregular workers, with the presence of foreign workers underestimated in regions where these workers are not declared (including for statistical purposes), especially in relation to seasonal activities (Baldoni, Coderoni and Esposti, 2018[142]).

Seasonal agricultural labour data in the United States

A recent decline in labour availability is challenging for producers in the United States. The government has been implementing the H-2A Agricultural Guest Worker Program that allows producers to hire foreign labour for short-term contracts. Castillo et al. (2022[140]) used publicly available H-2A case disclosure data, owned by the US Department of Labor, to examine trends in sectoral use, geographic composition, and the types of employers that use the programme. The data record all applications by fiscal year, and contain the applicant's name and contact information, the number of positions to be

certified, contract length, job title, and primary crop. That said, it does not capture business information of employers, such as farm size.

Results showed that the programme expanded rapidly over the last decade, increasing from 79 000 H-2A workers in 2010 to 258 000 in 2019. All sectors and most regions of the United States have experienced significant growth in H-2A employment, but the increase is most pronounced in sectors with high labour requirements and seasonal employment, i.e. fruit and tree nuts and vegetables and melons.

4.5 Common data challenges

Several data challenges and research questions arose from these examples. They are common across a number of the social issues discussed in this section and are relevant for policymakers interested in social issues in agriculture in rural areas.

There is still a large gap between agricultural sector-specific and economy-wide data on social issues. In many OECD countries, farmers represent a very small share of the total population, so they are often under-recorded in general surveys that tend to be non-representative of the whole farmer population. This limits the possibilities for sectoral analysis and for matching data between sector-specific and general sources.

Small sample size is a constraint on using general datasets to explore social issues in agriculture, especially where examining smaller sub-groups within populations, notably disadvantaged or vulnerable populations. However, there is also a trade-off with respect of the cost of commissioning bespoke social data surveys for agriculture, which will limit how much new data-gathering is possible. That said, there are examples where bespoke efforts have served to make a social issue visible for policy makers and society (e.g. Ireland and the United States on health in Box 3 and Box 4, Colombia on women in Box 6, or Canada on Indigenous Peoples in Box 7), an important first step for policy action.

The surveys undertaken on a regular basis within the farm sector, such as the FADN in Europe and the ARMS in the United States, have been designed mainly for economic purposes. There are recent and ongoing initiatives to expand the scope of these surveys with additional questions, but they often may still not be well-suited to the collection of data on social issues. Furthermore, most current sectoral surveys are targeted to farmers, but there are large data gaps on data for farmworkers, particularly migrant and seasonal farmworkers, and on activities off-farm.

For social concerns, it is particularly important to examine the whole distribution of the population, and granular data on sub-populations. More important than dealing with territorial or sector values (medians or averages) is the shape of the distribution. In particular, skewed or bimodal distributions of samples or subsamples may have significant implications for identifying and analysing social issues.

The self-employed nature of many farmers' occupation status is likely leading to under-reporting of incidents (e.g. accidents, injuries, illness and suicides), as well as of the prevalence of Indigenous population or social groups on the farm. Lack of incentives for farmers to report and in areas such as mental health, social stigma in rural areas, are common barriers for data collection. Furthermore, there are personal and social sensitivities that are specific to different countries that make data collection on social issues particularly challenging.

The lack of uniform data collection and reporting systems makes too difficult to compare data across continents and countries with reasonable accuracy. This is particularly the case for the measurement of the social capital in the communities where farmers live.

5. Understanding existing interventions based on seven policy examples

This section presents a synthesis of the information collected in seven examples of existing policy approaches. Five OECD countries (Canada, Italy, Japan, New Zealand and Switzerland) provided examples of policies addressing social issues in agriculture and rural areas in their respective countries. A set of five questions[7] were sent to complete the description of the social issue and the policy approach and form the basis of the case studies presented in Annexes A to G. These cases studies cover different types of social issues in multiple layers of well-being (Table 5.1). The information included in the studies covers the social issues of concern, the rationale for policy action and the implementation of specific policy measures, and the evidence gaps identified to better define the social issues and design appropriate policy response.

Using this conceptual framework as a guide, this section highlights some of the findings across the different approaches used by countries, as self-reported in the policy examples. The aim of this section and the examples in the Annexes is not to assess the policy approaches taken by governments nor to evaluate their impacts. As explained in each of the examples, the significant data gaps on each of these issues often impede even a preliminary assessment. The purpose is to improve understanding of how the social issues of interest are identified, what the policy approach is, and which are the main data challenges in each of the specific cases.

5.1 Identifying the social issues at stake

Most of the examples of social issues in this paper identify a *well-being* concern affecting different layers: farmers (mental health in Canada), their families (social protection of working partners in Switzerland), Indigenous Peoples (Canada and New Zealand), vulnerable groups (people with disabilities in Japan) and farmers' communities (social farming in Italy and rural community hubs in New Zealand). Some cases focus on one dimension of well-being (e.g. mental health in the case of Canada example) but most cases cover several interlinked dimensions.

Most cases make reference to *external drivers*, which make the social issues more severe or visible in agriculture and rural areas. The main common drivers found in the seven cases were demographic, structural and climate changes in rural areas. For instance, cases from Canada and New Zealand report that the number of farmers with mental health problems is increasing due to more frequent extreme climate events, and feeling more isolated due to depopulation. Italian rural areas also experience ageing, out-migration and lack of job opportunities, which are also then largely connected to the deterioration of social and health services in those areas.

Lastly, most cases refer to some data to understand, explain and identify the relevant social issue. Canada has conducted national surveys with farmers to get an overview of their mental health conditions. Census data from New Zealand and Canada highlight the participation of Indigenous Peoples in agriculture. Japan collects data on the employment status of persons with disabilities in private companies, including in the farming sector. While welcome progress, these datasets are, in most cases, imperfect and incomplete and assessing the dimension of the issue and the effectiveness of the policy responses is extremely challenging. Several cases mention that national sources like the census risk underestimating relevant information for specific groups (gender, people with disabilities) and Indigenous Peoples (see also Section 4).

[7] The questionnaire included the following questions: What is the social issue at stake? What is the rationale for developing a policy intervention? Which policies have your country implemented in response? Which are the main (other) social and policy actors involved? What evidence is needed, and which are the data gaps?

5.2 Some rationales for policy intervention

Two different broad rationales are found in the two examples of policy responding to issues related to the well-being of farmers. The first is typically equity: the policy intervention seeks to reduce inequalities, targeting in particular the individuals that are in the bottom of the distribution of well-being for one or more factors, or that are negatively affected under current conditions. This is the case for working partners in Switzerland that are excluded from the social protection provided to operators and to workers in other sectors. The second rationale is the existence of specific risk factors associated with farming professions that affect health, and warrant a sector-specific approach. This is the case for farmers' mental health in Canada.

The policy rationale behind community well-being concerns is often associated with the concept of social capital. Farmers and their communities in rural areas have particular constraints related to the isolation in which many farming activities are undertaken and of their location, particularly in remote rural areas. Building economic and social links and trust between community members can be challenging but is a source of well-being and resilience. The rationale for contributing to building social capital is behind the social farming initiatives in Italy and the rural community hubs in New Zealand.

The rationale behind policies targeted towards Indigenous Peoples refers to inclusiveness and equity, and responds to historical reasons. The purpose is the elimination of specific constraints faced by these groups and the social and economic barriers and biases that hinder their access to income, land, food, and health and other services (examples of Canada and New Zealand).

5.3 Policy approaches and specific instruments

Table 5.1 presents an overview of the policy approaches undertaken by governments to tackle the social issues of concern. The first commonality across the policy examples is that policy makers need to look beyond traditional sectoral policies 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. Agricultural policies are used as accompanying measures only, in some of the examples (Switzerland) or as potential sources of funding (Italy).

For the well-being of farmers and their families, the policy interventions taken by Canada and Switzerland seek the reduction of inequalities, targeting individuals. Canada applies *health* and *knowledge and skills* interventions to improve general understanding of mental health problems in agriculture through research programmes, and support farmers' awareness of mental health to identify and respond to the problems. These interventions, implemented as a public health focus on agriculture, also contribute to removing the stigma around mental health in rural areas. Switzerland will conduct *work and job quality* legal reforms from 2027 to extend social protection schemes to family members who work on the farm. This will be a precondition for direct payments in agricultural policy.

Both Italy and New Zealand use *social connections* interventions as a way to build or increase social networks among farmers and other citizens to solve different types of social issues faced by rural communities. The facilitated networks through the "Social Farming" in Italy and "Rural community hub" in New Zealand are expected to serve as connectors to improve different dimensions of well-being of individuals and communities. For instance, these hubs aim to care for people with mental health problems (*health*); to offer farm work to people with disabilities; to provide opportunities for training and learning (*knowledge and skills*); and to expand business opportunities in agriculture (*income and wealth*).

