Teagasc National Farm Survey Small Farms Report 2022

Photo: Leona Murphy

AGRICULTURAL ECONOMICS AND FARM SURVEYS TEAGASC

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teagasc
Agriculture and Food Development Authority

Contents

Photo: Leona Murphy

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Monetary Amounts in Nominal Terms

Monetary figures in this report are presented in nominal terms. This is relevant when considering incomes over time, as inflation, even at a low rate, accumulates over several years and erodes the purchasing power of money. For much of the last decade inflation has been very low in Ireland. However, in 2021 and in 2022, the inflation rate has increased sharply. This is important when considering the change in nominal amounts in 2022 relative to the previous report for 2015.

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Photo: Stephen Bleakley

What's in the Report?

Farm Coverage

1. Cattle Rearing
2. Cattle Other
3. Sheep
4. Partially Leased

Farm Categorisation

- Farms typically produce more than one type of agricultural output. In the National Farm Survey farms are categorised into farm types according to their principal output.

- In this Small Farms Report for 2022, the sample is representative of a population of over 48,000 small farms in Ireland. A small farm is defined as a farm with a standard output of €8,000.

Key Performance Indicators

- A range of indicators is provided, including information on farm output, production costs, farm supports, farm income, labour input, stocking rate and input usage.

Farm Classification

Teagasc collects farm data through the National Farm Survey (NFS), principally in fulfilment of Ireland's obligation as a member of the European Union.

The population of farms included in the annual NFS is reflective of farms with a standard output exceeding €8,000. Of the 135,000 or so farms in Ireland, about 87,000 farms meet this definition. However, just over 48,000 farms, representative of about 15% of the agricultural land area in Ireland, are too small in economic terms for inclusion in the annual NFS survey. However, it is these small farms that are the focus of this report. Data collection was undertaken for the year 2022 and was previously undertaken for the year 2015. This report focuses on the economic, social and environmental sustainability of these small farms.

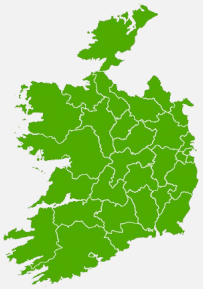
The results are presented is on a farm system basis. However, unlike the broader farm population, dairy and tillage farms do not exist in the small farm population. The small farms are therefore categorised into Cattle Rearing, Cattle Other, Sheep farms and Partially Leased (a category of farm which has very few livestock and where the majority of the farm is rented out).

Given that individual farms sometimes have more than one farm enterprise, a rigorous basis for categorising farms into each system is required. The method of classifying farms into farming systems, is based on the EU farm typology, as set out in Commission Decision 78/463 and its subsequent amendments. The approach is utilised by all members of the EU Farm Accountancy Data Network (FADN).

The methodology assigns a standard output (SO) to each type of animal or each hectare of crop on the farm. Farms are then classified into groups, according to the proportion of total SO which comes from each enterprise. It is important to appreciate that system titles refer to the **dominant** enterprise in each group. For example, the cattle rearing system refers to those farms where the greater proportion of the farm's activity relates to suckler beef production.

Profiling Small Farms

Small Farms Facts & Figures 2022



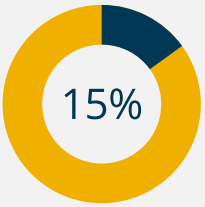
The 2020 Census of Agriculture reported that there were just over **135,000 farms** in Ireland on about 4.5 million ha of land

The annual **National Farm Survey** represents around **87,000**, farms. However, it **excludes over 48,000** of the **smallest farms** in economic size.

36%

of the farms in Ireland are defined as **"small"**

meaning they have a **standard output of <€8,000** per annum



of the agricultural land area in Ireland is accounted for by **small farms**, with an **average area** of **13 ha**

4% of the **livestock population** in Ireland are located on small farms

Location of small farms

52% Northern & Western region

15% Eastern and Midlands region

33% Southern region

Gender of small farm operators

19% of small farm operators are **female**

compared to just 10% for larger farms

Almost **20,000**

small farms are operated by >65 year olds

farming is the **sole occupation** of the **farm operator**

on **1/3rd** of small farms

12%

of small farms require **0.75 to 1 labour unit**

53% of small farms are specialist **beef farms**

19% of small farms are specialist **sheep farms**

Source: Census of Agriculture 2020

Economic Sustainability

Small Farms Facts & Figures 2022

Small Farm Size

16ha Average **Cattle Rearing** farm

11ha Average **Cattle Other** farm

12ha Average **Sheep** farm

Livestock Units (lu)

7 lu Average **Cattle Rearing** farm

7 lu Average **Cattle Other** farm

4 lu Average **Sheep** farm

Income per ha

€156 Average **Cattle Rearing** farm

€243 Average **Cattle Other** farm

€232 Average **Sheep** farm

Small farms typically have **farm incomes well below** that of the **rest of the farm population**

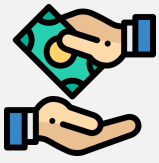
€2,600 to €4,500k per farm

depending on the farm type

Support payments are typically a **larger share of income** on **small farms** compared to the rest of the farm population

Income per labour unit per year

Cattle Rearing	Cattle Other	Sheep
€8,612	**€6,964**	**€13,831**
0.40 units	**0.46** units	**0.30** units



CAP Pillar II payments are a particularly important income source for **small farms**

Overhead costs on small farms tend to be high relative to the value of the output they produce

Small farms tend to be part time operations

<0.5 unit

labour requirement

on 44% of small farms

Small farms are

mainly Cattle & Sheep farms

but some small farms have no livestock at all and **lease out some of the farm**

Source: Teagasc Small Farms Survey

Environmental Sustainability

Small Farms Facts & Figures 2022

4%

of **Irish agriculture's GHG emissions** are produced on **small farms**

Compared with larger farms, **small farms** are typically **lower input, grass fed systems with**

- **lower stocking rates**
- **lower imported N and P** due to lower use of animal feeds
- **lower fertiliser applications**

Small farms tend to have **lower GHG emissions per hectare** relative to the rest of the farm population

Small cattle and sheep farms have **lower N and P balances** than cattle and sheep farms generally

Animals produce **more weight gain** on small farms for each kg of surplus nitrogen or phosphorous

2/3rds less nitrogen

is used per ha on **small cattle and sheep farms** compared to larger cattle and sheep farms

Small farms higher GHG emissions intensity per kg of output than the rest of the farm population

CO_2

a small cattle farm on average produces

1/8th the **GHG Emissions**

compared to the average for the rest of the cattle farm population

CO_2

a small sheep farm on average produces

1/15th the **GHG Emissions**

compared to the average for the rest of the sheep farm population

because **small farms** generate a **low volume of production** they are not a significant economic component of Irish agriculture

however small farms have a lighter environmental impact compared to the rest of the farm population, making them important for environmental sustainability

Source: Teagasc Small Farms Survey

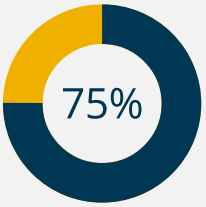
Social Sustainability

Small Farms Facts & Figures 2022

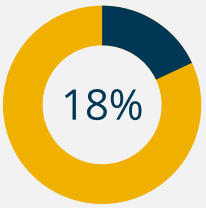
58%

of **small farm operators** have been farming for

>20 years



of **small farm operators** acquired their farm by **inheritance**



of **small farm operators purchased** their farm

70%

of **small farm operators** use a **smartphone**

78%

of **small farm operators** have **internet access**

50%

of small farm operators use **internet** or **smartphone** for **farming purposes**

small farm operators had **less social contact** with those outside their household in 2022 (compared with 2015)

56%

of **small farm operators** have **identified an successor**

76%

of small **farm operators** rank **quality of life** as more important than **maximising farm income**

71%

of **small farm operators** describe their health as either **good or very good**

off farm or pension income boosts small farm households' income, more so than in the case of the rest of the farm population

83%

of **small farms** have **off farm or pension income**

Source: Teagasc Small Farms Survey

The Future of Small Farms

Profiling Farmer Intentions

with 48,000 small farms covering 15% of the agricultural land area, the **future of small farms is important** for the sustainability of the sector

as part of the study **small farm operators** were asked a range of questions about **their future** and the **future of the farm**

Farm operator intentions over next 5 years

35% continue farming as is

27% lease out the land

21% change farm system or scale back farming actitivy

Generational Renewal

56% of **small farm operators** have **identified a successor**

50% of **small farm operators** expect the transfer of their farm to occur in the next 5 to 10 years

51%

100% ORGANIC

of **small farm operators** expressed an interest in organic conversion

28%

of small farm operators feel that the growth in **remote working** will ensure the future operation of the farm

41%

of **small farm operators** expressed an interest in agri-environmental scheme participation

74% of identified small farm successors are male

36% of identified small farm successors have a 3rd level qualification

Source: Teagasc Small Farms Survey

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1 Background

1.1 Introduction

This report details the results of a special survey of small farms conducted through the National Farm Survey (NFS) in 2022. The survey was motivated by the fact that data on farms of this nature is not routinely collected, even though small farms account for a considerable proportion of Irish farms. While there is no commonly accepted definition of a small farm, they are defined in this study as farms with a standard output (SO) of less than €8,000 per annum. Data on farms above this level of output is collected on an annual basis through the NFS. In undertaking the Small Farms Survey (SFS) 2022, a nationally representative sample of small farms was selected through the Central Statistics Office (CSO). These farms were then surveyed so that their economic, environmental and social sustainability performance could be assessed. The main objective of the report is the comparison of the sustainability performance of small farms (using data collected through the SFS) with the larger NFS farm population in 2022. The economic, environmental and social sustainability is discussed, as is data on the trajectory of small farms in terms of farmers' expectations around future land use.

A number of aspects of the CAP 2023-27 are of particular relevance to small farms. Of particular interest are the revised objectives around ensuring fair incomes, supporting generational renewal, the continued vibrancy of rural areas and the preservation of landscapes and biodiversity. Indeed, the shape of future CAP reform may result in more targeted payments towards supporting smaller farms given their multifunctional nature. The data reported on here provides a base for the performance of small farms under the current CAP.

This report begins by providing a description of small farms, in the context of the broader farm population in Ireland, using data from the 2020 Census of Agriculture (CSO, 2022). This details the profile of small farms in terms of number, location, farm system and size. Furthermore, demographic data on labour input and the age profile and gender of small farm operators is provided.

The latest available data on the structure of Irish farming from the CSO Census of Agriculture (CoA) indicated that there were just over 135,000 farms in Ireland in 2020 (Table 1.1). This represented a small decline from the previous census in 2010 (-3.4%). The consolidation of farms is reflected in the increased average farm size, with more specialised production evident from increased livestock numbers.

Table 1-1: Principal totals, Censuses of Agriculture (1991 - 2020)

	1991	2000	2010	2020	% Change 2010 - 2020
Total farms	170,578	141,527	139,860	135,037	-3.4
Total AAU (hectares)	4,441,755	4,443,071	4,568,938	4,509,256	-1.3
Mean farm size (ha)	26.0	31.4	32.7	33.4	2.2
Median farm size (ha)	17.4	22.7	24.0	23.3	-2.9
Total Cattle (heads)	6,911,975	7,037,435	6,606,585	7,314,543	10.7
Total Sheep (heads)	8,888,204	7,555,044	4,745,424	5,520,208	16.3
Total Pigs (heads)	1,303,695	1,722,108	1,516,291	1,582,548	4.4
Total Poultry (places)	12,052,839	13,960,771	10,924,807	16,470,580	50.8

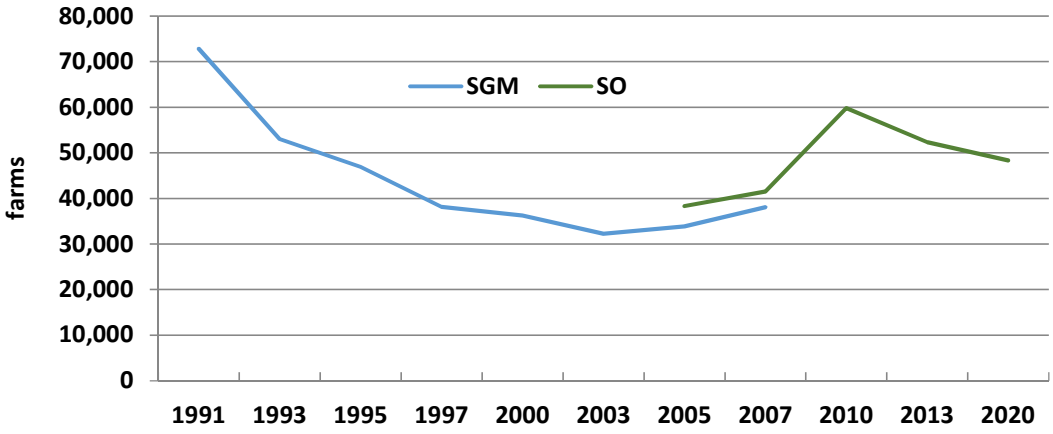
Source: CSO (2022)

1.2 Profiling Small Farms

The 2020 CoA indicates that more than one-third of Irish farms (48,356) are categorised as small, with a standard output (SO) of less than €8,000 (CSO, 2022). The CSO classifies farms into size groups on the basis of their SO by applying a standard output coefficient to each animal and crop output on the farm. This indicates that there was further farm consolidation over the decade to 2020, as according to the 2010 CoA there were 139,860 farms with close to 60,000 (43%) classified as small. Table 1.2 presents the total number of farms in the State and the number of farms by each SO size category in 2020. Just over half (52%) of all small farms are located in the North and West, with another one-third in the South with the remainder (15%) based in the East and Midlands.

The methodological approach to defining farm size categories has changed over time. Prior to the use of the SO economic size concept, standard gross margin (SGM) was used. Figure 1.1 illustrates how numbers of farms earning less than 4,000 ESU evolved between 1991 and 2007 and how this number of farms compares with the numbers of farms defined as having a standard output of less than €8,000 of standard output post-2007. The number of small farms declined from 72,830 in 1991 to 48,356 in 2020. This represents an annualised rate of decline of 1.5%. Over the same period, 1991-2020 total farm numbers in Ireland declined at an annualised rate of less than 1%.

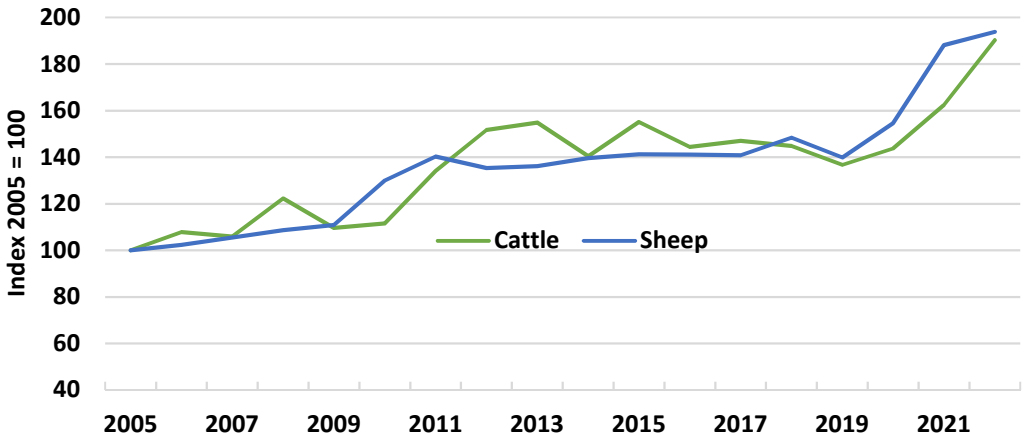
Figure 1-1: Number of Small Farms: 4K ESU (SGM) & €8K Standard Output 1991 - 2020



Source: Eurostat (various years)

The evolution of output prices in recent years (as illustrated in Figure 1.2) has also meant that fewer farms are defined as small due to rising output values. This had implications in the selection of small farms for the survey, with many of those surveyed reporting SO values above €8,000.

