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Anaerobic Digestion: Programs and Policies in Australia

Agriculture Sub Committee
Meeting
Methane to Markets Partnership
Expo
5 March 2010
New Delhi, India

Mr Josh Francis

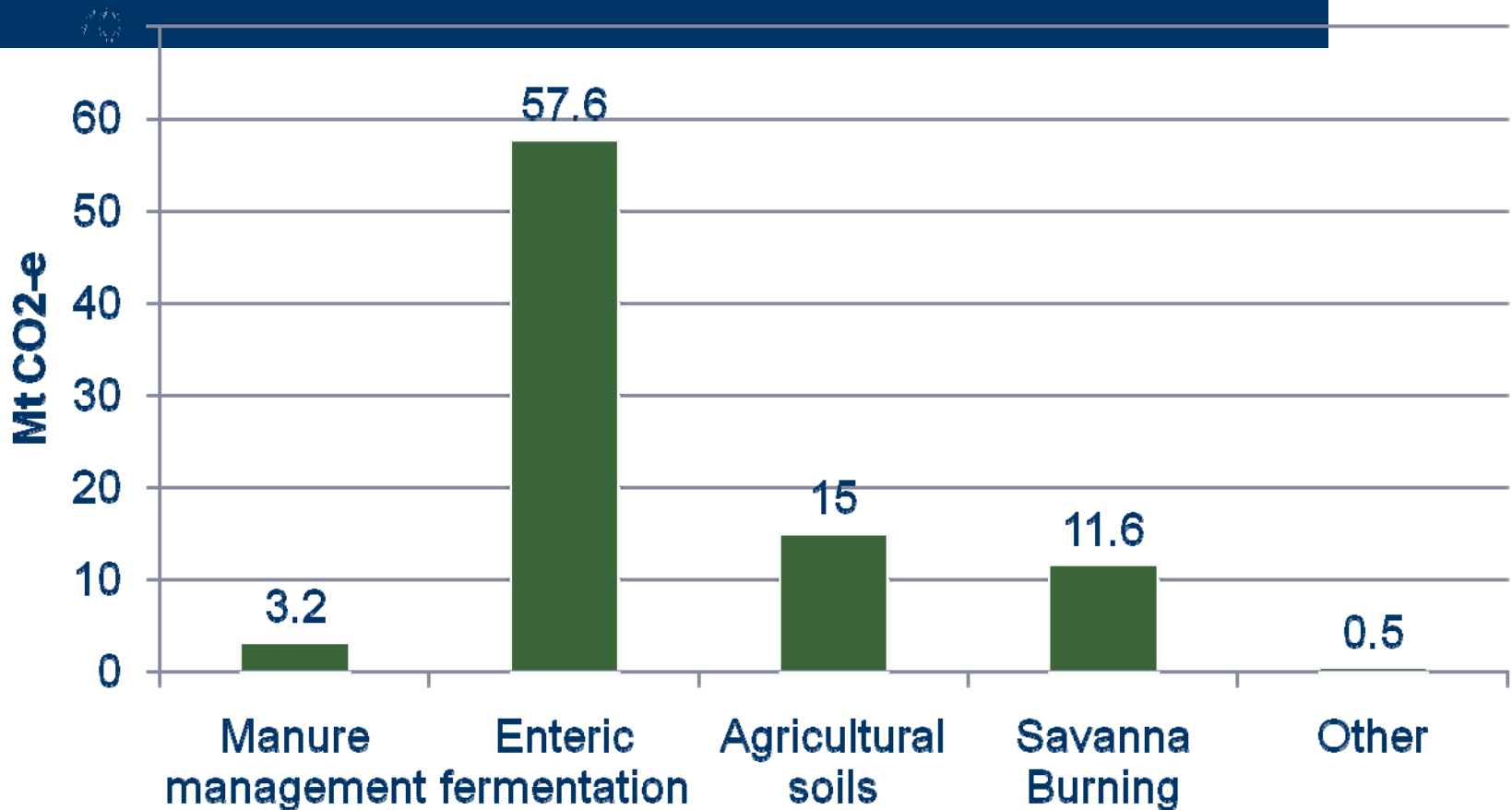
Policy Officer

**Australian Dept. of Agriculture,
Fisheries and Forestry (DAFF)**



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Australian Agricultural Emissions 2007



Source: Department of Climate Change, National Greenhouse Gas Inventory, 2007, p. 21

www.climatechange.gov.au



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Australian Agricultural Sector

Characteristics

- 120 000 to 150 000 agricultural businesses
- Many business are extensive eg rangelands and mixed broad acre cropping/livestock
 - No manure management options/emissions
 - Emissions from other sources
- Less than 10 000 are intensive livestock
- Manure management in intensive livestock is 'low hanging fruit' from agriculture sector



Target Sector Dairy



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Target Sector Piggeries (Swine)





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Target Sector Beef Cattle Feedlots





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Barriers to anaerobic digestion

- Intensive operations dispersed
- Technologies needs to be adapted
- High costs due the compliance and safety requirements
- Cheap cost of energy
- Limited availability of capital
- High level of uncertainty and risk



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Programs and Policies

Agriculture specific:

