

FLARING AND METHANE MANAGEMENT IN AUSTRALIA

Technical Expert Meeting on Non-CO₂ greenhouses, Bonn ADP, October 2014

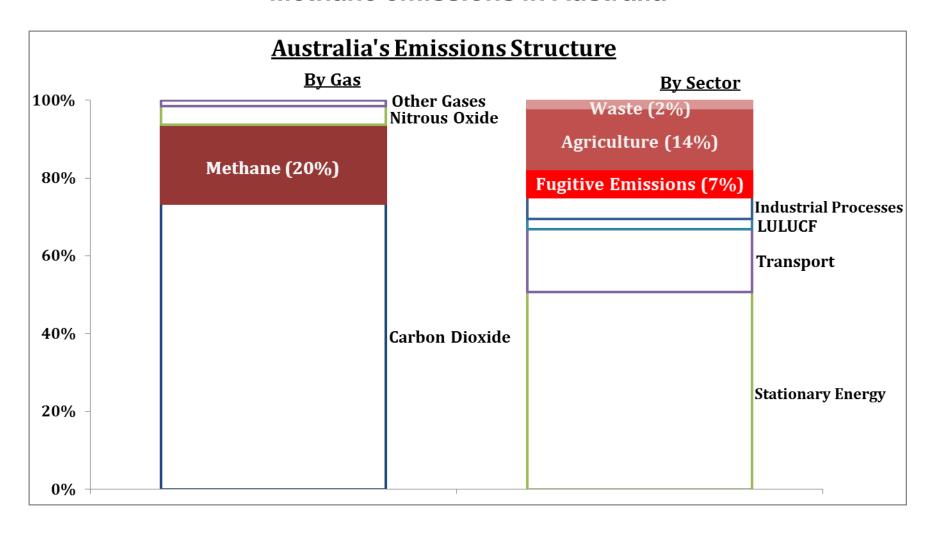
Lachlan Grove, Department of Foreign Affairs, Australia

Overview

- 1. Coal Mining Abatement Technology Support Package (CMATSP)
- 2. Carbon Farming Initiative (CFI)
- 3. Emissions Reduction Fund (ERF)



Methane emissions in Australia



1. The Coal Mining Abatement Technology Support Package (CMATSP)

- ☐ Supported \$80 million of investment:
 - \$35 million (Australian Government)
 - \$45 million (industry co-contribution)
- ☐ Technologies supported:
 - Avoidance measures and pre-drainage
 - Flaring and ventilation air methane (VAM)
- ☐ Safety practices and knowledge sharing



2. The Carbon Farming Initiative

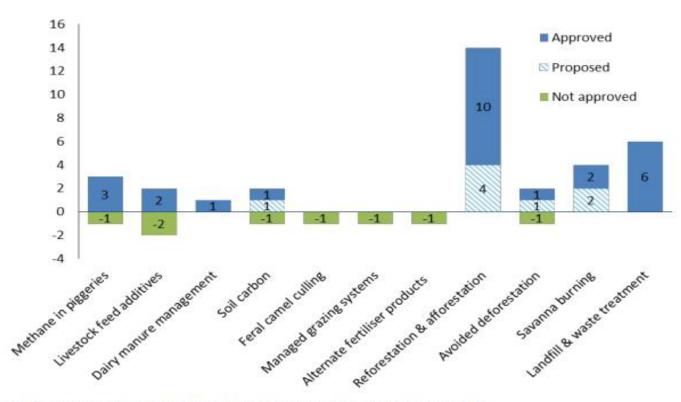
- □ 12 methane methods:
 - 6 million methane-based credits created since 2011 (9 million all gases)
- ☐ Supply of units determined by market demand for abatement.





