Food and Agriculture Organization
of the United Nations

Emissions Overview tool

User Instruction Guide

Version 1.0

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1. Introduction

The Emissions Overview tool is part of the AFOLU Emissions Analysis Tools aimed at supporting Member Countries in improving their national capacity to address UNFCCC reporting requirements and to design climate policy actions (i.e. GHG Inventories, Nationally Appropriate Mitigation Actions – NAMAs – and Nationally Determined Contributions – NDCs) for the agriculture, forestry and other land use (AFOLU) sector.

The Emissions Overview tool gives an overview of the emissions and trends in the AFOLU sector for one or more countries specified by the user. It also contextualizes the emissions within the respective region(s), continent(s), and the world. Such information can support countries in the preparation of NAMAs and NDCs. The fact that multiple choice of countries is permitted also allows to compare their respective AFOLU GHG estimates at once.

The tool is accessible from the *Tools* menu under the *Resources* tab on the Mitigation of Climate Change in Agriculture (MICCA) Programme web site at:

http://www.fao.org/in-action/micca/resources/tools/ghg/emissions-overview/en/

2. Technical Note

Presently, the Emissions Overview tool contains data for the Agriculture sector only.

Data were extracted from the FAOSTAT Emissions database (*Emissions – Agriculture* and *Emissions – Land Use*), which covers AFOLU activities and their associated CO_2, CH_4 and N_2O emissions/removals, calculated following 2006 IPCC Guidelines using a Tier 1 methodology. The FAOSTAT Emissions database provides a comprehensive global time series of emissions estimates for nearly 200 countries and annually updated, based mostly on activity data collected by FAO via questionnaires and the Global Forest Resources Assessments.

The Emissions Overview tool (and therefore the FAOSTAT Emissions database) reports emissions from the Agriculture sector subdivided by source categories as displayed on the left hand-side of the table below. These are based on the reporting categories of the UNFCCC (Decision 17/CP. 8 Table 1 in the Annex), displayed on the right-hand side.

Table – Correspondence of the agriculture categories

Emissions Overview tool	**UNFCCC Decision 17/CP. 8 Annex Table 1**
Agriculture Total	4. Agriculture
Enteric Fermentation	A. Enteric Fermentation
Manure Management	B. Manure Management
Rice Cultivation	C. Rice Cultivation
Agricultural Soils	D. Agricultural Soils
Burning - Savanna	E. Prescribed burning of savannas
Burning - Crop Residues	F. Field burning of agricultural residues

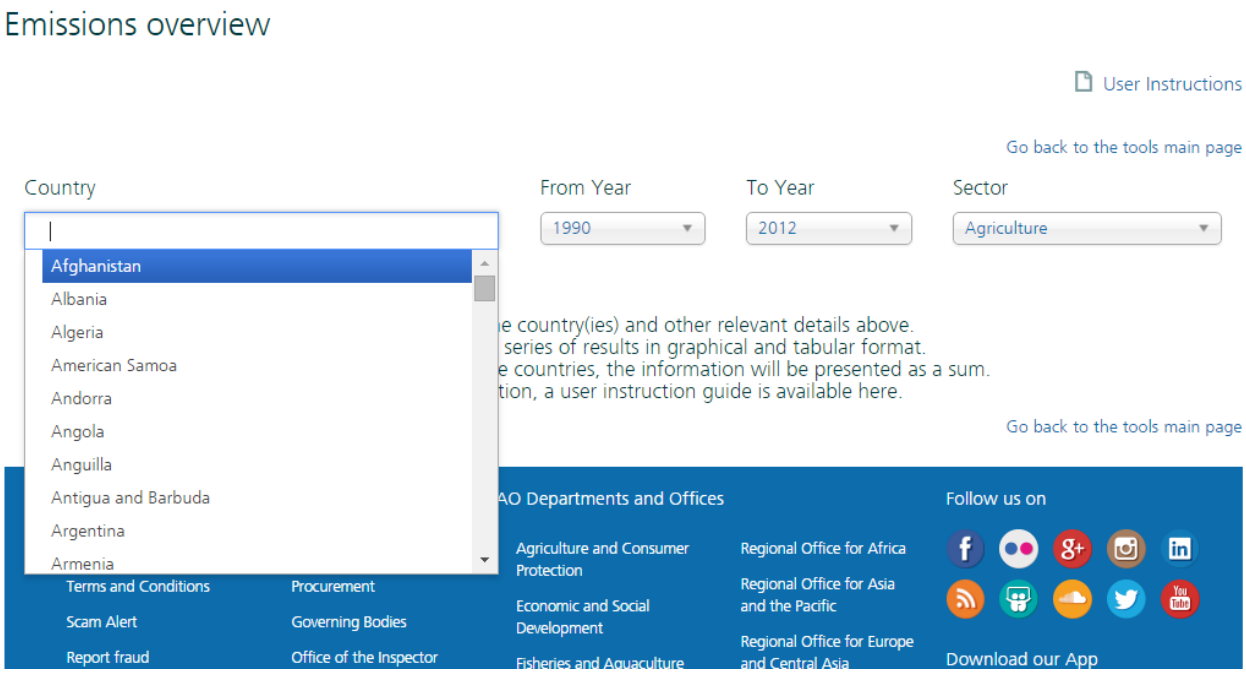
The Emissions Overview tool produces a series of results in graphical and tabular format by country, region, continent and global.

