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A Health Impact Assessment of the 2024 Climate Action Plan's Measure to Expand Ireland's Organic Sector: Report's Technical Annex

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1. Completed screening checklist for the HIA

SCREENING FOR HIA on the Climate Action Plan (2024)

Adaptation of the Screening check-list in the IPH HIA guidance (page 110) (below) (Pyper et al., 2021)

Screening tool for case-by-case decisions for health in environmental assessments or standalone HIA		
STEP 1: Record of screening		
Title of policy	Climate Action Plan 2024 Chapter 16- Agriculture. Measure 'Expanding Our Organic Sector' with an associated action **AG/24/25** *Provide financial support to farmers who convert to Organic Farming*	
Date	4.3.2025	
Organisation(s)/ person(s) performing screening	Monica O'Mullane (UCC)	
STEP 2: Broadly, based on available information, does the policy have the potential to change 'risks' to human health? Will this happen in a way that is judged 'likely' to 'significantly' affect population health?		
Consider the following determinants that can influence physical, mental, and social wellbeing:	**Judgement** Yes/ No	**Brief justification** See notes below
Health inequalities	Yes	In comparison to other occupations, farmers in Ireland experience a disproportionate burden of health problems which impact farmers' livelihoods and farming sustainability (Hammersley et al., 2021;2022). Farming is the highest risk occupation in Ireland (Cunningham et al. 2019).
Healthy lifestyles	Yes	Dietary habits consisting of low intake of fruit, vegetables, and dairy and a high intake of meat, fried and processed foods, salt, and sugary and/or salty snacks is a concern (van Doorn et al, 2021). Additional research suggests that older farmers, by virtue of their age and the nature of farm work, are vulnerable to Musculoskeletal Disorders (MSD's) which are risk factor for workplace accidents. Currently, farming is the highest risk occupation in Ireland (Cunningham et al. 2019).

Safe and cohesive communities	Yes	Farming is the occupation with the highest risk of fatalities in Ireland. Some research suggests that farmers with larger farms were more likely to take risks by not routinely using safety gear: the odds of this were nearly three times as high on the largest farms (more than 100 hectares) than on the smallest farms (less than 20 hectares). On the other hand, larger farmers were less likely to take risks in terms of tackling difficult jobs without help: the odds were roughly one third lower on the largest than on the smallest farms (Watson et al. 2017).
Socio-economic conditions	Yes	The sector creates jobs and attracts young farmers, however access to land is a significant challenge. Organic farming also provides 10-20 % more jobs per hectare than conventional farms, and creates added value for agricultural products. However, organic farming can involve increased costs and labour shortages in the agriculture is an ongoing challenge for the wider sector (Teagasc, 2023). *(More references and literature for this section in the Briefing Document circulated to the Steering Group on 6.3.2025).*
Environmental conditions	Yes	Reduced exposure to chemicals, absence of synthetic chemicals and pesticides in production system and reduced antibiotic use (non-routine application of antibiotics) can lead to positive mental and physical health for the farmers due to healthier working conditions, therefore we estimate that the implementation of this measure would improve overall health and wellbeing of individual farmers.
Health and social care services	Yes	Rural health and social care services available to farmers require transport to a health or social care facility/ service, or transportation of a healthcare or social care workers to the farm.
STEP 3: Decision	Screened IN or OUT	Health in environmental assessment (SEA or EIA) or standalone HIA
If one or more answers in step 2 is 'yes', then an SEA or EIA is warranted on human health grounds. If neither an SEA or an EIA is applicable, then a standalone HIA is warranted.		Standalone HIA is warranted. SEA and an Appropriate Assessment has already been carried out on the Climate Action Plan (2024), accessible here https://www.gov.ie/en/publication/79659-climate-action-plan-2024/#strategic-environmental-assessment-and-appropriate-assessment However, neither assessment examines the impact of the Measure on population health or health inequalities.

STEP 4: Notification	
Decision notified to proposal proponent/ stakeholders and / or the public: DECC invited by email on 4th March 2025.	Proponents of the policy: Secretary General, Department of Environment, Climate and Communications

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2. Terms of Reference for the Steering Group

Terms of Reference (TOR) for the Governance of the Health Impact Assessment on the Measure 'Expanding Organic Farming' in the Climate Action Plan 2024

Item	Issue	Terms of Reference
1	The goal of the HIA	1. To identify the potential significant effects of the Measure 'Expanding Organic Farming' in the Climate Action Plan 2024 on the health of the farming community. 2. To identify opportunities and strengths for health gain in the implementation of the Measure for improving health equity and reducing health inequalities within the farming community. 3. To identify opportunities for reducing negative health impacts of the Measure on the health of the farming community.
	Policy context for the HIA	This HIA on the Measure 'Expanding Organic Farming' in the Climate Action Plan 2024 in included as one of the five measures in the agriculture chapter of the Irish Government national Climate Action Plan 2024. The Climate Action Plan 2024 Annex of Actions provides more detail of the Measure, under the theme 'Diversification.' Climate Action Plans are produced as annual plans as statutorily required under the Climate Action and Low Carbon Development (Amendment) Act 2021.
2	The membership of the Steering Group together with an explicit description of the roles and responsibilities of members	**Membership** Chair: Ger Mullally, UCC, Environmental Sociologist Advice and comment: Bridget Murphy, Talamh Beo Advice and comment: Donal Sheenan, Farmer Advice and comment: Margaret Brennan, Irish Doctors for the Environment Advice and comment: Phillip O'Brien, Climate Change Advisory Council Secretariat Advice and comment: Jean O'Dwyer, UCC (Environmental Science) Advice and comment: Andrew Sulley, HSE (Environmental Health) Advice and comment: Marian O'Reilly (Health Improvement) Advice and comment: Megan O'Brien, third level student study Agricultural Science (MTU) Advice and comment: Aoife Deane, Environmental Research Institute, Ireland Advice and comment: Erin O'Brien, Organic Growers Ireland (OGI) Advice and comment: Tara Kenny, UCC (Public Health) Advice and comment: Monica O'Mullane (Public Health) Proponent: The Irish government ministerial Department of Environment, Climate and Communications.

