



GHG Emissions Estimations: AFOLU Sector 2005-2013

Date: Thursday, September 28, 2017

Venue: Magnolia Hall, India Habitat Centre, New Delhi

GHG Emissions Estimates from AFOLU



3A Livestock

- 3A1 Enteric Fermentation
- Manure Management

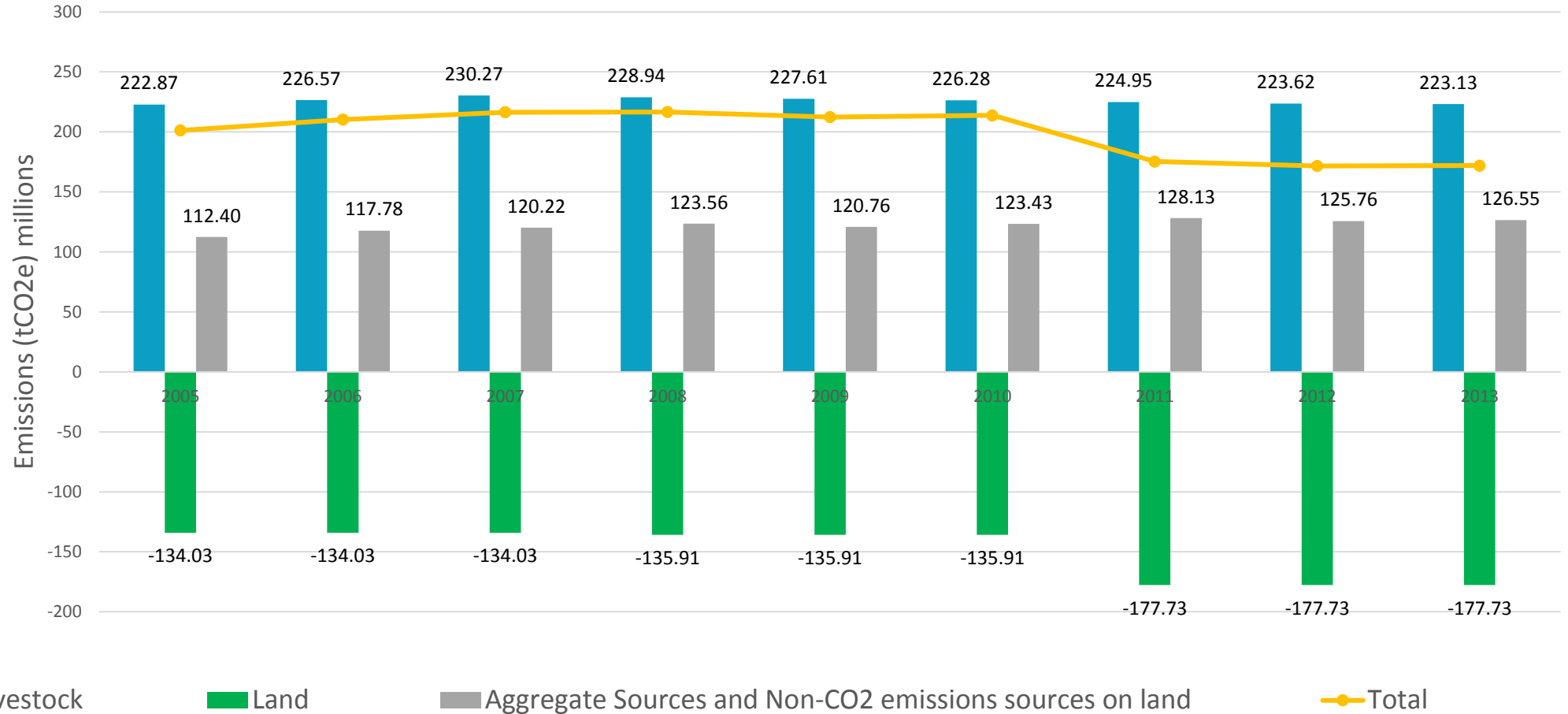
3B Land

- 3B1 Forest Land
- 3B2 Cropland
- 3B3 Grassland
- 3B4 Wetlands
- 3B5 Settlements
- 3B6 Other land

