Reference metadata template for data reported on the Sustainable Development Goals (SDGs)

The purpose of this template is for international agencies to submit reference metadata on the agreed upon tier I and II global indicators and associated data for which they are responsible, in order to monitor the Sustainable Development Goals (SDGs) and targets in a consistent manner. In order to ensure coherence and consistency of the metadata that will be presented alongside the SDG indicator database, we are requesting uniform reference metadata on the global indicators and on associated data that you are reporting using this standard template.

While we realise this form is detailed, your willingness to provide this reference metadata in a standard format will be vital to users better understanding of the global indicators and associated data you have provided. We hope any metadata submitted previously can be copied and pasted into the relevant section of this form. Any metadata that was previously submitted to UNSD prior to July 2016 can be found at: http://unstats.un.org/sdgs/iaeg-sdgs/metadata-compilation/.

This form should be completed by the international agencies that provided their data for inclusion in the SDG progress report and associated database. Please replace the instruction text shaded in yellow with the appropriate text describing the reference metadata for that section (i.e. definition, rationale, etc.). Please try to make your responses as concise as possible while making sure to include all relevant information. For more detailed methodological information, a link can be included in the reference section (see page 4).

If there are any questions regarding SDG metadata or this form, please contact Zin Lin at lin@un.org.

Goal : 2
Target: 2.a
Indicator: 2.a.3
The Agriculture Orientation Index (AOI) for credit

Institutional information

Organization(s): Food and Agriculture Organization of the United Nations
Agency responsible for global compilation of the indicator or time series specified below

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Concepts and definitions

Definition:
The Agriculture Orientation Index (AOI) for credit is defined as the Agriculture share of Total credit to the economy, divided by the Agriculture Share of GDP, where Agriculture refers to the agriculture, forestry, fishing and hunting sector.

$$AOI = \frac{\text{Agriculture share of Total credit}}{\text{Agriculture Value Added Share of GDP}}$$

An AOI greater than 1 reflects a higher orientation towards the agriculture sector, which receives a higher share of credit relative to its contribution to economic value-added. An AOI less than 1 reflects a lower orientation to agriculture, while an AOI equal to 1 reflects neutrality in banks 'credits orientation to the agriculture sector.

Agriculture refers to the agriculture, forestry, fishing and hunting sector, or Division A of ISIC Rev.4 (equal to Division A+B of ISIC Rev.3.2)

Credit to Agriculture corresponds to the amount of loans and advances provided by the commercial banking sector to producers in agriculture, forestry and fishing.

The Agriculture Share of GDP is measured by the ratio of Agriculture Value Added over GDP, based on official data reported by countries to the United Nations Statistics Division.

The annual data and indicator, collected and compiled by the Food and Agriculture Organization of the UN (FAO), Can be found on the FAOSTAT domain at: http://www.fao.org/faostat/en/#data/IC, covering the periods 1991-2018.

Rationale:

Credit to Agriculture corresponds to the amount of loans and advances provided by the commercial banking sector to producers in agriculture. Access to formal credit is critical for farmers for purchasing inputs, such as seeds, fertilizer, plant protection materials, animal feed etc. The lack of access to reasonable credit is particularly problematic for farmers who face a time lag between expenditure on crops cultivation and/or raising of livestock, and realization of revenues from sale of their products.

Target 2.a of SDG 2 focuses on the necessity of increasing investment in agriculture in order to enhance agricultural productive capacity in developing countries, in particular least developed countries. However, despite the fact that the majority of private domestic investors in agriculture are the farmers themselves, there is no SDG Indicator for monitoring private investment in agriculture. As such, using statistics on banks' credit to agriculture published by central banks is the most available and accessible data for monitoring private investment to agriculture, and to proposing evidence-based policies for achieving the SDG Target 2.a. Therefore, the Agriculture Orientation Index (AOI) for credit is proposed as a proxy indicator for monitoring private investment in agriculture.

There are several potential indicators for monitoring credit to agriculture, which include: the level of credit to Agriculture (C2A); the Agriculture share of total credit to the economy, and the AOI for credit.

An indicator that measures C2A levels fails to take into account the size of an economy. If two countries, A and B, have the same level of C2A, but country A's economy is 10 times that of country B, setting the same target levels for C2A fails to take economic size into account.

An indicator that measures the Agriculture share of Total credit to the economy is more informative than the C2A level. However, it fails to take into account the relative contributions of the agricultural sector to a country's GDP. Consider two countries with the same economic size, C and D, where agriculture contributes 2 per cent to C's GDP, and 10 per cent to country D's GDP. If the agriculture share of total credits were equal in both countries, C would experience greater relative investment in Agriculture than D. If the agriculture share of total credit differed, the result could be magnified or diluted.

