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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 ₂), methane (CH ₄) nitrous oxide (N ₂ O). The main sources of GHG in Agriculture are animals and fertiliser.
Ammonia	Ammonia (NH ₃) 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 ₂ 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 (CO₂ Eq.)	All GHGs (CO ₂ , CH ₄ and N ₂ O) have different global warming potential (GWP). The emissions of all gases are expressed as CO ₂ 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 securely for a long period, for example in our soils, our hedgerows and our trees.