Due to the multiple roles of social farming practices in Italy, policy instruments are jointly implemented by social, health, rural and agricultural actors. The rural hub initiative in New Zealand was taken by the Ministry for Primary Industries, but the aim is to widen its support for farmers and their families to include all networks of people who make up rural communities in New Zealand.

Policy approaches taken in the cases of Canada and New Zealand for Indigenous Peoples particularly follow a multipronged approach, mainly targeted to their inclusiveness. This approach includes knowledge, skills, information, data and awareness, together with interventions aimed at the elimination of barriers that hinder their access to income, land, food, and health, education/training and other services. Japan's example on vulnerable groups focuses on support to facilitate matching between farm labour demands and employment opportunities for persons with disability, including training.

Some common data gaps are identified when implementing policy instruments. For efficient and effective policy interventions, identifying the "target group" is essential. However, due to limited data (e.g. on social capital) and limited sample size (e.g. for certain groups), or to the lack of understanding of main underlying causes (e.g. on farmers' mental health), the definition of the policy target is challenging. Often social issues are addressed by various policy instruments from different policy areas, but there are inconsistencies in the way that target groups are identified and measured in the statistics collected by different government agencies. For example, the data challenge identified by the experts in Canada is the difficulty that they have in defining "Indigenous farmers" as some Indigenous Peoples do not consider their food production as agriculture. In the New Zealand case study, the data challenge is embedded in the lack of standard definition of Māori agribusiness, which results in different estimates of the economic contribution of those entities.

Table 5. Policy examples and their policy interventions to address social issues

Well-being layers	Country	Social issues at stake	Rationale for policy interventions	Main policy instruments and targeted well-being dimension(s)	Evidence and data gaps
Farmers	Canada (Case 1)	Increasing number of farmers suffering from mental health problems.	To mitigate factors of farmers' stress	Support farmer mental health research (*Health*) Promote mental health literacy in agricultural communities (*Knowledge and Skills*)	National surveys on mental health of farmers (2015/206 and 2021) Undiscovered cases, limited coverage information on e.g. gender
	Switzerland (Case 2)	Many family members (e.g. wives) who work on the farm receive no financial renumeration and social protection.	To improve the equality of 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 (*Work and Job quality*)	Various monitoring systems available to check e.g. working and living conditions, social insurance
Community	Italy (Case 3)	Lack of effective social and health services in some rural areas, and limited care services for vulnerable groups.	To create more inclusive opportunities for vulnerable groups through the Social Farming (SF) practices	Support to set-up networks for diversification of agricultural activities, healthcare, educational activities etc. and to carry the SF (*Social connections*)	Lack of updated and all regions' data on SF activities The first nation-wide survey related to SF activities dates 2020
	New Zealand (Case 4)	Economic pressures, demographic and social changes, and associated mental health problems challenge well-being of farmers and other citizens in remote rural communities.	To support the rural community to build social relationships and rural resilience through "rural community hubs"	Provide community groups to start-up funding to help establish the "rural community hub" where people meet, discuss issues, have workshops etc. (*Social connections*)	National community-level data on e.g. population, household income, access to basic amenities, but quantitative or qualitative systematic data on social capital is a challenge
Indigenous Peoples	Canada (Case 5)	Indigenous Peoples are underrepresented in the agriculture and agri-food sector and that their rates of food insecurity are well above the national average.	To reduce barriers faced by Indigenous People in the agriculture and agri-food To meet Government of Canada commitments to advance reconciliation and implement the UN Declaration on the Rights of Indigenous Peoples UNDRIP	Improve the participation of Indigenous peoples in agriculture (*Income and Wealth, Work and Job quality*) Support Indigenous peoples' growing interest in food security and sovereignty (*Knowledge and Skills*)	Potential underestimation in CA data as some Indigenous peoples do not consider their food production as agriculture Limited information on relevant aspects of Indigenous Peoples' participation in agriculture
	New Zealand (Case 6)	Having a strong historical and spiritual connection to the land, supporting Māori in agriculture links to the preservation of their cultural heritage. Agriculture offers opportunities to address unemployment within Māori communities.	To ensure equal access of Māori to economic and social opportunities and improve their well-being To ensure The New Zealand Government commitment in engaging the Treaty of Waitangi rights	Support Māori landowners to increase the productivity of their land (*Income and Wealth*) Help to develop skilled and resilient workforces in the Māori primary industry (*Knowledge and Skills*)	Inconsistencies in the way that Māori primary producers and production are identified and measured in the statistics collected by government
Specific social groups	Japan (Case 7)	Job opportunities for people with disabilities in general are still limited, while agricultural sector faces an acute shortage of labour force.	To ensure persons with disabilities have equal access to jobs and sources of income To solve the labour shortages in agricultural sector	Reduce the barriers to accessing employment faced by persons with disabilities (e.g. provide training courses and support to develop user-friendly facilities) (*Work and Job quality, Knowledge and Skills*)	Mismatch of data focus and collection methods among ministries

6.1 Conclusions

Many countries across the world are committed to improve the well-being of farmers, their families, and the communities in which they live. This well-being encompasses the experiences of women, Indigenous Peoples, and specific social groups. However, defining and targeting social issues in agriculture has been challenging because many elements are not specific to the agricultural sector and are often place- and context-specific. The lack of appropriate data is a further challenge, often making important social issues invisible to both policy makers and citizens.

This report aims to draw attention to social issues of relevance to the agricultural sector and rural areas, and identify ways to address them. For that purpose, a systematic well-being approach was applied to a diversity of examples on social issues, focused on the main data challenges and on the policy approaches followed by governments.

6.1 Understanding the nature of relevant social issues in agriculture

The proposed framework, looking at different social issues from a well-being perspective, across multiple layers and 11 dimensions of well-being (including material conditions and quality of life), has proven to be useful for understanding how policies addressing social issues could be developed.

For the well-being of individual farmers, in addition to the usual concerns around the “farm income problem”, the livelihoods of farmers (and indeed of all farmworkers) measured by disposable household income and the quality of work and life are important. Safety and health concerns are also important, including in the context of climate change and structural transformations. Moreover, social connections, trust and social capital are a central dimension when policy concerns focus on the well-being of communities. Community well-being may be seriously damaged when the social networks are destroyed through e.g. crime or discrimination. The recent ageing and depopulation trends in rural areas may accelerate this negative phenomenon. Examining well-being through the lens of women, Indigenous Peoples, and specific social groups focuses on the specific constraints faced by these groups, and the social issues are formed by the social and economic barriers and biases that hinder their access to income, land, financing, food, health care and other services.

However, many social issues discussed in this report (not an exhaustive list), have relevance both for the internal well-being of farmers and farm families, and for the external well-being of their communities, as well as for the well-being of women, Indigenous Peoples, and specific social groups. They illustrate the systemic nature of many social concerns – social challenges for farm families have impacts upon communities and vice versa, and it can sometimes be hard to distinguish which key factors underline a specific social issue.

A main challenge is identifying drivers that hinder some aspects of well-being in a manner that is specific for farmers or their communities. This is critical to defining the need for policies that specifically tackle social challenges in an agricultural context. Knowledge about these driving factors on social issues is often scarce and partial. There is a risk of a vicious circle between the lack of data to identify policy needs and lack of clear policy priorities to invest on data.

The 11 dimensions of well-being are relevant to considering the social issues in agriculture and rural areas. Megatrends such as digitalisation may generate challenges and opportunities for the well-being of farmers by either lessening some concerns such as working conditions or generating new ones such as the digital divide. The former OECD well-being study on digital transformation incorporated the additional dimension of “ICT access and use” into the original 11 dimensions (OECD, 2019[143]) and could also be included for future analysis on digitalisation in agriculture.

6.2 Filling evidence and data gaps on social issues in agriculture

Significant data gaps are found in the social aspects that are relevant to agriculture. These gaps hinder the identification and definition of social issues as the starting point for policy making, and thus identification of the right policy instruments to tackle them.

Small sample size is a constraint on using general datasets to explore social issues in agriculture. As the share of the farmers within the total population is small in many OECD countries, they are often under-recorded in general economy-wide surveys. Furthermore, the sample farmers are often combined with fishers and foresters and categorised in the "agriculture, forestry and fisheries" sectors. These concerns limit further exploration of severity of the social issues in agriculture in comparison to those of other sectors and of the whole economy. The under-representation in these general statistics is increased when looking at farmers with specific characteristics that may make them more vulnerable.

In farm surveys, specific social groups, such as ethnic and racial groups, are often at risk of being "hidden" groups in the statistics unless they have specifically been targeted with dedicated questionnaires. The surveys undertaken regularly within the farm sector may not be well-suited to collect data on social issues, having been designed for economic purposes. As highlighted by the Irish case (Box 3), the conventional farm survey approach is not conducive to collecting more subjective and sensitive data, such as on personal health or the quality of social relations. However, there is also a trade-off in terms of the cost of commissioning bespoke social data surveys for agriculture.

