### Climate Change Statistics at FAO for Agriculture, Forestry and Fisheries

#### Climate Change Relevant Statistics UNEGES, New York May 16-18 2018





## Outline

#### • Core Environment Statistics

## Derived Statistics and Indicators

## • Climate Change Statistics



## FAOSTAT Core Environment Statistics

#### Annual Data Collection, Analysis and Dissemination

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- Regulated by FAO Constitution –Statistics a core pillar of FAO;
- Countries provide data relevant to food and agriculture via national focal points (NSOs; Min Ag; Other);
- FAO collects, analyses and disseminates national statistics in support of evidence-based decision making

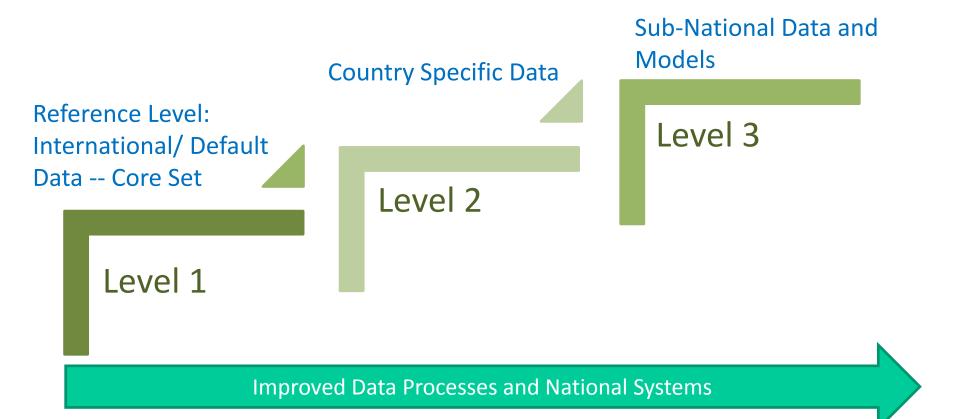


# FAOSTAT Analytical Environment Statistics supporting SDG, Climate Change processes

- Reference global data products in support of national analysis and international Reporting (SDGs, UNFCCC);
- Estimates and Indicators are <u>based on FAO core statistics</u> and aligned with International Standards



## FAOSTAT SDGs and Climate Change Relevant Statistics





## FAOSTAT Analytical Environment Statistics

#### Global default estimates

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Food and Agriculture Organization of the United Nations

& geo-reference data

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## Climate Change-relevant Statistics at FAO

#### Rationale

- Agriculture, Forestry and Fisheries are both a <u>significant cause</u> of climate change (20-24% of global emissions), and a sector <u>greatly</u> <u>vulnerable</u> through negative climate impacts on food production and food security
- Agriculture figures prominently in member countries' National Determined Contributions under the UNFCCC Paris Agreement, for both mitigation and adaptation commitments and goals

#### **CC Statistics support to member countries**

- Contribute to the Enhanced Transparency Framework for reporting under the climate convention
- Enable national analysis and regional comparisons, complementing SDG 13 by means of quantifiable indicators



## New FAOSTAT Climate Change Statistics

#### Products

- Greenhouse gas emissions for <u>agriculture</u>, <u>forestry and other land</u> <u>use</u>, 1961-2016
- Related indicators: <u>Agriculture contribution</u> to total emissions (1961-2010); <u>Emissions intensities</u> of ag commodities (1961-2016)
- Temperature Change (NASA/FAO), 1961-2017

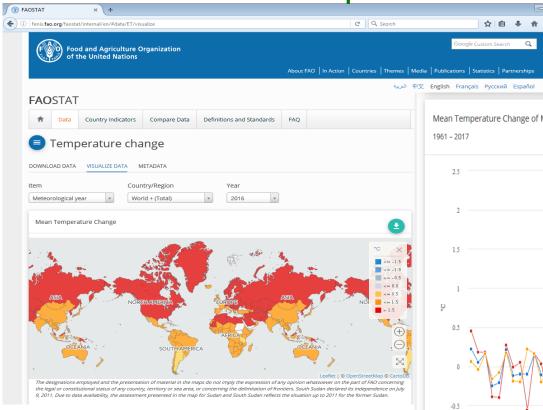
#### **International Context**

- Support countries reporting to UNFCCC
- Contribute to UNSD work and the UNECE Task Force on CC-Relevant Statistics (FAO pilot for UNECE set)
- Extend the SEEA Air Emissions Accounts for Agriculture, Forestry and Fisheries
- Outreach
- Capacity development to strengthen relevant national statistics
- Focus on communication of results to non-specialized users ganization

