







Land Use Baseline

Total Land Use Emissions 27,637 tonnes CO₂e

Agricultural Emissions (,000 tonnes)	CO2-equivalent
All Emissions	tonnes CO2-e
CH4 - Enteric Fermentation	20,914
CH4 - Manure	1,690
N2O - Synthetic nitrogen fertiliser, crops	3,235
N2O - Dung/urine leach- ing/runoff	831
N2O - Dung, Urine	968
Total	27,637



Sources of agricultural emissions in Byron Shire are:

- Methane from beef and dairy cattle digestion (enteric fermentation)
- Agricultural soil emissions, mostly nitrous oxide
- Applied manure (methane and nitrous oxide)
- Synthetic fertiliser (nitrous oxide)
- Burning of crop residues (sugar cane in particular), mostly methane
- Manure management (piggeries, open range cattle, dairies, poultry, producing methane and nitrous oxide).



Priority mitigation targets:

The following priority reductions are proposed:

- **Reduction of digestion methane emissions (enteric fermentation)** through pasture forage quality/selective breeding (15%), and herd reduction (25%).
- **Reduction of agricultural crops and soil emissions -** with reduced animal numbers and better use and types of fertilizers (25%).
- **Reduction of manure management** emissions applicable to piggery (90% methane captured) and poultry production.
- The remaining emissions could be offset by **revegetating about 1,030 ha,** or 4.5% of grazing/cleared land in Byron Shire.

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