Additionally, under-reporting of incidents (e.g. injuries, illness and suicides) on farms is likely to be high due to the lack of incentives for farmers to report in the absence of insurance benefits and the stigma around issues such as mental health. Asking sensitive questions may also lead to a low response rate.

Improvements in data collection and quality of statistics are urgent for inclusion and well-being policies. To fill in these data gaps, more efforts are needed, including:

- Facilitating the matching of statistical and government data from different sources, such as the FADN and EU SILC database in the European Union, or even tax data, is a promising approach to overcome some statistical deficiencies.
- Consulting other policy or research communities with more experience in conducting social surveys regarding the redesign of farm surveys. They could inform the process, and those who do the recording for the surveys could benefit from training in social issues, especially where these could be sensitive topics.
- Collecting and enabling use of more intersectional and geospatially referenced data sources. It will be important to work at a scale higher than the individual farm, for social issues like inclusion and cohesion.
- Building initiatives to make more uniform data collection and reporting systems. The systems will make it possible to compare data between continents and countries with reasonable accuracy.

6.3 Implementing efficient and effective policy instruments for social issues

The systematic approach taken in this report helps to understand and analyse social issues from a comparable perspective across countries, while at the same time recognising their unique features. It demonstrates that the process undertaken by policy makers to identify a social issue and potential policy solution requires extensive consultation with stakeholders that takes into account different perspectives and sensitivities in different locations.

Policy makers need to look beyond traditional sectoral policies to target social issues from a broader policy perspective, and their efforts should be further strengthened by partnership with other policy areas and

relevant stakeholders to ensure the sector's social concerns are adequately addressed across all policy initiatives. For instance, Agriculture and Agri-food Canada (AAFC) has been collaborating with other relevant partners to treat mental health of farmers as it is the central to both their social prosperity and productivity (Annex A). If sector policies are used, they need to be carefully targeted to the social issue of concern. The main types of policies applied in these examples are measures targeted to health, skills, training, social protection, legal reforms, research and data. Direct payments to farmers are used only as accompanying measures in one of the seven examples (Switzerland in Annex B). The best policy is likely to be case specific, requiring further specific analysis. Continued learning from different policy experiences will help develop successful policies, paying particular attention to investigating policy impacts and spillovers, synergies and trade-offs between policies targeting different social issues.

Untargeted or market distorting agricultural support may be counterproductive for some social issues (DeBoe, 2020[144]; Baldoni and Ciaian, 2021[145]; OECD, 2023[7]; OECD, 2006[4]). Supporting education and training targeted to socially disadvantaged groups is unlikely to cause trade distortions or policy incoherence. Targeting special support for farmers and farmworkers to optimise use and reduce exposure to pesticides and investing in research and extension to promote alternatives to pesticides, could also be other examples of non-distorting but targeted social policy in agriculture. Finally, underrepresented groups may face higher barriers to access financing and land, and specific, targeted support programmes could focus on these specific groups and addressing these barriers.

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Annex A. Mental health in agriculture in Canada

What is the social issue at stake?

Recent international studies have shown that farmers suffer from poorer mental health than comparative populations (Hagen et al., 2019[146]), and Canada is no exception. A nationwide survey of 1 735 Canadian farmers in 2019 showed that 62% were categorised with mid-stress scores and 14% with high stress (Farm Management Canada, 2020[50]). Reasons for high stress amongst farmers have been associated with occupational factors such as unpredictable weather, environmental challenges, market fluctuations, debt, regulations and paperwork, media criticism, and social isolation (Report of the Standing Committee on Agriculture and Agri-food, 2019[147]). High stress amongst farmers is then associated with increased risk of farm injury and related depression, while stress in general is associated with mental disorder (e.g. depression and anxiety) and physical ailments (e.g. cardiovascular disease and decreased immune function) (Jones-Bitton et al., 2019[148]). Studies have also highlighted a number of factors that can impede the effectiveness of mental health support for farmers, including: 1) accessibility of mental health services in rural areas; 2) stigma around mental health in the agricultural community; and 3) lack of health professionals who are familiar with the agricultural context (Farm Management Canada, 2020[50]; Hagen et al., 2021[149]).

What is the rationale for developing a policy intervention?

Many farmers are exposed to factors of high stress associated with their occupation, compared to other activities. In order to improve both their well-being and public (mental) health, there is a case for policy action to mitigate the factors of stress that could be more acute amongst farmers and to strengthen the capacities to identify and respond to mental health issues.

The goals of Canada's national approach for farmers' mental health issues include:

- Increasing common understanding of mental health in agriculture through research, for example on gender differences, as well as the implications of climate change and catastrophic events (e.g. fires, floods, animal disease outbreaks) in order to find ways to better support the unique challenges and needs of producers and agri-food workers.
- Supporting and empowering producers and agri-food workers to take care of their mental health.
- Increasing mental health literacy within the agriculture community in order to decrease stigma, mitigate the impacts of stress, increase healthy coping mechanisms, and increase awareness of help/services available.
- Increasing agricultural literacy within the medical community, including mental health practitioners, so they can better support the mental health of the agriculture community.

Which policies has Canada implemented in response?

Mental health policies in Canada: broad policy frame. Health care is a shared federal and provincial/territorial jurisdiction in Canada – with the provinces and territories (PTs) having jurisdiction over delivery of health care services, including those for mental health. In terms of federal government funding for health care, the Canada Health Transfer (CHT) is the largest major federal transfer to PTs. The 2017 Federal Budget confirmed CAD 5 billion over 10 years directly to PTs to improve mental health and addiction services. On 7 February 2023, the government of Canada announced an investment of

CAD 196.1 billion over 10 years, including CAD 25 billion over 10 years to support shared health priorities through tailored bilateral agreements with PTs; the four priority areas include family health services, health workers and backlogs, mental health and substance use, and a modernised health system.

Farmers' mental health: national measures. Mindful of the jurisdiction issues and aligned with the goals mentioned above, Agriculture and Agri-food Canada (AAFC) has supported: 1) research into farmer mental health, e.g. 2021 National Survey of Farmer Mental Health; 2) the first ever Virtual National Symposium on Agricultural Mental Health in March 2023, hosted by the Canadian Centre for Agricultural Wellbeing (CCAW); and 3) the development of a mental health toolkit to help agricultural communities prepare for and respond in the event of an outbreak of African Swine Fever (ASF). AAFC is also seeking to identify and potentially support other areas/gaps that do not infringe on jurisdiction, such as agricultural literacy training of mental health practitioners.[8]

Farmers mental health: regional measures. Regional (PT) sector-specific mental health supports and services exist – some of which are funded in part by AAFC through the Canadian Agricultural Partnership (CAP, 2018-2023), including the PEI Farmer Assistance Program (provides counselling to farmers and their families) and AgKnow (the Alberta Farm Mental Health Network). In April 2023, AAFC launched a new five-year framework, the Sustainable Canadian Agricultural Partnership (Sustainable CAP, 2023-2028), which identifies mental health as a priority. PTs can use the cost-shared component of the Sustainable CAP to support agriculture-specific mental health initiatives/services in their regions. For example, through the Sustainable CAP, CAD 8 million is allocated to ensure the continuation of farmer mental wellness support programmes in Ontario, including: the Farmer Wellness Initiative (counselling to farmers and their families); the In the Know programme (mental health literacy training tailored to the agriculture community); and the Guardian Network made up of trained, adult volunteers who are likely to be in contact with farmers (volunteers are trained and equipped with the strategies and tools needed to identify when someone is struggling with their mental health and direct them towards appropriate resources). The Quebec Government has provided annual support to the *Au cœur des familles agricole* (ACFA) organisation for several years. This funding supports initiatives like the *Travailleurs de rang* programme in which social workers are trained to meet the special needs of farmers and assigned to rural regions to do outreach to farmers and their families.

Which are the main other social and policy actors involved?

Farm Credit Canada (FCC) promoting awareness. FCC is a federal commercial Crown corporation reporting through the Minister of Agriculture and Agri-Food. Since 2018, FCC has had a mandate from the Minister of Agriculture and Agri-food to work on mental health in rural Canada and has supported numerous mental health awareness initiatives such as: *mental health literacy training* free to farmers and their families across the country through the Do More Agriculture Foundation. The *Rooted in Strength* campaign promotes awareness and provides farmers with mental health self-assessment tools and a list of crisis resources. On 12 December 2022, FCC's mandate on mental health was revised to include continued efforts to: 1) enhance mental health services offerings to support those involved in Canada's agriculture and food system; and 2) to work with and provide financial support to likeminded organisations to assist producers with mental health issues through greater awareness and knowledge dissemination and provide greater access to services and support networks in rural communities.

