

World - Climate Change: Agrifood systems emissions / Emissions from Crops

Report generated on: August 9, 2024

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Identification

SURVEY ID NUMBER

FAOSTAT_ccase_en_8-9-2024

TITLE

Climate Change: Agrifood systems emissions / Emissions from Crops

ABBREVIATION OR ACRONYM

CCASEEC-2022

COUNTRY

Name	Country code
World	W

Coverage

GEOGRAPHIC UNIT

Reference area: World. Data are available for 192 countries and territories (FAO TIER I) | Code - reference area: FAOSTAT, M49, ISO2 and ISO3 (<https://www.fao.org/faostat/en/#definitions>).

Data collection

DATES OF DATA COLLECTION

Start	End	Cycle
1990	2021	Yearly

Access policy

CONFIDENTIALITY

FAO Statistical Quality Assurance Framework, 2014, Principle 10: "All data subject to national confidentiality policies (e.g. concerning people and legal entities, or small aggregates) are kept strictly confidential, and are used exclusively for statistical purposes, or for purposes mandated by legislation." All data subject to national confidentiality policies (e.g. concerning people and legal entities, or small aggregates) are kept strictly confidential, and re-used exclusively for statistical purposes, or for purposes mandated by legislation. (See the FAO Statistics Quality Assurance Framework <https://www.fao.org/docrep/019/i3664e/i3664e.pdf>).

ACCESS AUTHORITY

Name	Affiliation	Email	URL
Statistics Division (ESS), Environment Statistics team	Food and Agriculture Organization of the United Nations (FAO)	faostat@fao.org	Link

Data Dictionary

Data file	Cases	Variables
FAOSTAT_data_8-9-2024 (3)	60	4

Data file: FAOSTAT_data_8-9-2024 (3)

Cases:	60
Variables:	4

Variables

ID	Name	Label	Question
V1	V1	V1	
V2	V2	V2	
V3	V3	V3	
V4	V4	V4	

Total: 4

V1: V1

Data file: FAOSTAT_data_8-9-2024 (3)

Overview

Valid: 60 Invalid: 0
Type: Discrete Width: 18 Range: - Format: character

Questions and instructions

CATEGORIES

Value	Category	Cases	
1.0		1	1.7%
10.1		1	1.7%
10.2		1	1.7%
10.3		1	1.7%
11.0		1	1.7%
12.1		1	1.7%
12.2		1	1.7%
12.3		1	1.7%
12.4		1	1.7%
12.5		1	1.7%
12.6		1	1.7%
13.1		1	1.7%
13.2		1	1.7%
13.3		1	1.7%
14.1		1	1.7%
14.2		1	1.7%
14.3		1	1.7%
14.4		1	1.7%
14.5		1	1.7%
15.1		1	1.7%
15.2		1	1.7%
16.1		1	1.7%
16.2		1	1.7%
16.3		1	1.7%
16.4		1	1.7%
17.1		1	1.7%
17.2		1	1.7%
17.3		1	1.7%
17.4		1	1.7%
17.5		1	1.7%

17.6		1	1.7%
17.7		1	1.7%
17.8		1	1.7%
18.1		1	1.7%
18.2		1	1.7%
19.0		1	1.7%
2.0		1	1.7%
2.1		1	1.7%
20.0		1	1.7%
3.1		1	1.7%
3.2		1	1.7%
3.3		1	1.7%
3.4		1	1.7%
4.1		1	1.7%
4.2		1	1.7%
5.1		1	1.7%
5.2		1	1.7%
5.3		1	1.7%
5.4		1	1.7%
5.5		1	1.7%
5.6		1	1.7%
6.0		1	1.7%
7.0		1	1.7%
8.0		1	1.7%
8.1		1	1.7%
8.2		1	1.7%
9.1		1	1.7%
9.2		1	1.7%
9.3		1	1.7%
ĩ»¿Subsection Code		1	1.7%