3	The role of the Steering Group Chair	The chair will act as a co-ordinator at all meetings ensuring that discussions at the meetings are relevant and productive, that members and other attendees have the opportunity to express their views and that decisions made by the steering group are clear.
4	Agreement on definitions	Definition of health: "The extent to which an individual or group is able, on the one hand, to realise aspirations and satisfy needs and on the other hand to change or cope with the environment. Health is therefore seen as a resource for everyday life, not the objective of living; it is a positive concept emphasising social and personal resources as well as physical capabilities" (WHO, 1986). Inequality is found between different groups and can be measured in different ways, for instance, by geography, community, income, social position, and population. Health inequity is defined as avoidable differences in health (CSDH, 2008).
		Health Impact Assessment (HIA) is a process which systematically judges the potential, and sometimes unintended, effects of a project, programme, plan, policy, or strategy on the health of a population and the distribution of those effects within the population (Winkler et al., 2021). HIA is also an established tool for implementing Health in All Policies (HiAP) (DoH, 2013). HIA presents a systematic yet flexible way of gathering evidence to inform policies and decision-making, based on best available evidence. By being flexible and realistic, it is an approach that can improve decision making without imposing excessive demands on resources or creating unnecessary bureaucracy. The HIA guidance published by the Institute of Public Health Ireland has outlines stages: Screening, scoping, appraisal, reporting and evaluation of the process (Pyper et al., 2021). Impact assessment is the process of identifying the future consequences of a current or proposed action. The 'impact' is the difference between what would happen with the action and what would happen without it (IAIA, 2010).
5	The nature and frequency of reports circulated to the HIA Steering Group	Steering group meetings have been set as March 20th, June 27th and July 25th, 9.30-12.30. As the meetings will take place online only, Microsoft Teams links have been sent to all Steering Group members. Documents will be issued to the group for review before the Steering Group meetings.
6	Regarding information and data sharing between agencies	This HIA will use publicly available data and therefore will not require or seek access to privately held data from any agencies.
7	The standards by which the HIA will be judged	The HIA will be prepared using the Institute of Public Health HIA guidance. Dr Fiona Haigh, HIA practitioner working in Australia and based in the University of New South Wales, will provide a peer review of the HIA once completed.
8	Disseminating information from the HIA	Any conditions associated with production and publication of findings and outputs is detailed in the research project HIA-IM information sheet and consent form.

		The final HIA report will be finalised and agreed by the Steering Group before being published.
9	An outline of the project plan including deadlines in line with agreed timelines.	Steering Group will be updated at each meeting.
10	The budget and source of funding	Funding for the HIA report publication and the round of interviews carried out with a purposively selected number of farmers will be done as part of the HIA Appraisal stage will come from the Health Research Board funded project *Development of a Health Impact Assessment (HIA) Implementation Model: Enhancing Intersectoral Approaches in Tackling Health Inequalities* (HIA-IM) (Grant ID EIA2022001). Monica, Tara, and Caithlín are the research team for this project, HIA-IM, in 2025.
11	How to deal with conflict and/ or disagreement	The screening and scoping phases of the HIA will work towards a consensus on the aims of the HIA and on the approaches to be used to gather data. All decisions are based on a majority view, which may include the chair, with the minority opinion recorded. The chair retains the casting vote.
12	How changes to the terms of reference will be handled should they need to be made	Changes to the TOR will be agreed through the Steering Group. The Chair of the Steering Group will have the final say.

Based on the TOR for the HIA Steering Group used in the HIA on the Cork City Development Plan (2022-2028), Technical Annex. https://cora.ucc.ie/items/649a5ac1-91b2-47c0-8d5e-ff428962edbe

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3. Report from the scoping exercise carried out within the Steering Group on 20th March 2025

Summary of responses collected as part of the Scoping exercise with the HIA Steering Group

20th March 2025, Microsoft Teams (9.30-12.00)

Report written by Monica O'Mullane and Tara Kenny, with input from Caithlín Sheehan.

In the meeting with the HIA Steering Group, chaired by Dr Ger Mullally, a scoping for HIA exercise took place. The purpose of this exercise was to establish which determinant of health to focus on in the HIA, using the Institute of Public Health scoping checklist (p. 122) as a guide.

The Steering Group members present for the scoping exercise were as follows, in no particular order: Ger Mullally (Chair), Aoife Deane, Brigid Murphy, Donal Sheehan, Margaret Brennan, Marian O'Reilly, Andrew Sulley, Phillip O'Brien, Monica O'Mullane and Tara Kenny. Caithlín Sheehan was present from the research team, writing notes based on the meeting discussion.

The following outlines three areas of discussion and decisions made by the Steering Group:

1. A summary of the points raised in the scoping exercise on the determinants of health, with a decision made by group majority on the determinant of health focus.

2. The Steering Group was asked if there were any health impacts they would like to contribute, that were not raised under the five determinants presented in the previous section.

3. Feedback was received on the interviews that will be held with farmers in April 2025.

1. A summary of the points raised in the scoping exercise on the determinants of health, with a decision made by group majority on the determinant of health focus.

The following outlines the health impacts identified by the group, under five determinants of health including livelihoods and employment, environmental conditions, health behaviours, safe and cohesive communities and access to health and social care services. The * indicates a comment or a consideration for the appraisal stage of the HIA.

Livelihoods and Employment

What are the potential positive health impacts of the measure to increase organic farming on the livelihood & employment of farming/ growing communities?	What are the potential negative health impacts of the measure to increase organic farming on the livelihood & employment of farming/ growing communities?
Healthier working environment: Lower exposure to pesticides and other chemicals on the farm **Potential increase in income**: premium price for products and lower input costs. **Improved water quality:** Protection of water quality, groundwater and surface water quality. **Increased biodiversity**: increased health benefits More effective land use in organic farming. **Access to better quality food**: More chemical free may improve access via increased to nutrient dense chemical free food produced in healthier soils. Potential health benefit if farmers were growing more fruits, vegetables and eating these food *The majority of our farms and food producers are specialised, including organic farms. Meat and dairy farms comprise the majority of Irish farms so difficult to assert positive and negative impacts in terms of farmers diet and health benefits. *Query as the whether organically produced food is nutritionally better than conventionally produced food. In terms of population health, it was suggested that the evidence is not there to support this. *There is research to support that healthier soils produce more nutrient dense foods. **Increased financial, livelihood and employment opportunities**: If the policy goal is to move farmers towards organic production this may provide more secure employment,	**Mental health**: The cost margins are already narrow and this could negatively impact mental health of farmers if not manage properly. **Stress**: Potential for increased risk of pests and other diseases difficult to manage these risks without chemicals. This could increase stress on farmers, or they may feel like they are at a disadvantage by farming organically. **Uncertainty**: Uncertainty associated with introducing new practices and could lead to inequalities in terms of who is willing and able to convert. Potential inequalities: **Age and education:** More traditional farmers may not be able to adapt. There might be inequalities that people that have may be younger, that are more educated around agricultural science might be able to embrace it better. **Income**: Significant cost associated with organic conversion. Farmers who have higher incomes would be better able to absorb changes *The size of the conventional sector compared to the organic farming sector. *Querying who benefits from the increased production of organic food and if aimed at export market or luxury commodity market only *Farming sectors are vastly different, and there is a need to define a small famer, what a viable income is and the amount of land you need for a viable income. *Farms are getting bigger to survive, increased inputs, increased stress due to farming larger numbers of animals and land size. *Increased cost price – squeeze: the price paid to farmers does not reflect the cost of production

financial support and succession planning in terms of attracting younger farmers. May also provide more livelihood and employment opportunities. **Improved mental health**: The change in processes and practices may lead to greater connection to nature **Skills development**: could lead to positive mental health benefits **Increased connections:** Better connections with different expertise in the farming process locally that could have potentials psychosocial benefits.	**Potential impact on animal welfare and carbon footprint**: More livestock may lead to animal welfare problems and higher carbon footprint *Mismatch between increasing animal numbers and becoming more sustainable. **Increased cost**: The cost to transitioning over to organic is huge and a barrier. **Less agency/control over decision making**?: The organic sector can be controlling. *There is a significant disconnect between farmers and consumers