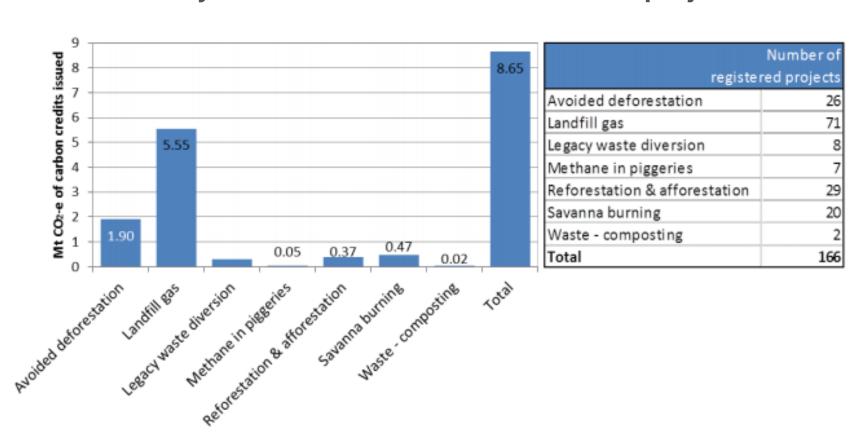
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Carbon Farming Initiative: Methodologies by project type – 12 approved methane methods



Source: Climate Change Authority based on Department of the Environment (2014)

Carbon Farming Initiative: Quantity of credits issued and numbers of projects



Source: Climate Change Authority based on Clean Energy Regulator (2014b)

Note: Data current as at 30 September 2014

3. The Emissions Reduction Fund

□ \$2.55 billion over 4 years

- Streamlines CO₂ and non-CO₂ reduction activity
- Builds on CFI to cover all sectors

☐ 4 methane methods released for public consultation

- Government purchase through reverse auction
- Payment made on delivery of abatement





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Thank you

References

CFI: http://www.cleanenergyregulator.gov.au/Carbon-Farming-Initiative/Pages/default.aspx

ERF: http://www.environment.gov.au/climate-change/emissions-reduction-fund

Contact: Lachlan.Grove@dfat.gov.au

| CMATSP funding recipients | | | | | |
|------------------------------|--|---|--|--|--|
| Recipient | Project Description | | | | |
| Centennial Coal Company | Safety Duct and VAM- RAB Scale Up | Install direct coupled regenerative thermal oxidiser (RTO) and develop methodology for broader use. | | | |
| University of Newcastle | Chemical Looping VAM Abatement Project | Piloting of novel VAM technology using chemical looping (VAMCO). | | | |
| University of Newcastle | VAM Abatement Safety Project | Engineering for safe VAM capture ducts, an integral component of large-scale VAM needed in Australia. | | | |
| CSIRO | Novel VAM Technologies and Evaluation Tool | Demonstrate three prototype technologies for avoiding and utilise methane. | | | |
| Bulga Underground Operations | Methane Capture and Abatement Optimisation | Optimisation of mine gas drainage, ventilation systems and long wall post drainage efficiency. | | | |

| | CFI Methane methodology description | Number of Projects | Number of credits issued |
|-----|--|--------------------|--------------------------|
| 1. | Destruction of Methane from Manure in Piggeries-1.1 | 6 | 47,237 |
| 2. | Destruction of Methane from Manure in Piggeries | Nil | Nil |
| 3. | Destruction of Methane from Piggeries using Engineered Biodigesters | Nil | Nil |
| 4. | Capture and Combustion of Methane in Landfill Gas from Legacy Waste: Upgrade projects | 4 | 131,978 |
| 5. | Capture and Combustion of Methane in Landfill Gas from Legacy Waste | 67 | 5,523,055 |
| 6. | Destruction of Methane Generated from Dairy Manure in Covered Anaerobic Ponds | Nil | Nil |
| 7. | Reducing by Feeding Dietary Additives to Milking Cows | Nil | Nil |
| 8. | Feeding Nitrates to Beef Cattle | Nil | Nil |
| 9. | Diverting Legacy Waste from Landfill for Process Engineered Fuel Manufacture | 1 | 64,103 |
| 10. | Diverting Legacy Waste from Landfill through a Composting Alternative Waste Technology | 4 | 85,555 |
| 11. | Diversion of Legacy Waste to an Alternative Waste Treatment Facility | 3 | 148,369 |
| 12. | Enclosed Mechanical Processing and Composting Alternative Waste Treatment | 2 | 21,291 |