

ESS – FAO Capital Stock and Investment in Agriculture Database – Content and Metadata

As part of the FAO Capital Stock database, ESS-FAO publishes country-by-country data on physical investment in agriculture, forestry and fishery as measured by the System of National Accounts (SNA) concept of Gross Fixed Capital Formation (GFCF). The additional variables contained in the database are Net (or Wealth) Capital Stock (NCS), Gross Capital Stock (GCS) and Consumption of Fixed Capital (CFC). The FAO Capital Stock Database is an ***analytical database***. Whenever available, the database integrates official national accounts data harvested from UNSD or OECD. If the full set of official data is not available for a specific country, estimation procedures are employed to obtain estimates for the entire time series.

The data are annual and compiled to be consistent with the SNA1993 framework and the ISIC Rev.3.

More information on the FAO Capital Stock database is contained in the related Metadata (underneath).

Synthesis of the FAO CS database content

Variables	Agriculture Gross Fixed Capital Formation (GFCF _{AFF}) Agriculture Net Capital Stock (NCS _{AFF}) Agriculture Gross Capital Stock (GCS _{AFF}) Agriculture Consumption of Fixed Capital (CFC _{AFF})
Units of Measure	Current LCU and USD Constant LCU and USD (2005 base year)
Time Coverage	1990-2014
Geographical coverage	205 countries and territories

	COLLECTION LABEL	Capital Stock Database - Agriculture, forestry, fishery (ISIC Rev.3: A+B)
	DATASET LABEL	I. Gross Fixed Capital Formation
1	Contact	
1.1	Contact organisation	Food and Agriculture Organization of the United Nations (FAO).
1.2	Contact organisation unit	Statistics Division (ESS), Economic Statistics Team.
1.3	Contact name	
1.4	Contact person function	
1.5	Contact mail address	FAO viale delle terme di Caracalla 100.
1.6	Contact email address	macrostats@fao.org
1.7	Contact phone number	+39 0657055890
1.8	Contact fax number	
2	Metadata update	
2.1	Metadata last certified	2014-07-20.
2.2	Metadata last posted	2014-07-20.
2.3	Metadata last update	2016-07-08.
3	Statistical presentation	
3.1	Data description	<p>As part of the FAO Capital Stock database, ESS-FAO publishes country-by-country data on physical investment in agriculture, forestry and fishery as measured by the System of National Accounts (SNA) concept of Gross Fixed Capital Formation (GFCF). The FAO Capital Stock Database is an <i>analytical database</i>. Whenever available, the database integrates official national accounts data harvested from UNSD or OECD. If the full set of official data is not available for a specific country, estimation procedures are employed to obtain estimates for the entire time series. Country data on Gross Fixed Capital Stock Formation (GFCF), either as complete time series or just data for a few individual years, are available from just over 100 countries, originating mainly from the UNSD National Accounts Official Country Data and OECD STAN and National Accounts Data. ARIMAX modelling is used to complete GFCF series with missing data. For over 100 countries data are fully missing and GFCF series are imputed based on panel regression. For this reason the dataset should be seen as an <i>analytical dataset</i> and not a statistical dataset. The dataset also contains investment ratios (GFCF/Value added). See links to source data below</p> <p>http://data.un.org/Explorer.aspx?d=SNAAMA&f=grID%3a101%3bcurrID%3aNCU%3bpcFlag%3a0</p> <p>http://stats.oecd.org/Index.aspx?DataSetCode=STANI4</p>
		<p>Constant prices data. The GFCF deflators from UNSD National Accounts Estimates have been used for non-OECD countries. When OECD data are available, then the OECD deflators for GFCF for ISIC Rev.3 A+B have been used. For other cases, the GFCF-total economy deflator has been used which of course is just an approximation of deflators for GFCF fro ISIC Rev.3;A+B.</p>