Figure 1-2: Average Cattle & Sheep Output Prices 2005 - 2022



Source: Adapted from CSO data (various years)

Table 1-2: Number of Farms by Economic Size classified by Standard Output in each Region 2020 (NUTS 2 and 3)

Region	Standard Output (SO)									
	<€4K	€4-8K	€8-15K	€15-25K	€25-50K	€50-100K	> €100K	No. of farms ('000)	Mean SO (€)	Median SO (€)
State	**29,162**	**19,194**	**22,992**	**18,551**	**17,995**	**10,414**	**16,729**	**135,037**	**€48,380**	**€13,566**
North & West	**14,278**	**11,038**	**12,322**	**8,657**	**6,493**	**2,291**	**2,209**	**57,288**	**€24,043**	**€9,536**
Border	6,635	5,326	5,678	3,688	2,649	1,124	1,462	26,562	€29,480	€9,263
West	7,643	5,712	6,644	4,969	3,844	1,167	747	30,726	€19,342	€9,750
Southern	**10,271**	**5,560**	**7,253**	**6,624**	**7,375**	**5,373**	**11,012**	**53,468**	**€68,733**	**€19,909**
Mid-West	3,511	2,267	3,016	2,714	2,777	1,750	3,296	19,331	€58,350	€17,551
South-East	2,187	798	1,183	1,325	1,935	1,666	3,132	12,226	€88,722	€31,502
South-West	4,573	2,495	3,054	2,585	2,663	1,957	4,584	21,911	€66,741	€17,720
Eastern & Midland	**4,613**	**2,596**	**3,417**	**3,270**	**4,127**	**2,750**	**3,508**	**24,281**	**€60,979**	**€19,058**
Mid-East & Dublin	2,448	1,161	1,548	1,431	1,862	1,383	1,993	11,826	€70,042	€19,786
Midland	2,165	1,435	1,869	1,839	2,265	1,367	1,515	12,455	€52,374	€18,625

Source: CSO (2022)

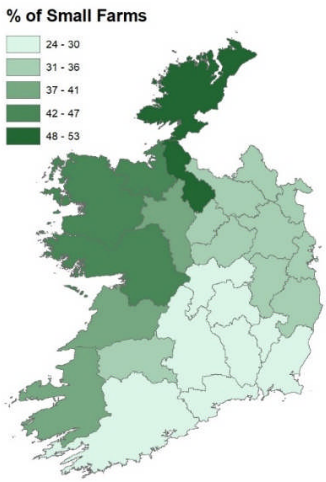
Figure 1.3 shows the percentage of farms in each SO category for both the State and NUTS 2 regions, with the data indicating that 44% percent of farms in the North and West region are classified as small farms compared to 29% in the South and 30% in the Eastern and Midland region.

Figure 1-3: Percentage of Farms by Standard Output Nationally and by Region, 2020

Source: CSO (2022)

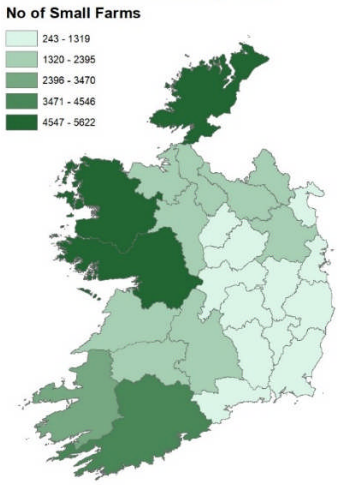
Figures 1.4 and 1.5 illustrate the proportion and number of small farms across counties according to the 2020 CoA. Reflecting this geographic spread, 120 small farms were selected in conjunction with the CSO for participation in the 2022 SFS. The application of national weights ensured that the sample is representative of almost all small farms nationally.

Figure 1-4: Proportion of small farms by County 2020



Source: Author's own based on CSO data (2022)

Figure 1-5: Number of small farms by County 2020



Source: Author's own based on CSO data (2022)

Table 1.3 details the number and types of small farms in the 2020 census compared to 2010, taking account of the change in the total number of farms across each farm type. The predominant farm types across the small farms category are specialist beef, mixed field crops and specialist sheep. The data indicate that there has been a decline in the number of small farms across each farm type except for the sheep (+22%) and mixed field crops (+22%) categories. A particular reduction in the number of specialist small beef farms and mixed grazing livestock systems is apparent, the latter a result of increased farm specialisation in recent decades. The proportionate change in the number of farms by type across all farms (including those with an

SO above €8,000) is also provided, again indicating that there has been a decline in farm numbers across each farm type except for the sheep, mixed field crops and the smaller 'other' category.

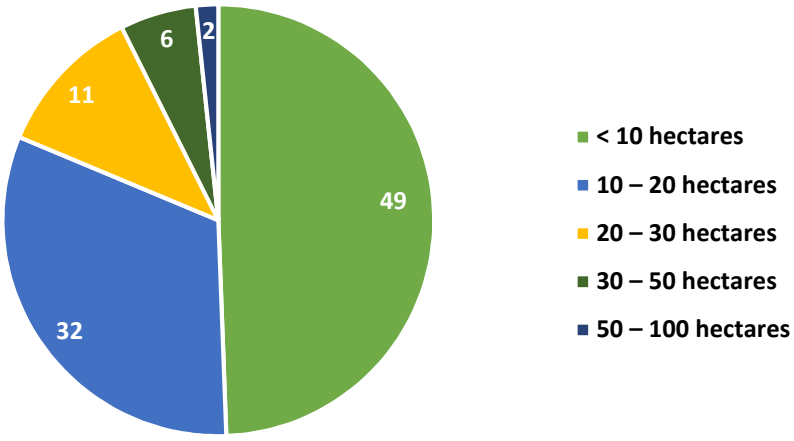
Table 1-3: Number of Small Farms by Economic size (< €8K SO) and Farm Type, 2010 & 2020

Farm Type	Small farms <€8K 2010	Small farms <€8K 2020	% change small farms 2020 v 2010	Total farms 2010	Total farms 2020	% change all farms 2020 v 2010
All	59,858	48,356	-19	139,860	135,037	-3
Specialist Tillage	582	364	-37	4,795	4,567	-5
Specialist Dairying	0	0	n/a	15,654	15,319	-2
Specialist Beef Production	36,357	25,932	-29	77,738	74,159	-5
Specialist Sheep	7,339	8,951	+22	13,555	17,435	+29
Mixed Grazing Livestock	5,756	1,001	-83	14,697	8,508	-42
Mixed Crops and Livestock	221	40	-82	2,443	1,759	-28
Mixed Field Crops	9,254	11,298	+22	9,635	11,516	+20
Other	349	770	+121	1,343	1,774	+32

Source: CSO

The proportion of small farms across farm size categories in 2020 is displayed in Figure 1.6. This indicates that almost half of small farms (49%) operate a land area of 10 hectares or less, while a further one-third (32%) farmed an area of between 10 and 20 hectares. Of the remainder, 11% of small farms are in the 20 to 30 hectare size category, with 8% comprising of 30 hectares or more.

Figure 1-6: Percentage of Small Farms by Farm Size in hectares 2020



Source: CSO (2022)

Table 1.4 details the number of small farms by Average Area Utilised (AAU) (ha) in the 2020 CoA compared to 2010, taking account of the change in the total number of farms across each size category. This illustrates the decline in the smaller size classes, in particular in the number of farms sized 10 – 20 ha and 20 – 30ha.

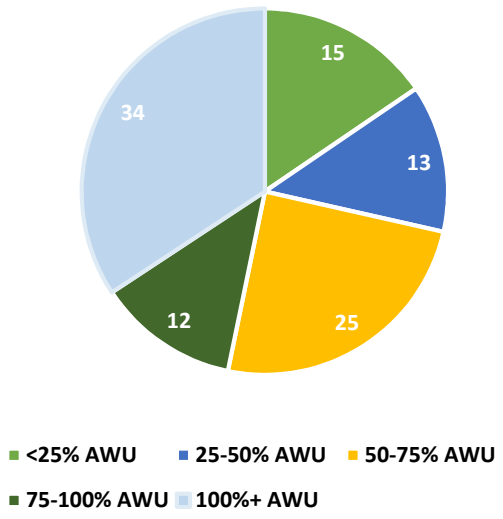
Table 1-4: Number of Farms by Economic Size (SO) and Farm Size (AAU), 2010 & 2020

Farm size Hectares (ha)	Small farms <€8K 2010	Small farms <€8K 2020	% change small farms 2020 v 2010	Total farms 2010	Total farms 2020	% change small farms 2020 v 2010
All	59,858	48,356	-19	139,860	135,037	-3
< 10 ha	23,929	23,802	-1	25,474	28,154	11
10 – 20 ha	23,724	15,360	-35	33,581	30,872	-8
20 – 30 ha	7,913	5,452	-31	24,687	22,995	-7
30 – 50 ha	3,511	2,748	-22	30,668	27,394	-11
50 – 100 ha	716	810	13	20,755	19,747	-5
>100 ha	65	184	183	4,695	5,875	25

Source: CSO (2022)

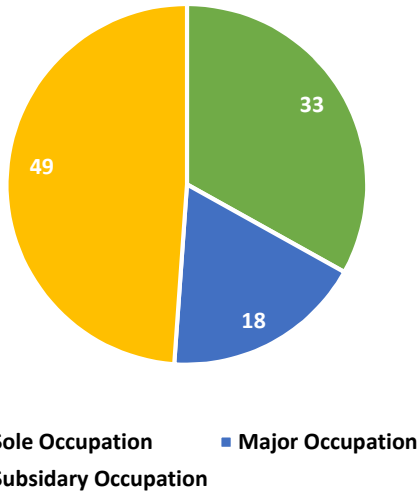
In line with farms generally over the past number of decades, the decline in the labour requirement on small farms is evident from the 2020 CoA. In 2020 only one-third of small farms supported a full-time Annual Work Unit (AWU), with 12% of farms reported an AWU of between 0.75 and 1 (Figure 1.7). One-quarter of small farms supported between 0.50 and 0.75 of an AWU, with the remaining proportion (28%) supporting less than 0.50 AWU. Operators of small farms tend not to be reliant on farming as an occupation, with just one-third describing farming as their only occupation (Figure 1.8), the figure down from 40% in 2010. Almost half of small farm operators describe farming as a subsidiary occupation, with the remainder (18%) describing farming as a major occupation. It should be noted that farming activity may be relatively more important where the farmer has retired from an off-farm occupation.

Figure 1-7: Annual Work Units (AWU) Small Farm Operators, 2020



Source: CSO (2022)

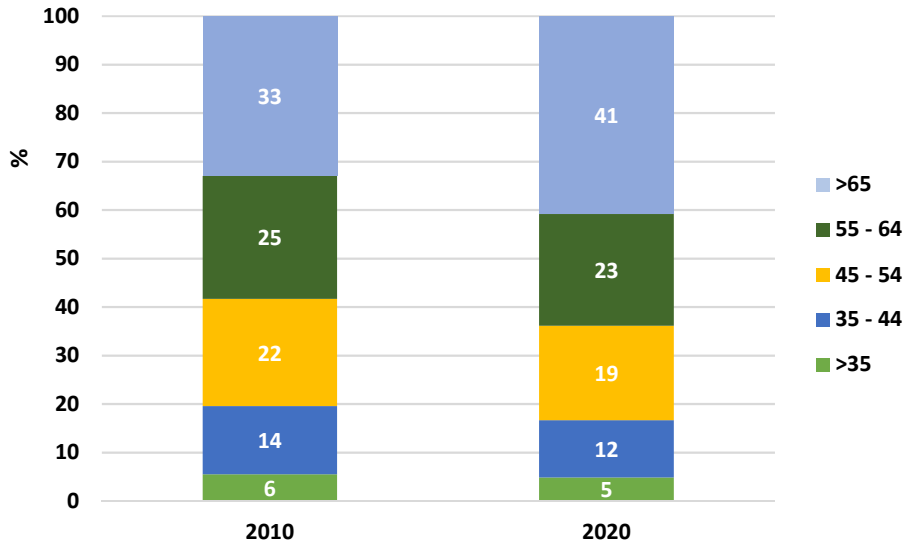
Figure 1-8: Occupation Small Farm Operators, 2020



Source: CSO (2022)

The age distribution of small farms from the 2020 CoA compared to 2010 CoA is provided in Figure 1.9. The increase in the proportion of small farm operators aged more than 65 years has increased significantly, to more than 4 in 10. Interestingly, this has resulted in a decline in the proportion across all the other age categories.

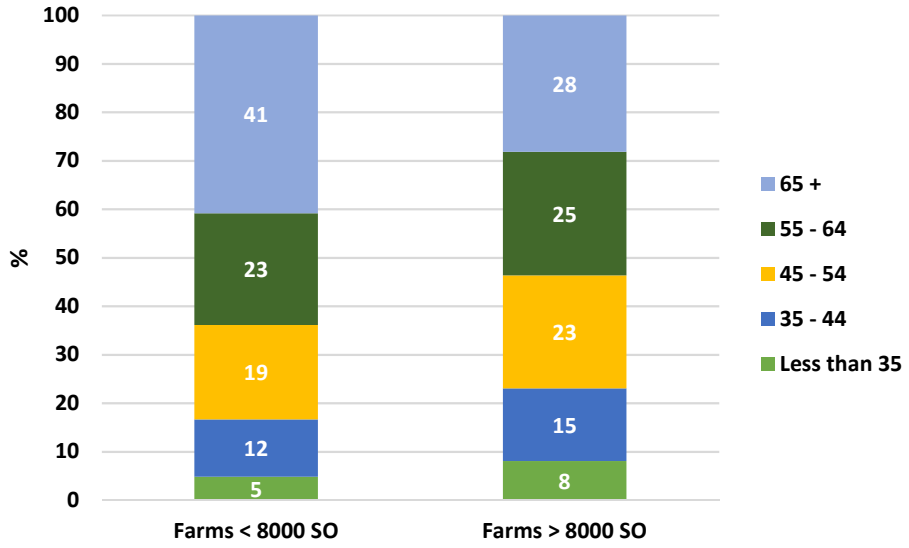
Figure 1-9: Age Distribution of Small Farm Operators, 2010 & 2020



Source: CSO (2022)

In addition, Figure 1.10 compares the age distribution of small farm operators in 2020 to the rest of the farm population (i.e. those farms with an SO above €8,000). This illustrates the younger age profile on larger farms. That said, more than half (53%) of farm operators on the larger farms are aged over 55, with less than one-quarter (23%) aged below 45. The comparative figures on small farms are 64% and 17% respectively.