- Australian Methane to Markets in Agriculture Program (AMTMA)
- Australia's Farming Future Program

Economy wide:

- Carbon Pollution Reduction Scheme (CPRS)
- Renewable Energy Target (RET)



AMTMA Objectives



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- Develop and adapt methane capture and use for Australian Conditions
- Reduce uncertainty, cost and risk
- Communication with industry
- Facilitate commercialisation of on farm system for methane capture and use



AMTMA Projects



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- 14 Projects:
 - Studies, Research and Demonstration
- 4 Demonstration sites
- 8 Publications
 - <https://rirdc.infoservices.com.au/collections/m2m>
- PHD Student – Preethi Gopalan at University of Queensland
- Designed to increase understanding, reduce risk and drive implementation of AD



Grantham Piggery



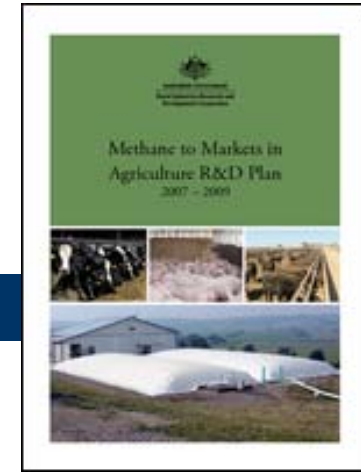
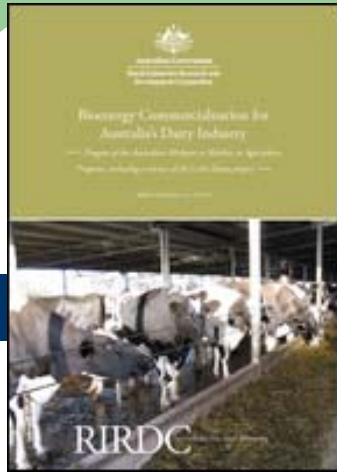
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- Specialised breeder unit - 700 sows
- Piglets transported off-site to grower units following weaning at 3 - 4 wks
- 1600 pigs - 1400 SPU



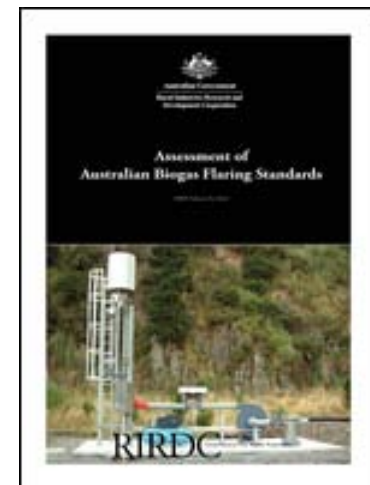
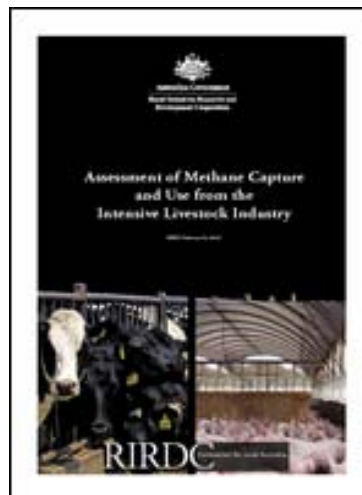
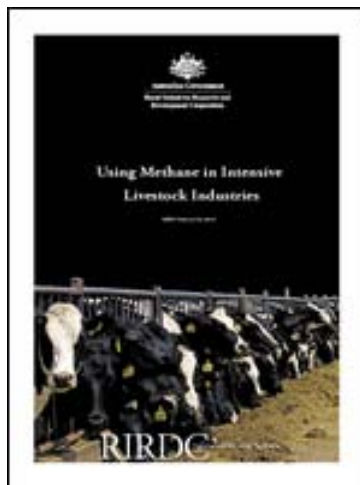


Source: Alan Skerman, Queensland Dept. Employment, Innovation and Industry Development



The program has published a number of reports to communicate outcomes to industry

<https://rirdc.infoservices.com.au/collections/m2m>





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Australia's Farming Future

- Climate Change Research Program
 - Reducing Emissions from Livestock Research Program - Enteric Fermentation
 - Second round of funding currently being run for demonstration of research
 - Australian Methane to Markets Program has applied for more funding to continue program
- FarmReady
 - Industry Grants
 - Training Grants



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Carbon Pollution Reduction Scheme (CPRS)

- Australia's emissions trading scheme
- Economy wide policy tool
- Extensive development process
- Currently before parliament

Proposed arrangements:

- Broad coverage, 75% of emissions
- Around 1 000 entities
- Due to commence in mid 2011



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CPRS and Agriculture

Proposed arrangements:

- Agriculture emission not covered
- Agriculture abatement can create permits
- Methodologies approved by independent expert committee
- Must meet permanence, additionally, measurability, registration
- Independent audited



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Renewable Energy Target (RET)

- 20% of electricity from renewable sources by 2020
- Market-based scheme
- Wholesale energy retailers have to purchase Renewable Energy Certificates (REC)
- Renewable electricity generation creates RECs:
 - Includes electricity from agricultural waste



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Thank You

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