3.2	Classification system	ISIC Rev. 3. All data included in the CS database are expressed in ISIC Rev. 3. As from 2009 several countries, OECD countries in particular, provide data only in ISIC Rev. 4. In this case data are converted to ISIC Rev. 3 using “bridges” from those years when data are available in both revisions. Unfortunately, these bridges are not always stable. When there are several years of overlap between the two revisions the bridging ratios might fluctuate significantly. In this case an average is taken is the bridge between the classifications. Of course, this process implies a loss of precision in the data but this is the price which has to be paid of having all data in the same classification.
3.3	Sector coverage	Agriculture, forestry and fishery defined by ISIC Rev.3.
3.4	Statistical concepts and definitions	<p>Gross fixed capital formation (GFCF) is measured by the total value of a producer’s acquisitions, less disposals, of fixed assets during the accounting period plus certain specified expenditure on services that adds to the value of non-produced assets. The boundary line between those products that are retained in the economy and are used for consumption and those products that are used for capital formation is known as the asset boundary. The asset boundary for fixed assets consists of goods and services that are used in production for more than one year. Two exclusions from the asset boundary should be noted. The first is that consumer durables are not treated as fixed assets.</p>
		<p>The second exclusion is pragmatic rather than conceptual and concerns small tools. Hand tools such as saws, spades, knives, axes, hammers, screwdrivers and spanners or wrenches are examples. If expenditures on such tools take place at a fairly steady rate and if their value is small compared with expenditures on more complex machinery and equipment, it may be appropriate to treat the tools as materials or supplies used for intermediate consumption. In countries in which they account for a significant part of the value of the total stock of an industry’s durable producers’ goods, they may be treated as fixed assets and their acquisition and disposal by producers recorded under gross fixed capital formation.</p>
		<p>Gross fixed capital formation may take the form of improvements to existing fixed assets, such as buildings and structures, that increase their productive capacity, extend their service lives, or both. A different treatment is applied to improvements to land in its natural state. In this case the improvements are treated as the creation of a new fixed asset and are not regarded as giving rise to an increase in the value of the natural resource. If land, once improved, is further improved, then the normal treatment of improvements to existing fixed assets applies.</p>
		<p>Gross fixed capital formation Agriculture Orientation Index indicates how the investment ratio in agriculture, forestry, and fishery compares to that of the total economy. This indicator is obtained as the ratio of the Agriculture Investment Ratio (Agriculture Gross Fixed Capital Formation as a share of Agriculture Value Added) and the total economy investment ratio (Total Economy Gross Fixed Capital Formation as a share of Total Economy Value Added).</p>

3.5	Statistical unit	Agriculture: The agricultural holding. Forestry: Private, state owners and other public owners of forests, wood and paper products enterprises. Fishery: Catches by the individual fishing vessels and the production by the aquaculture enterprises.
3.6	Statistical population	Target population is the universe of the agricultural holdings; all owners of forest and producers of raw wood and primary wood and paper products; and all fishing vessels and aquaculture enterprises
3.7	Reference area	As for the 2016 release, 206 countries and territories.
3.8	Time coverage	1990 to 2014 as far as data are available. For some countries data are available only from 1995. Therefore, regional aggregation regarding the GFCF variable should not be performed for the period 1990-1994.
3.9	Base period	2005 is the base year for values in constant prices.
4	Unit of Measure	Local Currency Unit (LCU), current prices and constant 2005 prices; USD, current prices and constant 2005 prices
5	Reference period	Calendar year, based on the most recent year available
6	Institutional mandate	For UNSD: Request by the Statistical Commission during its first session in 1947, and is in agreement with the resolution 48/223 C of the UN General Assembly, which mandates the Committee on Contributions to prepare the Scale of Assessment for UN Member States on the basis of the most recent reliable and verifiable available data on national accounts of as many countries and areas as possible, and that these data be published and disseminated regularly.
		For FAO: Article I of the constitution indeed requires the Organization to 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." Member countries reaffirmed this mandate in 2000 when formulating the Organization's strategic thrusts for the 2000-2015 period: Corporate Strategy E1 commits the Organization to building "an integrated information resource base, with current, relevant and reliable statistics, information and knowledge made accessible to all FAO clients.
6.1	Legal acts and other agreements	Not applicable.
6.2	Data sharing	Agreement with UNSD and OECD.
7	Confidentiality	
7.1	Confidentiality - policy	FAO Statistical Quality Assurance Framework, 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."
7.2	Confidentiality - data treatment	Data collected by UNSD and OECD are already aggregated to ensure confidentiality.
8	Release policy	Data are disseminated annually.
8.1	Release calendar	To be decided.
8.2	Release calendar access	To be decided.

