

Firstly, I would like to thank Deputy Matthews Chairperson, and the members of the Joint Committee for the opportunity to present to you today.

Water quality and in particular minimising the impact of agriculture has been a priority area for Teagasc for many years. We have a large body of water quality research which is largely centred around the Agricultural Catchments Programme (ACP) which started in 2008 and is funded by the Department of Agriculture, Food and the Marine. In addition to our core advisory activities which provide general advice on water quality we have a dedicated Agricultural Sustainability Support and Advisory Programme (ASSAP) which works with farmers in a free and confidential advisory service to help improve water quality.

The ACP operates in six small agriculturally dominated catchment areas selected to represent different farming systems and soil types. The support and co-operation of 300 farmers in these catchment areas allow Teagasc to monitor soils, weather, farming practice, ground water and surface water. The programme also evaluates economic performance and agricultural productivity on these farms. By building up this information over the years we learn how farming influences water quality and how the regulations, namely the Nitrates Directive and its Derogation, impact on farming.

The high resolution monitoring, every ten minutes, continuously since 2008, has given an in-depth understanding of the processes that influence water quality from when it falls as rain on farmland to when it leaves a catchment area in our streams. Teagasc's ACP research contributes significantly to Ireland's annual EU reporting on the Nitrates Derogation and also provides a scientific basis to Teagasc's submission for any review of Ireland's Nitrates Directive National Action Programme.

The Agricultural Sustainability Support and Advisory Programme (ASSAP) was established as part of the River Basin Management Plan 2018-2021. It is a collaborative programme and is funded by the Department of Housing Local Government and Heritage, (DHLGH), the Department of Agriculture, Food and the Marine, (DAFM) and Dairy industry Ireland (DII).

The ASSAP is a free and confidential advisory service for farmers in the 190 Priority Areas for Action (PAA's) located throughout the country. The aim of the ASSAP is to provide farmers with advice focused on the prevention of contaminant losses to waters with a view to attaining water framework directive water quality targets. The advisory service is provided by Teagasc and the dairy processing co-ops. Currently Teagasc provides 20 advisors and the dairy processing co-ops provide 13 advisors. The dairy processing co-ops have committed to providing an additional 5 advisors to the programme in 2022.

The ASSAP is designed to work closely with farmers in each PAA. The Local Authority Waters Programme (LAWPRO), provides the science that identifies what is impacting water quality, (nutrients, sediment, pesticides, pathogens, toxic substances) and where this occurs in each PAA. The ASSAP advisors then contact the relevant farmers and offer to visit and assess the farm for any issues that may be impacting water quality. Advisors assess the farm across three areas; farmyard management and practices, land management including Critical Source Areas (CSA's) and nutrient management practices. At the end of the visit the advisor and farmer will

agree on where the farmer should focus improvements or actions, and identify 'the right measure in the right place' to help prevent contaminants from entering water.

To date the ASSAP programme advisors have visited with a total of 2,829 farms and 553 follow up farm visits also being completed. Farmer engagement is very strong with 95% of farmers contacted availing of the ASSAP service with agreement to implement recommended measures at 93%. Over 14,500 issues have been identified by advisors on farms, an average of 5 per farm, and 44% deemed to be 'High Risk' issues.

For water quality improvements to be realised through ASSAP interventions there needs to be a high level of implementation of the mitigation actions recommended by advisors and the actions are continually implemented into the future.

Currently, there is variation in the level of implementation of mitigation actions by farmers across the issues identified. Data from the ASSAP Interim Report for 2020 showed that the level of implementation of measures is positive. On average 51% of the mitigation actions recommended are 'commenced, completed' or being implemented on an 'on-going' basis. The non-implementation of actions where farmers have 'not started' or are 'not proceeding' is averaged at 37% with the remaining 12% made up of actions not assigned any implementation status.

Although farmer's willingness to take on mitigation actions and the implementation of measures is positive, there is a need for a greater level of implementation of actions across all issues for water quality improvements to occur. Further support for the farmers from the ASSAP advisors is required to help ensure the right measure is used in the right place on farms.