Dataset Information:

Title	Enteric fermentation
Abstract	Greenhouse gas (GHG) emissions from enteric fermentation consist of methane gas produced in digestive systems of ruminants and to a lesser extent of non-ruminants. Computed at Tier 1 following the 2006 IPCC Guidelines for National GHG Inventories (IPCC, 2006); available by country, with global coverage and relative to the period 1990-2010, with annual updates.
Supplemental	This domain contains data on GHG emissions, associated emission factors and underlying activity data. The FAOSTAT Emissions data are estimates by FAO and do not coincide with GHG data reported by member countries to UNFCCC. The database is intended primarily as a service to help member countries assess and report their emissions, as well as a useful international benchmark. The FAOSTAT Emissions data are disseminated publicly to facilitate continuous feedback from member countries.
Creation Date	2012
Last Update	2012
Data Type	Climate Change - Greenhouse Gases
Category	Environment
Time Period	1990 - 2010
Periodicity	Annual
Geographical Coverage	World
Spatial Unit	Country
Language	Multilingual (EN, FR, ES)

Methodology and Quality Information:

Methods and processing	GHG emissions from enteric fermentation consist of methane gas (CH_4) produced in digestive systems of ruminants and to a lesser extent of non-ruminants. The FAOSTAT data are computed at Tier 1, following IPCC 2006 Vol. 4, Ch. 10. The emissions are estimated at country level, using the formula: *Emission = A * EF* where: *Emission* = GHG emissions, in kg CH_4 yr^{-1}; *A* = Activity data, representing number of livestock in heads (1); *EF* = Tier 1, default IPCC emission factors, expressed in units of kg CH_4 $head^{-1}$ yr^{-1} (2). (1) data for Buffaloes, sheep, goats, camels, llamas, horses, mules, asses, pigs and dairy cattle* are taken directly from FAOSTAT (domain: Production), non-dairy cattle is derived from FAOSTAT categories, specifically as: cattle minus dairy cattle. *FAOSTAT livestock data include cattle and dairy cattle. Dairy cattle data are expressed as heads of cows producing milk, and can be found under the domain: Production/Livestock primary/producing animals cow milk, whole fresh. (2) The EF values are those specified by livestock category and regional grouping in IPCC, 2006, Vol. 4, Ch.10, Tabs. 10.10 and 10.11. Dimensionless conversion factors used are: 10^{-6}, to convert the emissions from kg CH_4 to Gg CH_4; and GWP-CH_4 = 21 (100-year time horizon global warming potential), to convert Gg CH_4 to Gg CO_2eq (IPCC, 1996: Technical Summary, Tab. 4, pg. 22). The enteric fermentation domain contains the following data available for download: country-level GHG emissions in both Gg CH_4 and Gg CO_2eq, by livestock species and by

	species aggregates, as well as their total; implied emission factors; and activity data. Data are available for 220 individual countries and territories, as well as for standard FAOSTAT regional aggregations, plus Annex I and non-Annex I groups. The data period is 1990-2010, with annual updates. Uncertainties in estimates of GHG emissions are due to uncertainties in emission factors and activity data. They may be related to, inter alia, natural variability, partitioning fractions, lack of spatial or temporal coverage, spatial aggregation. In the case of enteric fermentation, more detailed information are available in the guidelines (IPCC, 2006: Vol. 4, Ch. 10, Section 10.3.4). *References* IPCC. 1996. Climate Change 1995 - The Science of Climate Change: Contribution of Working Group I to the Second Assessment Report of the Intergovernmental Panel on Climate Change. Cambridge University Press. IPCC. 2006. 2006 IPCC Guidelines for National Greenhouse Gas Inventories, Prepared by the National Greenhouse Gas Inventories Programme, Eggleston H.S., Buendia L., Miwa K., Ngara T. and Tanabe K. (Eds), IGES, Hayama, Japan.
Data Collection Method	Computed
Completeness	100%
Links	www.fao.org/climatechange/micca/ghg/ www.ipcc-nggip.iges.or.jp/public/

Distribution Information:

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Acknowledgement	The FAOSTAT Emissions database was produced by the Monitoring and Assessment of Greenhouse Gas Emissions and Mitigation Potential in Agriculture project of the MICCA Programme, with generous funding from the Governments of Norway and Germany, trust funds GCP/GLO/286/GER and GCP/GLO/325/NOR.