Civil society initiatives. Since November 2022, the virtual not-for-profit organisation *Canadian Centre for Agricultural Wellbeing (CCAW)*, has supported farmers with a research-to-action approach to mental health. Working with provincial and national partners, CCAW seeks to advance farmer mental health research, clinical programming, education, and advocacy efforts to address the needs facing Canadian

[8] In August 2023, AAFC awarded a competitive contract to the Canadian Centre for Agricultural Wellbeing to develop and deliver agricultural literacy training to 250 mental health professionals across Canada by 31 March 2024.

agriculture. Since 2018, the *Do More Agriculture Foundation*, a grassroots organisation has promoted education for the agriculture industry on mental health, working to remove the stigma surrounding it, and has provided information about resources and supporting research. AAFC provided support to *Do More Ag* to undertake a research project on the mental health of women, youth, and other demographic groups across Canadian agriculture.

Other initiatives. Several regional farmer-specific mental health services exist, such as crisis lines and counselling services, some of which are funded privately, and others through PT ministries of agriculture/rural affairs.

What evidence is needed, and what are the data gaps?

Statistics Canada's Canadian Community Health Survey in 2017 found that 7% of respondents perceived their mental health as fair or poor (Report of the Standing Committee on Agriculture and Agri-food, 2019[147]). There is, additionally, a good data source available specific to farming. The first national survey of farmer mental health in Canada was conducted in 2015/2016 by a research group from University of Guelph, and found that farmers in Canada faced higher levels of stress, anxiety, depression, burnout, and lower resilience and help-seeking than population norms (Jones-Bitton et al., 2019[148]). The survey found that 45% of all 1 132 respondents reported high stress levels, 58% anxiety and 35% depression. In terms of burnout, the survey found that 44% of participants were classified in the ineffective, overextended, or disengaged profiles (i.e. intermediate profiles on the engagement – burnout continuum) and 12% were classified in the burnout profile (Jones-Bitton et al., 2019[150]). A similar national survey was undertaken in 2021 to explore impacts of COVID-19 on Canadian farmers, resulting in 1 167 farmers participated (Thompson et al., 2022[151]). Overall, the 2021 national survey found that the mental health of farmers was worse than five years before (2016 survey) and worse than that of the general population across almost all parameters: stress, anxiety, depression, emotional exhaustion and cynicism (two components of burnout), suicide ideation and lowered resilience.

According to national experts (Report of the Standing Committee on Agriculture and Agri-food, 2019[147]), some actual cases of mental illness may not be diagnosed due to, among other reasons, stigma around mental health in rural areas. There is also limited coverage of information disaggregated by gender, race and ethnicity, as well as limited information on the rate of suicide in the agricultural sector. There is limited understanding of impacts of key drivers on farmers' mental health, including climate change, animal epidemics and depopulation.

Annex B. Social protection of the partner working on the farm in Switzerland

What is the social issue at stake?

In Switzerland, family members who work on the farm account for more than one-third of those employed in agriculture. While some of them are paid as self-employed or employees, most receive no financial remuneration for the work they do. On average, Swiss female farm family workers work around 75-80 hours a week, but only about half of them (55%) are paid for their work (Moser and Saner, 2022[152]).

Regarding social insurance, the *Swiss old-age, survivors and disability pension system* consists of three pillars: Pillar 1 is a compulsory set of state pension schemes (with an obligation for all employed persons in Switzerland to contribute) including old-age and survivors' insurance (AHV), disability insurance (IV), and earnings compensation insurance and maternity benefit (EO); Pillar 2 covers occupational pension schemes (BVG); and Pillar 3 is voluntary private pension schemes. These three pillars complement each other and provide financial benefits in the event of disability, retirement or death (Table B.1).

While non-family labour is subject to compulsory social security coverage, in many cases, family members in agriculture benefit only from very limited social protection. Unpaid family members working on the farm cannot contribute to their own pensions under Pillar 1. All family members, similar to self-employed workers, are not eligible for Pillar 2 of occupational pension scheme (BVG), neither of unemployment insurance (ALV) and accident insurance (UVG). The people who run the farm and their family members who work there must therefore ensure adequate social security coverage by themselves – unless they have social security cover due to paid employment outside the farm.

Table B.1. Social security coverage before and after the new regulation on farmers' partners

Insurance schemes		Until 2026	After 2027	Remarks
Risk insurance	Pillar 1 State pensions (AHV, IV, EO)	Compulsory	Compulsory	To receive benefit, a couple must pay at least twice the minimum contribution of CHF 1 028 per year (as of 2024).
	Pillar 2 Occupational benefits insurance (BVG)	Voluntary	Compulsory (The partner can choose either Option 1 or 2)	Option 1: Voluntary occupational benefit scheme The partner must earn annual salary of at least CHF 3 770 (as of 2024).
	Pillar 3 Private pensions	Voluntary		Option 2: Voluntary private provision scheme The partner can apply this scheme without income.
Daily allowance insurance	Illness (ALV)	Voluntary	Compulsory	Daily allowance insurance in the event of incapacity for work – in case of illness and accident
	Accident (UVG)	Voluntary	Compulsory	

What is the rational for developing a policy intervention?

Many family members who work on the farm receive little or no social protection compared to other workers in farming or in other sectors. In order to contribute to the equity of treatment across workers with different activities and status, there is a rationale for improving the social security coverage of partners working on farms.

Which policies has Switzerland implemented in response?

Direct payments to farmers will henceforth be linked to the existence of social security coverage for their partner. As part of the "AP 22+", from 2027 onwards, the social security cover for partners working on the

farm will be a precondition for direct payments.[9] Farmers are obliged to provide proof that the partner working with them is adequately covered by social security, with a corresponding insurance policy to be presented at the controls. The social security coverage provided to eligible partners consists of two parts: risk insurance up to pension-eligible age and daily allowance insurance in the event of incapacity for work (Table B.1).

Partners must fulfil various requirements, presented in Table B.2, for the obligation to be covered by social security coverage to apply. Only spouses and partners in registered partnerships are covered by this new regulation. This requirement helps to facilitate the administrative task, because information can be drawn from data in tax files. There are three exceptions to the obligation to provide social security cover: 1) poor state of health of the partner; 2) the farming couple is experiencing financial difficulties; and 3) age limit for the partner of being older than 55 years reached at the time of introduction of social security cover.

Table B.2. Compulsory provisions for the partners to benefit from social security cover

Areas	Conditions
Martial status	Married or in a registered partnership
Age	Not yet reached old-age and survivors' insurance (AHV) age
Work on the farm	Regular and considerable collaboration: that means "two-earner tax deduction" (even without remuneration or income) is claimed or deducted
Own income	No own income at all or under CHF 21 330 gross annual income (entry threshold for Pillar 2 as of 2024)

Which are the main (other) social and policy actors involved?

From September 2019 to January 2020, the "Social Security Protection" working group was convened by the Federal Office for Agriculture (FOAG) to discuss and concretise the legal provision and develop an implementation plan. The following organisations were represented in the working group: Swiss Farmers' and Rural Women's Association (USPF), Swiss Farmers' Union (USP), Agrisano (farmers' insurance company), Conference of Swiss Agricultural Offices (KOLAS), AGRIDEA (Swiss Agricultural Advisory Service) and Treuland (Swiss Agricultural Trust Association). The purpose was to take into account the views of farming couples, the insurance companies, the canton and the federal government.

What evidence is needed, and what are the data gaps?

The current situation of working and living conditions, social insurance and benefits, and quality of life and satisfaction of partners are tracked regularly through various monitoring studies, and results are reported in the *Rapport agricole* (https://www.agrarbericht.ch/fr). This agricultural report, published since 2000, includes a section on social issues; for example, quality of life is surveyed every four years. In addition, a study has been carried out into the particular situation of women (Moser and Saner, 2022[152]) as well as farmers' perceptions of their profession and well-being at work.

Within the framework of the Swiss Agricultural Structure Survey of the Federal Statistical Office, the social security situation of partners is regularly recorded and evaluated. Additional indicators may be included once the precondition of social security cover for partners is enacted from 2027.

[9] "AP 22+" stands for "further development of agricultural policy after 2022". Due to a parliamentary suspension, the various programmes of AP22+ will be introduced later than originally planned. The planned two-year transitional period for this specific measure will be waived (2025/26) and introduced two years later than originally envisaged (from 1 January 2027).

Annex C. Social farming in Italy

What is the social issue at stake?

In recent decades in Italy, there has been an increase of inequality and the emerging of new forms of poverty, linked to economic, social, and cultural crisis, with deterioration of some welfare protection networks and shrinking services and facilities. Rural areas, especially the most remote ones, are characterised by ageing, depopulation, lack of certain public and private services with deterioration of quality of life (Pastorelli and Stocchiero, 2019[153]). In addition, prevalence of mental health problems, including anxiety and depression symptoms, and poor access to mental health services have been implicated in an increased risk of suicide among men working in agriculture, fishery, and forestry (Alicandro et al., 2020[154]).

At local level, several alternative forms of social protection and welfare were born, such as Social Farming (SF), to meet social and health emerging needs in rural and disadvantaged areas. SF is a set of different practices aimed at including vulnerable people in social-working pathways and supporting public services in therapeutic, educational, and care actions (Box C.1). SF is widespread in Italy: it is constantly growing and represents an answer to social challenges in rural areas. There are currently around 1 000 farms and agricultural co-operatives operating SF across the country, providing social services for specific groups of people, such as those with disabilities, alcohol, drug, or other addictions, or targeting for instance inmates, children, elderly people, etc.