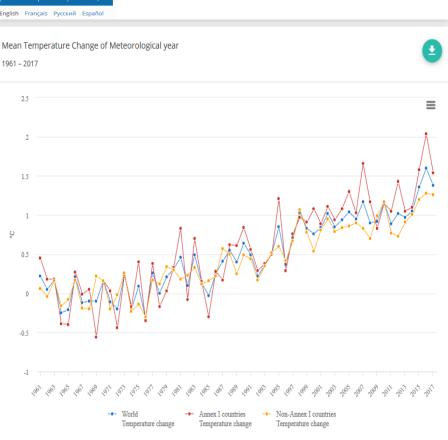
#### **FAOSTAT Emissions Database**

FAOSTAT	Emissions (CO2 equivalent), Agriculture total + (Total)
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## FAOSTAT Climate Change Indicators: Temperature Change



- Temp Change for annual, seasonal and monthly means, 1961-2017
- Based on observed meteorological station data analysed by NASA movie youtube





## Conclusions

- FAOSTAT Climate Change Statistics aim to support member countries in their national analyses and international reporting needs
- Established domains include emissions and related indicators, and are used to inform regional and global trends
- FAO aims to work with member countries, UNFCCC, UNSD and UNECE on the creation of a climate change relevant statistical framework in support of the Enhanced transparency goals of the Paris agreement



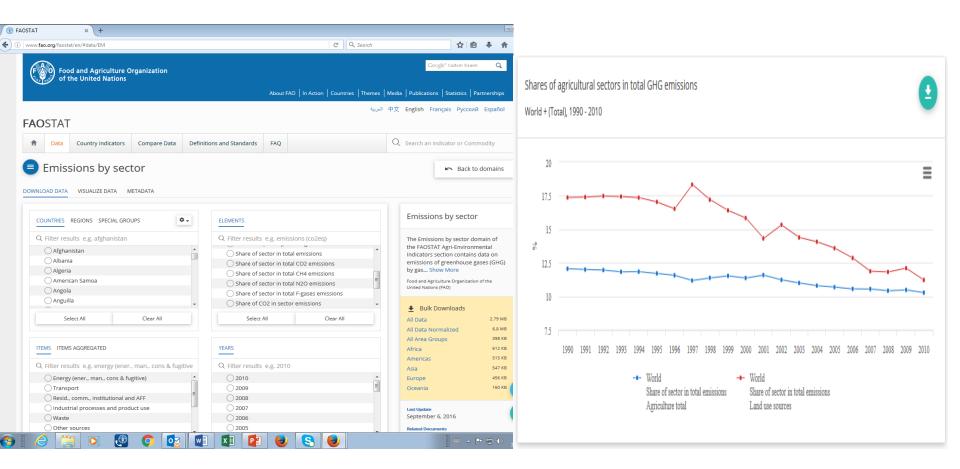
# Thank You !

for more information: Francesco N. Tubiello Team Leader, Environment Statistics Division, FAO francesco.tubiello@fao.org

http://www.fao.org/economic/ess/environment/en/



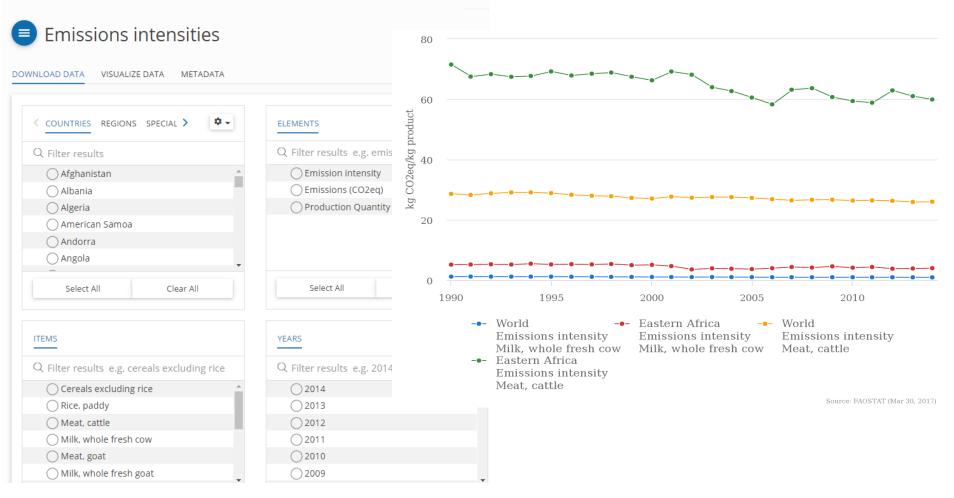
## FAOSTAT Climate Change Indicators: Emissions by Sector



- % Share Emissions Agriculture to total economy, 1970-2010
- % Share Emissions Forestry and Land Use , 1990-2010



## FAOSTAT Climate Change Indicators: Emissions Intensity (Milk, Meat, Rice, etc.)



• GHG emissions per unit milk, meat, rice, 1961-2016

