

Annex A. Sources and Definitions of Contextual Indicators

Table: Contextual indicators

Gross Domestic Product – GDP (USD billion in PPP): OECD National Accounts Statistics (database), Gross domestic product, USD, current prices, current PPPs. World Bank, World Development Indicators (WDI database) for Emerging Economies not available in the OECD database.

Population (million): OECD National Accounts Statistics (database), Population and employment by main activity. Calculation based on Eurostat database for the European Union. United Nations, World Population Prospects: 2019 Population, for Emerging Economies not available in the OECD database.

Land area (thousands km²): FAOSTAT Land Use (database), Land area (1 000 ha) recalculated to thousands km². Land area excludes water areas.

Agricultural area (AA) (thousand ha): FAOSTAT Land Use (database), Agricultural area (1 000 ha).

Population density (inhabitants/km²): OECD Regional and Cities (database), Regional demography, Population density and regional area. United Nations, World Population Prospects: 2019, Population density, for economies not available in OECD database. Calculation based on the Eurostat population and area databases for the European Union.

GDP per capita (USD in PPP): OECD National Accounts Statistics (database), Gross domestic product (expenditure approach), per head, USD, current prices, current PPPs. World Bank, World Development Indicators (WDI database) for Emerging Economies not available in OECD database.

Trade as % of GDP: Calculation based on UN COMTRADE (database) for trade data, customs data, and GDP (local currency) indicator. Average trade calculated as (exports+imports)/2. The European Union aggregate does not account for intra-EU trade.

Agriculture share in GDP (%): OECD National Accounts Statistics (database), “National Accounts at a Glance”, Gross value added, Agriculture, forestry and fishing, percentage of total activity. Eurostat database for the European Union. World Bank, World Development Indicators (WDI database) for Emerging Economies not available in OECD database.

Agriculture share in employment (%): Calculation based on OECD Labour Force Statistics (database), Employment by activities and status (ALFS), as a share of employment in agriculture, hunting, forestry and fishing in all activities (ISIC rev.3, A-B and A-X; ISIC rev.4, A and A-U). Calculation based on Eurostat, share of employed persons, aged 15 years and over, in agriculture, hunting, forestry and fishing in total NACE activities (Statistical classification of economic activities in the European Community), for the EU Member States. World Bank, World Development Indicators (WDI database), Employment in agriculture, hunting, forestry and fishing as a share of total employment; and national data for Emerging Economies not available in OECD database.

Agro-food exports in total exports (%): Calculation based on UN COMTRADE (database). Agro-food definition does not include fish and fish products. Agro-food codes in H0: 01, 02, 04 to 24 (excluding 1504,

1603, 1604 and 1605), 3301, 3501 to 3505, 4101 to 4103, 4301, 5001 to 5003, 5101 to 5103, 5201 to 5203, 5301, 5302, 290543/44, 380910, 382360.

Agro-food imports in total imports (%): Calculation based on UN COMTRADE (database). Agro-food definition does not include fish and fish products.

Crop in total agricultural production (%): National data, share of value of total crop production (including horticulture) in total agricultural production.

Livestock in total agricultural production (%): National data, share of value of total livestock production in total agricultural production.

Share of arable land in AA (%): Calculation based on FAOSTAT Land Use (database), arable land as a share of agricultural area.

Table: Productivity and environmental indicators

TFP annual growth (%): Agricultural Total Factor Productivity indices of the USDA Economic Research Service use primarily FAO data supplemented by national data. Agricultural TFP indices are estimates by country and for groups of countries aggregated by geographic region and income class. The presented growth rates are sensitive to the choice of the time period. Reported values have changed relative to previous releases following the International Agricultural Productivity database update that includes revisions of historical estimates to reflect newly available data and modifications to the estimation procedures. More information can be found in the section “Figure: Composition of agricultural output growth, 2010-19”.

USDA, Economic Research Service (2021), International Agricultural Productivity database, <https://www.ers.usda.gov/data-products/international-agricultural-productivity/> (accessed December 2021).

Nitrogen balance (Kg/ha): Balance (surplus or deficit) expressed as kg nitrogen per hectare of total agricultural land calculated at the national level. OECD aggregate for nitrogen balance is calculated as the ratio between the total surplus and the total agricultural land area in the OECD area. European Union as a single area is calculated as the Gross Nitrogen Balance in the EU area over the utilised agricultural area of the EU.

OECD (2021), Agri-environmental indicators (database), <http://www.oecd.org/tad/sustainable-agriculture/agri-environmentalindicators.htm>.

Phosphorus balance (Kg/ha): Balance (surplus or deficit) expressed as kg phosphorus per hectare of total agricultural land calculated at the national level. OECD aggregate for phosphorus balance is calculated as the ratio between the total surplus and the total agricultural land area in the OECD area. European Union as a single area is calculated as the Gross Phosphorous Balance in the EU area over the utilised agricultural area of the EU.

OECD (2021), Agri-environmental indicators (database), <http://www.oecd.org/tad/sustainable-agriculture/agri-environmentalindicators.htm>.

Agriculture share of total energy use (%): Share of agricultural consumption in total final consumption (TFC).

International Energy Agency (2021), IEA World Energy Statistics and Balances (database), <https://doi.org/10.1787/data-00512-en>, and OECD Agri-environmental indicators (database), <http://www.oecd.org/tad/sustainable-agriculture/agri-environmentalindicators.htm>,

Agriculture share in total GHG emissions (%): Greenhouse gas emissions by source, excluding land use, land-use change and forestry (LULUCF). European Union as a single area is calculated from

UNFCCC data as Agriculture greenhouse gas emissions in the EU area over the total GHG emissions in EU area.