8.3	User access	Data are disseminated on FAO's website respecting professional independence and in an objective, professional and transparent manner in which all users are treated equitably.
9	Frequency of dissemination	Annual.
10	Dissemination format	FAOSTAT domain; CSV analytical file.
10.1	News release	Occasionally, annual media releases containing statistical analysis at time of data dissemination.
10.2	Publications	FAO Statistical Yearbook.
10.3	On-line database	Included in the domain on "Macroeconomic Statistics" of FAOSTAT.
10.4	Micro-data access	No micro data.
10.5	Other	None.
11	Accessibility of documentation	
11.1	Documentation on methodology	See Systems of National Accounts (SNA) 2008, See link: http://unstats.un.org/unsd/nationalaccount/sna.asp
11.2	Quality documentation	Reference is made to UNSD and National Statistical Offices. Generally National Accounts data have good reliability, in particular when looking at percentage changes over years. FAO has no quality assurance documentation for National Accounts.
12	Quality management	
12.1	Quality assurance	The FAO Statistics Quality Assurance Framework is available http://www.fao.org/docrep/019/i3664e/i3664e.pdf
12.2	Quality assessment	See item 11.2 above concerning quality assessment of National Accounts data. The main strength of National Accounts data is that they are based on a rigorous methodology which is internationally accepted and implemented in practically all countries of the world. If FAO, in the processing of UNSD data, spots errors or data that seem inconsistent feedback is provided to UNSD.
13	Relevance	
13.1	User needs	Target users are agriculture analysts, ministries and government agencies, research institutes, international organizations and universities. As it is a new domain users have not yet been monitored or if there are unmet user needs.
13.2	User satisfaction	As it is a new domain, no user satisfaction has yet been conducted but it is envisaged to be undertaken.
13.3	Completeness	Data on GFCF are available for over 200 countries. For some 100 countries, data on agriculture GFCF were fully missing and are imputed based on panel regression approach (with an adjustment on the series level to ensure coherence with the agriculture consumption of fixed capital series whenever available from UNSD OECD). For many of the other countries data are available only for a limited number of years in which case data for the missing years have been imputed using the available data as the base for investment ratio using ARIMAX modelling.
14	Accuracy and reliability	
14.1	Overall accuracy	The accuracy varies considerably between countries. Data are, however, based on common methodology, at least in theory.
14.2	Sampling error	FAO has no information on sampling errors.
14.3	Non-sampling error	FAO has no information on non-sampling errors.