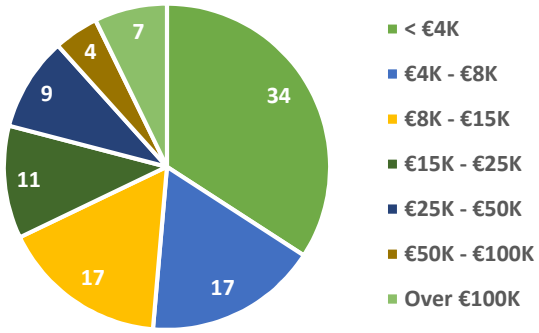
Figure 1-10: Age Distribution of Farm Operators – NFS & SFS 2020



Source: CSO (2022)

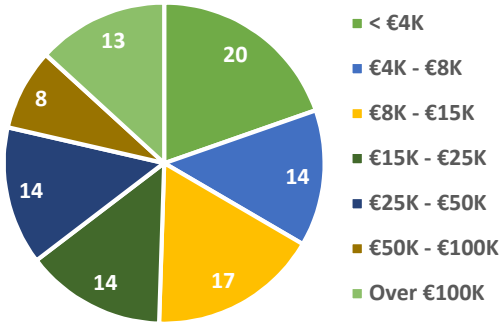
According to the 2020 CoA, females operated 13% of all farm holdings. Figure 1.11 indicates that farms operated by females tend to be smaller in terms of their economic size, with over half of these having an SO below €8,000, on average. This compares to about one-third of farms operated by males. At the other end of the scale, only 7% of farms operated by females had an SO above €100,000 in 2020, compared to 13% for male farm operators.

Figure 1-11: Farms operated by Females by SO, 2020



Source: CSO (2022)

Figure 1-12: Farms operated by Males by SO, 2020



Source: CSO (2022)

1.3 Small Farms Survey 2022

Although small farms contribute less than 2% of the total output of the agricultural sector in Ireland, they occupy 15 percent of the farmland. The manner in which this land is farmed is of concern to wider society especially where small farms are located in environmentally sensitive areas. The impact of small-scale farming on soil, water and air quality as well as biodiversity is important and some of these issues are explored further in this report. Understanding the data and trends relating to small farms is essential for developing effective policies and strategies to support their sustainability and resilience in the face of ongoing challenges.

Data from a nationally representative sample of small farms collected through the NFS in 2022 is analysed here to assess their sustainability status (economic, environmental and social). A comparative analysis is conducted with the wider NFS farm population that is surveyed annually. In addition, insights relating to farm succession and the future trajectory for small farms are considered, including diversification strategies such as organic farming and engagement with agri-environmental schemes. This analysis on the sustainability and of small farms provides a base for assessing the performance of small farms under the current CAP and will help inform policy on a number of sustainability challenges including, generational renewal, land mobility and economic viability. Finally, conclusions are drawn with some reference made to data previously collected on small farms through the NFS in 2015.

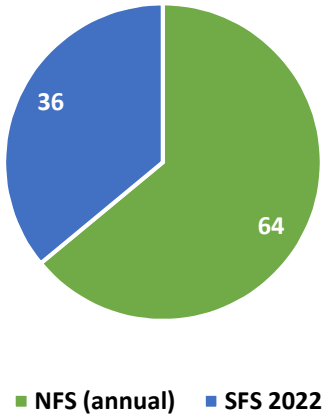
The NFS collects data annually on a nationally representative sample of over 900 farms across farm systems. Further information on the farms represented by both the NFS and SFS 2022 is provided in the following figures. These illustrate the fact that the annual NFS reports on almost two-thirds of the Irish farm population (close to 87,000 farms) with data collected on the remaining one-third of small farms on a periodic basis (Figure 1.13). The annual NFS is representative of 85% of agricultural land area (Figure 1.14), 98% of agricultural output (Fig. 1.15) and 96% of livestock on Irish farms (Fig. 1.16). The special survey of small farms tracks those farms not included in the annual survey.

According to the CoA 2022, the predominant enterprises amongst small farms are beef, sheep and mixed field crops. The specialist beef and sheep systems directly align with the cattle and sheep systems reported upon in the NFS. However, the mixed field crops farm categories used in the CoA has no natural comparator within the NFS as the categorisation refers to farms who continue to farm a small proportion of their farm but have opted to lease out the majority of their land. Within the NFS analysis described in the following chapters, these farms are referred to as 'partially leased' farms. The comparative analysis between the NFS and SFS 2022 primarily focuses on the more traditional systems on small farms, namely cattle and sheep.

Within the NFS, cattle farms are further disaggregated in to cattle rearing and cattle other, the former relating to farms where the majority of SO is from suckler cows and the latter where the share of output

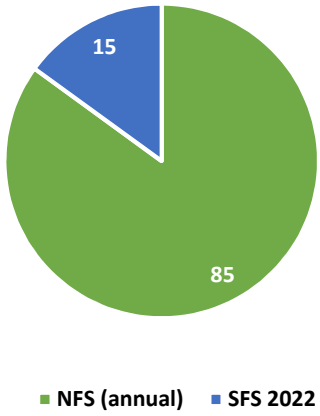
from suckler cows is less than 50%. This farm classification is based on an EU Farm Accountancy Data Network (FADN) typology and relates to the type of farming undertaken and the economic size of the farm. As Irish farms are typically mixed in nature, farms are classified based on the dominant enterprise on the farm. In terms of agricultural output, €8,000 of SO is equivalent to approximately 5 suckler cows, 12 finishing cattle or 20 ewes.

Figure 1.13: Farm Population, NFS & SFS 2022



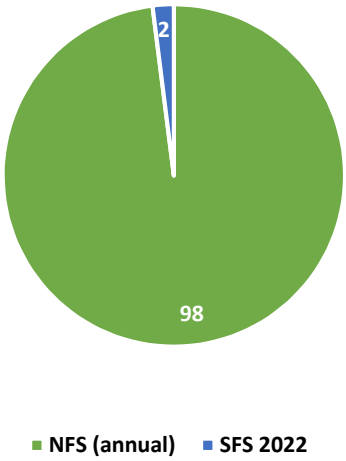
Source: NFS

Figure 1.14: Agric. land area, NFS & SFS 2022



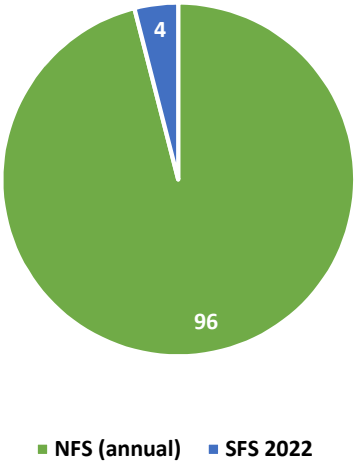
Source: NFS

Figure 1.15: Agricultural output, NFS & SFS 2022



Source: NFS

Figure 1.16: Livestock share, NFS & SFS 2022



Source: NFS

Using a sampling plan from the CSO, farms were selected for participation in the SFS 2022 across cattle rearing, cattle other, sheep and partially leased systems. As some farms returned had an SO above €8,000, they were not included in the analysis. Therefore, data was utilised from 120 farms across counties where small farms predominate. In terms of the breakdown by system, 28% were categorised as cattle rearing, 27% as cattle other, 21% sheep and 24% partially leased. The number of comparative cattle and sheep farms within the NFS 2022 was close to 450.

1.4 Summary

- This chapter provides a summary of the structure of small farms in Ireland using data from the 2020 Census of Agriculture (CoA).

- The CoA indicates that more than one-third of Irish farms (48,356) are categorised as small, with a standard output (SO) of less than €8,000.
- Just over half (52%) of all small farms are located in the North and West, with another one-third in the South with the remainder, (15%) based in the East and Midlands.
- 44% of farms in the North and West region are classified as small farms compared to 29% in the South and 30% in the Eastern and Midland region.
- Almost half of small farms (49%) operate a land area of 10 hectares or less.
- Only one-third of small farm operators describe farming as their only occupation (down from 40% in 2010). Almost half of small farm operators describe farming as a subsidiary occupation, with the remainder (18%) describing farming as a major occupation.
- 41% of small farm operators are aged over 65, up from 33% in 2010. This compares to 28% across NFS (larger) farm operators.
- Farms operated by females tend to be smaller in terms of their economic size, with over half of these having an SO below €8,000, on average. This compares to about one-third of farms operated by males.

2 Economic Sustainability

This chapter outlines the economic sustainability of small farms using data collected through a special NFS survey in 2022. The financial performance of small farms (those with an SO of less than €8,000) obtained from the SFS 2022 is reported relative to larger cattle and sheep farms collected as part of the annual NFS survey (i.e. those with an SO of €8,000 or above). It should be noted that many of the farms in the NFS farm category would not be considered as large farms ordinarily, as there is already a wide spread of standard output within the farms surveyed in the annual survey. The analysis here also includes data on the reliance of farms on direct payments, the presence of other sources of off-farm income within the household, their economic viability and the demographic make-up of farm households.

2.1 Family Farm Income

Family Farm Income (FFI) is the principal economic measure produced by the NFS. FFI represents the return from farming for the farm family to their labour, land and capital. This measure does not include the non-farm component of farm household income. The year 2022 was challenging on farms, and although the value of outputs generally increased, the rise in production costs left incomes on many cattle and sheep farms either lower or relatively unchanged on the previous year.

Table 2.1 indicates that average FFI on small cattle and sheep farms in the 2022 SFS was €2,638, with small partially leased farms reporting a figure of €4,474. To put this in context, the average FFI on cattle and sheep farms reported through the NFS in 2022 was more than 3 to 5 times larger at just over €15,000. Taking account of farm size, it is unsurprising that the average direct payment received on small cattle and sheep farms was less than one-third of that received on drystock NFS farms in 2022 (€4,883 compared to €15,977). Direct payments received on the small partially leased farms was lower on average at €1,888. However, the data indicate that in terms of relative contribution to farm income, such payments are of more significance on small farms (SO <€8,000) compared to their larger counterparts (SO >€8,000).

Table 2-1: Average Family Farm Income NFS & Small Farms 2022

	NFS Cattle & Sheep	Small Cattle & Sheep	Small Partially leased
	€	€	€
Gross Output	61,044	10,101	10,787
(of which direct payts)	15,977	4,883	1,888
Total Costs	45,962	7,463	6,313
(of which direct costs)	22,022	2,306	1,732
(of which overheads)	23,939	5,157	4,581
Family Farm Income	**15,082**	**2,638**	**4,474**

Source: Teagasc National Farm Survey

Costs were also significantly lower on small farms in 2022 due to their lower production levels. However, it should be noted that costs are higher as a proportion of output on small farms. It is important to take account of farm characteristics such as utilisable agricultural area (UAA) or total livestock units (TLU) to get a clearer understanding of overall farm productivity and economic performance. Differences in UAA and TLUs are reflected in Figures 2.1 and 2.2 below across small cattle and sheep farms and their counterparts within the NFS 2022. Across, these categories, the average UAA on small cattle and sheep farms in 2022 was 13 hectares compared to 38 hectares on NFS cattle and sheep farms. The partially leased farm cohort within the SFS

comprise farms of which a proportion of their land is leased out to other farmers, i.e., on average the area owned was 22 hectares in 2022, of which 14 hectares of grassland was leased out for silage making, for example. Significant differences in terms of farm size, productivity and levels of production are apparent in comparing small farms to the larger NFS farm cohort.

Figure 2-1: Average UAA, NFS & SFS 2022

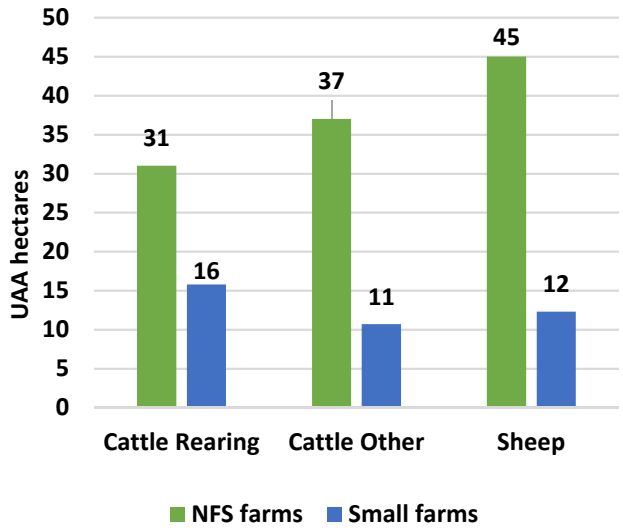
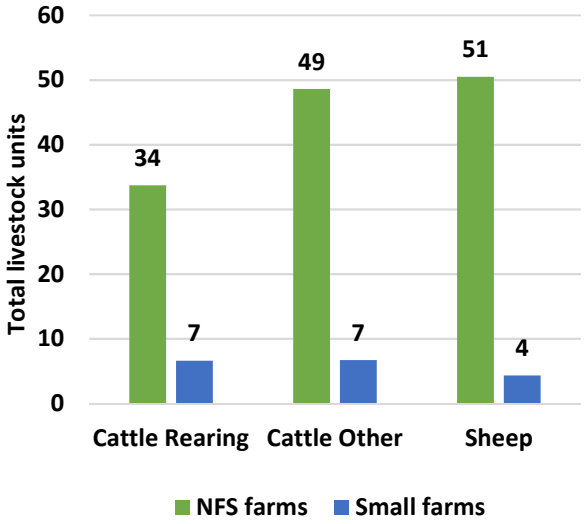


Figure 2-2: Average Livestock units, NFS & SFS 2022



Source: Teagasc NFS

Given differences in farm scale, it is therefore important to examine economic performance on a per hectare basis. Table 2.2 illustrates the higher output per hectare on NFS farms in 2022, with gross output on average twice that of small cattle and sheep farms. The differential between partially leased farms and NFS farms is less significant due to the presence of land rental income. On average, costs are also lower on a per hectare basis on those partially leased farms.

