Public Consultation on the *Draft Climate Change Adaptation Sectoral Plan for Agriculture, Forest and Seafood Sector*

1. Details:

Full Name: **Agricultural Science Association**

Organisation where applicable: __

or

Member of the public: ___

Subsector:

- Dairy
- Beef
- Sheep
- Mixed
- Arable
- Horticulture
- Fisheries
- Industry
- Prepared Consumer Foods

Other: ___ *All Agricultural and Horticultural sectors*

The Agricultural Science Association (ASA) is the professional body for graduates in agriculture, horticulture, forestry and food science and technology. Our almost 2,000 members are employed across the entire agri-food industry, most notably within government departments, research, advisory, education and training, agri-business, rural organizations and the media.

The ASA has considerable interest in and an important part to play in the shape of Ireland’s agri-food industry into the future. ASA members are committed to the development of a profitable, sustainable and competitive Irish agri-food sector that meets current and future needs. To this end ASA recognises the likely impact that global warming will have on agriculture, horticulture and forestry and will continue to inform its members on developments and encourage them to be fully involved in implementing mitigation and adaptation measures.
2. What do you think are the changes in climate that are having the most impact on those working in the agriculture, forest and seafood sector?

Extreme Rain [X]  Storminess [X]
Drought [X]  Flooding [ ]
Extreme heat [ ]  Seasonal stability [X]
Other: ____________________________________________

Wetter winters will increase the risk of nutrient leaching and impact on land trafficability. This may impact on duration of grazing season and ability to harvest certain crops. Flooding is related to extreme rain and could also be considered significant.

Summer droughts reduce crop yields.

Storm events can have a significant structural impact especially for horticulture structures. Increased storm intensity also has the potential to cause significant damage to commercial forestry.

3. What do you think the main impacts from climate change will be on the agriculture, forest and seafood sectors?

Based on trends to date the following are some of the possible developing implications into the future:

- More extreme weather conditions causing increased difficulties for farming such as interrupted planting or harvesting.
- The potential need for irrigation to maintain yields.
- Increased insurance cover costs to protect against crop loss.
- The need for livestock farmers to hold buffer feed stocks to circumvent crop loss or extended supplementary feeding through more extreme weather conditions leading to reduced returns.
- Increased restrictions on agricultural practices such as the need to allow managed flooding to control water flow.
- Introduction of more comprehensive erosion limiting practices.
- More restrictive land cultivation practices with the objective of ensuring increased organic matter levels in soil (no plough, min till, vertical till, recycle straw).
- Compulsory cover crops.
- Introduction of farming changes which reduce climate damaging actions (use of diesel, fertilisers etc).
- The potential need for increased forestry or other carbon sequestration practices on each farm.
- The need to return less productive land to nature.
- Less fishing days at sea likely to impact on continuity of supply or employment.

4. How are those working in the sector currently adapting to climate change?

That there is a change in weather patterns and intensity is generally recognised but its link with increased carbon release is perhaps not so well understood or accepted by all.
Changes by those currently working in the sector which can directly be attributed to climate change are limited as yet but changing farming practices may indirectly recognise this.

- The use of technology in adapting farm decisions is crucial, such as sensor technology for soil moisture and temperature or at a basic level monitoring local weather with improvised weather stations and keeping records. Precision or digital farming is also supporting better decisions on farm.
- Arising from increased volumes of water in a single rainfall event, farm roadways are in cases being adapted to reduce damage and unnecessary collection of clean water.
- Timeliness in planting and harvesting is encouraging the use of larger more expensive equipment notwithstanding the related labour-saving benefits.
- Building codes are being modified to manage more extreme weather patterns.
- Based on recent difficulties some are building up buffer livestock forage reserves.
- More consideration being given to fire management and taking precautionary action.

5. Where do you get climate related information?

ASA members obtain climate related information from

- General Media including Print, Radio and TV
- Climate related conferences
- Lobby groups

6. What additional information do those working in the sector need to adapt to a changing climate?

ASA believe additional information is required to inform varietal selection decisions across all crops to ensure selected varieties are best suited to changing climatic conditions. This is particularly relevant for certain crops, for example an apple orchard should have a commercial productive lifespan of 20 years. Given the establishment costs involved appropriate varietal selection is critical to success of such crops.

Application of fertilisers and chemicals will remain very much weather dependent. Increased data and analysis of real time weather information and improved predictive models would be beneficial to support decision making around slurry spreading, chemical application, use of bio-digesters, grazing, silage cutting etc.

To encourage others, those working in the sector need to be acknowledged for the work they are doing to mitigate and adapt to climate change.

7. How do you perceive and use weather and climate information to inform management decisions?

Modern Met weather services provide invaluable assistance in short term management decisions on farm such as:

- Availing of weather windows to make hay or harvest silage.
- Moving grain harvesting forward to avoid losses from forecasted poor weather.
In ASA’s opinion climate change trends have not yet significantly influenced farm management decisions. Decisions on forest planting for example are considered to be made for financial reasons and not in any way influenced by climate.

8. Is the source of inputs to your farm or business affected by climate change; if so what supply chains?

Sourcing of certain straights that form part of the formulation of animal diets may become problematic if there is a reduction in the availability of certain crops due to climate change. The sourcing of protein crops may be a challenge in the future unless there is a marked increase in protein crop production at European level.

9. When making investments and management decisions how far ahead do you plan?

From a tax policy perspective on farm investment decisions are depreciated over a defined period of time, generally eight years. However, many larger capital investment projects at farm level are designed for a longer lifespan of 20 years plus.

Management decisions are both long and short term in nature. Decisions around breeding and genetics have a long-term perspective along with improving soil fertility.

Many farm management decisions that revolve around routine activities are more short term in nature.

10. Does the Draft Climate Change Adaptation Sectoral Plan adequately demonstrate the potential impact climate change may have on Agriculture, Forestry and Seafood in Ireland (see section 4 of Draft Plan)?

No

While the likelihood of an extended grass growing season is emphasised there is a significant risk that in parts of the country lower summer precipitation will likely reduce summer grass production. Due to Irish agriculture’s reliance on grass-based production ASA believes there is a need to place greater emphasis on this risk.

11. The Adaptation Plan’s focus is on actions that can be undertaken over the next five years. Therefore, do you think the Adaptation Objectives are appropriate for the duration of this plan (see section 2 of Draft Plan)?

No

In addition to the objective of raising awareness of the potential impacts of climate change, the ASA believes there is a need to place a greater focus on scientific research over the 5-year period of the plan and beyond so the full potential impacts of climate change are fully understood.
ASA would like to see scientific research specifically mentioned within the four overarching objectives for the Adaptation Plan.

12. What three things could the Department do to help you be better prepared to adapt to future climate change?

Ensure adequate resources are provided to facilitate sufficient research on the potential impacts of climate change. At present additional research is needed on areas such as:

- Plant breeding to adapt to seasonal change
- Alternative crops suited to a changing climate

Improve communication on the issue of climate change adaptation to raise awareness of the risks and opportunities that may arise.

In developing Ireland’s CAP Strategic Plan for CAP-post 2020, consideration should be given to encouraging and facilitating risk management strategies as well as the provision of grant aid to support those making investments to allow adaptation.

Any other comments?