Box C.1. Social farming in Italy

The first experiences of Social Farming (SF) in Italy date back to the 1970s and consisted of local actions on social and working inclusion, without any institutional regulation. Over the years, social farming expanded and spread throughout the country, and in 2015, the Italian Parliament adopted a specific law (141/2015) providing for a framework of principles and procedures to recognise SF practices in a homogenous way.

The law defines SF as *"as an aspect of multifunctionality of farms and agricultural enterprises, aimed at the development of social services and socio-sanitary, educational and socio-occupational placement interventions, in order to facilitate full and proper access to basic services granted to people, families and local communities in all the national territory, particularly in rural or disadvantaged areas".* SF consists of four activities: social-occupational inclusion; local community services; co-therapy service; educational and recreational activities for disadvantaged people and preschool children.

The paths to set-up SF activities are different depending on local needs and resources. Farms, social co-operatives, associations, public services, municipalities, or other local actors mobilise to carry out activities when there is a real need or a lack of services. Often, they prepare, as a partnership, a project to participate in a call published by regional administrations or they offer specific services to local communities.

For instance, *"Agricoltura Capodarco"*, a social agricultural co-operative located in the outskirts of Rome, employs many support workers providing occupational therapeutic activities, rehabilitation, education, training, and support for work inclusion. The co-operative is involved in several projects, such as a 'shelter laboratory' employing 15 people with learning disabilities or psychiatric disorders to

work on the farm. Projects are funded by municipalities or Lazio region, using European Social Fund (EU ESF) or European Agricultural Fund for Rural Development (EAFRD) resources.

The SF in Italy is an innovative approach, capable of introducing new interventions in the socio-health sector (Genova, 2018[155]; D'Angelo et al., 2022[156]; Moretti, 2020[157]) and new opportunities for income diversification in agriculture (Dell'Olio, Hassink and Vaandrager, 2017[158]; Di Iacovo, 2020[159]).

What is the rational for developing a policy intervention?

The main issue addressed by SF in Italy is the inclusion of disadvantaged people or the most vulnerable groups. The lack in some rural areas of effective social and health services hinders inclusion pathways and the offer of specific assistance services. SF thus represents an opportunity for a practical response to local needs in terms of social welfare and for the creation of cohesive and inclusive communities. Indeed, one of the main features of SF practices is the ability to create and consolidate networks among heterogeneous actors in facing the identified problem.

SF can play a significant role in supporting local communities towards greater cohesion and better social services. The presence of accessible and effective social services is key for the resilience of local communities and an important factor to contrast rural depopulation. The policy intervention, consequently, aims at increasing social capital by financing intangible goods (such as networks, cultural and educational activities, etc.), as well as structural and infrastructural investments in the farms for carrying the "social farming" activities.

Which policies have your country implemented in response?

There are general social policy provisions for interventions on trainings, internships, and other activities to include disadvantaged people, and health services at local level, as required by the National Health System and regional legislation. The specific Law on Social Farming provides a frame of concrete complementary local action, including through EU ESF.

In the context of EU rural development policy 2014-2020, interventions affecting SF were programmed in Italy through various measures, with relevant variability among the 21 regional Programmes. Many regional strategies supported SF interventions through the *"diversification measure"*, favouring the integration between agriculture and social services, as non-agricultural economic activities dealing with social issues. Another measure used to support "social farming" in rural development programmes was also the one dealing with *"co-operation among different actors"*, aimed at creating local SF networks among farmers, cooperatives, social and health services, and other local actors, in order to carry out specific SF activities at local level.

Moreover, the current Italian Common Agricultural Policy (CAP) Strategic Programme 2023-2027 planned specific interventions to support SF in agricultural holdings and cooperatives, such as *"diversification measures into non-agricultural activities",* and *"creation of basic services for rural population",* included the set-up of networks for the diversification of agricultural activities and concerning healthcare, social integration, community-supported agriculture, environmental and food education.

Which are the main (other) social and policy actors involved?

The policy actors mainly involved are diverse, including farmers, and social and health workers, as well as those who work for educational and justice policies. The SF practices are based on collaboration among farms, co-operatives (non-profit sector), local services, associations and other local actors interested in the solution of a specific issue.

In the case of social-working inclusion, services support individual pathways using internships funded by EU ESF for encouraging the participation of disadvantaged people and applying tutorship. When SF activities are aimed at co-therapeutic intervention, social-health services can be economically supported through regional funds. Some Italian regions, using CAP interventions, finance also services for children (nursery) or elderly people (active longevity) implemented by partnerships involving farms in rural areas.

What evidence is needed and which are the data gaps?

There is a lack of updated data on SF actions and their impact on the inclusion of vulnerable people. Indeed, knowledge of the phenomenon is still partial, as there is not yet statistically homogeneous quantitative data collection in the national territory. The CREA-INAPP survey submitted in 2016 a questionnaire to about 1 200 operators in Italy (farms and co-operatives) to collect SF information. This dataset was updated by CREA in 2020 (Borsotto and Giarè, 2020[160]). Currently, only 11 Italian regions out of 21 have established a formal list of SF operators, for a total of 317 operators in the country (Italian NRN – National Rural Network, 2023).

The Italian 7th General Census of Agriculture (October 2020) has included for the first time information about SF in the data collection for the *"Other Gainful Activities (OGAs)"* carried out by farms concerning the 2019-2020 agricultural year. According to census data, total active farms in October 2020 were 1 133 023 and among these, 65 126 claim to be engaged in at least one OGA, with 1.4% of them (904) carrying out "social farming activities".

Despite these deep statistical gaps, some studies have used qualitative methods to analyse SF (Dell'Olio, Hassink and Vaandrager, 2017[158]; Borsotto and Giarè, 2020[160]). They show evidence that SF can be effective, especially when based on "open approach", that is, activities not limited to laboratories or other specific actions, but organised in a systemic way to face all dimensions of a specific social issue. In addition, partnerships composed by heterogenous actors are found to be more effective in co-ordinating different interventions involving several competences and expertise.

Annex D. Community hub programme in New Zealand

What is the social issue at stake?

Around 14% of New Zealanders live in rural areas and rural community services are often the only way for residents in isolated areas to access support services (Ministry of Social Development, 2022[161]). The large distances between properties and services means that the rural community often lives and works in isolation. The distance deters the rural community from being involved in organised activities and connections with other people. These combined factors put the community and individual well-being, mental and physical health at risk.

For communities living on islands, such as the Chatham Islands, the isolation is even greater, and the viability of farming is under pressure with income reliant on livestock being shipped to New Zealand and inputs delivered to the islands by the same means. Exacerbating the situation is the reduced service to the islands with the shipping company, which is struggling financially.

For other small communities such as Tuturumuri, a village on the North Island, the population is dispersed and isolated with limited Internet connectivity and mobile phone coverage. The only access road is prone to flooding and at times is cut off from the rest of the region. Traditionally Tuturumuri has been made up of farming families and others employed in the agricultural sector. However, at least one of the major sheep stations in the area has been lost to afforestation. The Ministry of Education closed the school in February 2020. Changing family and employment dynamics have seen many parents take their children with them into town to attend school while they are at work, and a new coastal subdivision has become popular mostly for weekenders and part-time residents. This brings a new dynamic to the community, and there is a need for connection of the existing and new residents. There is also a need for a place to gather, replacing the gap left by the school closure.

The distance and isolation have led to mental health risks in rural communities in New Zealand. A population-level study found that more rural people in New Zealand are dying at a younger age than urban dwellers (Nixon et al., 2023[162]). The authors found twice the number of under 30-year-olds living in rural areas die compared to those in cities. Apart from injury-related deaths, suicide rates for rural areas were confirmed to be higher. There is also a concern that higher local suicides rates might create additional stress in the rural community. The economic pressures, changes in social and demographic environment, as well as increasing mental health issues have prompted the rural community to look for ways to come together more often and help strengthen its resilience.

What is the rational for developing a policy intervention?

In order to develop the rural community's resilience in facing economic, social, climatic and well-being challenges, there is a policy rationale for supporting rural communities to build social relationships. This is aligned with the recognition that the success of New Zealand's primary sector hinges on having strong, thriving and sustainable rural communities.

Which policies have your country implemented in response?

To support the rural community in building social relationships and rural resilience, the Ministry for Primary Industries (MPI) launched the rural community hubs initiative in 2019, which has helped establish 32 hubs throughout New Zealand (Ministry for Primary Industries, 2022[163]).