V2: V2**Data file: FAOSTAT_data_8-9-2024 (3)****Overview**

Valid: 60 Invalid: 0

Type: Discrete Width: 32 Range: - Format: character

Questions and instructions

CATEGORIES

Value	Category	Cases	
Accessibility and clarity		6	10%
Accuracy and reliability		5	8.3%
Coherence and Comparability		4	6.7%
Comment		1	1.7%
Confidentiality		3	5%
Contacts		4	6.7%
Data source		2	3.3%
Frequency of dissemination		1	1.7%
Institutional mandate		3	5%
Metadata update		2	3.3%
Quality management		2	3.3%
Recommended uses and limitations		1	1.7%
Reference period		1	1.7%
Release Policy		3	5%
Relevance		3	5%
Section		1	1.7%
Statistical presentation		6	10%
Statistical process		8	13.3%
Timeliness and punctuality		2	3.3%
Title		1	1.7%
Unit of measure		1	1.7%

V3: V3

Data file: FAOSTAT_data_8-9-2024 (3)

Overview

Valid: 60 Invalid: 0

Type: Discrete Width: 44 Range: - Format: character

Questions and instructions

CATEGORIES

Value	Category	Cases	
Adjustment		1	1.7%
Base period		1	1.7%

Classification system		1	1.7%
Coherence		1	1.7%
Comment		1	1.7%
Comparability - over time		1	1.7%
Comparability – geographical		1	1.7%
Compiling Organization		1	1.7%
Completeness		1	1.7%
Confidentiality - data treatment		1	1.7%
Confidentiality - policy		1	1.7%
Contact email address		1	1.7%
Contact mail address		1	1.7%
Contact organization		1	1.7%
Contact organization unit		1	1.7%
Data acquisition and data transmission		1	1.7%
Data collection method		1	1.7%
Data compilation		1	1.7%
Data description		1	1.7%
Data revision - policy		1	1.7%
Data revision - practice		1	1.7%
Data source		1	1.7%
Data validation		1	1.7%
Documentation on methodology		1	1.7%
Frequency of data collection and acquisition		1	1.7%
Frequency of dissemination		1	1.7%
Imputation		1	1.7%
Imputation indicators		1	1.7%
Institutional mandate		1	1.7%
Legal acts and other agreements		1	1.7%
Metadata last posted		1	1.7%
Metadata last update		1	1.7%
Micro-data access		1	1.7%
Model assumption error		1	1.7%
News release		1	1.7%
Online database		1	1.7%
Other formats		1	1.7%
Overall accuracy		1	1.7%
Privacy		1	1.7%
Publications		1	1.7%
Punctuality		1	1.7%

Quality assessment		1	1.7%
Quality assurance		1	1.7%
Recommended uses and limitations		1	1.7%
Reference area		1	1.7%
Reference period		1	1.7%
Regional aggregation		1	1.7%
Release calendar		1	1.7%
Release calendar access		1	1.7%
Sector coverage		1	1.7%
Source data		1	1.7%
Statistical concepts and definitions		1	1.7%
Subsection		1	1.7%
Time coverage		1	1.7%
Timeliness		1	1.7%
Title		1	1.7%
Unit of measure		1	1.7%
User access		1	1.7%
User needs		1	1.7%
User satisfaction		1	1.7%

V4: V4

Data file: FAOSTAT_data_8-9-2024 (3)

Overview

Valid: 60

Type: Discrete Width: 255 Range: - Format: character

Questions and instructions

CATEGORIES

Value	Category	Cases	
"		10	16.7%
04/11/2022		2	3.3%
A methodological note is available under Related documents section of this FAOSTAT domain.		1	1.7%
Accuracy in estimates of GHG emissions depend on the accuracy of activity data and emission factors as well as on the choice of methodology. FAOSTAT emission estimates are based on standard IPCC methodology and emission factors at Tier 1 (reckoned the simplest of methods). Inaccuracy may be due to, inter alia, genericity of algorithms, natural variability, partitioning fractions, lack of spatial or temporal coverage, spatial aggregation. See 11.2 and 20.5 In the case of crop residues, more detailed information is available in the guidelines (IPCC, 2006: Vol.4, Ch. 11, Section 11.2.1.4 for direct emissions, and Section 11.2.2.4 for indirect emissions). (http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_11_Ch11_N2O&CO2.pdf)		1	1.7%
Ad-hoc news releases.		1	1.7%
Agriculture, Forestry and Other Land Use, Greenhouse Gas Emissions		1	1.7%