The AOI for credit takes into account a country's economic size, the agriculture contribution to GDP, and the total amount of credit to the economy. The AOI for credit normalizes the share of credit to agriculture (C2A share) by taking into account the economic contribution of the sector (ratio of the C2A share over the Agriculture share in GDP). As such, it can provide a more comparable indication of the relative importance commercial banks place on financing agriculture sector.

Concepts:

Agriculture refers to the agriculture, forestry, fishing and hunting sector, or Division A of ISIC Rev.4.

Credit to Agriculture corresponds to the amount of loans and advances provided by the commercial banking sector to producers in agriculture.

Total credit to the economy corresponds to the amount of loans and advances provided by the commercial banking sector to all economic activities.

Comments and limitations:
The AOI provides a more comparable indication of the relative importance commercial banks place on financing the agriculture sector.

The key limitation with this indicator is that it only takes into account credits from the formal financial service providers as registered companies that are licensed to offer financial services by a central monetary authority. However, in most developing countries, farmers rely as well on informal sources of credit supply such as: moneylenders, relatives and friends. An additional limitation is the risk of credit diversion from the agriculture sector to activities that are not related to agriculture.

In terms of data quality, FAO faces three main challenges while collecting C2A data from central bank' websites: the concept of Lending institution, the concept of agriculture and the concept of credit used by banks for reporting C2A data are not always the same across all countries. This is due to the fact that there is no available international guidelines on publication of industry-level financial sector credit statistics that banks have to follow while reporting their credit statistics to central banks. However, in an attempt to solve these issues, FAO is collaborating with central banks in a case to case basis.

Methodology

Computation Method:

$$AOI = \frac{\text{Agriculture share of Total credit}}{\text{Agriculture Value Added Share of GDP}}$$

$$Agriculture\ share\ of\ total\ credit = \frac{Credit\ to\ agriculture}{Total\ credit\ to\ the\ economy}$$

$$Agriculture\ Value\ Added\ Share\ of\ GDP = \frac{Agriculture\ Value\ Added}{GDP}$$

Disaggregation:
The AOI is a country level indicator, Regional and global AOI can also be computed (although not currently available in FAOSTAT).

Treatment of missing values:

- At country level

At country level, there is currently no treatment of missing values.

- At regional and global levels

At regional and global levels, there is currently no treatment of missing values, so regional and global aggregates are based solely on those countries for which data are available. This may result in users interpreting these aggregates as pertaining to all countries in the region, which is the equivalent of treating countries with missing data as if they were the same as those for which data are available.

Regional aggregates:
Global and regional estimates are compiled by first separately summing across countries the four individual components of the index: Credit to agriculture, total credit to the economy, agriculture value-added, and GDP. These are added only for those countries in a region (or globally) for which all components are available, and the index then calculated for this larger region.

Sources of discrepancies:
Since the numerator of the AOI is based on administrative sources (central banks), there is no confidence interval or standard error associated with central banks financial statistics. For the denominator, national accounts data typically do not provide any standard error or confidence interval information, though some national data may be imputed. However, since FAO does not alter credit data reported by countries 'central banks, and uses the national accounts estimates published by the UN Statistics Division, there should be no difference between data reported by FAO and national figures.

Methods and guidance available to countries for the compilation of the data at the national level:
Central Banks compile and disseminate data on credits to agriculture as part of their monetary and financial statistics, either through annual or quarterly reports. However, it is not available international guidelines on publication of industry-level financial sector credit statistics that banks have to follow while reporting their credit statistics to central banks.

Quality assurance
Since the numerator of this data is based on administrative sources, there is no confidence interval or standard error associated with Central banks' data. For the denominator, national accounts data typically do not provide any standard error or confidence interval information.

Data Sources

Description:

For the numerator of the indicator, FAO collects C2A data directly from the countries' official central bank website.

The denominator is based on official data reported by countries to the United Nations Statistics Division.

Collection process:
FAO collects C2A data directly from Central banks' websites. Central Banks compile and disseminate data on credits to agriculture as part of their monetary and financial statistics, either through annual or quarterly reports.

In an attempt to make the data internationally comparable, FAO standardizes the currency scale of the collected C2A data to millions, and the values are provided in both national currency and the

converted values in national currency to US dollars. FAO compiles indicators on the share of credit to agriculture, and an Agriculture Orientation Index for credit (AOI).

Data Availability

Description:
The data for this indicator are already currently available on a regular basis for 100 countries

Time series:
This indicator is available from 1991 to 2017

Calendar

Data collection:
March to April and August to September.

Data release:
The data are released twice a year (May and October).

Data providers

Central banks

Data compilers

FAO

References

URL: http://www.fao.org/faostat/en/#data/IC
http://www.fao.org/faostat/en/#data/IC/metadata
http://www.fao.org/economic/ess/investment/credit/en/

Related indicators

AOI for government expenditure in agriculture
http://www.fao.org/faostat/en/#data/IG