Environmental Conditions

What are the potential positive health impacts of the measure to increase organic farming on the environmental conditions that farming/ growing communities are living and working in?	**What are the potential negative health impacts of the measure to increase organic farming on the environmental conditions that farming/ growing communities are living and working in?**
Potential for a more supportive policy environment if structures where in place to support farmers in making the transition. **Reduced exposure to chemicals** **Potential increase in water, air, and soil quality** **Potential increase in biodiversity** *increased biodiversity may not be associated only with organic farming **Improved mental health and well-being**: Organic farmers tend to have a better reputation that conventional farmers and perceptions may improve in terms of a social contract, by reducing environmental harms. May lead to improved well-being. Greater recognition for actions taken to protect the environment can have a positive impact on mental health of famers. *Many farmers who convert to organic were already practising more environmentally friendly methods. i.e biological farming	**Risk of fragmentation and tension** within the farming community – conventional v organic. **Environmental harms**: Centralization of food production may lead to environmental harms **Biodiversity**: Potential for negative impacts on biodiversity may be similar to conventional systems Potential health impacts depend on how the measure will be implemented. *Could strict implementation come with strong financial rewards or penalties have effects? Financial incentives are the way the policy measure is going to be actioned, as indicated on page 295 of the Climate Action Plan (2024). **Land expansion**: Potential for the need to expand the farm to retain production in organic farming. Lower intensity farming may result in the need to increase animals to protect income and level of food production – this could affect habitats and the landscape negatively.

Lower carbon footprint: Potential for lower carbon footprint and associated health increases Environmental stewardship aspect may have a positive mental health effect.	Tension between the need to produce foods at this lower level of intensity and the landscape.

Health behaviours

What are the potential positive health impacts of the measure to increase organic farming on the health behaviours of farming/ growing communities?	What are the potential negative health impacts of the measure to increase organic farming on the health behaviours of farming/ growing communities?
Potential for healthier diets: Potential for more fruit and vegetable available locally, but this would not necessarily impact farmers or growers **Mental health:** Nature connectedness due to health benefits associated with interaction with nature– but this would depend on the individual farmer (the focus is always on food production, a change from economic focus would be beneficial). Environmental stewardship aspect that that would have a mental health benefit as well. *Behaviour change is difficult and need to be aware of many assumptions undermining a change in behaviours.	*Not sure if there would be any impacts on health behaviours of farmers or growers if organic farming was increased, due to the implementation of this policy measure. **Mental and physical health**: Potential for longer working hours, more stress, less sleeping hours: If farmers require more land to maintain their level of income, that could potentially lead to longer working hours with impacts on sleep and consequent increases in stress. If they don't take on extra employees to help them with the increased work, then they are working more land. That could be something that would be negatively affected by this measure, if implementation is not supported appropriately. **Stress**: This policy is implementing change. Change is known to increase stress and could link to other unhealthy habits such as higher alcohol consumption, unhealthy dietary habits that could have effect on their health status. *Competitiveness should not be the policy driver. *Climate policy does not have wellbeing focus

Safe and Cohesive Communities

What are the potential positive health impacts of the measure to increase organic farming on safe and cohesiveness in farming/ growing communities?	What are the potential negative health impacts of the measure to increase organic farming on safe and cohesiveness in farming/ growing communities?
Social connections: Making organic produce more locally available might bring farmers together, as farmers tend to be isolated. At the community level, bringing communities together for a purpose as well as making fresh produce more potentially available. **Increased farm safety**: Potential for lower risk of injury from animals due to increased time with animals **Safety:** Potentially dealing less often with machinery which may lower risk of accidents on farms **Less isolation:** Links with local communities could make farmers feel less isolated.	**Safety**: During periods of transition, new training on the farm may cause increase in farm accidents Learning period could be slow, and this could extend period of risk Increased safety risks in processes and practices in short term, but this could lead to positive mental health in the long term *Concerns from many SG members that there is no focus on local communities in the policy, which we may come back to later in the HIA. Challenge of doing HIA on a policy that focuses on the national and international context but not the local implementation or local practices. Disappointing that the measure appears to be export orientated. Focus and priority should be on making food available to local communities. *The climate action plan is about greenhouse gas reductions. Raises questions in terms the impact of this measure on GHG reduction if those transitioning are all livestock farmers * The plan is not just about GHG but also about increasing biodiversity and resilience. Could look at the links between other policies affecting farmers as well – these could mitigate the negative impacts discussed today. There may be scope in the HIA to reflect on the other policy instruments and how they interact with this one. *Safety on farms, and community cohesiveness, is important and should be the focus of the policies. Recognition that we're focusing on one measure, but there are other objectives and other policy tools being put in place that that relate directly to farming and so on, and food as well to a certain extent, although that could be that could be improved obviously. *There may be policies in place that hinder what we're talking about in terms of organic farming practices, that get in the way of safe and cohesive communities, delivering on the environmental benefits. Might be worth exploring.

Health & Social Care Services

What are the potential positive health impacts of the measure to increase organic farming on accessing health & social care services in farming/ growing communities? **What are the potential negative health impacts of the measure to increase organic farming on accessing health & social care services in farming/ growing communities?**
Is there currently a complete lack of access to health and social care services? Does this mean a change in frequency or services? Are we speaking to formal health and social services, or accessing informal supports? If organic farming reduces risk of accidents, but there are lots of caveats – is organic farming safer? Farmers have less time to go to GPs etc. Organic farmers have potentially more interaction with society (this could apply to social cohesiveness and access to services) Unsure how this policy would impact access to health and social care services Safety and access to services depend largely on vulnerabilities Farmers have few safety margins Could this policy create barriers for people to access these services, or will there be more opportunity to access such services? A direct link needs to be shown to the provision of these services Health and safety – negative effects on the body are oftentimes more likely than machinery accidents and these lead to a poor quality of life, joint problems, ill-health because of the physical demands of farming.

2. **The Steering Group was asked if there were any health impacts they would like to contribute, that were not raised under the five determinants presented in the previous section.**

- Explore time poverty – are there differences in the times organic farmers need to invest in their farmers in comparison to conventional farmers.
- Re-iterating that there should be a focus on local aspects and cohesiveness, there is a lack of linking with local communities and community-based farmers, linking back in with the Citizen Engagement chapter in the Climate Action Plan 2024. It may be about linking with other aspects of the climate action plan in terms of that the response, because it extends beyond emissions as we've spoken about, it's about mobilising local action and about mobilising communities.
- The workload – what is specifically involved in the move to the organic sector, and could this lead to inequity?
- Long-term sustainability of the transition – would farmers want to move back to conventional farming?
- Expanding organic sector / expanding dairy sector (potential negative impacts from dairy sector expansion – social cohesiveness reduced, water quality reduced, reduced biodiversity).
- Expanding organic sector should be dependent on the financial effects on the farmers also.
- Unequal payments within farming has reduced farmer cohesion - Inequality underpins agriculture in Ireland.

