

# SIGNPOST PROGRAMME

## Glossary of Commonly Used Terms in Climate Change for Agriculture

| Term                                             | Definition                                                                                                                                                                                                                                             |
|--------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Climate change                                   | Change in climate driven by an increase in global temperatures driven by emissions of gases such as carbon dioxide, methane and nitrous oxide.                                                                                                         |
| Agricultural gaseous emissions                   | Refers to greenhouse gas emissions and ammonia emissions from farming.                                                                                                                                                                                 |
| Greenhouse gases (GHG)                           | The three agricultural GHGs are carbon dioxide, (CO <sub>2</sub> ), methane (CH <sub>4</sub> ) and nitrous oxide (N <sub>2</sub> O). The main sources of GHG in Agriculture are animals (CH <sub>4</sub> , 64%) and fertiliser (N <sub>2</sub> O, 32%) |
| Ammonia                                          | Ammonia (NH <sub>3</sub> ) is an air pollutant having an impact on human health and biodiversity, mainly from storage and spreading of animal manures.                                                                                                 |
| Biogenic methane                                 | Biogenic methane is methane produced predominantly from ruminants.                                                                                                                                                                                     |
| Nitrous oxide                                    | Nitrous oxide (N <sub>2</sub> O) is a potent GHG, produced mainly through the application of chemical fertilisers, organic manures and excreta                                                                                                         |
| Carbon dioxide                                   | The most common GHG, predominantly from the burning of fossil fuels.                                                                                                                                                                                   |
| Carbon dioxide equivalents (CO <sub>2</sub> Eq.) | All GHGs (CO <sub>2</sub> , CH <sub>4</sub> and N <sub>2</sub> O) have different global warming potential (GWP). The emissions of all gases are expressed as CO <sub>2</sub> for reporting and comparison purposes.                                    |
| Carbon footprint                                 | Refers to how much GHGs emitted from an activity. The production of every kg of milk or meat or grain has a carbon footprint.                                                                                                                          |
| Total carbon emissions                           | Refers to the total emissions from an activity e.g. agriculture, milk production per farm.                                                                                                                                                             |
| Mitigation actions                               | Actions that reduce emissions of GHG.                                                                                                                                                                                                                  |
| Marginal Abatement Cost Curve (MACC)             | The Teagasc GHG MACC sets out a roadmap for reducing GHG emissions, including the associated costs/benefits of actions.                                                                                                                                |
| Nitrogen use efficiency (NUE)                    | NUE measures how much N brought onto a farm (fertiliser, feed, animals) is exported in product from the farm.                                                                                                                                          |
| Carbon sequestration                             | This involves removing carbon dioxide from the air and storing it securely for a long period, for example in our soils, our hedgerows and our trees.                                                                                                   |

The Signpost Programme is a collaborative partnership of farmers, industry and State Agencies, working together for climate action.

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