Table 2-2: Average Family Farm Income per hectare NFS & SFS 2022

	NFS Cattle & Sheep	Small Cattle & Sheep	Small Partially leased
	€ per hectare	€ per hectare	€ per hectare
Gross Output	1,667	781	1,292
(of which direct payts)	441	378	226
Total Costs	1,306	756	577
(of which direct costs)	602	178	207
(of which overheads)	704	399	549
Family Farm Income	**361**	**204**	**536**

Source: Teagasc NFS

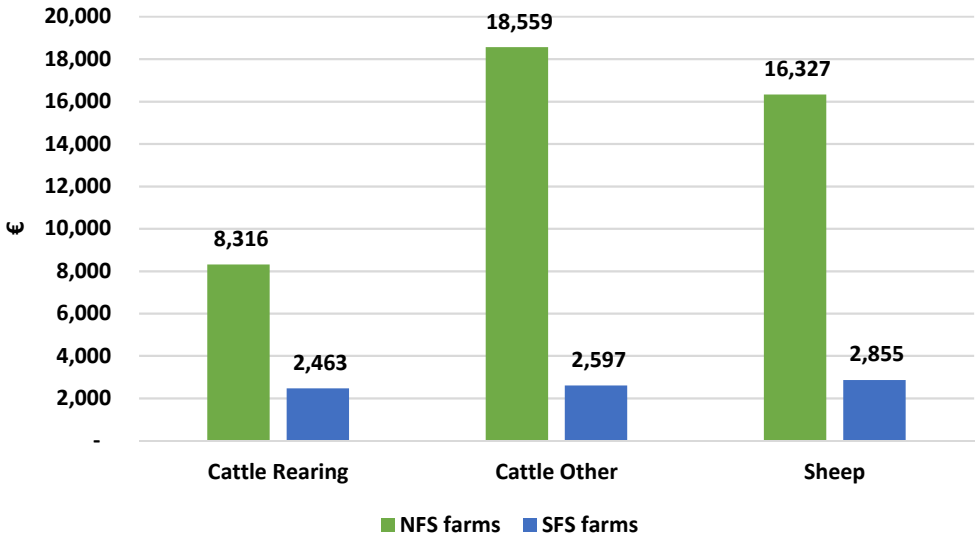
The average level of direct payments per hectare on cattle and sheep farms is somewhat higher on the NFS cattle and sheep farms compared to the small farms (at €441 and €378 respectively). Average direct payments per hectare were lowest on the partially leased farms in 2022 at €226.

2.2 Income by Farm System

The economic performance of cattle and sheep farms differs according to the predominant enterprise of the farm. Average FFI across drystock farm systems is illustrated in Fig. 3.3, whereby the substantially lower

income levels on small farms is evident across enterprises. In 2022, average FFI on the small cattle rearing farms was less than one-third that of their larger counterparts at €2,463 and €8,316 respectively. The difference was even more marked on cattle other farms, where the average income on the NFS farms was seven times that of the small farm cohort at €18,559 and €2,597 respectively. The income differential was more than five-fold on average for small sheep farms, at €2,855 compared to €16,327 on the NFS sheep farms.

Figure 2-3: Average Family Farm Income by Farm System – NFS & SFS 2022



Source: Teagasc NFS

It is clear that farm area is a key difference here. Across individual enterprises, it is evident that small cattle rearing farms were half the size of their NFS counterparts in 2022, in terms of UAA (Table 2.3). Similarly, small cattle other farms were more than three times smaller than NFS farms of this nature, with small sheep farms almost four times smaller than NFS sheep farms when UAA is taken into account.

Table 2-3: Average Farm Area and Financial performance per hectare – Cattle and Sheep Farms 2022

	NFS Farms			Small Farms		
	Cattle Rearing	Cattle Other	Sheep	Cattle Rearing	Cattle Other	Sheep
Farm Size UAA (ha)	31	37	45	16	11	12
Gross Output (€)	1,382	1,927	1,389	663	1,189	578
Direct Payts (€)	488	463	421	368	407	365
Total Costs (€)	1,113	1,425	1,026	507	946	346
Direct Costs (€)	470	704	510	167	266	117
Overhead Costs (€)	643	721	516	340	680	229
Family Farm Income (€)	**269**	**502**	**363**	**156**	**243**	**232**

Source: Teagasc NFS

However, in addition to being smaller in area, the data indicates that small farms are also less profitable on a per hectare basis. The difference in profitability per hectare is greatest on cattle other farms, with a FFI of less than half that reported on NFS cattle other farms. Likewise, FFI on the NFS cattle rearing farms was 1.7

times that of the small farms in 2022, with a differential on comparative NFS sheep farms of 1.6. Examining differences in the level of direct payments across farms, the differential is largest for cattle rearing farms, with NFS farms reporting an average per hectare payment of €120 more than their small farm counterparts. Payments under the Beef Environmental Efficiency Programme (BEEP-S) and Beef Data Genomics Programme (BDGP) continued to make a significant contribution to average farm income on NFS farms in 2022. The difference is less marked on cattle other and sheep farms on a per hectare basis at €56 on average.

The source of the differences in profitability can be explained to some degree by examining the productivity and efficiency of both farm groupings (Table 2.4). To this end, gross output per hectare and per labour unit is reflective of the relative productivity of farms. Gross output per hectare on cattle rearing farms was on average €1,382 or twice as high on the NFS Farms compared to the SFS farms (€663). The differential on cattle other farms was of a smaller magnitude at €1,927 and €1,189 respectively. Similarly, on sheep farms there was a marked difference of more than two and a half times at €1,389 on NFS farms versus €578 on SFS farms. This was driven in part by the improved lamb price and the larger flock size on the NFS farms. Despite the lower labour contribution on small farms (less than half a labour unit), gross output per labour unit is substantially lower on those farms. This is particularly the case on cattle other farms where the figure is about one-third that of the NFS farms (€28,959 and €87,507 respectively). Average costs are relatively higher as a proportion of output on the small cattle and sheep farms compared to their NFS counterparts.

Table 2-4: Productivity and Efficiency metrics – Cattle and Sheep Farms 2022

	NFS Farms			Small Farms		
	Cattle Rearing	**Cattle Other**	**Sheep**	**Cattle Rearing**	**Cattle Other**	**Sheep**
Gross Output per hectare €	1,382	1,927	1,389	663	1,189	578
Gross Output per labour unit €	52,653	87,507	57,059	30,904	28,959	30,350
Direct costs as a % of output	35	36	35	25	22	20
Overhead costs as a % of output	50	42	43	51	57	40
Market Income per hectare €	-232	11	-82	-211	-165	-133

Source: Teagasc NFS

It is interesting to note that despite the differential in gross output across the sectors between the NFS and SFS farms, costs are relatively higher on the small farms. The relative efficiency of both groups is reflected in their costs as a percentage of output. Although direct costs as a percentage of output in the SFS is on average lower than in the NFS, overhead costs as a percentage of output in the SFS are in line with or above those of the NFS. Data relating to market income per hectare in 2022 is insightful, as it was a particularly challenging year on farms grappling with rising input costs, despite a general improvement in output prices. Across all farm types, on a per hectare basis SFS farms had a negative market income (when direct payments are excluded) in 2022. In particular, cattle rearing farms of all sizes continue to remain heavily reliant on direct payments. This is especially evident from the negative market income reported across both the NFS and SFS in 2022, the difference marginal at -€232 and -€211 respectively. On average, negative market incomes were also evident on both NFS and SFS sheep farms, with the latter losing €50 more per hectare at -€133 compared to -€82 on NFS farms. There was a marked difference between cattle other farms, with the NFS reporting a slightly positive market income per hectare in 2022 (of €11), compared to a significant loss per hectare in the SFS of -€165.

Farm labour input as reported in the NFS and SFS across farm enterprises is presented in Table 2.5. Total labour is inclusive of hired labour and there is some evidence of this on the NFS farms. Typically, the small farms employed less than half a labour unit in 2022.

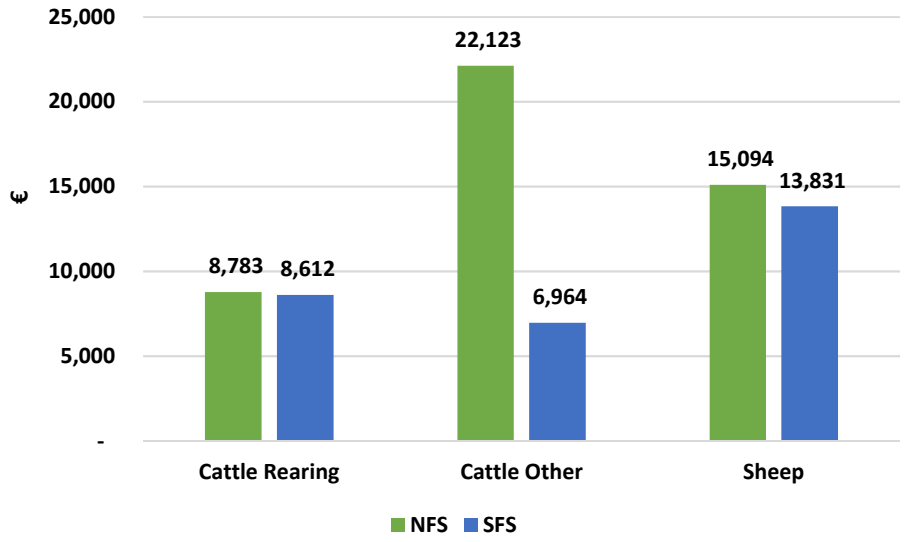
Table 2-5: Labour Input on Cattle & Sheep Farms – NFS & SFS 2022

	NFS Farms			Small Farms		
	Cattle Rearing	Cattle Other	Sheep	Cattle Rearing	Cattle Other	Sheep
Family	0.92	0.90	0.99	0.40	0.46	0.30
Total	0.94	0.93	1.03	0.40	0.46	0.30

Source: Teagasc NFS

The lower labour input required in the SFS farms is reflected when income distribution per labour unit is considered. Figure 2.4 illustrates the smaller differential in income between the SFS and NFS farms when displayed on that basis. Nonetheless, levels of FFI are still very low across all of those farm categories.

Figure 2-4: Income per labour unit by Farm System – NFS & SFS 2022

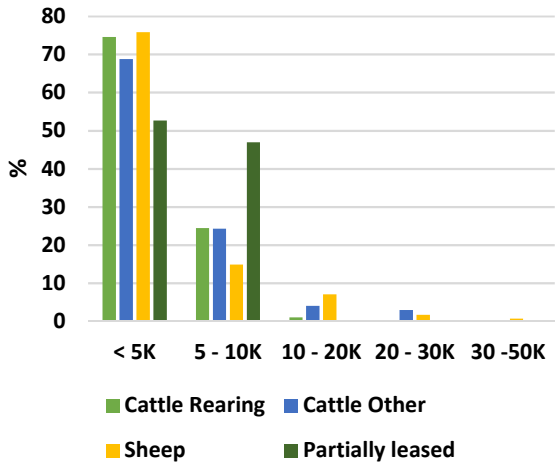


Source: Teagasc NFS

2.3 Income Distribution

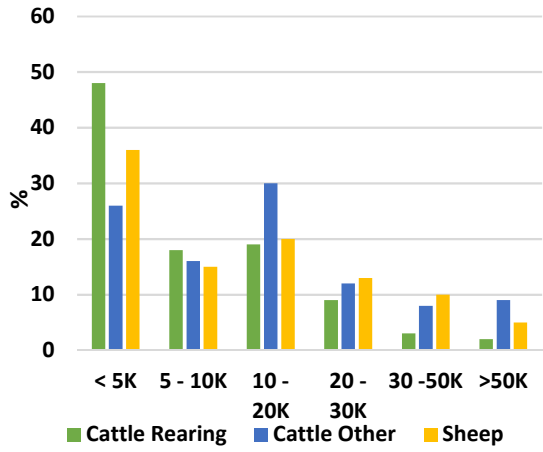
The distribution of FFI in the SFS and NFS in 2022 is displayed in Figure 2.5 and Figure 2.6, across farm enterprises. Approximately three-quarters of small cattle and sheep farms earned an average FFI of €5,000 or less in 2022. The equivalent figure on the NFS cattle and sheep farms was over one-third. FFI on the partially leased farms was on average higher in 2022, with about half of all small farms in this category earning below €5,000 and the remainder between €5,000 and €10,000, due to the presence of land rental income. That said, income levels on NFS drystock farms were also relatively low in 2022, the vast majority of farms across systems earning below €20,000, on average.

Figure 2-5: FFI Distribution – SFS 2022



Source: Teagasc NFS

Figure 2-6: FFI Distribution – NFS 2022



Source: Teagasc NFS

2.4 Reliance on Direct Payments

Total direct payments received per farm were as expected lower in the SFS. However, in terms of their overall contribution to the income of small farms, direct payments are even more important than in the case of NFS farms. The importance of direct payments is dependent on the farm system in question. This is set out in Table 2.6. The data indicate that direct payments make the largest contribution to farm income on cattle rearing farms, at 182% in the NFS and 235% in the SFS.

Table 2-6: Value of direct payments and contribution to income – NFS & SFS 2022

	NFS Farms			Small Farms		
	Direct Payments	DPs per ha	Contrib. to Income	Direct Payments	DPs per ha	Contrib. to Income
	€		%	€		%
Cattle Rearing	15,130	488	182	5,800	368	235
Cattle Other	17,129	463	92	4,358	407	168
Sheep	18,947	421	116	4,492	365	157

Source: Teagasc NFS

Direct payments as a share of income is next highest on sheep farms, accounting for 116% in the NFS and 157% in the SFS in 2022. On average, NFS cattle other farms were the only grouping for which the contribution of direct payments to farm income was below 100%, albeit marginally. The contribution of direct payments to farm income on SFS cattle other farms was close to 170% in 2022, on average.

The composition of direct payments across SFS and NFS cattle and sheep farms also differs (Figure. 2.7 and 2.8). The basic payment scheme (BPS) accounted for 85% of total support payments on NFS cattle rearing farms compared to 53% in the SFS. The proportion on cattle other farms was similar at about 62%. For sheep farms, on average the BPS represented close to 70% of total support payments in the NFS compared to less than half on the SFS sheep farms. The presence of generally higher agri-environmental scheme payments and monies paid under CAP Pillar II, such as the areas of natural constraint (ANC) scheme, on small farms serve as an explanation for this.

Figure 2-7: Composition of Direct Payts – NFS 2022

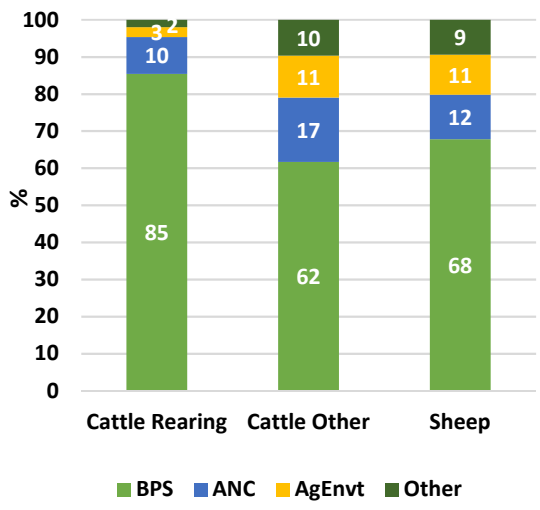
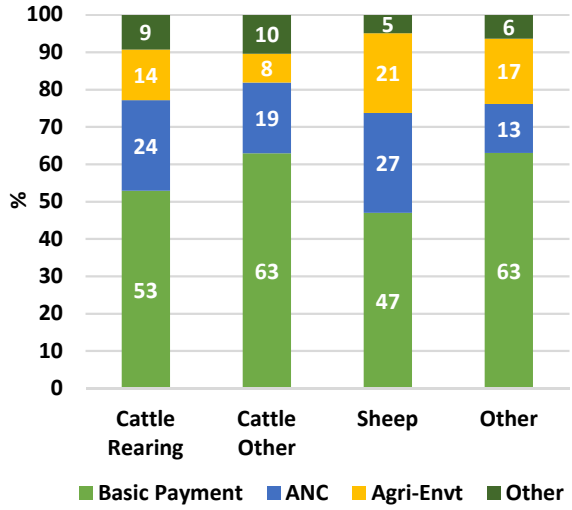


Figure 2-8: Composition of Direct Payts – SFS 2022



Source: Teagasc NFS

2.5 Socio-demographics

Data from the SFS 2022 indicate that small farm operators tend to be slightly older, at 60 years on average compared to 58 years in the NFS. In general, there was a higher proportion of single person households in the SFS compared to the NFS. A much larger proportion of farmers in the NFS were married (70%) compared to the SFS (52%), while in the SFS there was also a higher likelihood of the farmer being widowed. In addition, NFS farm households were in general larger compared to SFS farms. This is also reflected in the significantly higher proportion of farms with younger people in the household in the NFS.