- Significant discrepancy between farmers – tillage, beef, dairy etc.
- Profit per hectare would not support a family, this could present an opportunity for more equitable pay in farming. Very few farms operate without a second income, meaning another adult in the household bringing in income from a job separate to farming.
- Financial barriers for people to change to organic due to their position in the farming sector.
- Awareness needed that farmers don't act alone, they interact with others in the system, for example replying on a tillage farmer to provide the organic feed. Neds to be more fairness, more profitability in some of the weaker sectors.
- Need to expand the description of farmer and farmer families – it is not sufficient to look at one individual person – should look at what family supports are available to farmers, as often families are working on the farm also.
- There's a potential that this policy will increase in inequalities in income and therefore directly and inequalities in health status across the farming community.

A poll was taken after the discussion about the impact of the measure on the determinants of health. The Steering Group voted, except for Tara, Monica and Caithlín, due to potential bias in the voting. The majority, 7 members of the group voted to focus on livelihoods and employment, with 5 members voting for the impact of the measure on environmental conditions that farming/ growing communities are living and working in, and one person voting to focus on safe and cohesive communities, as seen in Figure 1.

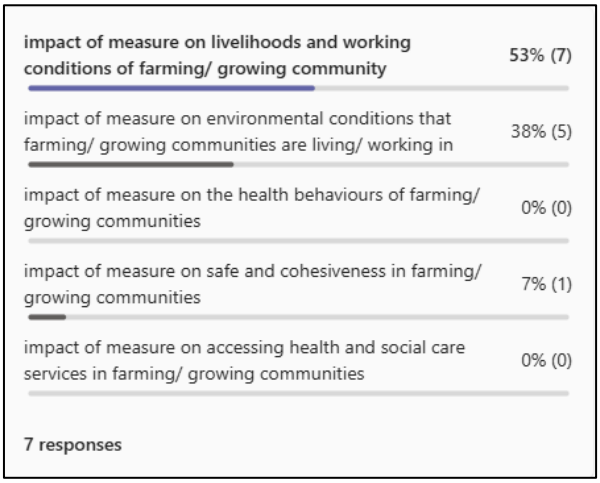


Figure 1: Completed poll when deciding on the focus of the HIA.

3. Feedback was received on the interviews that will be held with farmers in April 2025

During the scoping exercise, there was an opportunity for the Steering Group to comment and provide input on the selection criteria when we select which farmers to interview and the interview questions. The interviews with farmers will ensure the farmer lived experience will be included in the analysis stage of the HIA. Interview questions were shared in the Power Point Presentation at the Steering Group meeting on 20th March 2025, for discussion in the group. The following outlines feedback from the Steering Group on the plan to interview farmers and on the interview questions.

- Other incomes – farming families who may be solely reliant on farming v those with other incomes
- Age – may not indicate who is really engaged on the farm

- Farm type – should intensive farms licensed by the EPA be included? (Impression that small farmers are not the focus, there seems to be an aim at bigger farmers) horticulture is also included. Focus on the farms that are the target of the measure.
- Geographical location – should look at soil types as well
- 'Livestock' is included, but is dairy farming included? (Dairy seen as one of the more polluting sectors) Dairy sector should be separated
- Concerns that the interview size is small. Discussion that when interviewing as part of a research study, our concerns is making sure we include all relevant voices and capture lived experience.
- Youth could also be added, specifically looking at younger farmers.
- Include gender too when selecting farmers to interview.
- Farmers who can apply for organic farm payment schemes include livestock, tillage, dairy and horticulture.
- Recruiting on 7 areas is challenging
- Be sure to explain the measure in information sheet before the interviews.

We will interview 15-17 farmers in April 2025. We will focus on the farmer types who are the target for the Measure 'Expanding our Organic Sector,' from across livestock including dairy, tillage and horticulture. We will include different farm sizes.

Input from the Steering Group on the Interview Questions with Farmers in Ireland

- We could start the interview with a few lines explaining the measure and then ask their view on this measure, which we'll detail and explain, as an opening question.
- Include a question to gauge their opinion of the measure. The Climate Action Plan is controversial in the farming sector is my sense it might be good to understand their position of the in general, in addition to what you've already proposed here.
- Could a question looking at motivation be included, which could go after the question gauging opinion on the Climate Action Plan and this specific measure.
    - Bear in mind that the measure isn't asking that all farmers convert to organic farming, so it would be good to understand the motivation to transition or not.
- Could question 6 be changed, as this measure is not trying to target all farmers.
- Could a question exploring farmer livelihood strategies be included, how they actually structure their farms to bring in that livelihood, especially in the context of family farms where you're looking at intergenerational renewal, how do farmers structure their livelihood strategies.
- What is their present perception of organic? Would be good to explore early in the interview what people's perception of organic is and even why they're not in organic farming already.
- Knowledge on the measure may not be strong, but there seems to be an assumption that they are aware of what the measure is - language may need to be changed. Make sure we will explain what the measure is in accessible language
- What are you learning from the first question, in asking how they came into farming – this could be omitted.

4. Terms of Reference defining the scope of the HIA

HIA remit, planning, and governance	**Record of decision**
Title of the proposal on which the HIA is being conducted	Climate Action Plan (2024)
Type of proposal (legislation, policy, plan, programme, or project)	Policy
Strategic or project level/ standalone HIA or integrated with another assessment?	Strategic/ standalone HIA
Aims of the HIA	1. To identify the potential significant effects of the Measure 'Expanding Organic Farming' in the Climate Action Plan 2024 on the health of the farming/ growing community. 2. To identify opportunities and strengths for health gain in the implementation of the Measure for improving health equity and reducing health inequalities in the farming/ growing community. 3. To identify opportunities for reducing negative health impacts of the Measure on the health of the farming/ growing community.
Scope of the HIA	The scope of the HIA was agreed at the 1st Steering Group meeting on 20th March 2025. The scope of the HIA is to focus on the potential positive and negative health impacts of the Measure 'Expanding our organic Sector' on farmers and growers in Ireland, with a focus on livelihood and the impact of working conditions on the farming/ growing community.
Principles underpinning the HIA	The principles that underpin HIA as outlined in the Gothenberg Consensus paper for HIA (1999) and the Best Practice Principles for HIA (IAIA, 2021): • Comprehensive approach to health • Sustainability • Participation • Equity and equality • Ethical Use of Evidence
Boundaries of the HIA (e.g. geographical and/ or population scope)	Farmers/ growers living and working on farms in Ireland.
Timescales (e.g. HIA outputs and temporal scope)	HIA outputs will be delivered by the end of the HIA within the year 2025. The temporal scope of the HIA is within the year 2025.
Non-negotiable aspects of the proposal	n/a
Steering group membership:	**Membership** Chair: Ger Mullally, UCC, Environmental Sociologist Advice and comment: Bridget Murphy, Talamh Beo Advice and comment: Donal Sheenan, Farmer Advice and comment: Margaret Brennan, Irish Doctors for the Environment Advice and comment: Phillip O'Brien, Climate Change Advisory Council Secretariat