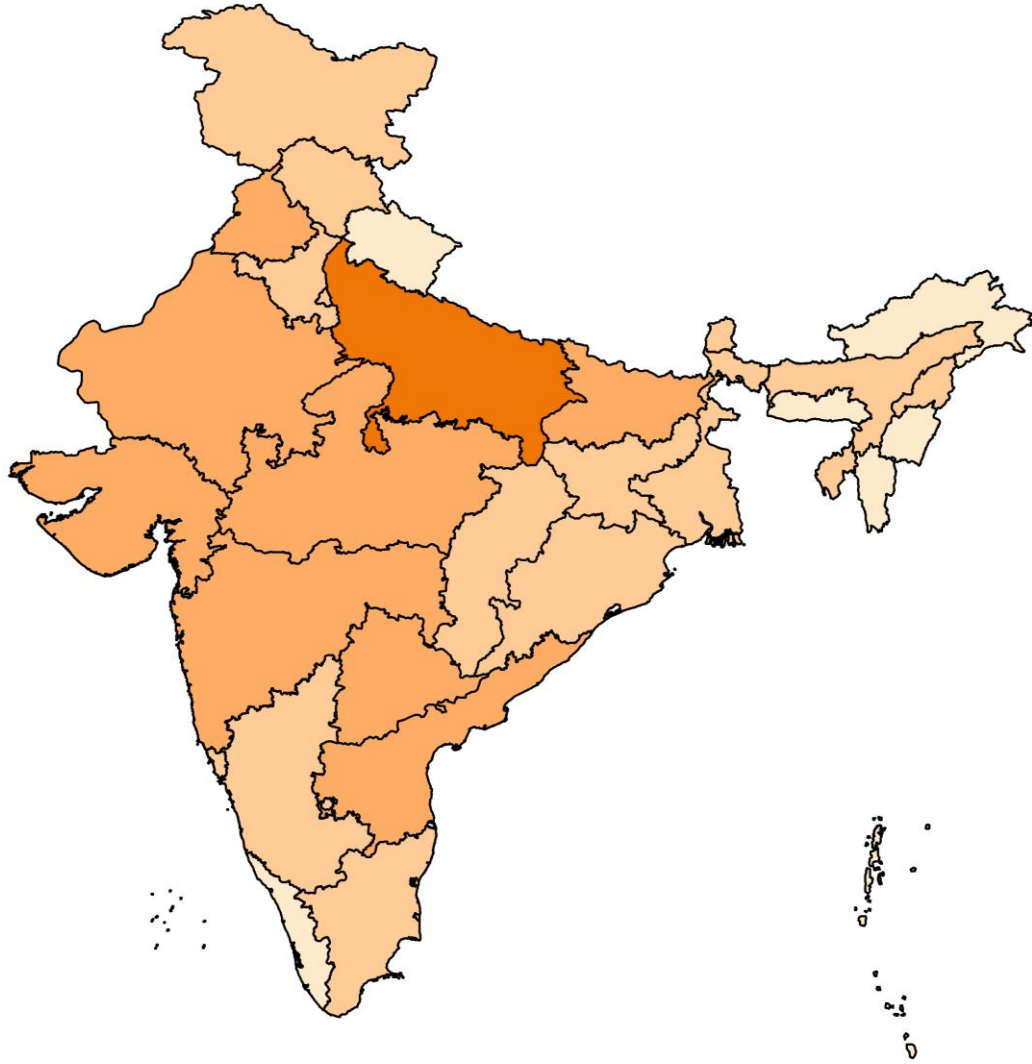
Aggregate Sources and Non-CO2 emissions sources on Land

- 3C1 Biomass burning
- 3C4 Direct N2O emissions from managed soils
- 3C5 Indirect N2O emissions from managed soils
- 3C7 Rice cultivation