Countries are attributed to the corresponding regions and continents based on the UNSTATS geographical grouping system:

http://unstats.un.org/unsd/methods/m49/m49regin.htm

3. User instructions

The first step for using the tool is to click on the "**Country**" drop-down menu and select or type in the name of the country you are interested in.

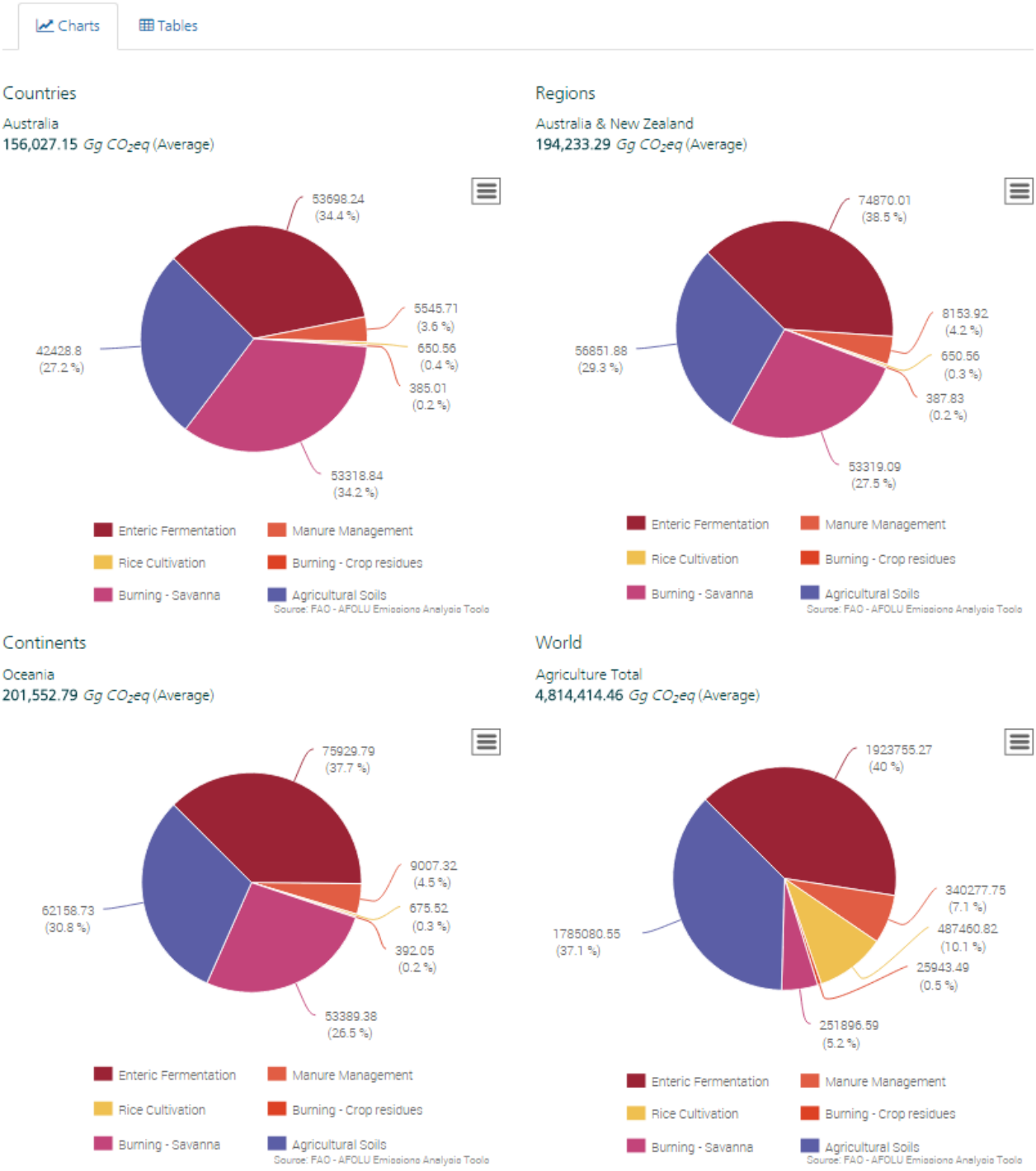


Multiple choice is possible in order to perform a graphical comparison analysis among countries. An example is given below. If necessary, any picked country can also be removed from the selection by clicking on the X next to it.

The second step is to indicate the period of analysis you are interested in. Using the **"From Year"** and the **"To Year"** drop-down menus, select the beginning and the end of the period, respectively. By default, the start date is set to 1990 and the end date to the last available year in the FAOSTAT Emissions database (as of March 2016, it is set to 2012).