The rural hub initiative was part of MPI's efforts to widen its support for farmers and their families to be included in all networks of people who make up rural communities in New Zealand. It aims to accelerate the sustainable productivity, and inclusiveness of the primary sector in line with the "Fit for a Better World 2020" roadmap. The development of the rural community hubs initiative was influenced by two research programmes that have helped MPI to come up with a practical project to diagnose and deal with core challenges for rural communities: a) the transdisciplinary science programme *criteria for a good indicator*, by the Indicators Working Group from Our Land and Water, and b) *rural community resilience*, by AgResearch, one of New Zealand's largest Crown Research Institutes.

MPI's key approach to implement the initiative is guided by community-led development principles and is focused on growing local leadership. The project discourages dependence on government support, privileging self-reliance. Community groups and organisations receive start-up funding to help establish each rural community hub. The funding usually ranges between NZD 20 000 and NZD 30 000 for each hub proposal from applicants. The money can be used to rejuvenate a space such as a community hall, connect with organisations that can provide services or resources, or employ a co-ordinator to assist with writing a strategic plan and setting up appropriate support activities. Capacity in the community to do this is crucial, and a self-sustaining model over time will need creative, dedicated people from the community to lead the project. In many cases, co-ordinators are undertaking community consultation to identify gaps the community would like to fill. Part of that consultation includes hosting skills building and well-being workshops, such as improving sleep, chainsaw maintenance and make-up tutorials, to help engage with a wide cross-section of the community. Others include fitness/bootcamps, first aid, emergency preparedness, farming/regulatory, craft/creativity, and computer literacy.

Which are the main (other) social and policy actors involved?

MPI's Agriculture and Investment Services business unit works to create a thriving and sustainable future for farmers, growers, primary industries, and rural communities. Rural communities and farming support regional advisors could be contacted by potential applicants in the first instance to discuss how the rural community hubs might be shaped, prior to an application being submitted. MPI's Deputy Director-General Agriculture and Investment Services then assess the applications and decide whether to approve the funding.

Once the application is approved, it is expected that the rural community hub brings in everyone from the local community. Participation should not be limited to farmers, it should include non-farmers, other rural professionals, volunteers, local businesses and government services. The hub co-ordinator would play an important role in maintaining momentum and facilitating wider connections. Hub co-ordinators also typically remain in contact with MPI staff after seed funding has been spent, to ensure ongoing continuation of government support to the community (including linking up with other government agencies such as the Department of Internal Affairs who also offer funding and community led development expertise across both urban and rural areas). Hub co-ordinators are also a valuable point of contact for MPI and civil defence agencies during and after adverse events to gather intel and provide necessary support to communities.

What evidence is needed and which are the data gaps?

Some indicators to measure rural resilience are covered by census which is managed by Statistics New Zealand, such as population growth, household income, physical activity limitation, access to basic amenities, and so on. These are important and useful data to understand rural communities. However, relying excessively on quantifiable data tends to miss other important measures of resilience such as social capital, bonding and co-operation. Gathering this type of information is a challenge.

It is important to acknowledge that every rural community is different, which is why engaging with communities and understanding them from the inside could be a useful approach to compensate the effort

to quantify understandings of rural communities. A key finding in research done by Our Land and Water (2019[164]) was that stronger resilience in one area can compensate for weaker resilience in others. The concept of self-resilience as the key to achieve long-term sustainability of the rural community hubs is derived from this finding, but helping rural communities identify different ways to grow resilience based on their own characteristics would require further exploration of community-level qualitative data. Further data would be needed to demonstrate the interrelationship between strong-weak resilience in each rural community hub where MPI funding was given, including the role of key social and policy actors involved. These qualitative data could further inform a more targeted, context specifical policy intervention to address challenging facing rural communities in New Zealand.

Unfortunately, there been no formal evaluation exercise of the hub programme since it was officially wrapped up on 30 June 2023. MPI informally reviewed the status of the MPI funded hubs around June 2023 and identified that all but 3 of the 32 hubs were successful in that they achieved what they set out to do with the MPI funding. Of the 29, it was estimated that 26 remained active at that point in time and were continuing to deliver for their communities without MPI funding.

Annex E. Increasing the participation of Indigenous communities in agriculture in Canada

What is the social issue at stake?

Prior to European contact, Indigenous Peoples (First Nations, Inuit and Métis) engaged with the land and natural resources to secure food, often with cultural and spiritual significance. While traditional Indigenous food and related practices are present today, European colonisation and subsequent government policy and intervention, have disconnected many Indigenous Peoples from their traditional food sources and harvesting practices, and curtailed the transfer of essential skills.

Indigenous Peoples in Canada are underrepresented in the agriculture and agri-food sector. The 2021 Census estimates the population of Indigenous Peoples in Canada to be more than 1.8 million in 2021 (5.0% of the population) with a growth rate of 9.4% since 2016. Indigenous Peoples represent a relatively small share of employment in the Canadian agriculture and agri-food sector. In 2021, Indigenous Peoples accounted only for 2.9% of Canadian agricultural production occupations (8 150 employed, including managers, contractors, and supervisors in agriculture and horticulture as well as horticulture workers and harvesting labourers), compared with 2.0% in 2006. Despite existing barriers, including access to capital and land, discouraging Indigenous participation, the number of Indigenous participants in food cultivation continues to rise, as interest in reclaiming traditional practices and supporting food security for communities grows. This growth, however, has not matched the growth in the share of Indigenous Peoples employed in all occupations (3.1% to 4.0%). The majority of Indigenous Peoples working in agriculture in the 2021 Census identified themselves as agricultural and horticultural workers (4 385 employed) or managers (3 640 employed).

The loss of traditional food sources and practices has contributed to food insecurity among Indigenous populations, who continue to experience deep and longstanding food insecurity. Data from the 2016 First Nations Regional Health Survey indicate that 50.8% of First Nations adults on-reserve lived in households that were food insecure. The latest available data from the Aboriginal Peoples Survey in 2017 reported 30% of Métis adults lived in a food insecure household. According to this survey, approximately 76% of Inuit over the age of 15 in Inuit Nunangat reported food insecurity, the highest documented prevalence of food insecurity of any Indigenous population living in a developed country.

What is the rational for developing a policy intervention?

1. Statistics have demonstrated that Indigenous Peoples are underrepresented in the agriculture and agri-food sector and that their rates of food insecurity are well above the national average.

2. There is a policy rationale to reduce these barriers in an effort to support Indigenous Peoples' food security and sovereignty priorities, improve the participation of Indigenous Peoples in agriculture, and create additional opportunities to help to advance economic reconciliation. There is also a case for policy action to help to meet government of Canada-wide commitments and requirements to advance reconciliation and implement the *United Nations Declaration on the Rights of Indigenous Peoples* Action Plan Measures.

Which policies have your country implemented in response?

AAFC has created a number of internal processes and external programmes to help reduce barriers and support the participation of Indigenous Peoples in the agriculture and agri-food sector. These include:

- The AgriDiversity Program is a five-year, CAD 5 million programme, under the Sustainable Canadian Agricultural Partnership, which helps support underrepresented and marginalised groups, including Indigenous Peoples, to address the key barriers they face to fully participate in the sector.
- The Indigenous Agriculture and Food Systems Initiative spent CAD 8.5 million from June 2019 to March 2023 to increase economic development opportunities for Indigenous Peoples and Communities.
- The Youth Employment and Skills Program provides CAD 10 million in funding to organisations for the creation of agricultural internships and career-related work experiences to youth and youth facing barriers. The programme prioritises Indigenous applicants and provides additional support to hire Indigenous youth interns.
- The Local Food Infrastructure Fund was a five-year, CAD 70 million initiative, ended on 31 March 2024, aimed at community-based, not-for-profit organisations with the goal of increasing food security and strengthening local food systems through investments in infrastructure needs. Budget 2024 announced that the programme was renewed with CAD 62.9 million over three years, starting in 2024-25, with priority to be given to Indigenous and Black communities, along with other equity-deserving groups.

In 2021-22, the department began sector engagement and negotiations with provincial and territorial governments on the Sustainable Canadian Agricultural Partnership (Sustainable CAP). Diversity, Equity, and Inclusion were included as a guiding principle in the Guelph Statement, issued by Federal, Provinces and Territories (FPT) Ministers in November 2021, committing governments to "working to address barriers to participation and consider the needs of underrepresented groups such as youth and women, and strengthen relationships with Indigenous Peoples to better support sector participation". Through the Sustainable CAP, AAFC contributes funding for provincial and territorial-led agricultural programmes focused on Indigenous Peoples.

AAFC is committed to increasing engagement with Indigenous partners and has undertaken a number of consultation sessions with Indigenous partners across Canada. In June-July 2021, several regional and national engagement sessions were conducted. The goal of these sessions was to learn about Indigenous perspectives on food and agriculture and to gather information on several key topic areas, including challenges and opportunities, programmes, and training and capacity building.

The department has also introduced the Indigenous Pathfinder Service, which provides one-on-one service and single window delivery to support Indigenous communities and Peoples who are looking to expand their operation or create a new business in the agriculture and agri-food sector. The Pathfinder Service works with other government departments to identify potential funding opportunities and facilitate connections with specific programmes. The engagement sessions and the Pathfinder Service contribute to the department's understanding of regional Indigenous perspectives and to policy design.