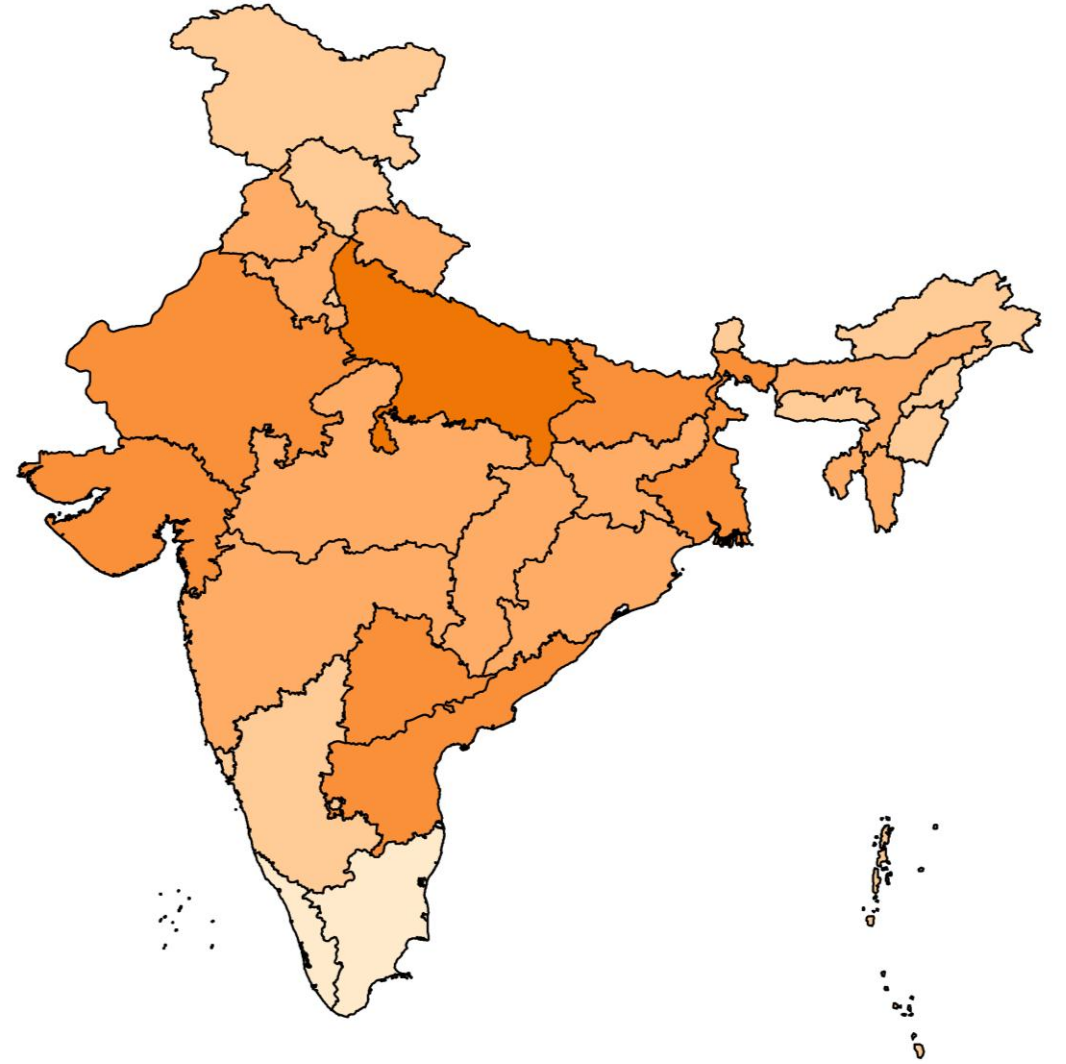
Trends of Emissions CO₂e from AFOLU sector (2005-13)