	Advice and comment: Jean O'Dwyer, UCC (Environmental Science) Advice and comment: Andrew Sulley, HSE (Environmental Health) Advice and comment: Marian O'Reilly, HSE (Health Improvement) Advice and comment: Megan O'Brien, third level student studying Agricultural Science (MTU) Advice and comment: Aoife Deane, Environmental Research Institute, Ireland Advice and comment: Erin O'Brien, Organic Growers Ireland (OGI) Advice and comment: Tara Kenny, UCC (Public Health) Advice and comment: Monica O'Mullane (Public Health)
Steering group role and any limits on remit (e.g. in signing off aspects of the HIA and the end point of the steering group)	Please see document - Terms of Reference for the Governance of the Health Impact Assessment on the Measure 'Expanding Organic Farming' in the Climate Action Plan 2024.
Main stakeholders: - Who is likely to be affected? - Are key stakeholders represented on the steering group or as formal consultees?	Farmers and growers in Ireland Steering group includes members representing various relevant statutory, academic and community organisations. In particular, the community organisations on the steering group ensure the priorities of people most likely to be affected by the city development plan are represented in the group. The interviews with farmers and growers will ensure the lived experience of the potential positive and negative health impacts of the Measure will be included during the round of interviews, to take place April 2025. Ethics approval has been sought attained for this research study, from the Social Research Ethics Committee, UCC (log number: 019-2023, ethics amendment approval, 5.12.2024).
Key informants for the HIA: - Who can provide useful information on how the proposal is likely to affect health? - Has any conflict of interest been declared? - Have approaches to manage any COI been agreed? E.g. proponent-funded research	The steering group will provide useful information on how the measure is likely to affect health of farming and growing communities. Conflicts of interest have been declared in writing as part of the consent forms for the research project (HIA-IM), completed and returned to the research team (Monica, Tara and Caithlin) by all members of the Steering Group.
What methods will be used to determine:	We will use the methods as outlined in the IPH HIA guidance as well as qualitative research interview technique when gathering lived experience data from the farming and growing community.

Who will be responsible for gathering evidence in the following areas? (as applicable): - literature review - health priorities review - community profile/ baseline data - health policy context review - stakeholder consultation - regulatory/ standards compliance review - relevant monitoring indicators of the recommendation	Monica O'Mullane and Tara Kenny are responsible for gathering the evidence and presenting analysis back to the Steering Group, with a view to making decisions for the reporting of the HIA and resulting recommendations.
Who will be responsible for appraising the evidence and forming conclusions and recommendations? Who will provide review?	The Steering Group will appraise the evidence at the June 2025 meeting. Following responses to questions in relation to evidence, we will develop recommendations together for a draft report, which will be discussed and finalised at the June and July Meetings. Dr Fiona Haigh, HIA practitioner working in Australia and based in the University of New South Wales, will provide a review of the HIA once completed.
How will the results of the HIA be presented? (e.g. checklist/ reasoned narrative/ discussion>	Results will be presented in the HIA report, using tables and narrative discussion.
How will the results of the HIA be disseminated?	The HIA results will be disseminated in report form from Steering Group members to their respective organisations, and wider networks, if members wish to disseminate the report. The results of the HIA will be disseminated as part of an academic journal article that the HIA-IM research team (Monica, Tara and Caithlín) will lead on. Steering Group members will be invited to co-author this article.
Who will be responsible for monitoring and adaptive management recommended by the HIA?	Monica O'Mullane will be responsible for monitoring progress of the HIA recommendations.
What evaluation will be undertaken of the HIA, when and by whom?	As suggested in the IPH HIA guidance, evaluation will include the peer-review evaluation, to be carried out by Dr Fiona Haigh, University of New South Wales, Australia.
How will the HIA budget be spent?	There is no standalone budget associated with this HIA. There is money from the HIA-IM research project that is used to fund capacity of personnel on the Steering Group; fund the round of interviews with farmers; the publication of the final HIA report.
Operating arrangements for the Steering Group	Outlined in the Terms of Reference for the HIA Steering Group.

Timetable of events (adapted from the IPH HIA guidance, 2009)	**What**	**When**	**Who**
	Round of interviews with 15/ 17 farmers/ growers. Ethics approval for carrying out these interviews was attained from SREC, UCC (log number 2023-091, ethics amendment # 6 (February 2025)	April & May 2025	Interviews will be conducted and analysed by Tara Kenny and Monica O'Mullane, UCC.
	Steering Group meetings, to discuss findings from HIA Analysis stage to create recommendations and the HIA report	March 20th, June 27th and July 25th, 9.30-12.30.	Steering group of the HIA

Terms of reference has been Adapted from Institute of Public Health, Health Impact Assessment guidance, page 102.

5. Questions posed in the Quality Review of the HIA, carried out by Dr Fiona Haigh (School of Population health, University of New South Wales, Australia) once the HIA report was finalised.

Questions to consider
Was the HIA done prospectively, before implementation of the proposal?
Were the aims and the scope of the HIA clearly defined?
Was the HIA conducted from an impartial stance, rather than a predetermined position on the proposal?
Did the assessors use a systematic way to identify potential health impacts?
Were relevant stakeholders engaged appropriately?
Does the HIA include a profile of health, health determinants and susceptible populations in the potentially affected communities?
Are the methods and sources of evidence clearly stated and appropriate to the assessment questions?
Does the HIA clearly present and characterise the health impacts, including pathways and affected populations for each?
Does the HIA highlight differential impacts and implications for health inequalities?
Are the impacts clearly supported by the evidence presented?
Do the recommendations flow from the assessment of impacts?
Are the recommendations feasible, clearly specified and do they define who should implement them?
If a Health Management Plan is included, are the actions SMART (specific, measurable, achievable, resources, time-bound)?
Is the report logically structured and clearly written?
Have the recommendations been accepted and implemented?
In terms of the composition of the Steering Group and Working Group, are there any observations around sectoral interests involved, given the focus of this HIA? Are there any sectoral interests missing? Any other comments on the roles of the Steering Group and Working Group?
Any other comments?