Given their very low levels of farm income, it is not surprising that a large proportion of small farm households have some additional income source. The SFS data indicate that in 2022, 83% of small farms had an additional income source (from either off-farm work or a pension) within the household.

Table 2-7: Socio-demographic Data – NFS & SFS 2022

	NFS Farms	Small Farms
Farmer Age	58.3	59.8
Married (%)	70.3	52.3
Single (%)	21.3	26.8
Widowed (%)	5.3	10.3
Household Size (No. of persons)	3.1	2.3
Household with members aged <24 years (%)	35	11
Household with members aged <24-44 years (%)	33	15
% Of farm job (Household)	48	58
% Of farm job (Farm Holder)	39	51
% Pension (Household)	34	39

Source: Teagasc NFS

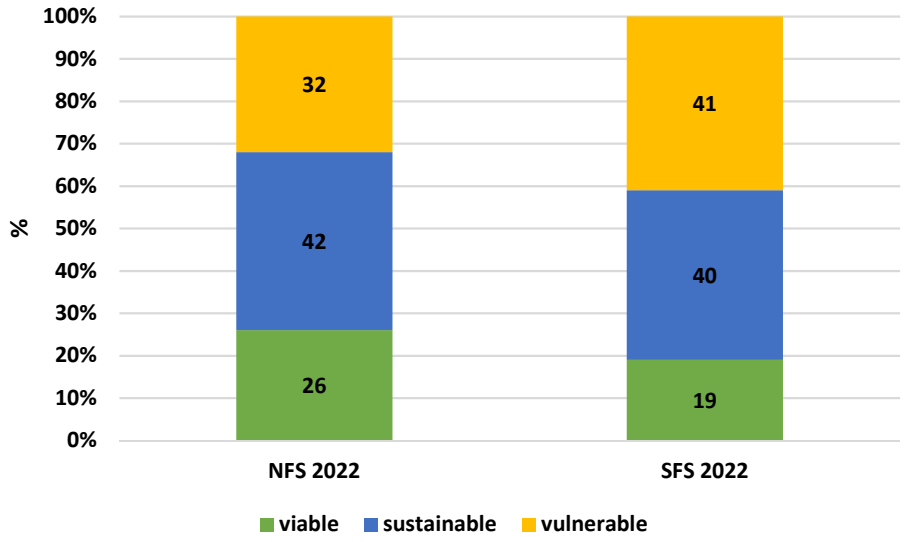
This was either in the form of off-farm employment (on the part of the farm holder or other family member), as was the case for 58% of small farms or through pension income (which was present in 39% of small farm households). The proportion of NFS farms where either the farmer, spouse or other family member was also employed off-farm was somewhat lower, at 48% on average in 2022. The incidence of NFS farm households in receipt of a pension was lower, at 34% on average. That said, the proportion of farm households in in receipt of pensions is reflective of the ageing profile across both the NFS and SFS. Finally, small farm holders were themselves more likely to work off-farm in 2022, at 51% according to the SFS compared to 39% in the NFS).

2.6 Farm Viability

Finally, an overview of the economic viability of farms is contained in Figure 2.9. Based on the definition developed by Frawley and Commins (1996), a farm is defined as being economically viable if it can (a) remunerate family labour at the average agricultural wage, and (b) provide a 5 per cent return on non-land assets. Two further categories exist, i.e. farms deemed 'sustainable' (not economically viable based on farm income alone, but due to the presence of another income earned from an off-farm job). The final group is deemed vulnerable if the farm is not viable and there is no off-farm income present within the household.

The data indicates that the proportion of viable farms is lower in the SFS compared to the NFS in 2022, at 19% and 26% respectively. The presence of additional off-farm income within the household resulted in the proportion of farms categorised as sustainable being broadly similar, at about 40%. On the other hand, the proportion of small farms classified as vulnerable was higher at 41% in the SFS compared to 32% in the NFS.

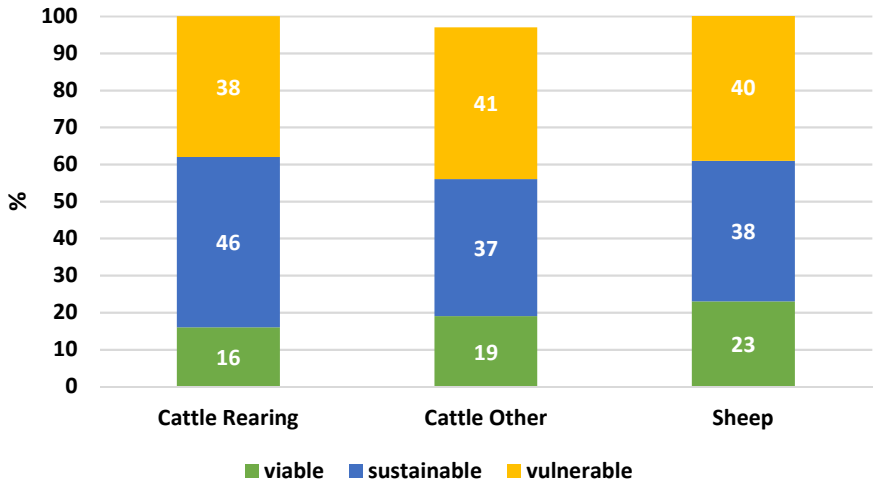
Figure 2-9: Farm viability – NFS & SFS 2022



Source: Teagasc NFS

Figure 3.10 presents the viability analysis of small farms on a farm system basis. Interestingly, across farm types, the levels of vulnerability were broadly similar across systems, at about 4 in 10 farms. A higher proportion of cattle rearing farms in the SFS were considered to be sustainable (with the presence of an off-farm income within the household) at 46%, compared to 37% of cattle other farms and 38% of sheep farms. However, just 16% of small cattle rearing farms were categorised as viable in the SFS 2022, the figure marginally higher on cattle other farms at 19%, and highest on small sheep farms at 23%, on average.

Figure 2-10: Viability by Farm System – SFS 2022



Source: Teagasc NFS

2.7 Summary

The following points summarise the economic performance of small farms in Ireland in 2022:

- The average small farm is 13 hectares in size (UAA). Average FFI on small farms was between €2,600 (cattle and sheep) and €4,400 (partially leased) in 2022. About 70% of cattle and sheep farms in the SFS earned an FFI of less than €5,000 in 2022. Average FFI on partially leased farms was higher in 2022, with about half earning below €5,000 and the remainder earning between €5,000 and €10,000. This is explained by the presence of land rental income.
- The average small farm employed less than half a labour unit in 2022. The average farm income per full-time labour unit equivalent was between €7,000 and €8,000 on cattle farms and €13,000 on sheep farms in 2022.
- Farms in the SFS were less productive than those in the NFS in 2022. On a per hectare basis, gross output on small farms was on average between €600 and €1,200 across drystock enterprises.
- Small Farms are less efficient, with total costs consuming a larger proportion of output compared to NFS farms. This is mostly driven by overhead costs, which are higher on small farms relative to the output level compared to NFS farms.
- Depending on the farm system, the share of direct payments range between 157% and 235% of FFI on small farms.
- Farm operators in the SFS were on average slightly older in 2022. Farm households in the SFS were also smaller and older, on average.
- In 2022, 83% of small farm households had an off-farm income source, either through off-farm employment or a pension.
- The proportion of small farms classified as vulnerable is high at 41%, compared to 32% on NFS drystock farms. Only 19% of the farms in the SFS were considered viable, compared to 26% in the NFS, with the remainder sustained by the presence of an off-farm income source within the household.

3 Environmental Sustainability

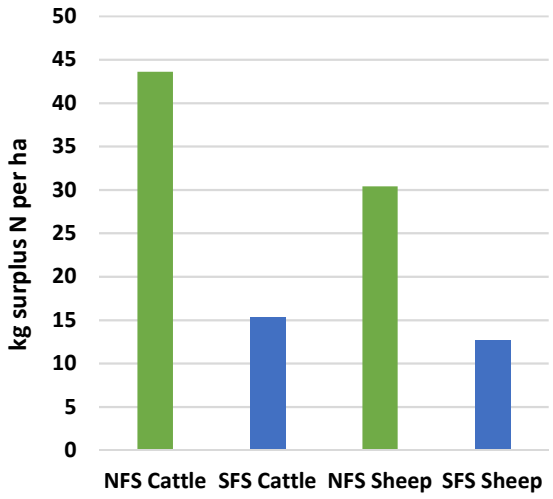
The environmental footprint of farming is increasingly becoming a key area of policy focus. The responsible management of natural resources and interaction with ecosystems to minimise adverse environmental impacts and to ensure the long-term health and productivity of agricultural systems is fundamental. Due to their smaller scale and more extensive nature, small farms tend to be more environmentally sustainable and therefore potentially have a critical role to play in protecting soil health, improving water quality and conserving biodiversity. Using data available through the annual NFS and the SFS, two primary areas of environmental concern are assessed here i.e. agricultural greenhouse gas (GHG) emissions and farm nutrient balances.

3.1 Nutrient Balances

Farm-gate nutrient balances are calculated by subtracting the nitrogen (N) and phosphorus (P) contained in all agricultural outputs (e.g. livestock and livestock products sold) from all farm inputs (e.g. fertilisers, animal imports and purchased feed). This provides us with an estimate of the nutrient surpluses applied to each farm. High nutrient balances can indicate a risk of losses to water bodies, while very low nutrient values (near 0) can indicate a risk of degrading soil quality.

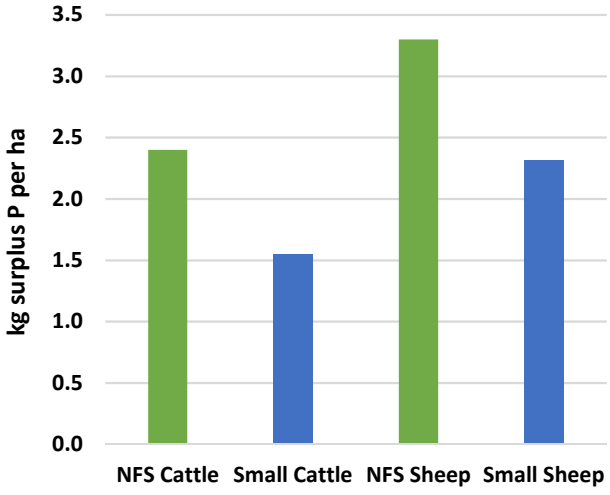
As shown in Figure 3.1, farms in the SFS generally had lower N balances on a per hectare basis, especially on sheep farms, indicating a lower risk of nitrogen pollution to local water bodies. This is as a result of more extensive management on smaller farms, especially smaller sheep farms, with lower nitrogen fertiliser application rates per hectare and lower stocking rates than would be found on larger farms. Figure 3.2 demonstrates that farm P balances were lower in the SFS compared to the NFS in 2022.

Figure 3-1: Nitrogen balance – NFS & SFS 2022



Source: Teagasc NFS

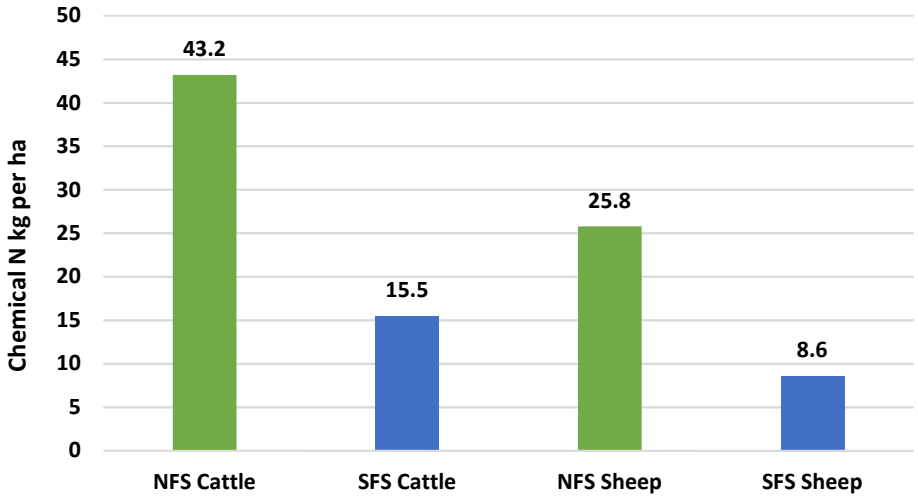
Figure 3-2: Phosphorus balance - NFS & SFS 2022



Source: Teagasc NFS

Chemical nitrogen use declined on Irish farms over the course of 2022, elevated fertiliser prices in the aftermath of Russia's illegal invasion of Ukraine and the uptake of climate mitigation practices, such as increased use of protected fertiliser products were key factors. Data from NFS and SFS in 2022 provided in Figure 3.3, indicating that chemical nitrogen use per hectare on small cattle farms was more than 2.5 times lower than on NFS farms (16kg and 43kg respectively). Similarly, usage on small sheep farms was 3 times lower than on NFS farms.