Which are the main (other) social and policy actors involved?

Under the Sustainable CAP, a number of provinces and territories have created programmes to increase Indigenous partners' participation in the sector. For example, in Manitoba, the Indigenous Agriculture and Food Systems programme supports actions and activities to increase food security and sovereignty in communities, support and enhance the revitalisation of traditional food systems, training and skill

development, climate change adaptation, or increase participation within the agriculture and agri-food sector.

The British Columbia Indigenous Agriculture Development Programme supports Indigenous peoples' success in the food and agriculture sector. The programme offers two streams of support: one for Indigenous governments, communities and organisations, and the other for Indigenous entrepreneurs.

Other federal partners also focus on Indigenous food security initiatives to support their own food priorities. For example, Nutrition North Canada provides funding for the Harvesters Support Grant, which increases access to country foods by providing flexible funding delivered by Indigenous organisations to support traditional hunting, harvesting and food sharing in isolated northern communities. As part of this programme, the Community Food Programs Fund was introduced in 2022, co-developed with Indigenous partners to support a variety of community food sharing activities that include locally grown, market and country food; it also contributes to initiatives such as school food programmes and elders' meal programmes. Budget 2024 announced an additional CAD 101.1 million over three years starting in 2024-25, to support the Harvesters Support Grant and Community Food Programs Fund and promote Indigenous communities in implementing culturally appropriate, local solutions to address food insecurity.

When the Food Policy for Canada was announced in 2019, the Canadian Northern Economic Development Agency (CanNor) received CAD 15 million over five years to deliver the Northern Isolated Community Initiatives Fund (NICI), aiming to enhance Indigenous and northern food security by supporting local, community-led projects that reduce dependence on the southern food industry. Supporting food security in Indigenous and northern communities is one of the near-term action areas intended to move towards the long-term Food Policy outcome of strong Indigenous food systems. Recent Budget 2024 funding was expanded beyond CanNor and provided to the Regional Development Agencies responsible for Quebec and Labrador to include all Inuit communities, in alignment with the federal Inuit Nunangat Policy.

What evidence is needed, and what are the data gaps?

National experts have already identified some data challenges. For example, it is believed that some Indigenous Peoples do not consider their food production as agriculture, and therefore census data may be underestimated. There is also limited information on relevant aspects of Indigenous Peoples' participation in agriculture, including: a current, and anticipated, arable land inventory; the types of production, size of operations and regional characteristics; and domestic production versus international export.

Annex F. Empowering Indigenous Communities in New Zealand

What is the social issue at stake?

Before the Treaty of Waitangi was signed in 1840 between Māori chiefs and the Queen of England, Māori still held most of the land in New Zealand. But between 1840 and 1900, Māori were alienated from most of their land, with many experiencing forced sale and confiscation. Through the Treaty Settlement process, the New Zealand Government attempted to address historical grievances, land confiscations, and breaches of the Treaty's principles, providing an economic basis for Māori through the return of land, financial redress and arrangements for co-management of natural resources.

According to a report released by the Reserve Bank of New Zealand, the Māori Agriculture, forestry and fishing asset base was worth NZD 23 billion in 2018 (BERL, 2018[165]). The largest proportion of the asset base was in sheep and beef farming (NZD 8.6 billion), and the second largest was in dairy (NZD 4.9 billion). There has also been a significant increase in horticulture, including kiwifruit, wine and honey. The 2022 Agricultural Production Census showed that 16% of Māori farms were over 1 000 hectares, compared to only 5% of all New Zealand farms (Statistics New Zealand, 2023[166]). This is largely due to almost half of all Māori farms being owned and operated by Māori authorities, managed as collectively owned properties. Agriculture accounts for around one in five Māori authorities, which are entities involved in the collective management of assets in the Māori economy (Statistics New Zealand, 2016[167]). However, Māori face a unique set of challenges when developing their land. The land retained by Māori following colonisation is of poor quality. Around 80% of it is classified as non-arable and 30% is landlocked (and far from urban centres), reducing the options available for its use (Ministry for Primary Industries, 2014[168]).

What is the rationale for developing a policy intervention?

New Zealand has obligations under the Treaty of Waitangi to ensure that Māori have access to opportunities and resources in land-based sectors. The New Zealand Government is committed to the principles in *Te Tiriti o Waitangi* (the Treaty of Waitangi[10]), which establishes and guides the relationship between the Crown and Māori. Government agencies have duties to ensure Māori voices are heard and their views included in the policy stem from *Te Tiriti* and the Crown-Māori partnership it promises. The Crown has a duty to make informed decisions and therefore to engage with Māori on policy development. In the spirit of the Treaty, New Zealand's vision is that Māori are thriving at all levels of primary sector work and enterprise, partnering widely and using resources and skills sustainably and innovatively to deliver quality, high value and unique products that meet domestic and international demand.

The policy rationale for intervention is the inclusion of Māori to ensure equal access to economic and social opportunities and improving their well-being. Land is deeply rooted in the Māori culture, as Māori people have a strong historical and spiritual connection to the land. Supporting Māori in agriculture allows them to maintain and strengthen this connection, contributing to the preservation of their cultural heritage. Agriculture offers a wide range of employment opportunities, from farming and horticulture to agribusiness and research which can address unemployment within Māori communities.

[10] Te Tiriti o Waitangi (the Treaty of Waitangi) was signed by the British Crown and a large number of Māori chiefs on 6 February 1840. Today the Treaty is widely accepted in New Zealand as a constitutional document guiding the relationship between the Crown in New Zealand (embodied by the government) and Māori (Ministry of Justice, 2023[181]).

Which policies has New Zealand implemented in response?

To achieve the desired outcome, the Ministry for Primary Industries (MPI) as the responsible agency, is committed to supporting Māori to maximise the benefits from the sustainable use of the primary sector assets, as set out in the MPI Strategy 2030. Growing and protecting Māori primary sector assets contributes directly to the development of New Zealand's regional economies; and Māori economic development and regional development are seen as inseparable. Estimates suggest significant potential growth and the prospect of "an additional nominal NZD 8 billion in gross output and NZD 3.7 billion value added above MPI baseline pastoral sector forecasts between 2013 and 2022" (PwC, 2013[169]) by facilitating increased productivity of Māori freehold land.

MPI is committed to developing policies to ensure Māori agribusinesses have skilled and resilient workforces across all workforce levels. This vision reflects conversations with Māori agribusinesses and moves beyond the shorter-term labour shortages caused by the pandemic and other challenges. A series of policy initiatives are building the number and skill level of Māori at all levels of primary sector work and leadership in New Zealand. This is supported by MPI staff who are highly proficient at identifying and engaging with Māori on *Te Tiriti o Waitangi* rights and interests.

Māori Agribusiness Pathway to Increased Productivity (MAPIP): This programme has a specific focus on Māori primary sector assets that are in collective ownership. This focus includes land, agriculture, horticulture, forestry and seafood and covers the whole value chain from production, through processing, to export. This programme provides support and funding to Māori landowners, and trustees of collectively-owned Māori land, to help increase the productivity of their land and primary sector assets. This programme is administered by the Māori Agribusiness (MAB) team within the MPI, the majority of which are of Māori descent.

He Ara Mahi Hou: This programme, administered by the MAB team at MPI, helps to develop the Māori primary industry workforce. *He Ara Mahi Hou* may be translated as "a pathway to new work". It funds the development and implementation of training programmes for Māori agribusinesses, to allow Māori to gain skills and qualifications relevant to the primary sector, and to access new work opportunities.[11]

Māori Agribusiness Extension programme (MABx): This programme, also administered by the MAB, helps groups of Māori landowners to work collectively and benefit from economies of scale.[12] Local MAB officials visit the landowners to explore opportunities to work collectively with other local landowners. MAB officials help the landowners to apply for MABx funding, which allows them to gather together regularly as a group, employ facilitators and draw up partnership agreements.

Which are the main (other) social and policy actors involved?

In addition to the MAB team at MPI, ***Te Tumu Paeroa*, the Māori Trustee**, is appointed by the Māori Land Court to act as trustee to administer Māori freehold land and other assets on behalf of the beneficial owners. The Māori Trustee also accepts appointments from the Māori Land Court and from Māori Land Court appointed trustees to provide agency services for owners or a trust. Currently, the Māori Trustee administers as trustee or agent approximately 1 800 Māori Land Trusts and other Māori entities. This is about one-third of all Māori Land Trusts.

[11] This programme was originally established to mitigate the impact of COVID-19 on the primary sector workforce.

[12] Māori land ownership is complex, and some land blocks can have hundreds of owners. Māori land has its own legislation (*Te Ture Whenua Māori Act* 1993) and its own rules about ownership and governance. This can make decision making about Māori land more complex than other land.

What evidence is needed, and what are the data gaps?