Overall assessment

Areas of good practice
Suggested improvements for future HIAs

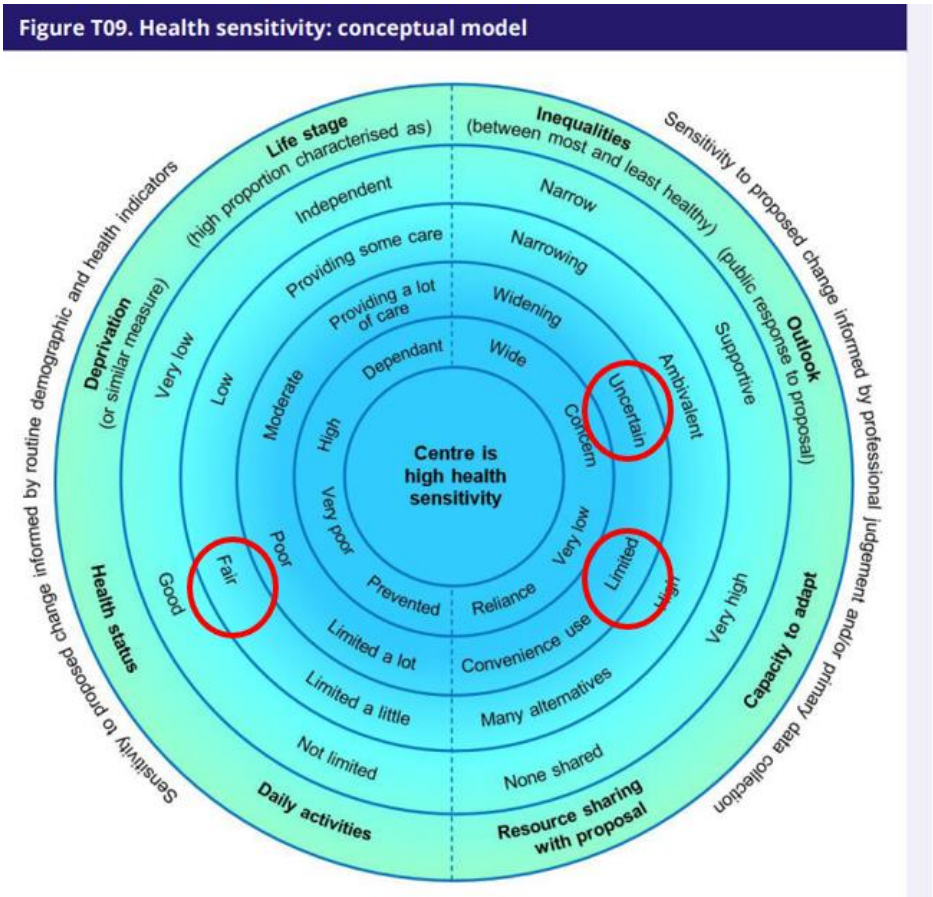
6. Completed models from the Institute of Public Health Ireland (IPH) HIA guidance assessing likelihood of health impact on farmers in Ireland, as agreed at the Steering Group meeting on 27th June 2025

Three questions were asked when assessing likelihood of health impact of implementing the policy objective 'expand our organic sector' on farmers in Ireland, as outlined below, on criteria of sensitivity, magnitude and likelihood. The models were completed in advance of the Steering Group meeting by Monica and Tara, the red rings on the segments. The Steering Group contributed their input and changes including amending health status in the sensitivity model from 'poor' to 'fair' as the Group indicated that there was not sufficient evidence available to categorise farmer health status as poor.

Question (below) asked of the Steering Group when assessing **sensitivity** of implementing the policy objective 'Expand our Organic Sector on farmers in Ireland, with the model completed with red rings on the segments of the model that are relevant to the HIA, as agreed in the Steering Group meeting on 27th June 2025. The model used is taken from the IPH guidance (Pyper et al. 2021), page 141:

What is farmer's sensitivity to converting to organic production?

Figure T09. Health sensitivity: conceptual model

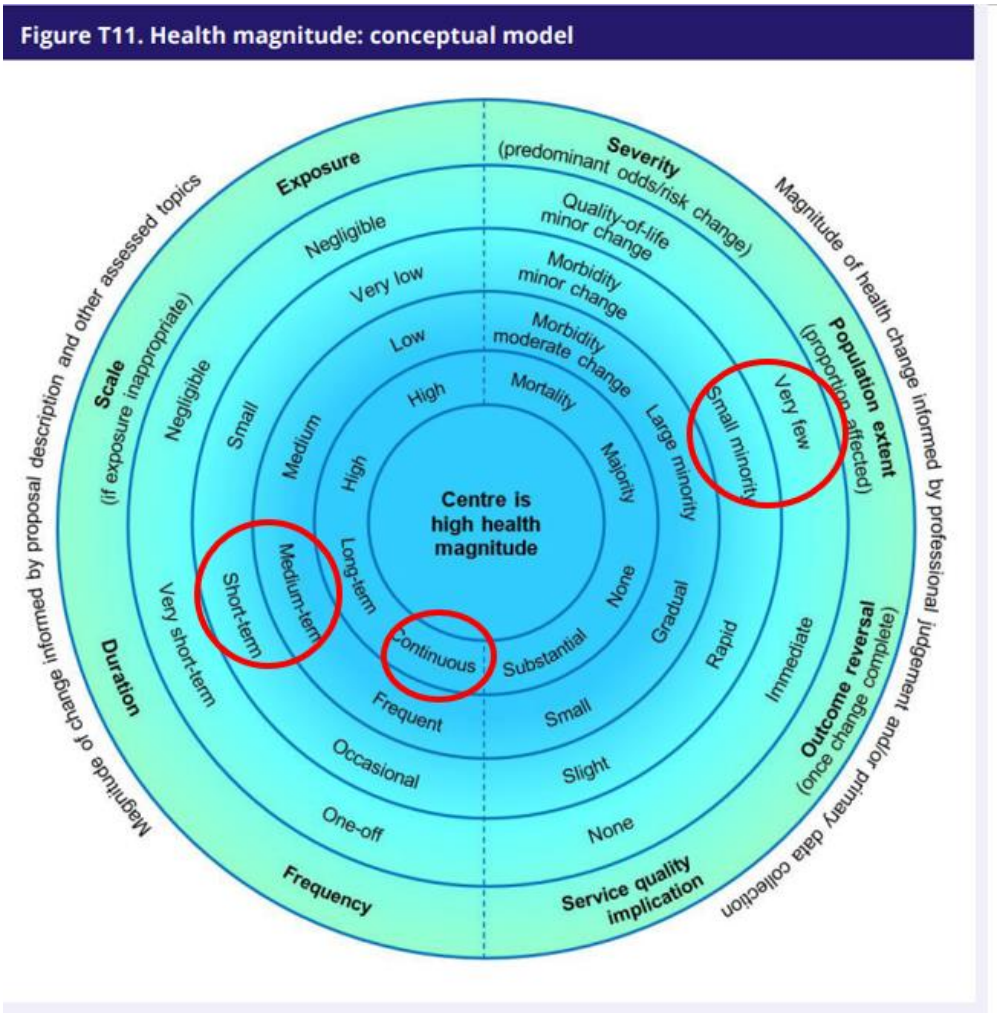


Question (below) asked of the Steering Group when assessing **magnitude/ the scale** of health impact when implementing the policy objective 'Expand our Organic Sector on farmers in Ireland, with the

model completed with red rings on the segments of the model that are relevant to the HIA, as agreed in the Steering Group meeting on 27th June 2025. The model used is taken from the IPH guidance (Pyper et al. 2021), page 145:

To what extent is/would converting to organic reduce stress, increase financial security, improve quality of life for all farmers?

