

National Inventory Reporting for Agriculture

The New Zealand Experience

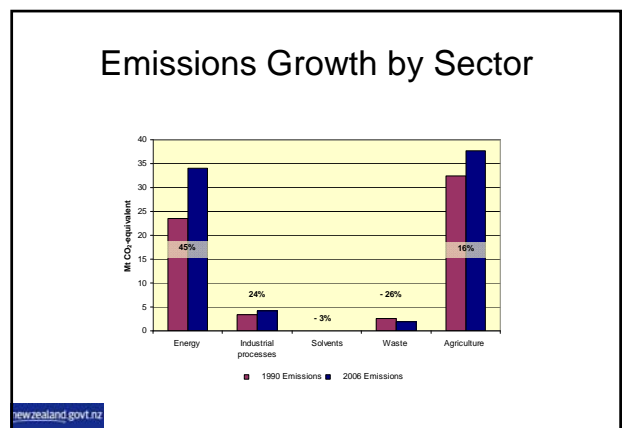
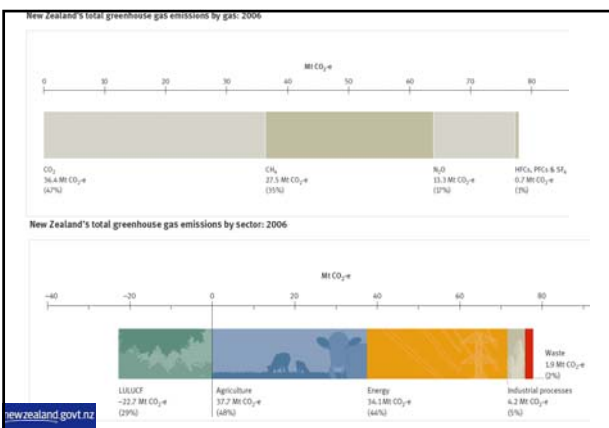
Sonia Petrie – Ministry for the Environment, New Zealand

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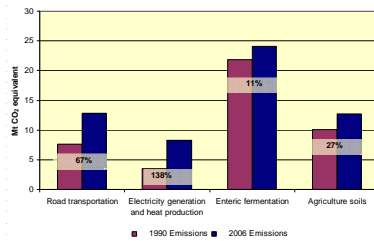
National Circumstances

- Land-based economy
- Livestock grazed outdoors year round
- Unusual emissions profile for an Annex 1 country
 - agriculture emissions almost 50% of total
 - enteric fermentation nearly one third of total emissions
- Agricultural emissions have grown 16% between 1990 and 2006

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Individual Growth Areas



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National System

- Distributed inventory system
 - Ministry for the Environment coordinating agency
 - Other agencies lead specific sectors
- Climate Change Response Act (2002)
 - sets in law requirements to achieve New Zealand's national system
- Statistics New Zealand has a key role in collecting national statistics
 - Agricultural census and surveys

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Activity Data

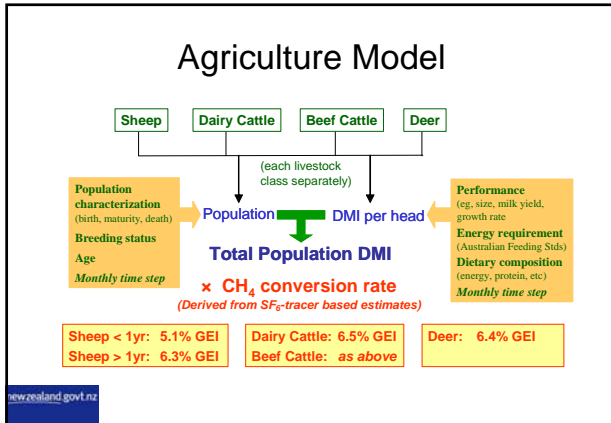
- Important to have reliable time series of activity data
- Various sources
 - Livestock populations and horticultural data from Statistics NZ agricultural production census/surveys
 - Productivity data from government statistics and industry bodies
- Currently no spatial data
 - National inventory does not account for regional differences such as soil type, farm management practices

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Methodology

- Based on IPCC 2000 good practice guidance and 1996 revised guidelines
- Tier 2 model for major livestock species
 - Calculates methane and nitrous oxide
 - Detailed livestock population characterisation and productivity data
 - Incorporates NZ research on quantity of methane emitted per unit of feed intake
- Use Tier 1 approach for minor livestock species and emissions from field and savanna burning

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The Challenges

- Census or survey collects data at 30 June
- Surveys in intervening years do not have complete coverage of agriculture sector e.g. minor livestock species and crop yields
- Incorporating mitigation-national model calculates emissions using an 'average' dairy, beef, sheep and deer farm

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Quality Control and Assurance

- QA/QC plan a good start but not the end product
- QA/QC integrated at all levels
- Completed regularly
- Discuss and implement with researchers, model designers, data compilers
- Use resources already available, e.g. IPCC guidelines

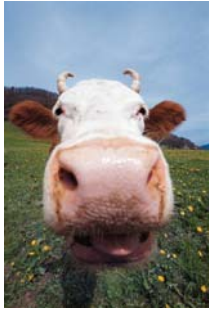
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Continuous Improvement

- Inventory development is continuous
- Focus on key categories
- UNFCCC review process
- NZ researchers working on inventory improvements (government and industry funding)

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Muchas gracias!



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