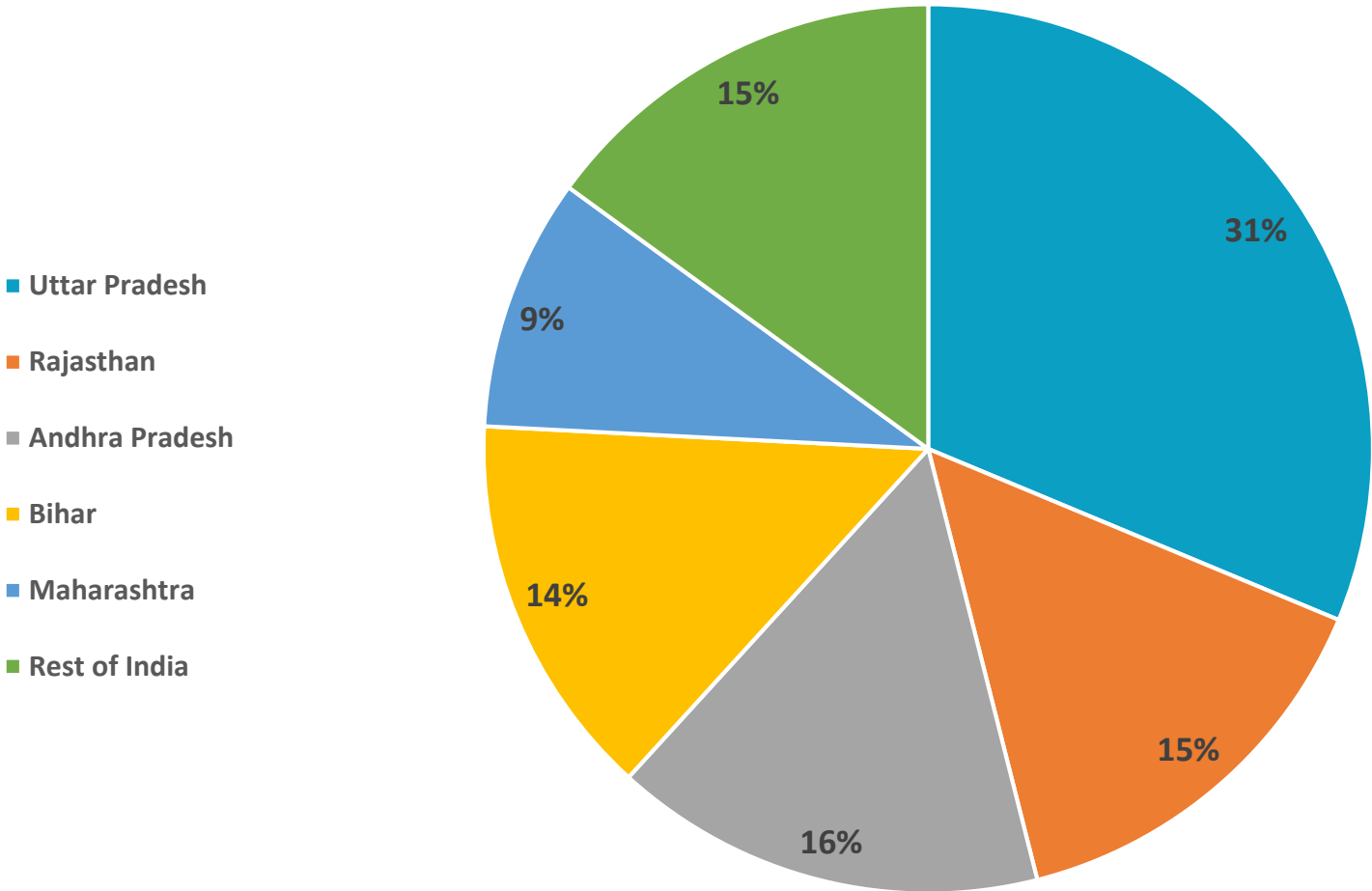
2005



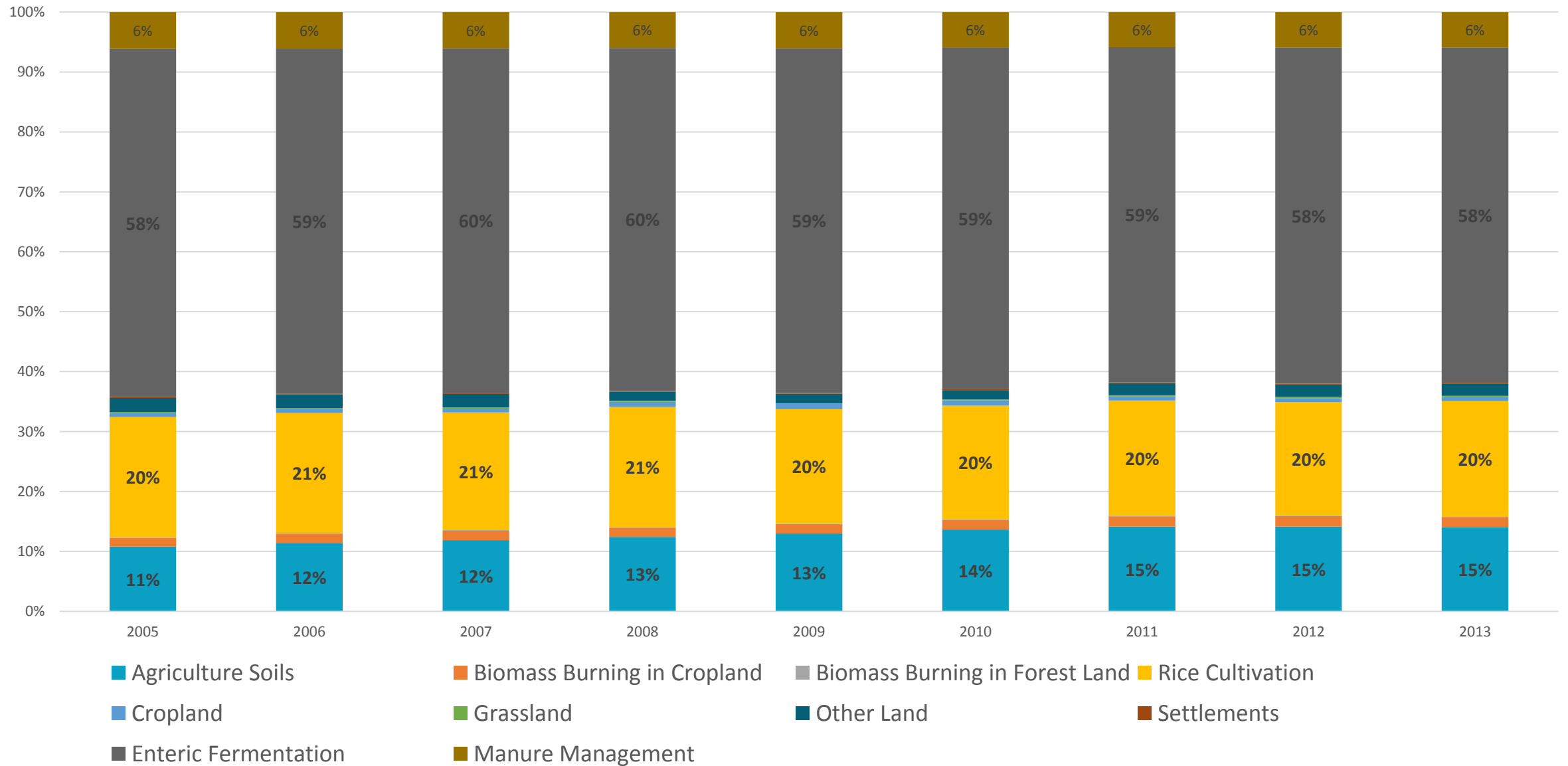
2013



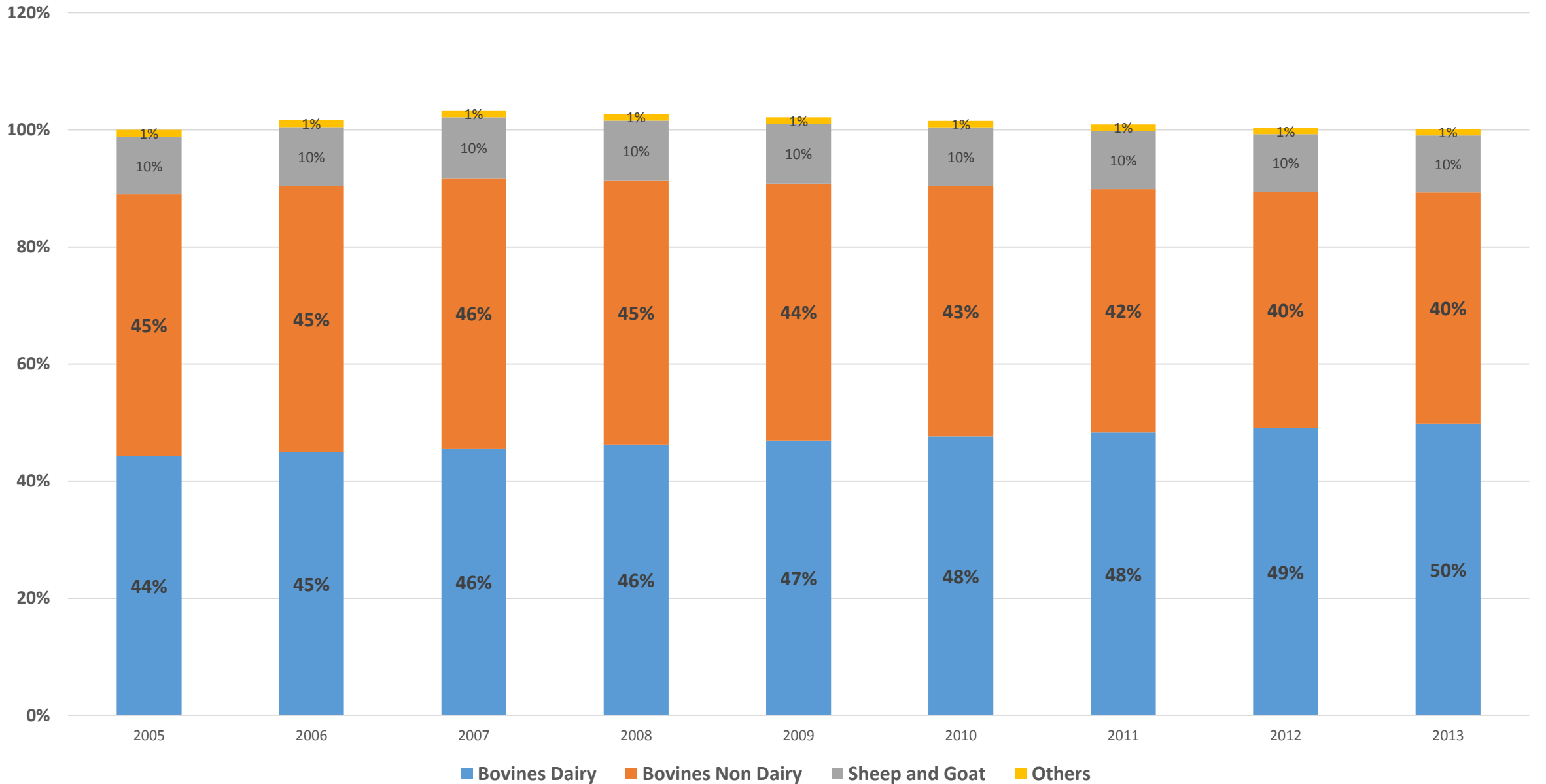
Share of emissions in AFOLU sector from top five states in India (in 2013)



Category wise share of emissions from AFOLU sector excluding Forest Land (2005 to 2013)