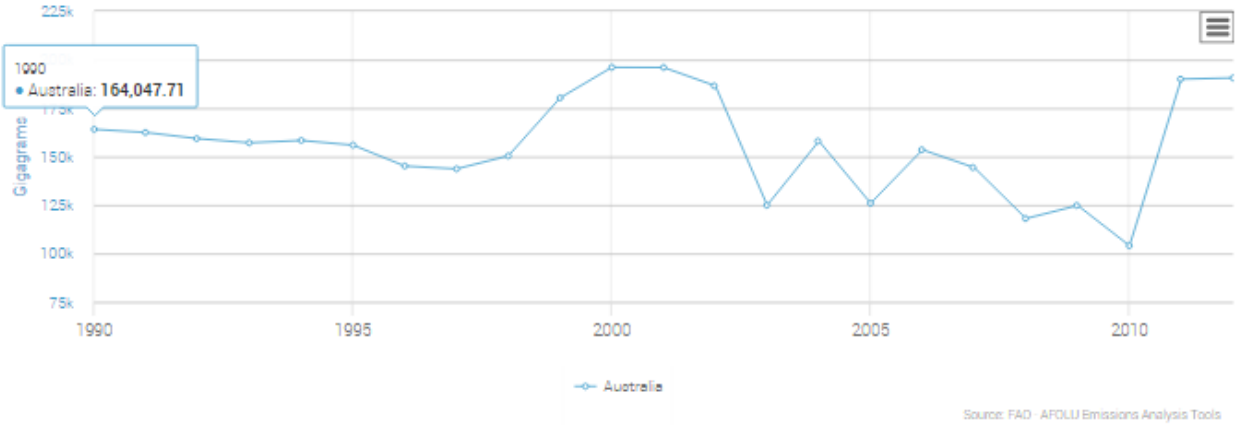
Finally, from the "**Sector**" drop-down menu, you can choose to analyze the data for *Agriculture* (default choice) or *Land Use*. The latter will be made available in the near future. The *Charts* tab is then automatically activated that displays four pie charts depicting the emission shares of each of the above agriculture categories by country, region, continent and global over the respective agriculture total. Region(s) and continent(s) displayed are those of the chosen country(ies).

Data are expressed as yearly averages of the selected period in Gg CO_2eq. When two or more countries are selected, data (by country, region, and continent) are expressed as yearly averages of the sums of the respective emissions.