Figure 3-3: Chemical N Kg ha – NFS & SFS 2022

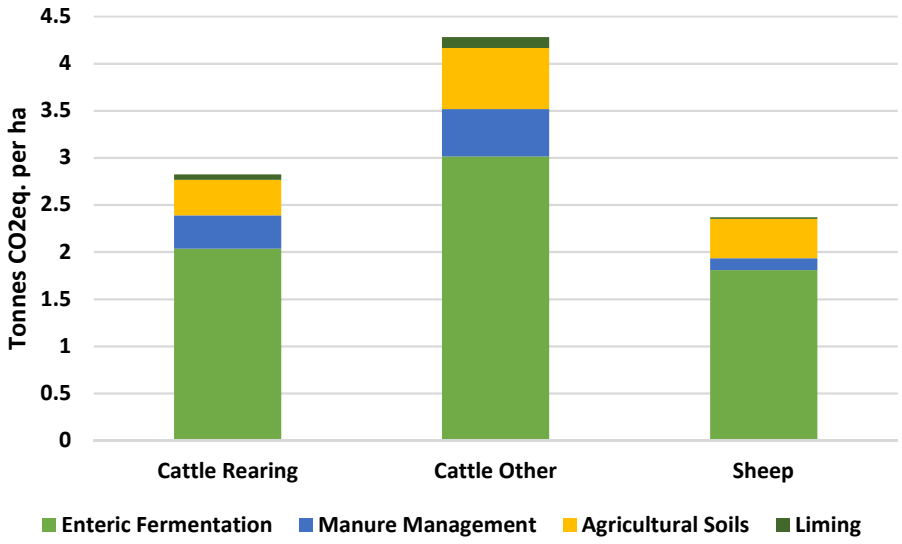


Source: Teagasc NFS

3.2 Greenhouse Gas Emissions

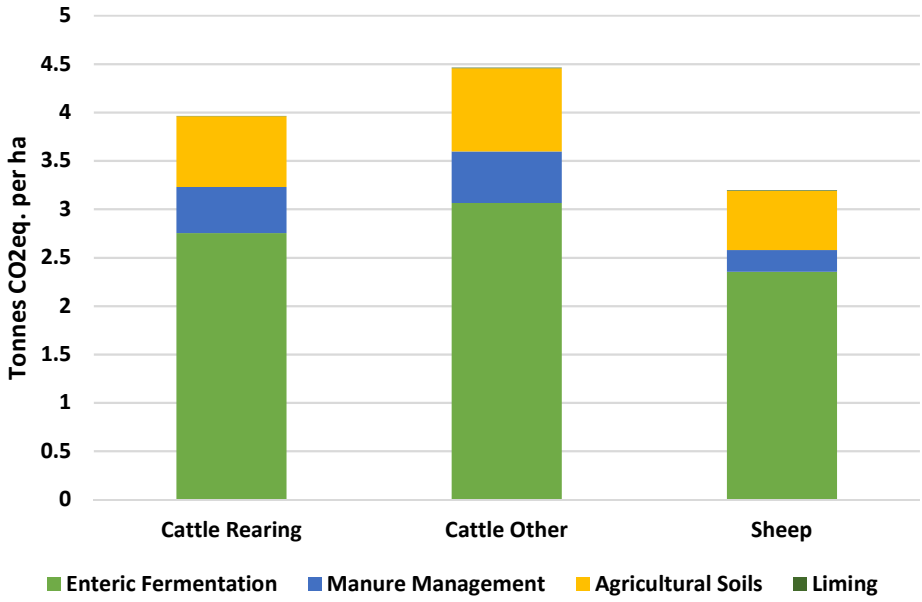
Farm-level GHG emissions were calculated using the IPCC (Intergovernmental Panel on Climate Change) methodology, as employed in the Irish National Inventory Report and published annually in the NFS Sustainability Report. Key farm structural and management details, such as livestock number and age and fertiliser applications are utilised alongside relevant coefficients to estimate agricultural GHG emissions. As shown in Figures 3.4 and 3.5, farms in the SFS had lower GHG emissions per hectare than their NFS counterparts, across cattle and sheep systems.

Figure 3-4: Composition of Agricultural GHGs per hectare – SFS 2022



Source: Teagasc NFS

Figure 3-5: Composition of Agricultural GHGs per hectare – NFS 2022

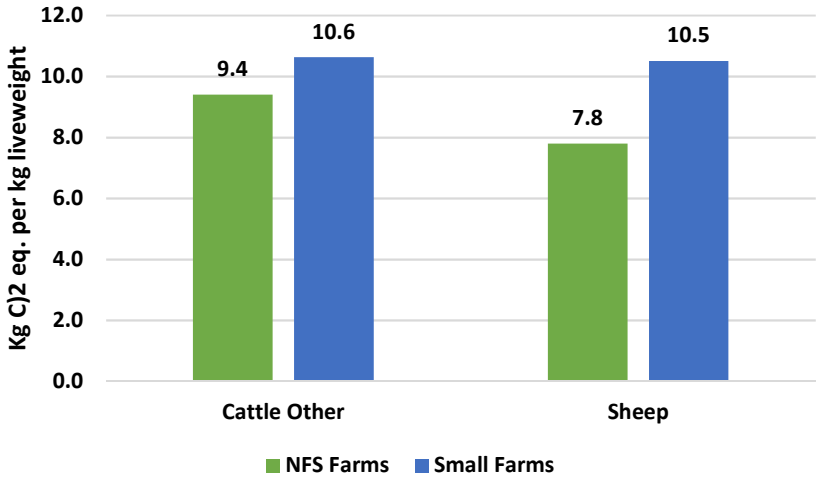


Source: Teagasc NFS

This is a result of small farms generally having low stocking rates, leading to low per hectare emissions from enteric fermentation and animal manures. These farms are managed more extensively, with lower fertiliser and lime applications.

However, when expressed per unit of animal liveweight produced, as shown in Figure 3.6, SFS farms are relatively less emissions efficient, with greater emissions per unit of output. This is largely as a result of slower animal weight gain and a later finishing date on smaller farms. It should be noted, however, that the GHG accounting methods employed here do not include emissions from purchased inputs ('embedded emissions' in purchased fertilisers and animal feeds), which are generally higher on farms that are more intensive.

Figure 3-6: Agricultural GHG emissions per kg liveweight – NFS & SFS 2022



Source: Teagasc NFS

3.3 Biodiversity

The preservation of biodiversity and natural habitats is widely recognised as an important element of sustainability. As such, small farms have a significant role to play in the conservation of the natural environment given their location in areas associated with High Nature Value farmland, and the more extensive nature of their farm operations.

Although progress has been made in the design and inclusion of a biodiversity indicator in the NFS through a proof-of-practice approach, access to data at the appropriate resolution in terms of land cover and habitat quantity and quality is required to assess the (proxy) biodiversity status of farms. A unique attribute of the NFS and SFS is the ability to link biodiversity data with a range of other farm data (financial, technical, environmental and social), and as such work is ongoing to facilitate this approach.

3.4 Summary

The following points summarise the main results on the environmental performance of small farms in 2022:

- Nitrogen and Phosphorous balances (when expressed on a per hectare basis) were lower on SFS farms than NFS Farms.
- On a per hectare basis, small farms emit less GHG emissions. However, when the level of output is accounted for, small farms are fewer emissions efficient. In other words, small farms emit more GHG per kg of meat produced than NFS farms.
- Work is ongoing in the development of an indicator of biodiversity within the NFS, which would allow for an assessment across farm size and system. This will require access to relevant data.

4 Social Sustainability

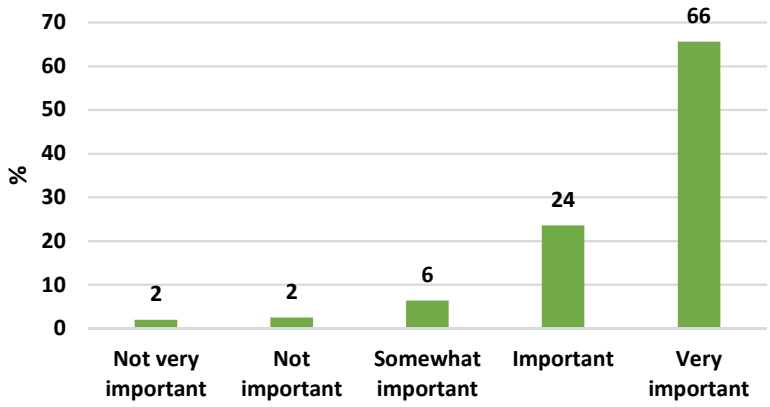
The concept of sustainability is increasingly being considered in an holistic way, with more emphasis now being place on the social dimension. Measurement of social sustainability in an agricultural context encompasses the principles and practices that ensure the well-being and equity of individuals and communities involved in farming activities. As such, there are internal (to the farmer) and external (societal) aspects to be considered. The development of suitable metrics is ongoing within the NFS and an exploration of a number of relevant social issues on small farms was conducted through the SFS 2022. A number of objectives of the new CAP focus on broad societal challenges around farm viability, intergenerational transfer and rural development. As such, the survey focused on issues such as motivation for farming, social engagement and the future trajectory for small farms in particular around farm succession and diversification. These elements are discussed in turn in this chapter.

4.1 Motivation for farming on Small Farms

The generally low levels of economic return on small farms is broadly recognised, but the non-pecuniary benefits of farming are also generally accepted. In this instance, respondents were provided with a series of statements around their reasons for farming, on which they provided their level of agreement using Likert Scales (1 -5) on importance (1 = not very important and 5 = very important) or agreement (1 = disagree strongly and 5 = agree strongly). The responses to these statements are detailed in turn below.

Almost all respondents (90%) agreed with the statement that enjoyment of farm work was either very important or important (Fig. 4.1).

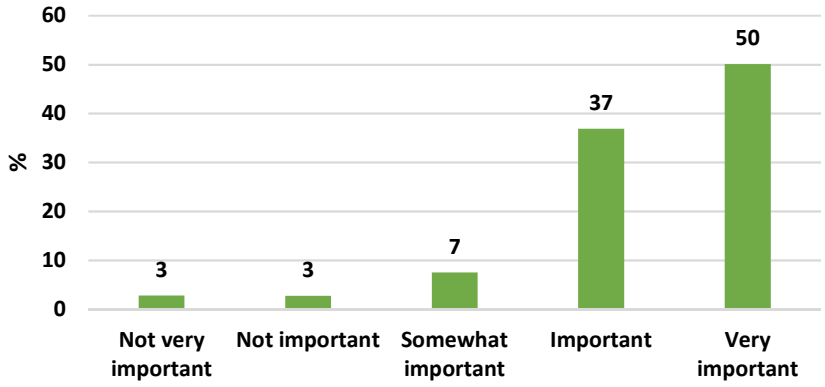
Figure 4-1: Enjoyment of farm work – SFS 2022



Source: Teagasc NFS

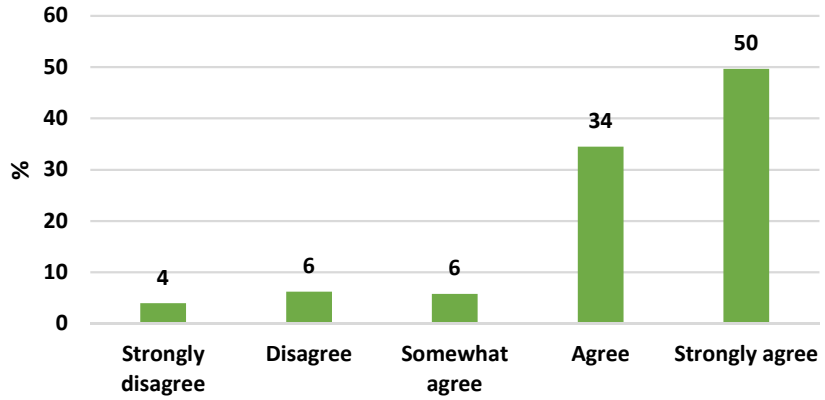
A similar proportion (87%) stated that their engagement with environmentally friendly practices was either very important or important (Fig. 4.2), with a similar proportion agreeing that they were happy to take advice about managing the natural environment on their farm (Fig. 4.3).

Figure 4-2: Environmentally friendly practices – SFS 2022



Source: Teagasc NFS

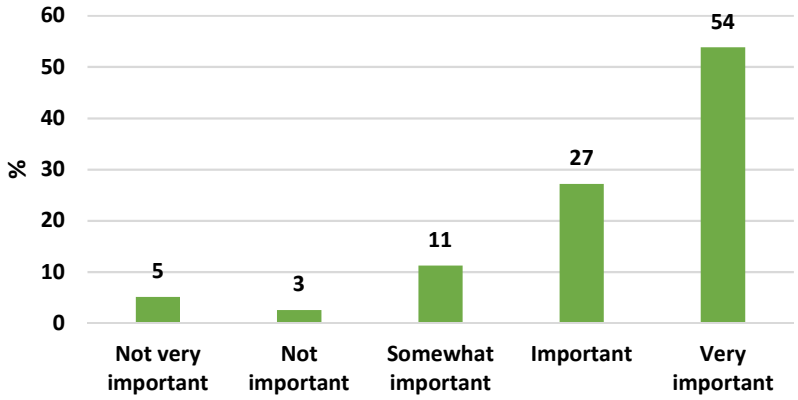
Figure 4-3: Advice on Environmental management– SFS 2022



Source: Teagasc NFS

Over 80% of respondents felt that it was either very important or important to continue the farming tradition (Fig. 4.4).

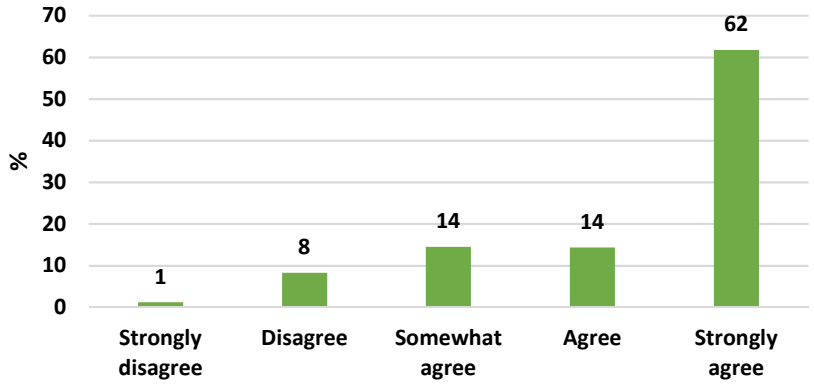
Figure 4-4: Continuation of farming tradition – SFS 2022



Source: Teagasc NFS

In line with previous research on the non-pecuniary benefits of farming, three quarters of respondents agreed that it was achieving a good quality of life was more important than maximising farm income (Fig. 4.5).

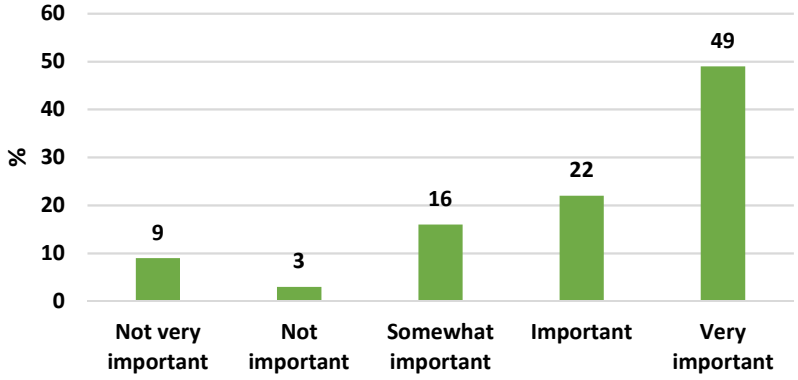
Figure 4-5: Quality of life more important than farm income – SFS 2022



Source: Teagasc NFS

71% of respondents agreed that it would be very important or important that the farm stays in the possession of the family on their retirement (Fig. 4.6).