All data subject to national confidentiality policies (e.g. concerning people and legal entities, or small aggregates) are kept strictly confidential, and re-used exclusively for statistical purposes, or for purposes mandated by legislation. (See the FAO Statistics Quality Assurance Framework https://www.fao.org/docrep/019/i3664e/i3664e.pdf).	1	1.7%
Annual emissions from crop processes. For additional information on statistical concepts and methodology see the Methodological Note in the section Related documents of this domain.	1	1.7%
Article I of FAO constitution states "The Organization shall collect, analyse, interpret and disseminate information relating to nutrition, food and agriculture (the term "agriculture" and its derivatives includes forestry, fisheries and aquaculture). The first session of the FAO Conference in 1945 provided the rationale: "If FAO is to carry out its work successfully it will need to know where and why hunger and malnutrition exist, what forms they take, and how widespread they are. Such data will serve as a basis for making plans, determining the efficacy of measures used, and measuring progress from time to time."	1	1.7%
Calendar Year.	1	1.7%
Climate Change: Agrifood systems emissions / Emissions from Crops - Metadata	1	1.7%
Coherence - cross domain: Cross domain coherence is regularly checked through QA/QC internal processes. Coherence - internal: Internal data coherence is checked routinely through QA/QC processes.	1	1.7%
Completeness of emission estimates reflects completeness of the source data. All countries are covered with various degrees of completeness depending on the country and the year. Aggregated emission estimates necessarily reflect this.	1	1.7%
Data are released once a year or when they are available.	1	1.7%
Data are updated yearly	1	1.7%
Data sharing in FAOSTAT is regulated by the FAO Statistics Quality Assurance Framework (https://www.fao.org/docrep/019/i3664e/i3664e.pdf) in application of the "Principles governing international statistical activities on Fundamental Principles of Official Statistics" (http://unstats.un.org/unsd/methods/statorg/Principles_stat_activities/principles_stat_activities.pdf).	1	1.7%
FAO Statistical Quality Assurance Framework, 2014, Principle 10: "All data subject to national confidentiality policies (e.g. concerning people and legal entities, or small aggregates) are kept strictly confidential, and are used exclusively for statistical purposes, or for purposes mandated by legislation."	1	1.7%
FAOSTAT Emissions data are computed based on Activity Data from official statistics in the FAOSTAT Production/Crops and Livestock products/Rice, paddy (https://www.fao.org/faostat/en/#data/QC) domain (collected from country statistics offices through questionnaires) and on conversion factors in IPCC, 1997 Vol. 3, Ch. 4 (http://www.ipcc-nggip.iges.or.jp/public/gl/invs1.html) and IPCC, 2000, Ch. 4. (http://www.ipcc-nggip.iges.or.jp/public/gp/english/).	1	1.7%
FAOSTAT Emissions database, publicly available from: https://www.fao.org/faostat/en/#data/GCE	1	1.7%
Fairly good comparability in the short to medium terms.	1	1.7%
Fairly good comparability of emission estimates at global level, reflecting comparability of source data.	1	1.7%
Feedback from users are routinely recorded. The FAOSTAT User Consultation took place during April-December 2018. https://www.fao.org/3/ca7239en/ca7239en.pdf	1	1.7%
Food and Agriculture Organization of the United Nations (FAO)	1	1.7%
For emission estimates: classification follows the IPCC 2006 Guidelines (http://www.ipcc-nggip.iges.or.jp/public/2006gl/pdf/4_Volume4/V4_05_Ch5_Cropland.pdf). For source data (activity data): classification follows the FAOSTAT Commodity List System (https://www.fao.org/economic/ess/ess-standards/commodity/en/).	1	1.7%
For emission estimates: A peer-review process was launched (details of results in https://www.fao.org/climatechange/35293-0586769eafd852c772743b5e92ca84868.pdf). Further to this, results were presented in a series of peer-reviewed publications (links at: https://www.fao.org/climatechange/micca/ghg/en including the IPCC Fifth Assessment Report (http://report.mitigation2014.org/drafts/final-draft-postplenary/ipcc_wg3_ar5_final-draft_postplenary_chapter11.pdf). For source data (see 20.1): No unitary quality assessment is available. Depending on the year, quality may be mentioned in the FRA report (https://www.fao.org/forestry/fra/en/).	1	1.7%
For source data (activity data): the FAO Statistics Quality Assurance Framework is applied (https://www.fao.org/docrep/019/i3664e/i3664e.pdf)	1	1.7%
For the emission estimates: Data are released approximately six months after new activity data become available. Source data are collected from national governments in the form of replies to annual FAO questionnaires.	1	1.7%
Frequency of dissemination: Yearly	1	1.7%
In case revised activity data or IPCC methodologies become available, revision of FAOSTAT emissions is reflected in the database.	1	1.7%
Metadata	1	1.7%
Methods for compiling the different emissions data are available under the Related documents section of this FAOSTAT domain	1	1.7%
N content [kg] Area harvested [ha] Biomass burned [t] Agricultural use [kg of nutrients] Emissions N ₂ O and CH ₄ [kt]	1	1.7%
No adjustment is made	1	1.7%

