Dataset Information:

Title	**Forest land**
Abstract	Greenhouse gas (GHG) emissions data from forest land are currently limited to emissions from changes in total living biomass associated to net forest conversion to non-forest land. They consist of the net contribution of CO_2 sources and sinks due to deforestation, reforestation and afforestation activities within countries. Data are computed following the 2006 IPCC Guidelines for National Greenhouse Gas Inventories (IPCC, 2006); available by country, with global coverage and relative to the period 1990-2009, 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 data from forest land are currently limited to emissions from changes in total living biomass associated to net forest conversion to non-forest land. They consist of the net contribution of CO_2 sources and sinks due to deforestation, reforestation and afforestation activities within countries. UNFCCC parties report these data in a more disaggregated fashion, under various land use categories. They are computed following IPCC, 2006, Vol. 4, Chapters 1, 2, 3, and 4; available by country, with global coverage and relative to the period 1990-2009, with annual updates. The emissions are estimated at country level, using the formula: *Emission = A * EF* where: *Emission* = GHG emissions in Mg C yr^{-1}; *A* = Activity data, representing annual net forest conversion, in ha yr^{-1} (1); *EF* = carbon in living biomass expressed in Mg C ha^{-1} (2). (1) The net forest conversion is calculated as the difference of forest area for two consecutive years, consistently with IPCC approach 1. The term “net” indicates that no further specification on the underlying dynamics of the computed land area change is possible. Annual area extent of forest land is taken from FAOSTAT (domain: Resources/Land). They are produced via linear interpolation of five-years interval data provided to FAOSTAT by the FAO Global Forest Resource Assessment (FAO, 2010), under the assumption of constant rates of net area change within each five-year interval. In the FAOSTAT Emissions database, the yearly net forest conversion data is computed with respect to the previous year, e.g., net forest conversion data for 1991 is computed as

	the area difference between years 1991 and 1990; and so on. Net forest conversion for 1990, the first year of the database, was set to the 1991 value. (2) The EF values are country-specified estimates of average carbon content in living biomass (above and below ground) in the year 2010, as reported by the 2010 FRA (FAO, 2010). For countries where FRA reported no EF value, the representative FRA regional EF value is used. Following IPCC Tier 1 methodology and the gain-loss computational approach, all carbon in living biomass on land converted from forest to other land is assumed to be lost via oxidation in the year of the reported change (IPCC 2006: Vol. 4, Ch.4). Dimensionless conversion factors used are: 10^{-3}, to convert the emissions from Mg C to Gg C; and Molecular weight ratio = 44/12, to convert Gg C to Gg CO_2, and consequently Gg CO_2eq. The forest land domain contains the following data categories available for download: country-level GHG emissions; implied emission factors; and activity data. Data is available for 227 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 forest land, more detailed information are available in the guidelines (IPCC, 2006: Vol. 4, Ch. 4, Section 4.2.1.5). *References* FAO. 2010. Global Forest Resources Assessment 2010, FAO Forestry Paper 163, Rome. Available at http://countrystat.org/home.aspx?c=FOR 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/

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	links to non-FAO sites is to indicate further information available on related topics.
Citation	FAOSTAT, 2012. FAOSTAT Emissions Database. www.faostat.fao.org
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