Te Ōhanga Māori 2018 (the Māori economy 2018), published by the Reserve Bank of New Zealand – commissioned Business and Economic Research Limited (BERL), identified that Real Production GDP in 2018 from *Te Ōhanga Māori* totalled NZD 17.0 billion, with the largest contributions from agriculture, forestry, and fishing (about NZD 2.5 billion) and the real estate and property services sectors (about NZD 2.1 billion) (BERL, 2018[165]).

Te Matapaeroa 2019, reported by *Te Puni Kōkiri* (the Ministry of Māori Development), found that among newly identified 8 800 Māori-owned businesses, more than 450 are in Agriculture, Forestry and Fishing (Te Puni Kōkiri, 2020[170]). It also found that the Agriculture, Forestry and Fishing sectors employ the largest numbers of Māori with 2 295 businesses, followed by Construction with 2 163 businesses, and Other Services with 750 businesses.

The Agricultural Production Census 2022 collected information on farming activities across New Zealand.[13] The 2022 survey included new questions that enabled respondents to state if they consider their farm to be a Māori farm and if the owner or owners have Māori *whakapapa* (genealogy). This has improved both the quality of the data, and the number of Māori farms identified.

There are data gaps in general around the Māori primary sector, and addressing that gap is part of MPI's Māori Partnership and Investment units future work stream. There are also inconsistencies in the way that Māori primary producers and production are identified and measured in the statistics collected by government. Despite the effort, little progress had been made in reaching agreement on how a Māori business should be defined (Mika, Bensemann and Fahey, 2016[171]). As a result, Stats NZ (2023[172]) found that there has been limited coverage of Māori SMEs, and little or no coverage of other types of Māori businesses, such as Māori sole traders. In the absence of a standard or agreed definition of Māori business the government and other entities use different estimates of the economic contribution of Māori businesses. Furthermore, the current lack of a standard definition means Stats NZ does not have a clearly defined target population for Māori businesses.

The quality of the statistics about Māori businesses gathered by survey samples is also challenging. Surveys used to gather information on Māori businesses have often not been designed explicitly for that purpose, but to produce national estimates, or to give estimates by industry, geographical region, or business size. The Business Operations Survey, in particular, only covers businesses with six or more employees, further limiting its ability to provide comprehensive statistics on Māori businesses (Statistics New Zealand, 2023[172]). Relying on national or regional aggregations, without capturing the variations with Māori in communities, is problematic. The Independent Māori Statutory Board (2019[173]) reported that administrative and survey data for Māori and iwi populations are generally difficult to access at sub-national level, such as local boards, because they are not collected or not made available due to confidentiality or data quality concerns. Decision-making at the local level becomes difficult given the large differences between regions and between local boards.

[13] The 2022 Census was part of the current programme of agricultural production statistics that started in 2002. Previous censuses were held in 2002, 2007, 2012 and 2017, with annual sample surveys in 2003–06, 2008–11, 2013–16 and 2018–21.

Annex G. Agricultural employment for persons with disabilities in Japan

What is the social issue at stake?

Japanese agriculture faces an acute ageing farm population and decline in the number of farmers, associated with the abandonment of farmland. The agricultural workforce declined by more than half since 1980 to 1.9 million in 2021, and the pace of this decline has accelerated in the last decade (SBJ, 2022[174]). The average age of farmers was 67.9 years in 2021 and about 70% of farmers in Japan are over 65 years old (MAFF, 2022[175]; MAFF, 2021[176]).Two-thirds of the country area is covered by mountains, leaving only 12% of the total land area for agriculture, more than half of which is dedicated to rice paddy fields. Total agricultural land has decreased from 4.8 million hectares in 2000 to 4.3 million hectares in 2021 (MAFF, 2021[177]) due to the abandonment and conversion of farmland to non-farm uses (e.g. residential, industrial, or commercial uses).

The total number of people with disabilities in Japan is about 9.65 million, or 7.6% of the total population. Out of those, 4.36 million people have physical disabilities, 1.09 million have intellectual disabilities, and 4.19 million have mental disabilities (Cabinet Office Japan, 2022[178]). It is estimated that about 3.77 million of the people with disabilities can work with employment support measures, but job opportunities for them are still limited. For instance, although increasing year by year over the past 20 years, the number of persons with disabilities employed by private companies was 0.61 million in 2022 (Cabinet Office Japan, 2023[179]).

What is the rationale for developing a policy intervention?

There are two complementary rationales for a policy in response to this social concern. First, including persons with disabilities in the labour force, will ensure they have equal access to jobs and sources of income that contribute to their quality of life. Second, in order to solve the labour shortages in the agricultural sector it may be economically efficient to reduce the barriers to accessing employment faced by persons with disabilities. There is a case for policy action to facilitate co-operation between an economic sector and social welfare initiatives, through the agricultural sector offering job opportunities to people with disabilities that are excluded from the existing labour market.

Responding to this rationale, the goals of Japan's national programme for agriculture-welfare collaboration include the following:

- To expand agricultural production by expanding employment and work opportunities for people with disabilities.
- To support the independence of people with disabilities through raising their awareness of social participation and increasing wages through agricultural initiatives.
- To promote high-quality agricultural products made through agriculture-welfare collaboration.
- To develop specialised human resources that can support matching agricultural corporations and social services, and help people with disabilities smoothly adjust to the working environment in agriculture.
- To enhance farmers' and the entire nation's awareness of the collaborative efforts by widely disseminating its merits, conducting promotional activities, etc.

Which policies has Japan implemented in response?

The Ministry of Health, Labor and Welfare (MHLW) and the Ministry of Agriculture, Forestry and Fisheries (MAFF) are in charge of supporting efforts related to agricultural employment for people with disabilities. Specifically, MHLW provides support for the establishment of agriculture-welfare collaboration at local government level, while MAFF supports the actual employment of people with disabilities in the farms and provides financial support for human resource development programmes to help people with disabilities settle into the agricultural sector (Guirong and Oba, 2023[180]).

The "Agriculture-welfare collaboration promotion vision" presented by the Government of Japan in 2019 aims to create 3 000 new entities working on agriculture-welfare collaboration within five years. MAFF supports the candidates in agricultural and social welfare corporations working to offer opportunities to vulnerable people. To share necessary information for employing people with disabilities, MAFF in collaboration with MHLW has produced manuals and booklets to be used by farmers, social welfare corporations, municipalities, farm co-operatives and Non-Profit Organisations.

In addition, MAFF financially supports farms, social welfare corporations, private companies and regional councils to enhance the employment of people with disabilities. Financial support covers the initial costs, such as to hire, train, and make labour manuals, as well as the improvement costs of farm facilities including rest areas, farm equipment storage, parking lots, water supply and drainage facilities, sanitation facilities and safety equipment.

MAFF also offers on-farm training for farmers, officers in social welfare corporations and persons with disabilities and professional advice on implementing agriculture-welfare collaboration. The course consists of classroom lectures and on-the-job training and MAFF certifies technical trainers who have completed the course.

In 2019, the Japanese Agriculture Standard (JAS) of "foods produced with the participation of persons with disabilities", so-called "Noufuku JAS", was established by MAFF to promote the expansion of sales through new markets for agricultural products produced through agriculture- welfare collaboration.

Which are the main (other) social and policy actors involved?

To promote agriculture-welfare collaboration as a national movement, the "*Support Consortium for Partnership between Agriculture and Human Welfare*" was founded in 2020. The consortium involves various stakeholders, including national and local governmental bodies, agriculture, forestry and fisheries industry organisations, social welfare organisations, economic organisations, and the private sector. The consortium gives a yearly award, the "Noufuku Award", to outstanding examples of agriculture-welfare collaboration.

At the regional level, intermediate support organisations play an important role to assist the partnership between agricultural and social welfare sectors. For instance, in Gifu prefecture, *The Gifu Agri-Challenge Support Center* has been monitoring the status of co-operation between welfare service offices for persons with disabilities, farmers, and agricultural corporations, as well as the new entities involved in agricultural and welfare cooperation (Guirong and Oba, 2023[180])).

What evidence is needed, and what are the data gaps?

MHLW requests employers who employ persons with physical, intellectual and mental disabilities to report on the status of their employees. This enables the collection and analysis of information on the employment status of persons with disabilities in private companies and public institutions. Among private companies, the number of people with disabilities employed in agriculture, forestry, and fisheries increased from 461 to 1 062 between 2011 and 2021 (Guirong and Oba, 2023[180]). The survey covers only private companies

that employ more than a certain number of regular workers, and thus the results cover only part of the employment of persons with disabilities in agricultural sector.

MAFF, in alliance with other institutions, has been conducting a survey to follow the growth of agriculture-welfare collaboration. By the end of Japanese Fiscal Year 2022, the total number of entities that work on the collaboration was 6 343, a 54% increase from 2019. The agriculture-welfare collaboration promotion vision in 2019 also sets out the need for further efforts on the collection and analysis of quantitative data as one of necessary steps to present the benefits of and promote agriculture-welfare collaboration.