Figure T11. Health magnitude: conceptual model

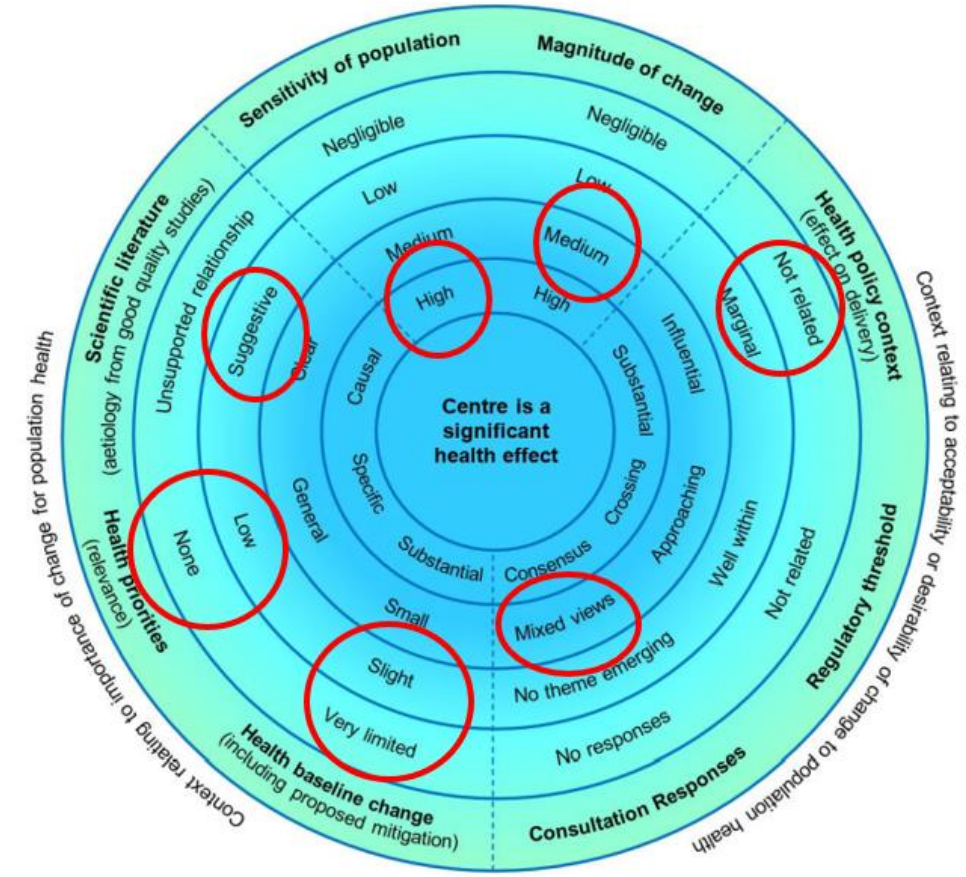


Question (below) asked of the Steering Group when assessing significance of health impact when implementing the policy objective 'Expand our Organic Sector on farmers in Ireland, with the model completed with red rings on the segments of the model that are relevant to the HIA, as agreed in the

Steering Group meeting on 27th June 2025. The assessment of sensitivity and magnitude from the previous two models informed the agreement the relevant segments in the assessment of significance. The model used is taken from the IPH guidance (Pyper et al. 2021), page 148:

How important/desirable/acceptable is the measure to expand organic production to the livelihood of farmers?

Figure T12. Health significance: conceptual model



7. Tables created to assess likelihood and significance of potential positive and negative health impact and finalised at the Steering Group meeting on 27th June 2025

All farmers

STEP 1

Proposition of what the measure could result in for farmers/ Hypothesis	**Potential Impact** **i.e positive/opportunity** **Or/ and** **negative/unintended consequence**	**Health sensitivity to the population** (use IPH model page 144)			**Magnitude of the impact** (use IPH model page 145)			**Health significance (sensitivity + magnitude)** (use IPH model page 148)			**Evidence** i.e. review article; technical (policy related); qualitative (interviews with farmers) Leading to characterisation of evidence
		High	Medium	Low	High	Medium	Low	High	Medium	Low	
Transitioning to organic farming impacts positively on the health of a farmer	+ With OFS (Organic Farming Scheme) in place, there is an **opportunity** for farmers to transition to organic farming -Markets and infrastructure currently not in place to encourage scaled-up transition, therefore transitioning in the current system would cause stress and potential loss of income	high				medium			medium		**All sources of evidence included in draft report, with some references included here:** 24 farmers interviewed as part of the HIA in 2025 Otieno et al 2024; David et al 2024; Vickneswaran et al 2023; (HRB) Miller et al 2023; Watanabe-Galloway et al. 2022; Maher et al. 2021; Kavanagh et al. 2024 EPA 2023; 2024; 2025; DECC 2024; Scoping report HIA SG 20.3.2025 (mental health, stress, risk to income if transitioning)

STEP 2

Proposition of what the measure could result in for farmers/ Hypothesis	**Explaining the pathway to impact, which refers to the health effects and benefits if policy implemented** **Re: Potential impact ie. Positive or negative (narrative)** **Narrative- write up)**	**Significance (sensitivity + magnitude) low; medium; high**	**Duration (short; medium; long term)**	**Likelihood of impact (Plausible, probable, confirmed)** *	**Significance (sensitivity + magnitude) low; medium; high**	**Duration (short; medium; long term)**	**Likelihood of impact (Plausible, probable, confirmed)**
Transitioning to organic farming impacts positively on the health of a farmer.	As the situation in Ireland currently stands for conventional farmers, organic farming is predominantly perceived as a high-risk practice given the poor infrastructure in relation to markets and secure income for produce	**Positive/ opportunities**			**Negative/ unintended consequences**		
		Medium	Short, medium-term	Plausible	Medium	Short, medium-term	Plausible

*As defined in the IPH HIA guidance: (page 76)
Plausible when there's a clear theoretical link in the pathway between source-pathway-receptor
Probable when based on professional judgement. Confirmed when we know something will happen because of one change in policy.

Page 111: A likely effect is 'plausible and probable'. A significant change is clearly 'important or unacceptable'

*As defined in the IPH HIA guidance: (page 76)
Plausible when there's a clear theoretical link in the pathway between source-pathway-receptor
Probable when based on professional judgement. Confirmed when we know something will happen because of one change in policy.

Page 111: A likely effect is 'plausible and probable'. A significant change is clearly 'important or unacceptable'

8. Overview of farming types in Ireland: Background context

[References for this section are in the main HIA Report]

Ireland's farming systems are predominately livestock based with over 90% of dairy, beef and sheep meat exported (DAFM, 2024). Dairy farms utilise about one-quarter of the grassland area in Ireland and are most prominent in the eastern half of Munster and in the southern counties of Leinster. Beef farming remains the largest agricultural enterprise activity in terms of land use and farm numbers. Tillage production is limited to about 7% of the agricultural land base. Sheep production takes place on about 11% of the grassland area in Ireland and on several hundred thousand hectares of commonage land (SCSI/Teagasc, 2024). Data specific to organic farming is not yet captured in the National Farm Survey (NFS), the Small Farm Survey (SMF) and to best of our knowledge, data specific to organic vegetable and fruit production is not available. The following section provides an overview of the NFS, SMF and information specific to fruit and vegetable production, imports and exports before providing an overview of the Organic Farm Structure Survey.

