

Agriculture

Agriculture is affected by climate change. As a result we need to adapt our food production system to cope with climate change, reduce Greenhouse Gas Emission as well as improve carbon sequestration.



Emission from Agriculture

Main GHG emitted from agricultural activities are:

- Nitrous Oxide (N₂O) - from the use of organic and mineral nitrogenous fertilisers
- Methane (CH₄) - from livestock digestion processes and animal manure
- Agricultural practices in Mauritius (both crop and livestock sector) emitted 127,000 tonnes CO₂eq in 2013 (TNC report, 2016)
- Sugarcane cultivation alone emits an average of 83000 tonnes of CO₂eq yearly

Impacts on the crop sector

- Higher temperatures affect flowering and fruiting, growing seasons, cropping calendars, crop cycle and bulking in vegetable crops
- High temperatures and mild winters favour higher pest and disease incidence
- Water scarcity and droughts affect production and yield
- Extreme weather events (torrential rains, cyclones) destroy crops and degrade soil, for example through flooding, erosion and sedimentation
- Coastal land are affected by storm surge (destroy crops and affect soil quality)



How can agriculture adapt to climate change?

- Using efficient irrigation systems (drip, micro-sprinkler)
- Promoting sustainable agricultural practices (soil and water conservation, composting, minimum tillage, mulching and so on)
- Introducing locally adapted varieties (e.g. drought and heat tolerance, disease resistance)
- Crop production under protected culture, such as shade house, greenhouse and mini-tunnel
- Adjusting farm operations (planting dates, treatments, irrigation schedule etc)
- Optimising the use of fertilizers to minimize leaching and N₂O emissions
- Using Integrated Pest Management or chemicals free pest control methods
- Adopting bio farming systems