Category wise share of emissions from Livestock Sector (2005-13)



Mitigation Opportunities from Livestock Sector

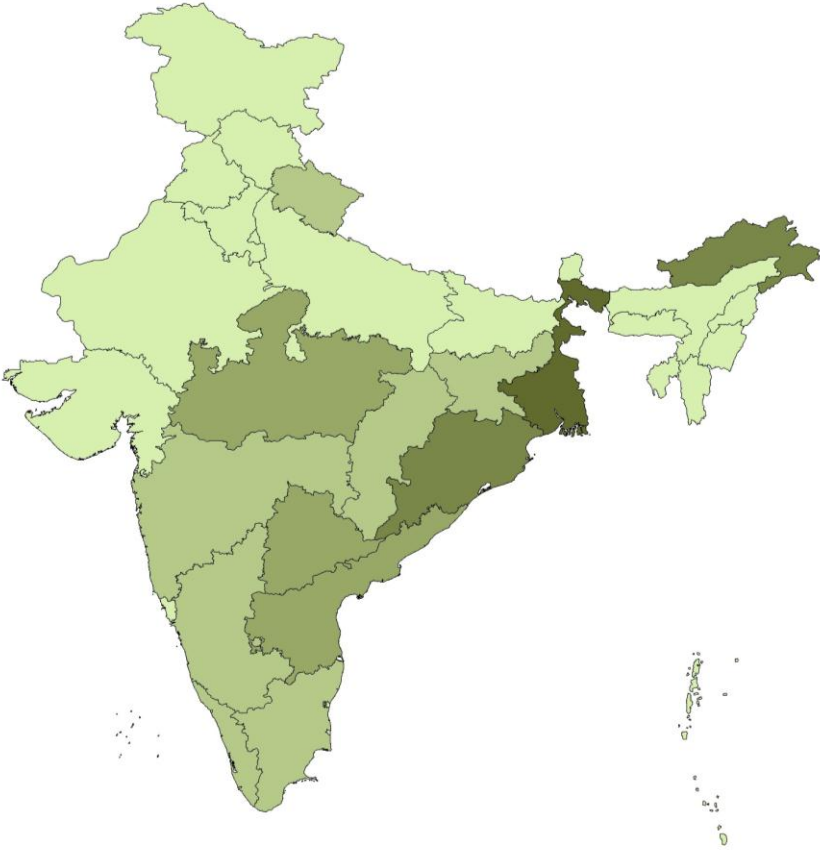
- The three major strategies for pursuing mitigation from bovines are:
 - **Dietary manipulation**, through supplementing of green fodder intake and/or concentrated feeding.
 - **Feed additives**, primarily Monensin
 - **Strategic feed supplementation**, through adding Urea Molasses Mineral Block to cattle feeds.
- At the lower end of the range of their mitigation potential, these strategies could reduce emissions from bovines by 25% or overall by 20% from enteric fermentation as a whole