15	Timeliness and punctuality	
15.1	Timeliness	Data are disseminated by FAO once a year.
15.2	Punctuality	See above.
16	Comparability	
16.1	Comparability - geographical	Geographic comparability of absolute values are rather limited except for countries in certain regions or groups of countries, e.g. EU and OECD. Data on yearly percentage changes have higher degree of geographic comparability.
16.2	Comparability - over time	In the short run, reasonably good comparability over time for individual countries and between countries as concern yearly percentage change.
17	Coherence	
17.1	Coherence - cross domain	National accounts normally provides a set of coherent and consistent macroeconomic variables. In certain cases they are also coherent with other domains such external trade and balance of payments.
17.2	Coherence - internal	Countries as well as UNSD and OECD may revise their figures, e.g. provisional figures become final data, which means that there is some instability of the data. As for the variables within the domain there is fairly good internal coherence.
18	Cost and Burden	Not monitored by FAO.
19	Data revision	
19.1	Data revision - policy	Very substantial revisions, several years back in time, are made every time new data are added to the database. Users should not use previous reported data for n-1, n-2 etc. At the time of update the complete time series is therefore updated.
19.2	Data revision - practice	At the time of update, data for all previous years are also updated, see above.
20	Statistical processing	
20.1	Source data	The main data source is UNSD. Other sources are the OECD STAN and OECD-National Accounts databases , the World Input Output Database (WIOD) and the World and EU KLEMS databases (KLEMS=capital, labour, energy, material, services for growth accounting). If for OECD countries data are available from both UNSD and OECD STAN, priority is given to the latter. For a few non-OECD countries data for some countries are available only from WIOD or KLEMS. Fortunately, when data are available from multiple sources they usually coincide. In this case time series are sometimes created by combining different sources in order to get as long series as possible.
		Links to source data, see below: http://data.un.org/Explorer.aspx?d=SNAAMA&f=grID%3a101%3bcurrID%3aNCU%3bpcFlag%3a0 http://stats.oecd.org/Index.aspx?DataSetCode=STANI4 http://www.wiod.org/new_site/database/seas.htm http://www.worldklems.net/
20.2	Frequency of data collection	Data are collected annually.
20.3	Data collection	The National Accounts Main Aggregates database is the product of a global cooperation effort between UNSD, international statistical agencies, and the national statistical services of some 220 countries and territories. The modalities for collecting data from countries varies from country to country.

20.4	Data validation	Data are validated by countries and by UNSD, OECD, Eurostat and UNECE. Through a wide range of indicators FAO are also validating reported as well as imputed data. In some cases when it is obvious that there might be errors in reported data and there are no means for corrections then data are deleted.
20.5	Data compilation	Data on GFCF are available for over 200 countries. For some 100 countries, data on agriculture GFCF were fully missing and are imputed based on panel regression approach (with an adjustment on the series level to ensure coherence with the agriculture consumption of fixed capital series whenever available from UNSD OECD). For many of the other countries data are available only for a limited number of years in which case data for the missing years have been imputed using the available data as the base for investment ratio using ARIMAX modelling. In order to estimate CS series, long-time series on agriculture value-added and GFCF are needed. Therefore, most series were compiled for the period 1970-2014 and this required going through a bridging exercise within and across data sources (UNSD and OECD) in order to reconcile different versions of the ISIC classifications and the SNA framework. For instance, bridging is required in presence of multiple SNA versions of NA series for a given country. This is the case for UNSD - Official Country Data which are sometimes reported under different series numbers with the series numbers used to store different time-series versions of national accounts statistics, e.g. different SNA national accounts methodology, different currencies, fiscal years, or by different sources. Data in different series are not comparable. Therefore, in order to have long data series, the bridge is necessary.
20.6	Adjustment	See information above about bridging of data series, constant price calculations and imputations.
21	Comment	

	COLLECTION LABEL	Capital Stock Database - Agriculture, forestry, fishery (ISIC Rev.3: A+B)
	DATASET LABEL	II. Net and Gross Capital Stock, Consumption of Fixed Capital
1	Contact	
1.1	Contact organisation	Food and Agriculture Organization of the United Nations (FAO).
1.2	Contact organisation unit	Statistics Division (ESS), Economic Statistics Team.
1.3	Contact name	
1.4	Contact person function	
1.5	Contact mail address	FAO viale delle terme di Caracalla 100.
1.6	Contact email address	macrostats@fao.org
1.7	Contact phone number	+39 0657055890
1.8	Contact fax number	
2	Metadata update	
2.1	Metadata last certified	2014-07-20.
2.2	Metadata last posted	2014-07-20.
2.3	Metadata last update	2015-06-16.
3	Statistical presentation	
3.1	Data description	<p>As part of the FAO Capital Stock database, ESS-FAO publishes country-by-country data on net and gross capital stock in agriculture, forestry and fishery as defined by the System of National Accounts (SNA). The FAO Capital Stock Database is an <i>analytical database</i>. Whenever available, the database integrates official national accounts data harvested from UNSD or OECD. If the full set of official data is not available for a specific country, estimation procedures are employed to obtain estimates for the entire time series. Data on Net (or Wealth) Capital Stock (NCS), Gross Capital Stock (GCS) and Consumption of Fixed Capital (CFC) are available only for a limited number of countries - to a large extent from OECD countries and included in the OECD STAN database. For some 20 other countries data are also available from the UNSD National Accounts Official Country Data. Data on Gross Capital Stock (GCS) is available only for a few OECD countries. Based on the dataset on Gross Fixed Capital Formation, FAO has calculated NCS and CFC for all countries for which officially reported data are not available, using the data sources listed below:</p> <p>http://data.un.org/Explorer.aspx?d=SNAAMA&f=grID%3a101%3bcurrID%3aNCU%3bpcFlag%3a0 http://stats.oecd.org/Index.aspx?DataSetCode=STANI4</p>
		Constant price data: The same deflators as for GFCF have been used.