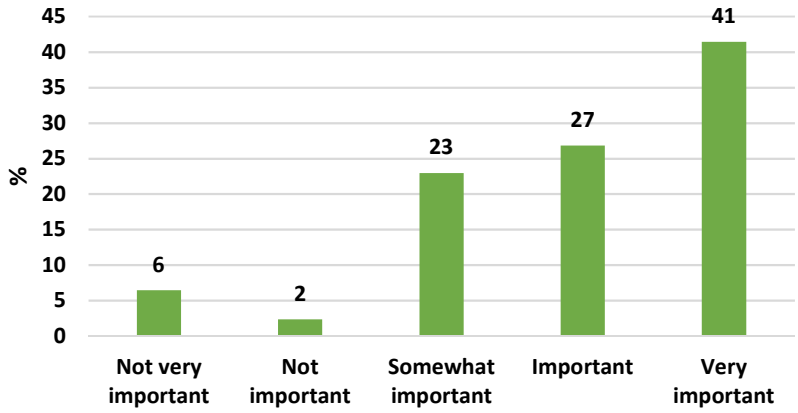
Figure 4-6: Preference for farm staying within the family – SFS 2022



Source: Teagasc NFS

68% of respondents felt that recognition as part of the farming community was important or very important, with a further 23% agreeing that it was moderately important (Fig. 4.7).

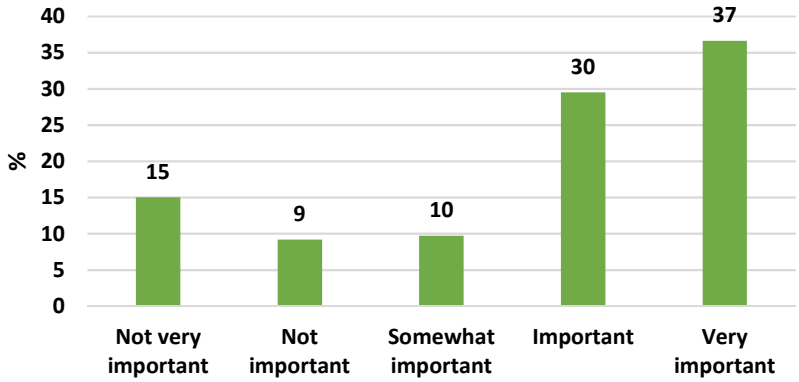
Figure 4-7: Recognition as part of the farming community – SFS 2022



Source: Teagasc NFS

A similar proportion of respondents (67%) felt that being in a position to support family members to build on owned land was either very important or important (Fig. 4.8).

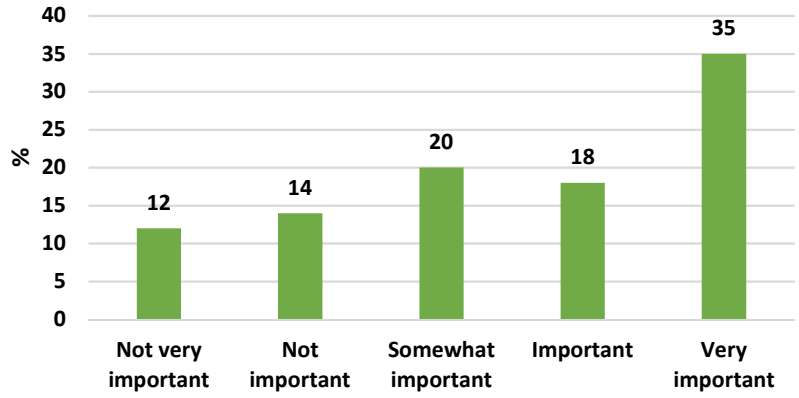
Figure 4-8: Supporting family members to build on owned land – SFS 2022



Source: Teagasc NFS

Over half of respondents stated that retaining wealth and assets for the future was very important or important, with just one-quarter agreeing with the statement that this was not very important or not important (Fig. 4.9).

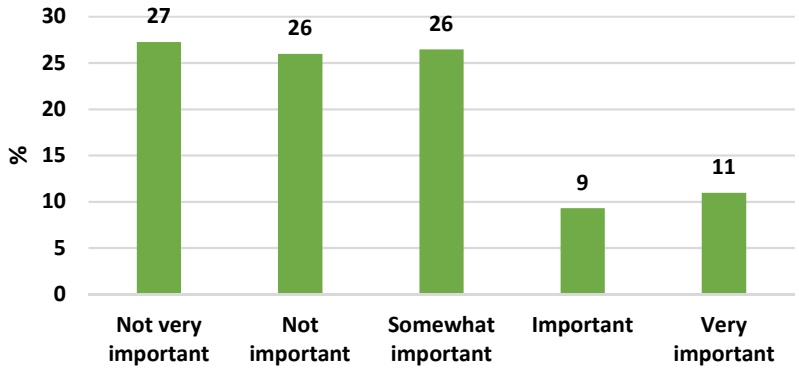
Figure 4-9: Retaining wealth/assets for the future – SFS 2022



Source: Teagasc NFS

Finally, over half of farmers did not deem the lack of other economic opportunities as being important in their decision to farm (Fig. 4.10).

Figure 4-10: Lack of other available economic opportunities – SFS 2022

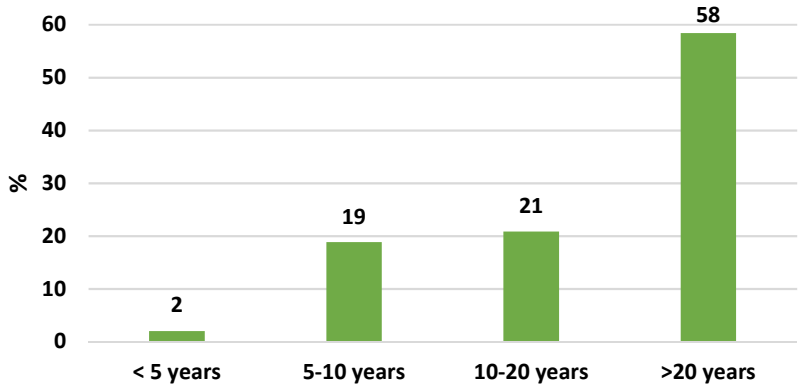


Source: Teagasc NFS

4.2 Farming background on Small Farms

Given the ageing farmer population across the EU and widespread acknowledgement of challenges around farm succession and intergenerational transfer, it is interesting to note that almost 6 out of 10 of the small farm respondents to this survey have been the main operator of their farm for more than 20 years (Fig. 4.11). A further 2 in 10 have been the main farm operator for between 10 and 20 years, with the same proportion farming as the main operator for between 5 and 10 years. Only 2 percent of respondents were farming as the main holder for less than 5 years.

Figure 4-11: Length of time as the main farm operator – SFS 2022



Source: Teagasc NFS

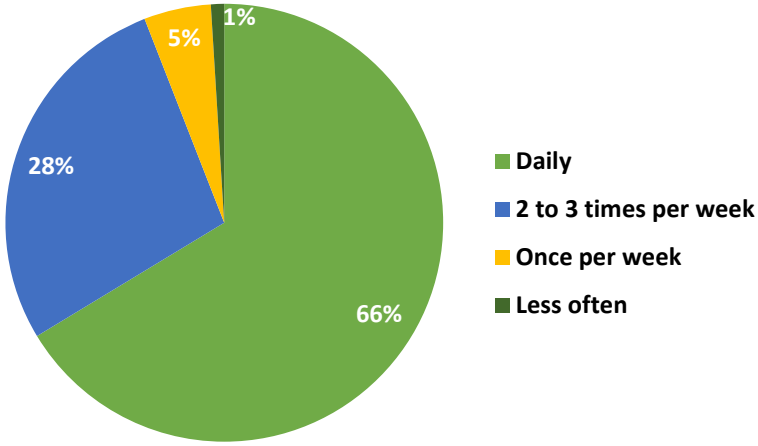
In terms of on-farm decision making, three quarters of respondents stated that they themselves as farm operators were the main decision makers in terms of how the farms was run. The remainder stated that decisions were made in conjunction with other family members (i.e. siblings, spouse/partner, children or parents). In terms of how the small farm holder had acquired the farm, three-quarters had inherited the farm, close to one-fifth had purchased it, with the remainder having acquired the farm through a mix of inheritance, purchase and through renting parts of the farm.

4.3 Social engagement on Small Farms

In order to gain a better understanding of farmer social engagement, respondents were asked about how often they have contact with others outside of their household (fig. 4.12). Data in this regard has been periodically collected through the annual NFS in recent years, with the impact of the COVID-19 pandemic and reduced social engagement evident. Two-thirds of small farm operators stated that they have daily contact with persons outside of their household. A further 28% of farmers met with someone outside of their household 2 to 3 times per week, with 5% meeting someone from outside the household only once per week and only 1% of farmers stating that they had less contact than that.

Digital connectivity is another aspect of social engagement, with access to the internet and smartphones increasingly recognised as a means of maintaining social connection. NFS data collected in recent years has shown an increase in farmer engagement with these technologies, particularly during the pandemic with the introduction of online livestock marts. Results from the SFS indicate that almost 8 in 10 small farm households had access to the internet, a figure somewhat below that amongst the NFS population. 7 out of 10 small farm operators reported smartphone use in 2022, a figure not very different from the NFS population. That said, only half of small farm operators use the internet or smartphone for farming purposes.

Figure 4-12: Frequency of contact with persons outside of the farm household – SFS 2022



Source: Teagasc NFS

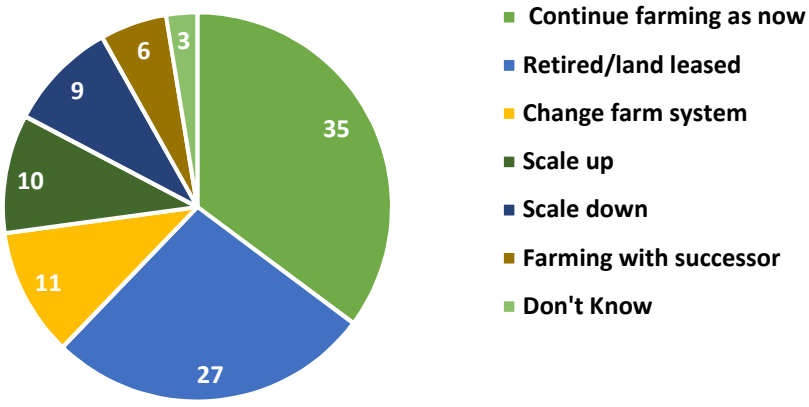
In terms of farmer health and wellbeing, over one-third (35%) of small farm operators reported that there general health was very good, with a similar proportion (36%) reporting that it was good. 19% reported that their general health was average, with the remaining 10% reporting that their general health was poor. Responses were broadly similar to those recently collected for the NFS farm population, of a broadly similar age profile.

4.4 Future Farming Plans on Small Farms

Given the proportion of small farms in Ireland and the evidential challenges around farm succession, farmer intentions around how they envisage the operation of their farm over the course of the next five years were investigated. Respondents were provided with a number of options to help indicate their expectations.

More than one-third (35%) of small farm operators indicated that intend to continue farming (Fig. 4.13). On the other hand, more than one-quarter (27%) expect to have retired and/or to have leased out their land. A further one-fifth (21%) intend to change farm system or scale up their farm business, whereas 9% are planning to scale back. A small proportion (6%) intend farming with a successor, with the remaining 3% unsure as to how the farm will develop over the next five years.

Figure 4-13: Future farm intentions in the next 5 years – SFS 2022



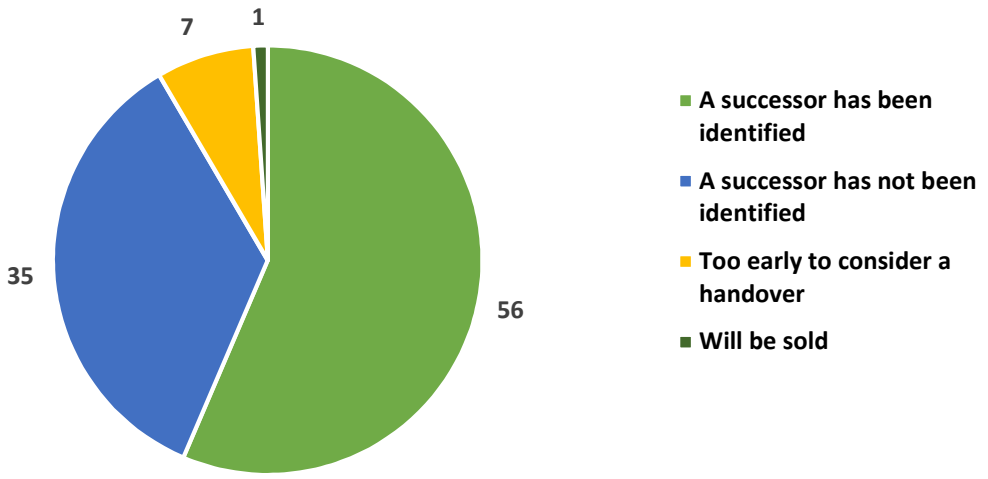
Source: Teagasc NFS

When small farm operators were asked about their potential interest in a number of farm diversification options presented to them, some respondents indicated an interest in more than one option. In summary, just over half of respondents said that they would consider switching from their conventional farm system to organics. Similarly, 41% indicated that they would consider (further in some instances) participation in agri-evironmental schemes. A smaller proportion of respondents suggested that they would consider the following options: a farm retirement scheme (17%), growing fodder for other farmers (13%) and forestry (13%). Very few respondents indicated an interest in contract rearing for other farmers (2%) or other on-farm diversification strategies (5%).

4.5 Farm Succession on Small Farms

To assist in better understanding the process of farm succession on small farms, those farmers aged over 60 were asked about their planned intentions for the future of the farm. The survey found that 56% of small farm operators indicated that they had identified a successor (Fig. 4.14). This figure is somewhat lower than that reported by NFS cattle and sheep farmers in a previous survey.

Figure 4-14: Farm succession plans – SFS 2022



Source: Teagasc NFS

Among small farm operators who have not yet identified a successor (44%), some considered that it was too early to consider such a handover or the family were not interested in taking over the farm. Only 1 percent of respondents indicated that the farm would be sold.

On those small farms where a successor has been chosen, some insight in to their characteristics were gained. In terms of gender, 74% were male, 12% female with the remainder of farms being jointly passed on to both male and female successors (Figs. 4.15). Respondents were also asked if the successor (to their knowledge) had a third level qualification, with 36% stating that they had, 48% that they had not, with the remainder indicating that they did not know (Figs. 4.16).

Asked about the timeframe in which farm succession could be expected to take place, just under half (49%) of respondents considered that the transfer would take place in the next 5 to 10 years, 39% were unsure, 10% envisaged that the farm would be transferred over the course of the next 10 to 15 years, with only 3% expecting that the transfer would happen over the course of the next 5 years.