Mitigation Opportunities in Rice Cultivation

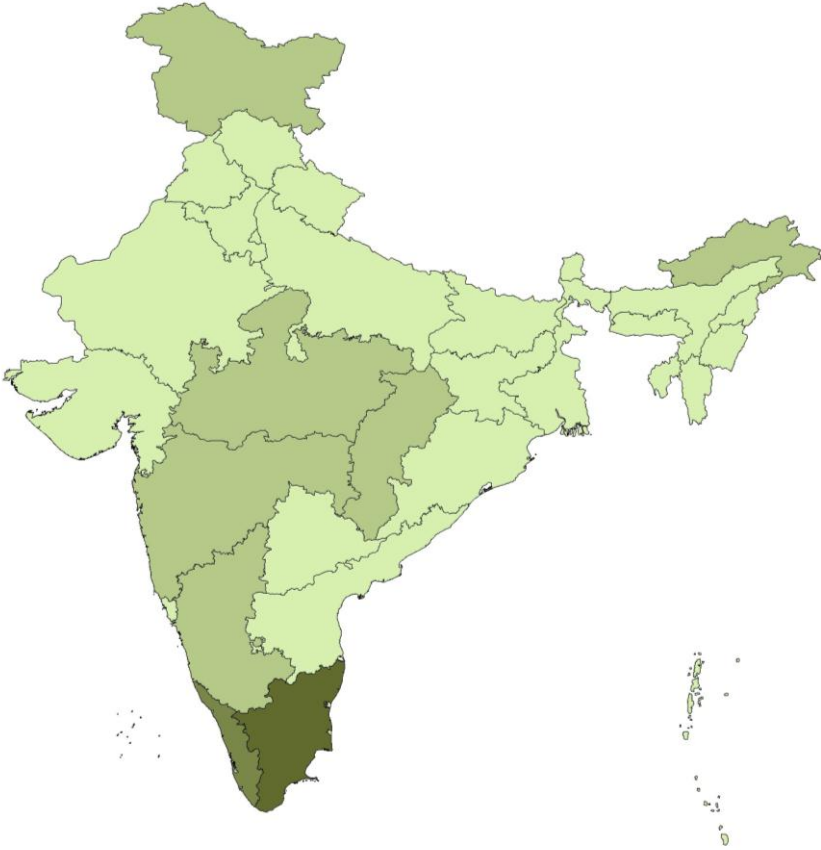
	Area Under Rice Cultivation (million hectares)	Emission factors for various rice ecosystems (kg per hectare, methane)	Total Emissions Estimates from rice cultivation (million tonnes CO2 equivalent)
Continuous Flooding (irrigated)	6.86	162	22.05
Single Aeration (irrigated)	9.11	66	11.77
Multiple Aeration (irrigated)	9.54	18	4.00
Rain fed/ flood prone (unirrigated)	3.17	190	14.42
Rain fed/ drought prone (unirrigated)	8.54	66	12.23
Deepwater	1.31	190	4.98
Upland (unirrigated)	5.26	0	0
Total	43.79		69.43