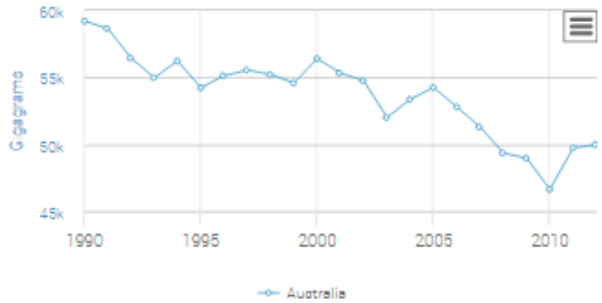
Further down the page, additional line charts are available (Agriculture Total along with one or more of the six agriculture categories described in the table above, depending on the country(ies) chosen) showing the trend of the emissions in the selected period. In case only one year is selected, the graphs' layout will change to bar charts.

Agriculture Total (Country / Region)



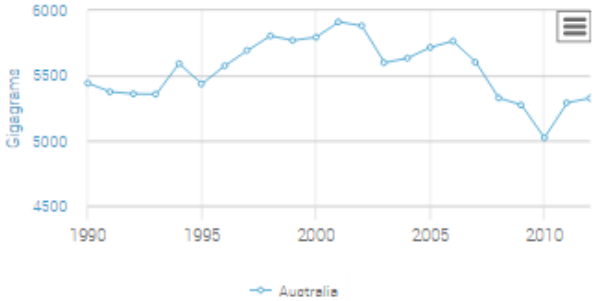
Source: FAO - AFOLU Emissions Analysis Tools

Enteric Fermentation



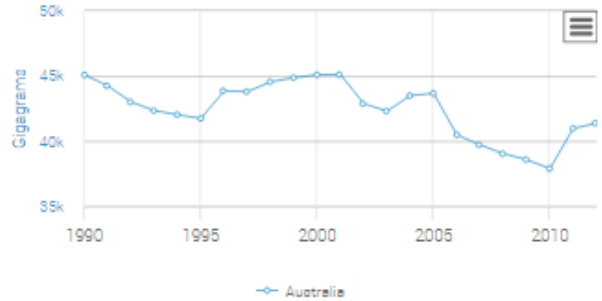
Source: FAO - AFOLU Emissions Analysis Tools

Manure Management



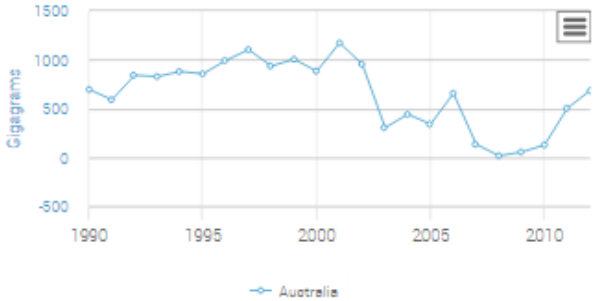
Source: FAO - AFOLU Emissions Analysis Tools

Agricultural Soils



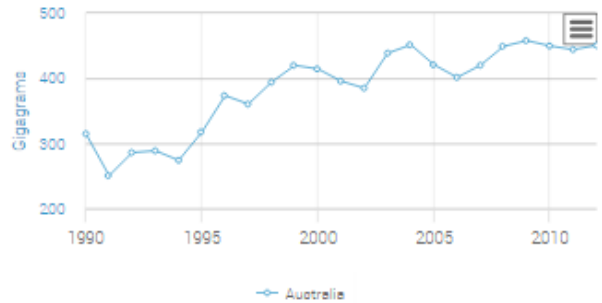
Source: FAO - AFOLU Emissions Analysis Tools