Farm income and viability

The National Farm Survey (NFS) reflects farms with an output exceeding €8,000 which comprise an estimated 88,000 farms in Ireland who hold 96% of all livestock in Ireland and account for 98 of total agricultural output. In conventional farming, the average age of a farmer is 59 years and 72% are married. An average of 60% of farmers and/or their spouse are engaged in off farm employment. When accounting for the farm holder only, off farm employment ranges from 11% of Dairy farmers and 56% in 'Cattle other' farmers (Dillon et al. 2025). Table 3 provides an overview of each farm type in conventional systems. Income across all farming systems increased in 2024 due to a decrease in productions costs (all farm types), higher yields (Tillage) an increase in support payments (Cattle rearing, Cattle other, sheep) and higher output prices (all farm types). In 2023, about 48 percent of the farms represented in the NFS had a farm income of less than less than €10,000, a further 17 reported a farm income of between €10,000 and €20,000. Less than 12 percent of farms report a farm income of more than €50,000 (Dillon et al. 2024). In 2024, roughly 34 percent of farms had an income of less that 10,000, 18 percent had a farm income of between €10,000 and €20,000 and 22 percent report and income over more than €50,000. The percentage of those reporting an income in excess of €100,000 has increased from 4% in 2023 to 10% in 2024 (ibid). Accordingly, the economic viability has increased insignificantly in comparison to previous years. In 2024, **42% of the farms were classified as economically viable**[1], 34% as economically sustainable[2] and 24% were considered economically vulnerable[3]. Dairy farming continues to be the most profitable farming system in Ireland, however this farming system is also the most heavily indebted (Table 1).

[1] A farm business is defined as being economically viable if FFI is sufficient to remunerate family labour at the minimum wage in 2024 (€22,860 per labour unit) and provide a 5 percent return on the capital invested in non-land assets, i.e. machinery and livestock

[2] Farms that are found not to be economically viable, but have an off-farm income source within the household (i.e. either the farmer or spouse are employed off-farm) are considered to be economically sustainable.

[3] Farm households are considered to be economically vulnerable if they are operating non-viable farm businesses and neither the farmer or spouse have an off-farm job.

Table 1- 2023 Overview of Farm Systems in Ireland (NFS, 2025)

Farming system	**%**	**Average size**	**Average Livestock Units**	**Average income per ha**	**Direct Payment % of FFI**	**Average farm income**	**Borrowings**	**Ave. debt**	**Viability**
Dairy	17	70ha	141Lu	€1,552	23%	€108,189	70%	€148,158	82%
Cattle Rearing	18	32ha	34 Lu	€422	132%	€13,547	27%	€32,169	28%
Cattle Other	40	32ha	43 Lu	€560	87%	€18,101	30%	€40,224	31%
Sheep	16	47ha	55 Lu	€586	103%	€27,796	19%	€38,713	37%
Tillage	17	69ha	30 Lu	€560	84%	€38,685	38%	€94,199	57%

Small farm overview

Just over one-third of farms in Ireland (48,356) are classified as small farms with a standard output (SO) of less than €8,000. These farms hold 15% of total agricultural land area, 4% of total livestock and account for less than 2% of total agricultural output. Over half (52%) of small farms are located in the Northern and Western regions of Ireland. Roughly one-third are in the South and 15% in the East and Midlands. Nearly half (49%) of small farms operate on 10 hectares or less with the average holding size of 13 hectares (Dillon et al. 2022).

In comparison to conventional farms, smalls farms are typically lower input, grass fed systems and a lower environmental impact. Only 4% of agricultural related GHG emissions are produced on small farms and while smaller farms tend to have a lower GHG emission per hectare, they are reported to have a higher GHG emissions intensity per kg of output (Dillon et al. 2022). Farming is the sole occupation for roughly of third of these farmers which consist of mostly cattle, sheep, and mixed field crops. Dairy and Tillage farms 'do not exist' in the small farm population (Teagasc, 2022:5). Farm incomes are also much lower in comparison to conventional farms ranging from 2,600 to 4,500 per farm.

Almost one fifth (19%) of small farms are classified as viable, 40% as sustainable, **and 41% as vulnerable**. While small farms face pressing economic challenges, they are an essential component for promoting environmental and social sustainability, preserving rural heritage, supporting local economies, and promoting sustainable farming practices (Dillon et al. 2022).

Only 10% of farmers in conventional systems are female. In comparison to conventional farms, small farms have almost double the percentage of female farmers (19% versus 10%), a higher proportion of farmers over the age of 65 years (41% versus 28%) and two thirds are engaged in off-farm employment (Dillon et al. 2022).

Fruit and vegetable production in Ireland

Horticulture, which includes tree nurseries and ornamental plants accounts for less than 1% of total agricultural land. In contrast to Ireland's export-oriented livestock dominant farming systems, Ireland is heavily reliant on imported fruits and vegetables and domestic production is in continual decline. However, an exception is mushroom farming which forms the largest component of Ireland's horticultural sector. Ireland is one of the largest mushroom producers in Europe with 80% of production exported and mostly to the UK market. While the number of mushrooms growers has declined over the years, larger mushroom farms continue to expand (Teagasc, 2020[4]).

In 2020 **total domestic fruit and vegetable production** amounted to 61,800 tonnes representing a 73% decline compared to 1961 and **14% decline since 2010** (Stanley et al. 2023). Much of the fruit and vegetables grown in Ireland are for domestic consumption. Field vegetables such as potatoes (58%), carrots and turnips (10%), cabbages and other brassicas (5%), mushrooms (13%), apples (3%) and soft fruit mostly strawberries (1%) comprise 77% of total fruit and vegetable production.

In 2020, exports accounted for just over 100, 000 tonnes comprised of mostly mushrooms (45%), potatoes (11%) and apples (5%). Bananas imported to Ireland for ripening before exporting accounted for 13%. This same year, **imports** accounted for 890,000 tonnes of fruit and vegetables **representing a 42% increase compared to 1992**. Between 2017 and 2021, 47% of these imports came from the UK (24%), The Netherlands (13%) and Spain (10%). While Bananas and oranges and mandarins, which cannot be cultivated in Ireland, comprised 18% of total imports in 2020, seasonal fruit and vegetables that can be grown in Ireland comprised 29% of total imports. For example, potatoes (18%), apples (5%) and soft fruits (6%). Moreover, **22% of total fruit and vegetables imports, some of which can be produced in Ireland (i.e onions, garlic, apples and leeks), came from counties classified as climate vulnerable** (Stanley et al, 2023). Additional concerns within the fruit and vegetable sectors include labour abuses and exploitation within the mushroom and soft fruit sectors heavily reliant on seasonal migrant labour (Sargent and Cherevsheva, 2020).

[4]https://www.teagasc.ie/media/website/crops/horticulture/horticulture-factsheets/7-Mushroom-Production.pdf