Negative Emissions From Forest Land

2005



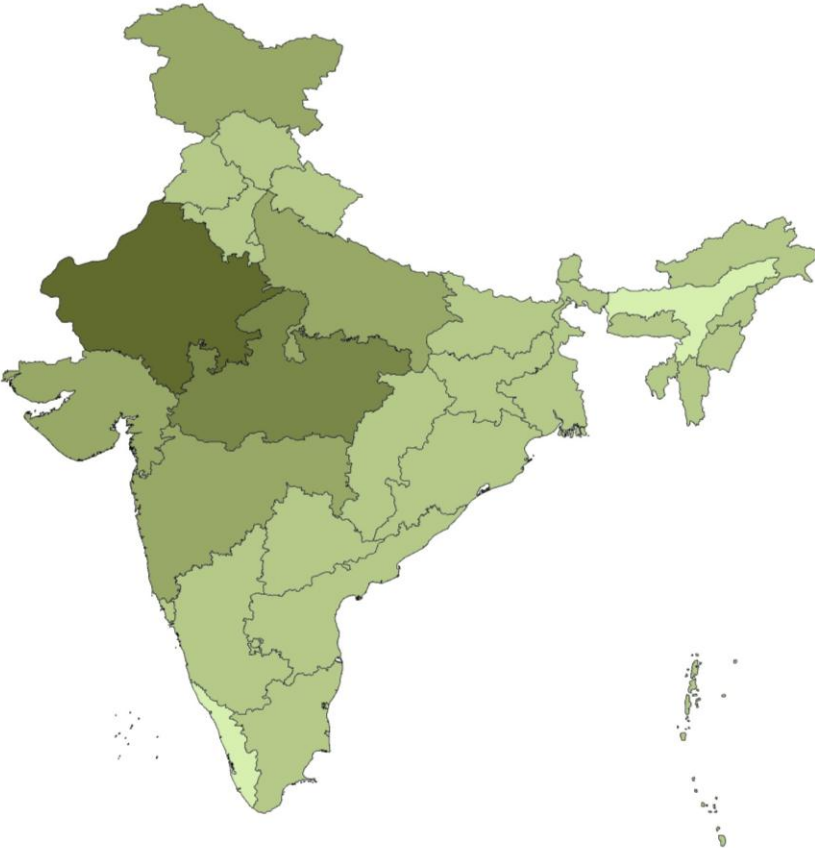
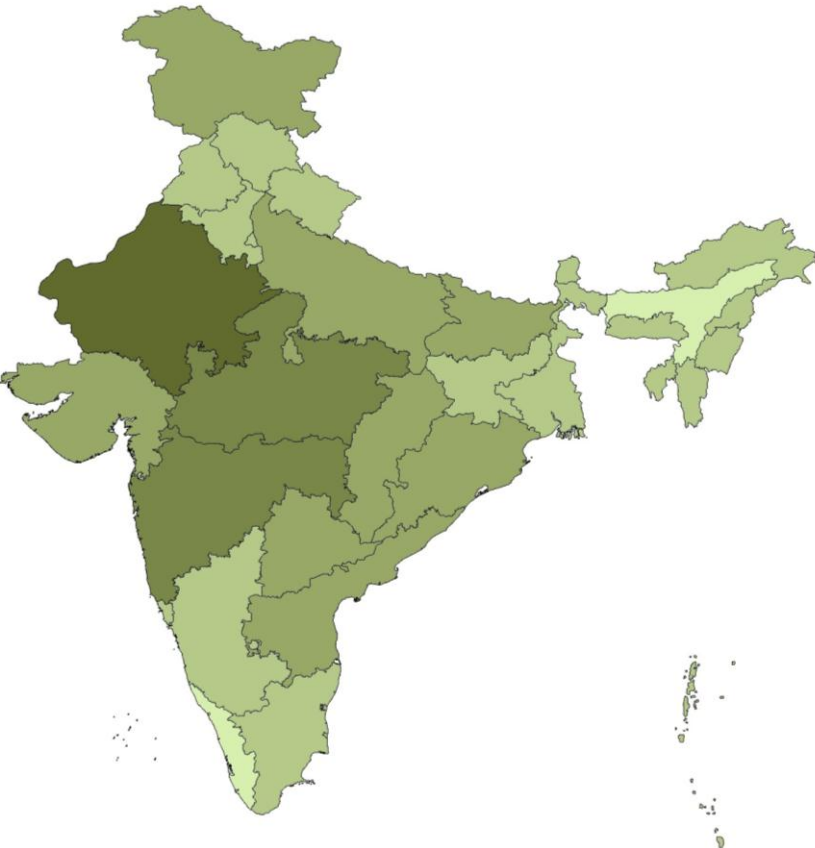
2013



Emissions from Land Excluding Forests

2005

2013





Thank You!!



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