3.2	Classification system	ISIC Rev. 3. All data included in the CS database are expressed in ISIC Rev. 3. As from 2009 several countries, OECD countries in particular, provide data only in ISIC Rev. 4. In this case data are converted to ISIC Rev. 3 using “bridges” from those years when data are available in both revisions. Unfortunately, these bridges are not always stable. When there are several years of overlap between the two revisions the bridging ratios might fluctuate significantly. In this case an average is taken is the bridge between the classifications. Of course, this process implies a loss of precision in the data but this is the price which has to be paid of having all data in the same classification.
3.3	Sector coverage	Agriculture, forestry and fishery defined by ISIC Rev.3.
3.4	Statistical concepts and definitions	The stock of assets surviving from past periods, and corrected for depreciation is the net or wealth capital stock . The net stock is valued as if the capital good (used or new) were acquired on the date to which a balance sheet relates, that is, assets are valued at their market prices. These are lower than their “as new” prices by the amount of accumulated consumption of fixed capital. These market values are estimated by deducting accumulated consumption of fixed capital from the gross capital stock. The net capital stock is thus the value at a point in time of assets at the prices for new assets of the same type less the cumulative value of consumption of fixed capital accrued up to that point.
		The gross fixed capital stock is the value, at a point in time, of assets held by producers with each asset valued at “as new” prices – i.e. at the prices for new assets of the same type - regardless of the age and actual condition of the assets. The “as new” prices are obtained by revaluing assets acquired in earlier periods using price indices for the relevant types of assets. Provided that these price indices are properly adjusted for quality change, newer, more efficient, types of assets will be valued at higher prices than the older, less efficient, models which they are gradually replacing. The gross fixed capital stock is called gross because it has traditionally been thought of as the value of assets before deducting consumption of fixed capital. However, if asset price indices are correctly adjusted for quality change, the gross stock reflects the fall in the value of assets due to one component of consumption of fixed capital, namely obsolescence. Thus, the gross capital stock ignores decay of assets and considers past investments “as new” – only retirement is taken into account.
		Productive capital stock measures the expenditure on new investment that would be necessary to produce the same output as the productive stock, in quantity, is able to produce. The PCS is not measured here.
		Consumption of fixed capital is interpreted as the difference between successive market values of assets and can be obtained indirectly by using age-efficiency profiles to obtain the age-price profiles of assets and then subtracting successive values of the assets. More commonly consumption of fixed capital is estimated directly by applying depreciation functions to the gross value of assets. Several different depreciation functions are available and each implies a different age-efficiency profile. Clearly the depreciation function selected should be at least broadly consistent with the age-efficiency profile used in calculating volume indices of capital services. Consumption of fixed capital can thus be seen as the decline, during the course of the accounting period, in the current value of the stock of fixed assets owned and used by a producer as a result of physical deterioration (or wear and tear), normal obsolescence or normal accidental damage.

