The conference focused on the challenges facing the Agri-Food industry to deliver on the environmental outcomes that are being asked of it. The Government’s Climate Action Plan requires a redesign of the Common Agricultural Policy and its Rural Development Programme. The review of the provisions of the Nitrates Directive, the Derogation and the implementation of measures to achieve emissions reductions were all discussed in detail.

Dr Karl Richards, Head of Environment, Soils and Land-Use Research Department in Teagasc, told delegates that the Climate Action Plan sets out the targets for agriculture. “Reduce emissions by 10 to 15% by 2030, deliver carbon sequestration, and support diversification including bio-based products and bioenergy.”

This Climate Action Plan contains many of the measures identified in the Teagasc Marginal Abatement Cost Curve (MACC), which assesses the abatement potential of a range of mitigation measures, as well as their associated costs and benefits on both greenhouse gas (GHG) and ammonia emissions for the period 2020-2030. A total of 14 cost-beneficial, cost-neutral and cost-effective mitigation measures were identified in the Teagasc MACC for reducing agricultural emissions (methane and nitrous oxide). These measures were estimated to reduce emissions by 1.85Mt (million tonnes) of carbon dioxide equivalents per year (CO₂-e yr⁻¹) between 2021 and 2030. The largest contributors to the abatement are using protected urea, improving dairy EBI and using low-emission slurry spreading.

In addition, the MACC identified that carbon sequestration from afforestation and management of high organic soils could potentially remove another 2.97Mt CO₂-e yr⁻¹ from 2021-2030, reaching a maximum of 3.25Mt CO₂-e yr⁻¹ by 2030. The cultivation of biofuel/bioenergy crops and anaerobic digestion has the potential to account for a further reported reduction of 1.37Mt CO₂-e yr⁻¹ by 2030, mainly associated with the displacement of fossil fuel use.

The key message from Dr Richards was that we know the potential for mitigation, but now we have a limited time to encourage farmers to adopt the actions and deliver mitigation. Early actions result in greater greenhouse gas reductions.

The challenges around water qual-
ity were outlined by Bernard Harris from the Department of Agriculture, Food and the Marine (DAFM). He described how recent Environmental Protection Agency (EPA) monitoring has indicated that water quality has begun to decline again, after a period of stability.

He pointed out that Nitrogen (N) use on Irish farms has increased in recent years and this is a key factor, which needs to be tackled by farmers through improving nitrogen efficiency. The derogation and Nitrates Action Plan reviews will focus heavily on N efficiency, fertilizer formulation and stock density.

An update on the Agricultural Sustainability Support and Advisory Programme (ASSAP) was outlined. It is a free, voluntary and confidential advisory service providing advice to farmers on reducing nutrient and sediment loss from farms to waters. Noel Meehan, ASSAP Programme Manager, said that the service is available to farmers located in 190 Priority Areas for Action (PAA). These are catchments identified throughout the country where water quality is under pressure. Advisors will visit farms, assess existing practices and offer advice on preventing nutrient and sediment loss to waters, with a view to improving overall PAA water quality.

Mary Barrett from the Local Authority Waters Programme spoke about communicating more effectively with the farming community and developing good empathy skills, with emphasis on convincing farmers of the value of water resources and persuading them to adopt long-term behaviours appropriate to protecting water quality, while maintaining

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a financially sustainable farming system.

The increasing importance and concern for biodiversity was outlined by Teagasc Countryside Management Specialist, Catherine Keena, who detailed the evolution of global policy since the 1990s.

“There is ample room for both agriculture and biodiversity to develop side by side, if effectively managed space is left for nature,’ she said.

Catherine also gave details of a Biodiversity Management Practice Index (BMPI), proposed for application on dairy farms, which would inform biodiversity management practice, enabling the positioning of intensively-managed farms by their biodiversity management practice status.

There are four broad characteristics of farms which provide readily accessible indicators, namely the farmed landscape structure, hedgerows, field margins and watercourses. Constituents of the Biodiversity Management Practice Index include average field size, hedgerow height, new sapling trees in hedgerows, uncultivated field margin, unsprayed field margin, fenced watercourses, watercourse margin of 1.5m or more, and absence of drinking access to watercourses.

Sean Kelly from National Parks and Wildlife Service (NPWS) highlighted the status of our bird populations. He indicated that while there have been improvements for a number of species, there are a lot of species that remain under threat.

Waterford dairy farmer and vet Gillian O’Sullivan gave an excellent farmer’s perspective on farm regulations and dairy farming. She explained that farmers carry a significant administrative workload from animal registration, herd registers, NMP plan, Bord Bia audits, DAFM Inspections etc., with the amount of time spent on administration ever increasing.

“Recent changes in policy direction towards greater regulation framed by the Climate Action Plan are positive from an environmental perspective, but will have a huge impact at farm level,” she said.

“It will be difficult for primary producers to continually bear the brunt of regulation, as it is adding to costs at farm level in terms of time, expenditure, paperwork and stress. Farmers are taking a battering from the media, consumers, vegans, animal welfare and environmental groups, and they need to be supported rather than pressured further.”

“There will have to be an unprecedented level of dialogue between a very broad number of partners in the sector to deliver on emission targets, biodiversity and water quality,” Pat Murphy, Head of the Teagasc Environment Knowledge Transfer Department concluded.

“The industry collectively must use all the tools available to deliver the improvements required. It is essential that there be clarity for farmers and as much simplification of what they are being asked to do as possible.”