Rice Cultivation

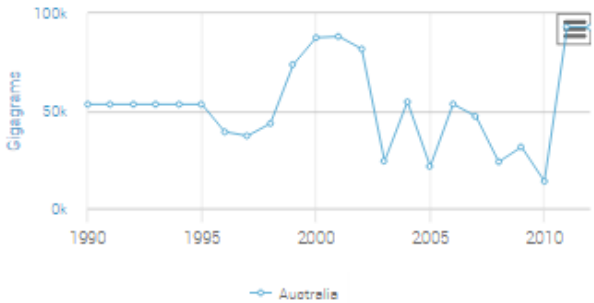


Source: FAO - AFOLU Emissions Analysis Tools

Burning Crops Residues

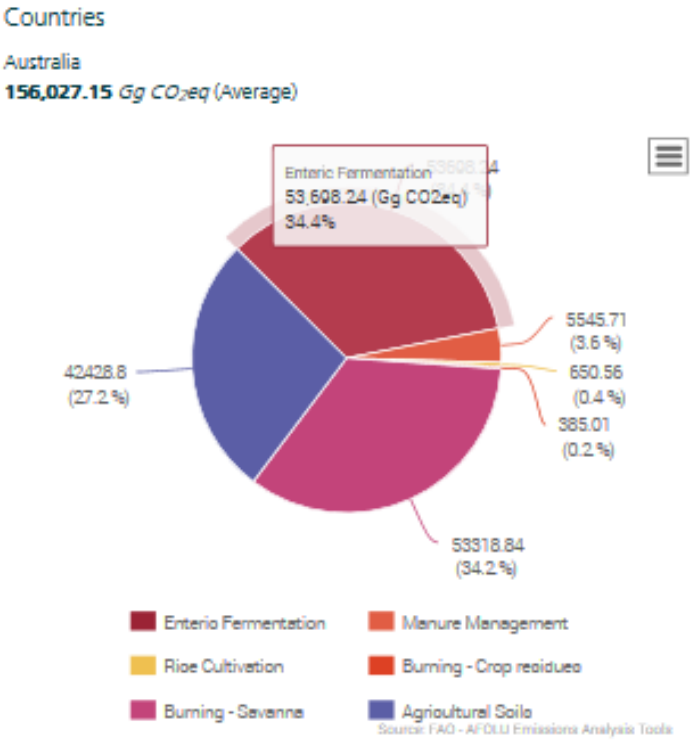


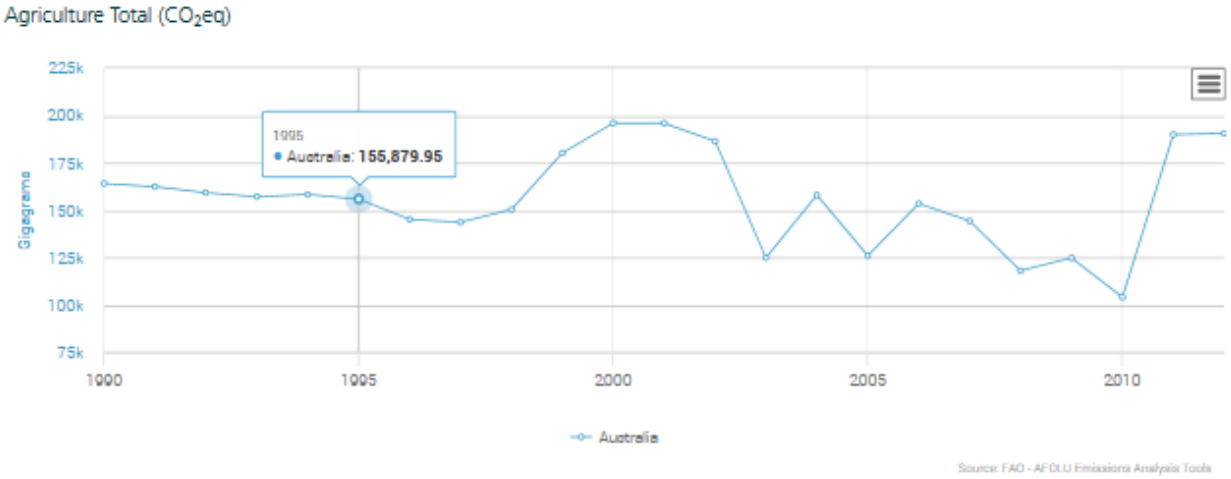
Burning Savanna



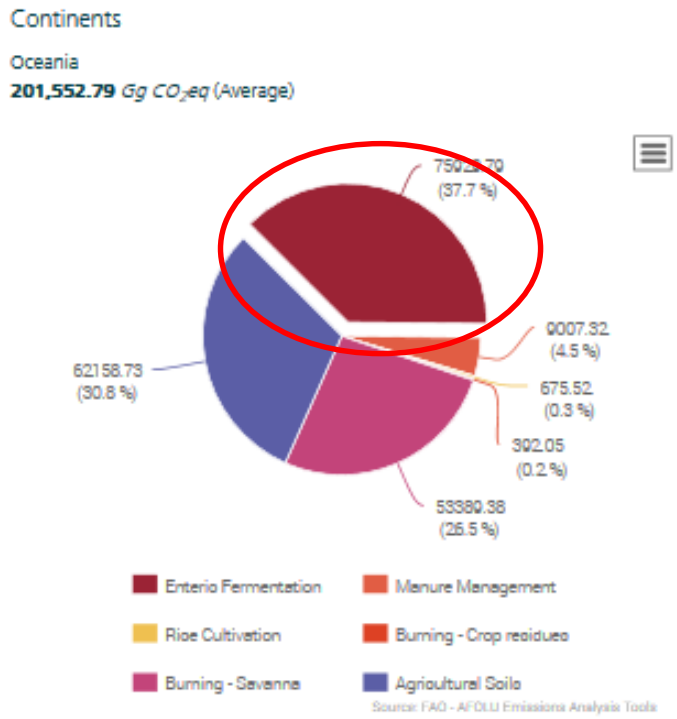
All charts are interactive:

