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Regional emission factors

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Some emissions are climate-dependent

- This includes ammonia and presumably nitric oxide and NMVOCs
  - Sufficient data only available for ammonia emissions
- Empirical modelling of ammonia data in MELS project
  - Livestock housing, manure storage & excretion during grazing
- Empirical modelling of ammonia data for Guidebook revision
  - Synthetic nitrogen fertilizers
- Semi-mechanistic modelling of ammonia data for field-applied slurry
  - ALFAM

Adjust emission estimates to account for regional variations

- Livestock housing
  - Type of housing
  - Temperature in housing
- Manure storage
  - Type of storage
  - Duration of storage
  - Air temperature
- Field application of slurry
  - Weather conditions
- Greater capacity to identify/document mitigation measures

More detail = more activity data

- More detail does not automatically mean better emission estimates

- Error in emission estimate = error in input data & parameters + error in method

- Tier 2 → Tier 3
  - Less error in method
  - Greater demand for detailed, good quality activity data

- Availability of good quality agricultural activity data is a major barrier to progress