Figure 4-15: Successor gender – SFS 2022

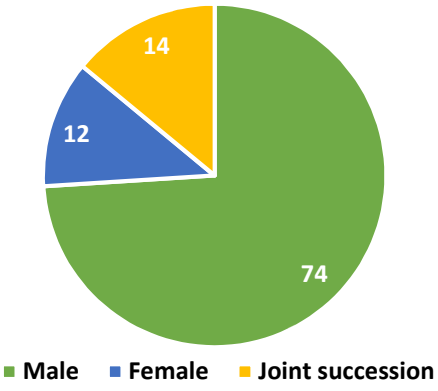
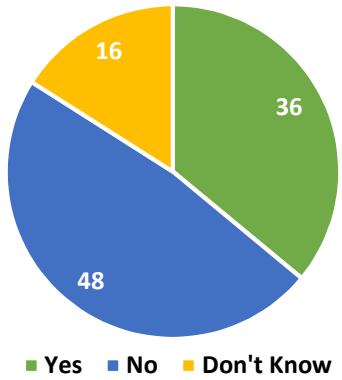


Figure 4-16: Successor 3rd level qual. – SFS 2022



Source: Teagasc NFS

As per the future intentions of the successor, over one-third (36%) of small farm operators expected that the successor would change the farm's system of production, with a further one-third expecting the successor to continue farming as is. Respondents expected that 22% of successors would not continue to farm with 10% unsure as to what the successor would do with the farm. Somewhat surprisingly, when asked as to whether the move towards remote working would increase the likelihood of the farm continuing to be farmed in to the future, almost half (49%) felt that it would not, with a further 28% stating that it would and 24% unsure as to whether remote working would help facilitate the operation of the farm into the future.

4.6 Summary

The following points summarise the main insights on social sustainability garnered through the SFS 2022:

- Enjoyment of farm work was the main motivating factor cited by the operators of small farms in their involvement in farming.
- Similarly, managing their farms in an environmentally friendly way was cited as an important reason for farming by almost all respondents.
- Continuation of the family tradition and maintaining a good quality of life were also considered to be very important by the majority of respondents.
- Delayed succession on small farms is reflected in the slightly older age profile of small farm operators (60 years on average) compared to the NFS farm population.
- Small farm operators do not appear to be any less socially engaged than the broader farm population with some deterioration in the levels of daily contact with people outside the household evident in recent years.
- In terms of the future trajectory for small farms over the course of the next 5 years. More than one-third (35%) of small farm operators indicated that they intend to continue farming, with a further more than one-quarter (27%) expecting to have retired and/or to have leased out their land.
- 56% of small farm operators indicated that they had identified a successor, with about half of those expecting that the transfer would take place in the next 5 to 10 years.
- Just over half of small farm operators indicated that they would consider switching from their conventional farm system to organics. Similarly, 41% indicated that they would consider (further in some instances) participation in agri-evironmental schemes.

5 Conclusions

In terms of **economic** performance, data from the SFS 2022 indicates that the average small farm in Ireland is 13 hectares in size, with a Farm Family Income (FFI) ranging from €2,600 on cattle and sheep farms to €4,400 on partially leased farms. Approximately 70% of small cattle and sheep farms earned less than €5,000 in FFI, whereas partially leased small farms returned somewhat higher incomes due to the revenue from land rental. Half of those small farms categorised as partially leased, earned below €5,000, on average, with the other half reporting a FFI between €5,000 and €10,000. Farms in the SFS 2022 employed less than half a labour unit on average, with the FFI per full-time labour unit equivalent ranging from €7,000 to €8,000 on cattle farms and €13,000 on sheep farms. Compared to farms in the NFS farm population in 2022, small farms were less productive, in terms of gross output, and less efficient, with higher total costs driven mainly by overheads. Direct payments constituted a larger share of FFI on small farms, compared to NFS farms. Those operating small farms were generally older with in general, smaller households of an older age profile compared to NFS farms. Given the relatively low levels of FFI on small farms, it is not surprising that 83% of small farm households had other sources of off-farm income, in the form of off-farm employment or pensions. A significant proportion of small farms, 41%, were classified as vulnerable, compared to 32% of NFS drystock farms. Similarly, fewer SFS farms were deemed viable at just 19%, compared to 26% of NFS farms, with a comparable proportion of households sustained by an off-farm income source across the two farm populations.

In summary, the economic sustainability status of small farms in Ireland is precarious. This is highlighted by the low average FFI and high dependency on direct payments. The fact that almost all small farm households rely on off-farm income sources highlights the insufficient revenue generated from farming alone. While the part-time nature of small farm operations in Ireland provides a buffer for farm households against economic volatility in the non-farm economy, it does not fully mitigate the underlying issues affecting their economic sustainability. Overall, the economic sustainability of small farms is challenged by low productivity, high costs, and a heavy reliance on external financial support and off-farm income. Addressing these challenges is crucial for enhancing the resilience and economic viability of small farms in Ireland. The older age profile of small farm operators and smaller household size brings added uncertainty as to the continuity and future viability of these farms.

On the other hand, the SFS 2022 demonstrates the low **environmental** impact of small farms in Ireland, particularly in terms of nutrient management, water quality and GHG emissions. Small farms have lower nitrogen and phosphorus balances per hectare than their larger counterparts, indicating more efficient use of these nutrients and potentially less environmental runoff and pollution. Additionally, small farms emit less GHG per hectare. However, when considering the efficiency of emissions relative to production output, small farms are less efficient, emitting more GHG per kg of meat produced compared to larger farms.

Biodiversity is another crucial aspect of environmental sustainability for small farms. Although specific biodiversity indicators are still under development for small farms and NFS farms, small farms are generally associated with landscapes that are more diverse and farming practices that support greater biodiversity. Recent international research supports this, showing that small farms often maintain a variety of crops and livestock, which can enhance habitat diversity and support a wider range of species (e.g. Ricciardi et al., 2021 and Guarín et al., 2020). For example, small farms typically employ crop rotation, mixed farming systems, and organic farming methods more frequently than larger operations, all of which contribute to improved biodiversity and more sustainable land use practices (Arnalte-Mur et al. 2020, Guth et al. 2022 and Slámová, M. and Belčáková, 2019).

To summarise, while small farms in Ireland and across the EU face challenges related to emissions efficiency and economic viability, their role in maintaining biodiversity and managing nutrients more effectively per hectare underscores their importance in sustainable agriculture. The continued development of biodiversity indicators within the NFS will help to better quantify and support the environmental benefits provided by small farms.

Insights from the SFS 2022 reveal important aspects relating to the **social** sustainability of small farms in Ireland. Enjoyment of farm work and the management of farms in an environmentally friendly manner are primary motivators for small farm operators. The continuation of family traditions and maintaining a good quality of life are also significant drivers for their involvement in farming. However, delayed succession is evident, with small farm operators averaging 60 years of age, reflecting an older demographic compared to the NFS farm population. Despite some decline in social contact in recent years, small farm operators remain as socially engaged as the broader farm population. Looking ahead, more than one-third of small farm operators plan to continue farming over the next five years, while over one-quarter expect to retire or lease out their land. Notably, more than half have identified a successor, with half of those anticipating the transfer will take place within the next 5 to 10 years. Additionally, over half of small farm operators are open to switching to organic farming, with 41% interested in participating further in agri-environmental schemes. Such intentions highlight a strong commitment to environmental stewardship and family traditions amongst small farm operators, but also point to some challenges related to succession and viability. This mix of motivations, commitments, and challenges shapes the social sustainability status of small farms, indicating a resilient yet ageing community focused on environmental practices and family legacy amidst sustainability challenges.

To summarise, while small farms are faced with questions around their economic sustainability, their contributions to social and environmental sustainability are significant. These farms play a crucial role in preserving rural heritage, supporting local economies, and promoting sustainable agricultural practices. This highlights the importance of targeted interventions and policy measures to support smallholder agriculture and promote resilient and inclusive food systems.

Finally, how has the sustainability of small farms changed in recent years? Data on small farms was previously collected in 2015. The 2022 survey found that a higher proportion of farms have an SO above €8,000 due to rising cattle and sheep prices in particular in recent years. Similarly, the 2015 survey primarily focused on small cattle and sheep farms, whereas in 2022 a third grouping emerged as being of increasing importance, namely those who choose to lease out some of their land area, and are referred to in this study as partially leased farms.

Data from the SFS 2022 indicates that the average small farm area is relatively unchanged compared to 2015, at about 13 hectares. Levels of FFI on small cattle and sheep farms were also broadly similar in 2022 compared to 2015, with the partially leased grouping reporting generally higher income levels. The level of labour input on small farms is relatively unchanged over the time period. Lower levels of productivity and efficiency on small farms, and a higher reliance on direct payments compared to NFS farms remain the case in 2022 as it was in 2015. In terms of socio-demographics, the age profile and demographic viability of small farms also remain relatively unchanged over the time period, comparatively older than the NFS farm population. The proportion of small farm households sustained by an off-farm income source remains significant, with a lower proportion of small farms classified as economically vulnerable in 2022 compared to 2015. In terms of social sustainability, the after effect of COVID-19 is apparent with some reduction in the social contact of small farm operators

in 2022 compared to 2015. However, this is broadly consistent with the reduced level of social contact observed in the NFS farm population.

In terms of the **future trajectory** for small farms, the conclusion of the 2015 report was that the status quo was preferred for most farmers. Interestingly, 15% of respondents indicated in 2015 that they would be open to leasing out some of their land. Data on the profile of small farms in 2022 would indicate that this has occurred to some degree, with the further emergence of farms who chose to partially lease out some of their land to other farms. This may also be supported by recent tax incentives around long-term leasing, particularly in the context of those farmers who have not yet identified a successor. The 2022 SFS posed additional questions around future farm plans, and points to significant farmer interest in some forms of diversification, particularly in the context of organics and agri-environmental schemes. The proportion of small farm operators interested in forestry remains low. Although half of small farm operators (aged over 60) point to having already chosen a successor, a higher proportion of NFS farm operators indicated that this was the case in a recent survey. The lower levels of viability and limited potential to expand production on small farms are likely limiting factors in promoting inter-generational transfer.

Data on the environmental performance of small farms in 2022 is consistent with that of 2015, with relatively lower N and P balances and GHG emissions on a per hectare basis compared with NFS farms. However, when their level of output is accounted for, small farms remain less emissions efficient overall. The stated interest of small farm operators in converting to organics and engaging with more environmentally friendly practices provides further opportunity for small farms to increase their contribution to improving the environmental sustainability of farming in Ireland. In summary, small farms can significantly improve environmental sustainability by adopting diverse, holistic, and ecologically sound farming practices, not only to protect and enhance natural resources, but also to contribute to the overall health and resilience of agricultural landscapes and surrounding ecosystems.

Overall, this research on small farms in Ireland further contributes to our understanding of their role in sustainable agriculture, rural development, and food systems resilience, while also informing policy and practice to support their viability and sustainability in the Irish agricultural sector.

6 Glossary of Selected Terms

Areas of Natural Constraint: Agricultural scheme paid on a land area basis in areas of natural constraint.

Basic Payment Scheme: The Single Payment Scheme introduced following decoupling of direct payments in 2005 is applicable to farmers who actively farmed during the reference years 2000, 2001 and 2002, who were paid Livestock Premia and/or Arable Aid in one or more of those years and who will continue to farm in the current year. The gross Single Payment is based on the average number of animals and/or the average number of hectares (in the case of Arable Aid) on which payments were made in the three reference years.

Direct Costs: Costs directly incurred in the production of a particular enterprise, e.g., fertilisers, seeds and feeding stuffs; most items are detailed in the main tables. See (d) section of tables for greater detail.

Direct Payments: Non-capital payments made to farmers under one or more of the CAP Schemes. These are shown in greater detail in the (c) section of the tables.

Economically Sustainable: Farm is not economically viable (refer to definition below) but farmer and/or spouse has an off-farm job.

Economically Viable: Family farm income is sufficient to cover family labour (remunerated at the agricultural wage rate) and provide a 5% return on non-land assets.

Economically Vulnerable: Farm is not viable and neither farmer nor spouse has an off-farm job

ESU: As an alternative to farm size measured by surface area (map area) the size of the farm business is measured in European Size Units (ESU), where 1 ESU = 1,200 Euro of Standard Gross Margin.

Family Farm Income: Gross output less total net expenses; it represents the total return to the family labour, management and capital investment in the farm business.

Gross Margin: Gross output minus direct costs.

Gross Output: Gross output for the farm is defined as total sales less purchases of livestock, plus value of farm produce used in the house, plus receipts for hire work, services, fees etc. It also includes net change in inventory, which in the case of cows, cattle and sheep is calculated as the change in numbers valued at closing inventory prices. All non-capital grants, subsidies, premiums, headage payments etc., are included in gross output in this report. They are allocated to the enterprise in the year in which they are paid (see also "Grants and subsidies"). In this report Gross Output also includes income from land and quota let.

Household Size: Number of people in the farm household, including children, pensioners and family members not involved in farming.

Labour Unit: One labour unit is defined as at least 1800 hours worked on the farm by a person over 18 years of age. Persons under 18 years of age are given the following labour unit equivalents:16-18 years: 0.75,14-16 years: 0.50

Note: An individual cannot exceed one labour unit even if he/she works more than 1800 hours on the farm.

Off-Farm Job % HH: Percentage of households where the holder and/or spouse have an off-farm job.

Other Direct Costs: These include miscellaneous costs for crops e.g. polythene, baler twine, crop insurance; miscellaneous costs for livestock, e.g., mart commission, straw for bedding, super levy payments, farming organisation levies, Irish Dairy Board levy, research levies, disease eradication levies, bulk tank rental, detergents, etc.

Other Overhead Costs: Miscellaneous costs such as purchase of small tools, bank charges, subscriptions, postage, fire insurance, slurry, land annuities, depreciation of permanent crops, accountancy charges, advisory charges, water rates, protective clothing, etc.

Overhead Costs: Costs which cannot be directly allocated to a specific farm enterprise; sometimes referred to as fixed costs. Most items are detailed in the main tables. See (d) section of tables for greater detail.

Part-Time Farm: A farm which requires less than 0.75 standard labour units to operate, as calculated on a standard man-day basis.

Pensions % HH: Percentage of households where the holder and/or spouse are in receipt of a pension of any kind.

Regions: Regional data from the Teagasc NFS are presented for the updated NUTS regions (Commission Regulation 2016/2066). In line with EU methodology, territorial units are classified for statistical purposes.

On this basis the NUTS II regions for Ireland are as follows:

Northern and Western: Leitrim, Sligo, Cavan, Donegal, Monaghan, Galway, Mayo, Roscommon

Eastern and Midland: Dublin, Kildare, Meath, Wicklow, Louth, Laois, Longford, Offaly, Westmeath

Southern: Limerick, Tipperary, Clare, Wexford, Kilkenny, Carlow, Waterford, Cork, Kerry

In addition, the **NUTS III regions** relate to the following counties:

Region 1 – Border: Leitrim, Sligo, Cavan, Donegal, Monaghan

Region 3 – Dublin & Mid-East: Dublin, Louth, Kildare, Meath, Wicklow

Region 4 – Midlands: Laois, Longford, Offaly, Westmeath

Region 5 – Mid-West: Clare, Limerick, Tipperary

Region 6 – South-East: Carlow, Kilkenny, Wexford, Waterford

Region 7 – South-West: Cork, Kerry

Region 8 – West: Galway, Mayo, Roscommon

The Key changes from the previous NUTS III regions relate to the fact that Dublin is now amalgamated into Region 3 (Dublin and Mid-East) which also now includes Louth (previously included in Region 1, Border) and Tipperary (North and South) are both now included in Region 5 (Mid-West).

Unemployment etc. % HH Percentage of households where the holder and/or spouse are in receipt of social assistance payment (other than pension).

Utilised Agricultural Area (UAA) Area under crops and pasture plus the area (unadjusted) of rough grazing. It is the total area owned, plus area rented, minus area let, minus area under remainder of farm.

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