- Place the cursor anywhere in the chart area to obtain the corresponding data. Two examples are illustrated:

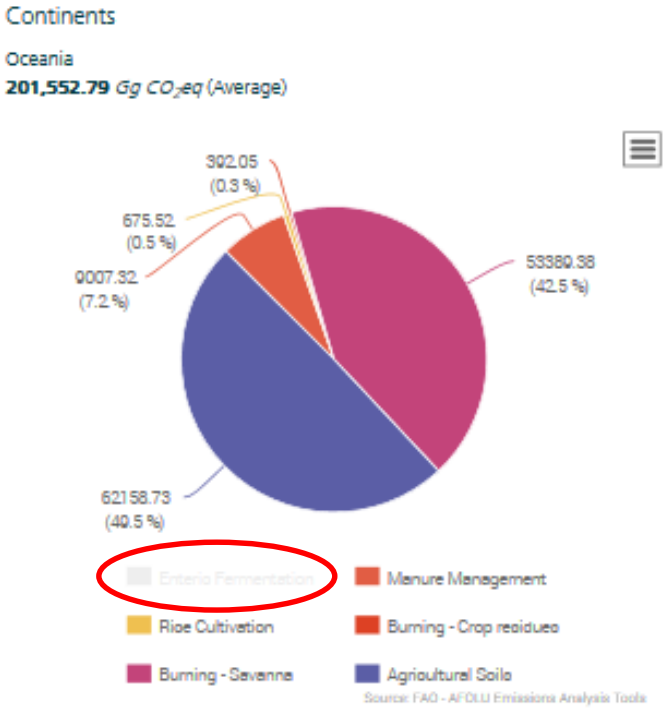




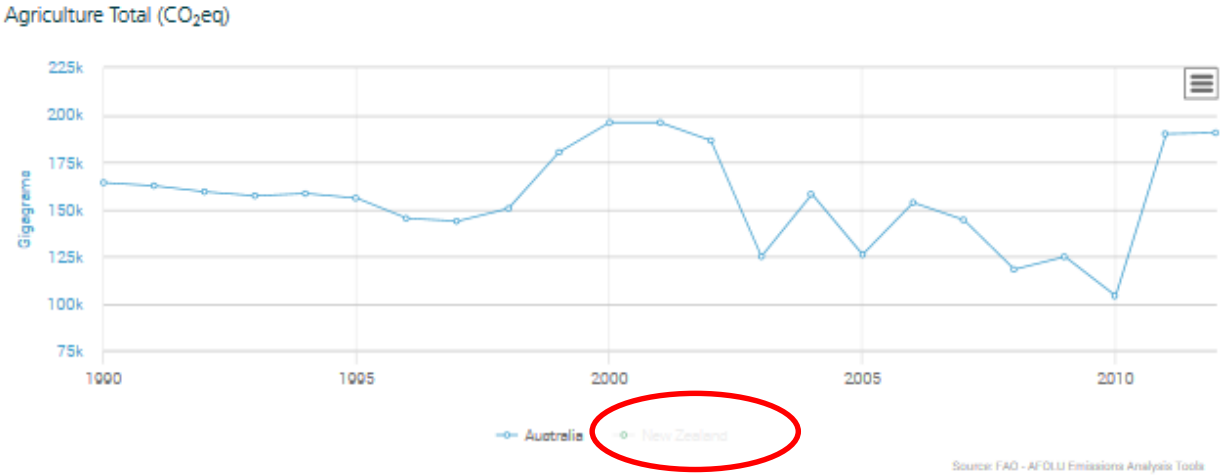
- Click on the pie charts' slices (that represent a source category) to temporarily detach that slice for better visualization. Click it again to have it back in its position;