No micro data	1	1.7%
Not Applicable	1	1.7%
QA/QC procedures are in place to check for and correct transmission errors, data consistency and completeness.	1	1.7%
Reference area: World. Data are available for 192 countries and territories (FAO TIER I) Code - reference area: FAOSTAT, M49, ISO2 and ISO3 (https://www.fao.org/faostat/en/#definitions).	1	1.7%
Statistics Division (ESS), Environment Statistics team	1	1.7%
The FAOSTAT Emissions database is developed by the FAO Statistics Division. Initial support was kindly provided by Norway and Germany under Trust Funds GCP/GLO/286/GER and GCP/GLO/325/NOR. Support by UNFCCC in information sharing and facilitation of data access is also graciously acknowledged.	1	1.7%
The FAOSTAT domain Emissions from Crops provides estimates of emissions associated with crop processes, namely Crop residues, Burning of crop residues, and Rice cultivation and the application of nitrogen (N) fertilizers, including mineral and chemical fertilizers, to soils. Estimates are computed at Tier 1 following the 2006 IPCC Guidelines for National greenhouse gas (GHG) Inventories (IPCC, 2006).	1	1.7%
The main users are FAO analysts, other international organizations, national governments, trade and professional associations, research institutes and universities, journalists and general public. The IPCC Guidelines (2019) indicate the FAOSTAT database as a useful tool for NGHGI QA/QC processes and validation of both activity data and emissions estimates.	1	1.7%
The revised data are disseminated at the same time of the updated series (generally every five years).	1	1.7%
The whole dataset is released according to the established released calendar or at the latest within one or two weeks after the due date.	1	1.7%
Time coverage: 1990-2021 Periodicity: Yearly	1	1.7%
Tubiello, F.N. 2019. Greenhouse Gas Emissions Due to Agriculture. In: Ferranti, P., Berry, E.M., Anderson, J.R. (Eds.), Encyclopedia of Food Security and Sustainability, vol. 1, pp. 196â€”205. Elsevier. ISBN: 9780128126875	1	1.7%
User access: User data access in FAOSTAT is regulated by the FAO Statistics Quality Assurance Framework (https://www.fao.org/docrep/019/i3664e/i3664e.pdf) in application of the " Principles governing international statistical activities on Fundamental Principles of Official Statistics" (http://unstats.un.org/unsd/methods/statorg/Principles_stat_activities/principles_stat_activities.pdf). Terms of use: https://www.fao.org/contact-us/terms/db-terms-of-use/en/ This work is made available under the Creative Commons Attribution-NonCommercial-ShareAlike 3.0 IGO license (CC BY-NC-SA 3.0 IGO; https://creativecommons.org/licenses/by-nc-sa/3.0/igo). In addition to this license, some database specific terms of use are listed: Terms of Use of Datasets.	1	1.7%
Viale delle Terme di Caracalla, 00153 Rome, Italy	1	1.7%
faostat@fao.org	1	1.7%
https://fenixservices.fao.org/faostat/static/releasecalendar/Default.aspx	1	1.7%
https://www.fao.org/faostat/en/#data/GCE/metadata	1	1.7%