UNFCCC Greenhouse Gas Inventory Database (2021), <https://unfccc.int>, and OECD Agri-environmental indicators (database), <http://www.oecd.org/tad/sustainable-agriculture/agri-environmentalindicators.htm>

Share of irrigated area in Agricultural Area (AA) (%): Share of irrigated area in total agricultural area. OECD (2021), Agri-environmental indicators (database), <http://www.oecd.org/tad/sustainable-agriculture/agri-environmentalindicators.htm> and FAOSTAT database for Emerging Economies not available in OECD database.

Share of agriculture in water abstractions (%): Share of agriculture in total freshwater abstractions. European Union as a single area is calculated as the total abstractions for agriculture in the EU area over the total freshwater abstractions in the EU area.

OECD (2021), Agri-environmental indicators (database), <http://www.oecd.org/tad/sustainable-agriculture/agri-environmentalindicators.htm>.

Water stress indicator: The indicator refers to the intensity of use of fresh water resources. It is expressed as gross abstraction of freshwater as percentage of total available renewable freshwater resources. European Union is treated as a single area.

OECD (2021), "Water: Freshwater abstractions", OECD Environment Statistics (database), <http://dx.doi.org/10.1787/data-00602-en>.

Figure: Main macro-economic indicators, 2000 to 2021

Real GDP growth (%): OECD Country Statistical Profiles, real GDP growth. OECD Economic Outlook: Statistics and Projections (database) as a benchmark for the latest year. World Bank, World Development Indicators (WDI database) for Emerging Economies not available in OECD database. Eurostat database for the European Union for 2019 and 2020.

Inflation rate (%): OECD National Accounts Statistics (database), Prices and Purchasing Power Parities, Annual average rate of change in Harmonized Indices of Consumer Prices (HICPs). World Bank, World Development Indicators (WDI database) for Emerging Economies not available in OECD National Accounts Statistics.

Unemployment rate (%): OECD Economic Outlook: Statistics and Projections (database), Labour market statistics. Eurostat database for the European Union. International Labour Organization (ILO), Unemployment rate by sex and age (estimates and projections) for Emerging Economies not available in OECD database.

Figure: Agro-food trade

Agro-food exports (USD billion), 2000 to 2020: UN COMTRADE (database). Agro-food definition does not include fish and fish products.

Agro-food imports (USD billion), 2000 to 2020: UN COMTRADE (database). Agro-food definition does not include fish and fish products.

Composition of agro-food trade, 2020: UN COMTRADE (database). Agro-food definition in HS classification (see above) combined with the Classification by Broad Economic Categories (BEC) to generate breakdowns into type of commodities (Primary or Industrial commodities) and type of destination (Consumption or Industry).

Figure: Composition of agricultural output growth, 2010-19

TFP annual growth (%): Agricultural Total Factor Productivity indices of the USDA Economic Research Service use primarily FAO data supplemented by national data. Input growth is the weighted-average growth in quality-adjusted land, labour, capital and materials (synthetic NPK fertilisers, and animal feed), where weights are input (factor) cost shares. Special breakdown created to dissociate primary factors (land, labour and capital) from intermediate input: materials (feed and fertiliser) growth. Output growth corresponds to gross agricultural output for each country.

Agricultural TFP indices are estimates by country and for groups of countries aggregated by geographic region and income class. The European Union single area is recalculated from individual countries data and weights. The presented growth rates are sensitive to the choice of the time period.

Reported values have changed relative to previous releases following the International Agricultural Productivity database update that includes revisions of historical estimates to reflect newly available data and modifications to the estimation procedures. Key changes include the inclusion of aquaculture in output, a new FAO measure of agricultural capital stock was adopted for years since 1995 and TFP indices were rebased to 2015.

The full documentation of the revisions is available at: <https://www.ers.usda.gov/data-products/international-agricultural-productivity/update-and-revision-history/>.

USDA, Economic Research Service (2021), International Agricultural Productivity database, <https://www.ers.usda.gov/data-products/international-agricultural-productivity/> (accessed December 2021).

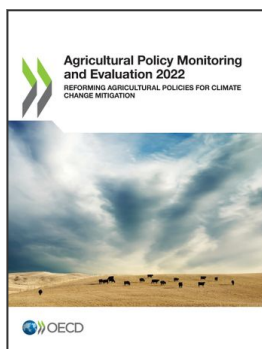
Indicators used to calculate selected ratio and percentage indicators

GDP (local currency): OECD National Accounts Statistics (database), Gross domestic product, local currency, current prices. OECD Economic Outlook: Statistics and Projections (database) as a benchmark for the latest year. Calculation based on Eurostat database for the European Union. World Bank, World Development Indicators (WDI database) for Emerging Economies not available in the OECD database.

Agriculture Gross Value Added (local currency) (AgGVA): Calculation based on Agriculture share in GDP (%) and GDP (local currency) indicators.

Deflator: OECD Economic Outlook: Statistics and Projections (database), Gross domestic product, market prices, deflator. Eurostat database for the European Union. World Bank, World Development Indicators (WDI database) for Emerging Economies not available in the OECD database.

Exchange rate: OECD National Accounts Statistics (database), Prices and Purchasing Power Parities, Nominal Exchange Rate. Eurostat database for the European Union and EU Member States. World Bank, World Development Indicators (WDI database) and national data for Emerging Economies not available in the OECD database.



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