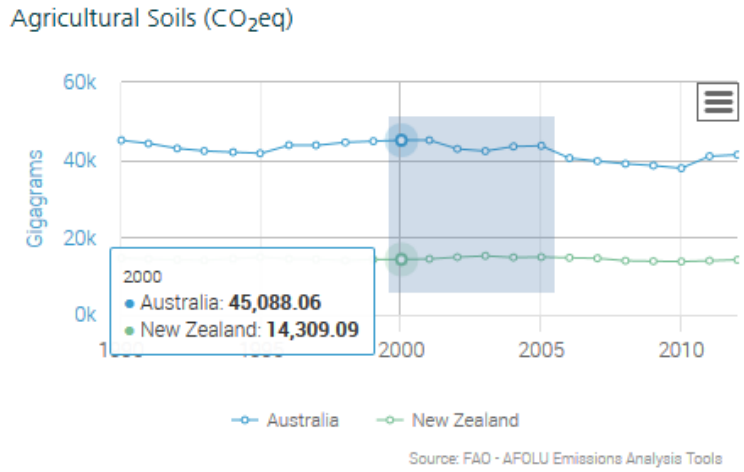
- Click on one (or more) of the displayed source categories at the bottom of the pie charts to temporarily hide the corresponding data (and exclude them from the total). Click on it again to have it back. The shares of the remaining categories are recalculated automatically based on the new total;

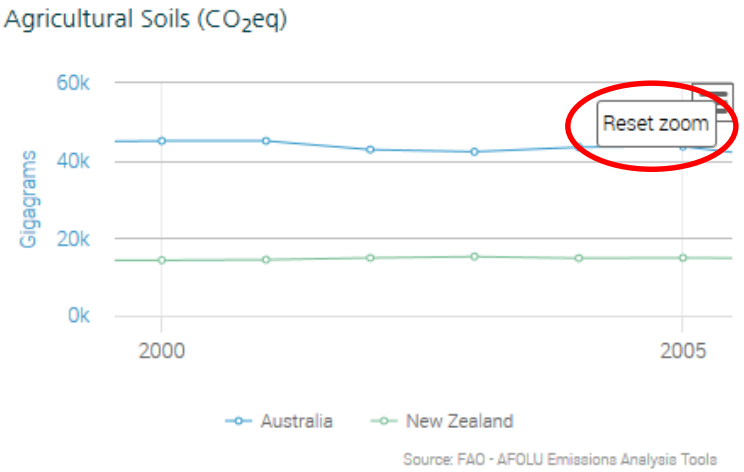


- For the line charts: Click on one (or more) of the displayed country names at the bottom of the charts to hide the corresponding data. Click it again to have it back. This function is useful when two or more countries are selected in order to temporarily exclude any of them from visualization;



- For the line charts: Drag and drop a window anywhere in any chart area to zoom in on a fewer number of yearly data. A reset button will appear to the right of the chart to reverse this operation back to the initial zooming.





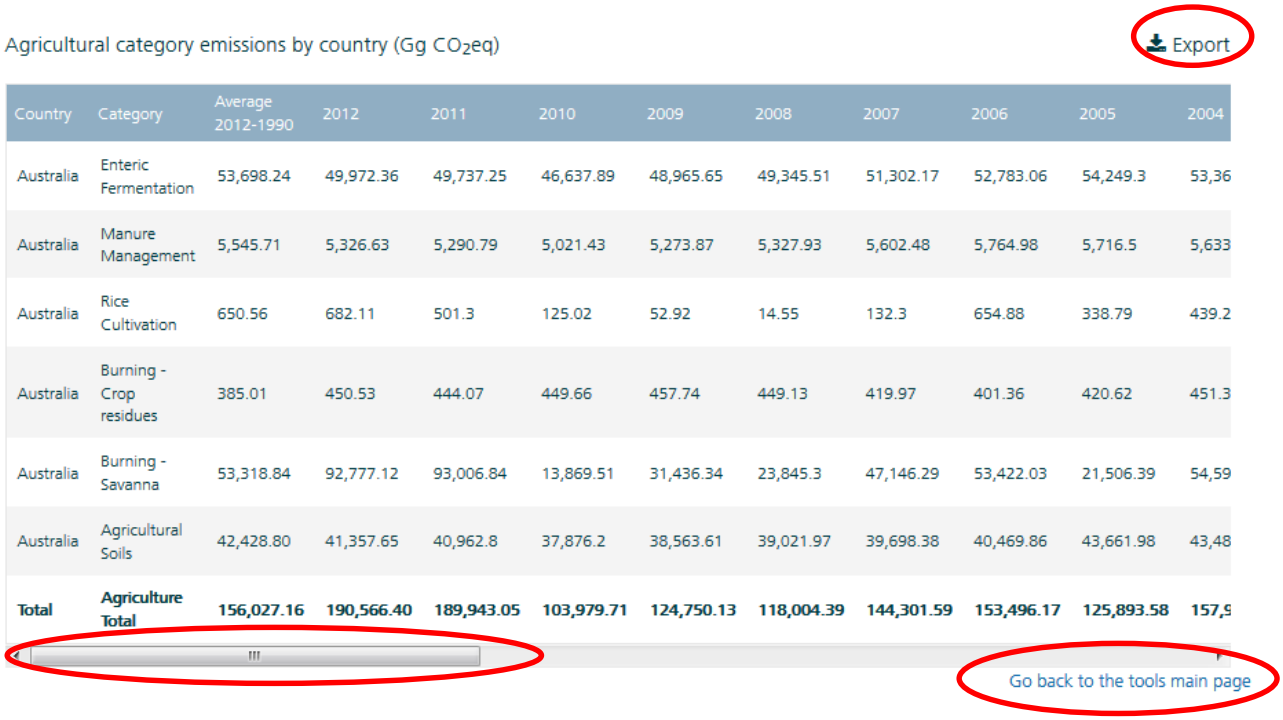
- A button at the top right of each chart, a button allows to print and/or download the chart, with several options on the output file type: PNG, JPEG, PDF, or SVG vector image.

Data are also served in tabular format by clicking on the *Tables* tab.

The tool returns the following set of four tables, containing the average and the full time series of yearly emissions for the selected period:

- Agricultural total by continent;
- Agricultural category emissions by continent;
- Agricultural category emissions by region;
- Agricultural category emissions by country.

An example of table is reported below identifying several other functions described below.



Country	Category	Average 2012-1990	2012	2011	2010	2009	2008	2007	2006	2005	2004
Australia	Enteric Fermentation	53,698.24	49,972.36	49,737.25	46,637.89	48,965.65	49,345.51	51,302.17	52,783.06	54,249.3	53,36
Australia	Manure Management	5,545.71	5,326.63	5,290.79	5,021.43	5,273.87	5,327.93	5,602.48	5,764.98	5,716.5	5,633
Australia	Rice Cultivation	650.56	682.11	501.3	125.02	52.92	14.55	132.3	654.88	338.79	439.2
Australia	Burning - Crop residues	385.01	450.53	444.07	449.66	457.74	449.13	419.97	401.36	420.62	451.3
Australia	Burning - Savanna	53,318.84	92,777.12	93,006.84	13,869.51	31,436.34	23,845.3	47,146.29	53,422.03	21,506.39	54,59
Australia	Agricultural Soils	42,428.80	41,357.65	40,962.8	37,876.2	38,563.61	39,021.97	39,698.38	40,469.86	43,661.98	43,48
Total	**Agriculture Total**	**156,027.16**	**190,566.40**	**189,943.05**	**103,979.71**	**124,750.13**	**118,004.39**	**144,301.59**	**153,496.17**	**125,893.58**	**157,9**

A scroll bar may become available at the bottom of each table to browse through the available year-data, depending on the length of the time series selected. All scroll bars are synchronized.

An “Export Data” button is available at the top right of each table to download the displayed data in Comma Separated Value format (.csv).

At the beginning and at the bottom of any page, a hyperlink “Go back to the tools main page” allows to return to the landing page of the AFOLU Emissions Analysis tools.

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