3.5	Statistical unit	Agriculture: The agricultural holding. Forestry: Private, state owners and other public owners of forests, wood and paper products enterprises. Fishery: Catches by the individual fishing vessels and the production by the aquaculture enterprises.
3.6	Statistical population	Target population is the universe of the agricultural holdings; all owners of forest and producers of raw wood and primary wood and paper products; and all fishing vessels and aquaculture enterprises
3.7	Reference area	As for the 2016 release, 206 countries and territories.
3.8	Time coverage	1990 to 2014 as far as data are available. Word of caution: For many countries, NCS series and GCS starts in the mid-2000s. Therefore, the greatest care should be attached to the effective country coverage when compiling regional aggregates.
3.9	Base period	2005 is the base year for values in constant prices.
4	Unit of Measure	Local Currency Unit (LCU), current prices and constant 2005 prices; USD, current prices and constant 2005 prices
5	Reference period	Calendar year, based on the most recent year available
6	Institutional mandate	For UNSD: Request by the Statistical Commission during its first session in 1947, and is in agreement with the resolution 48/223 C of the UN General Assembly, which mandates the Committee on Contributions to prepare the Scale of Assessment for UN Member States on the basis of the most recent reliable and verifiable available data on national accounts of as many countries and areas as possible, and that these data be published and disseminated regularly.
		For FAO: Article I of the constitution indeed requires the Organization to 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." Member countries reaffirmed this mandate in 2000 when formulating the Organization's strategic thrusts for the 2000-2015 period: Corporate Strategy E1 commits the Organization to building "an integrated information resource base, with current, relevant and reliable statistics, information and knowledge made accessible to all FAO clients.
6.1	Legal acts and other agreements	Not applicable.
6.2	Data sharing	Agreement with UNSD and OECD.
7	Confidentiality	
7.1	Confidentiality - policy	FAO Statistical Quality Assurance Framework, 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."
7.2	Confidentiality - data treatment	Data collected by UNSD and OECD are already aggregated to ensure confidentiality.
8	Release policy	Data are disseminated annually.
8.1	Release calendar	To be decided.
8.2	Release calendar access	To be decided.

8.3	User access	Data are disseminated on FAO's website respecting professional independence and in an objective, professional and transparent manner in which all users are treated equitably.
9	Frequency of dissemination	Annual.
10	Dissemination format	FAOSTAT domain; CSV analytical file.
10.1	News release	Occasionally, annual media releases containing statistical analysis at time of data dissemination.
10.2	Publications	FAO Statistical Yearbook.
10.3	On-line database	Included in the domain on "Macroeconomic Statistics" of FAOSTAT.
10.4	Micro-data access	No micro data.
10.5	Other	None.
11	Accessibility of documentation	
11.1	Documentation on methodology	See Systems of National Accounts (SNA) 2008, See link: http://unstats.un.org/unsd/nationalaccount/sna.asp
11.2	Quality documentation	Reference is made to UNSD and National Statistical Offices. Generally National Accounts data have good reliability, in particular when looking at percentage changes over years. FAO has no quality assurance documentation for National Accounts.
12	Quality management	
12.1	Quality assurance	The FAO Statistics Quality Assurance Framework is available http://www.fao.org/docrep/019/i3664e/i3664e.pdf
12.2	Quality assessment	See item 11.2 above concerning quality assessment of National Accounts data. The main strength of National Accounts data is that they are based on a rigorous methodology which is internationally accepted and implemented in practically all countries of the world. If FAO, in the processing of UNSD data, spots errors or data that seem inconsistent feed-back is provided to UNSD.
13	Relevance	
13.1	User needs	Target users are agriculture analysts, ministries and government agencies, research institutes, international organizations and universities. As it is a new domain users have not yet been monitored or if there are unmet user needs.
13.2	User satisfaction	As it is a new domain, no user satisfaction has yet been conducted but it is envisaged to be undertaken.
13.3	Completeness	Data on NCS, GCS and CFC are available for just over 200 countries. It should be noted that most of the country data have been calculated by FAO following the PIM approach
14	Accuracy and reliability	
14.1	Overall accuracy	The accuracy varies considerably between countries. Data are, however, based on common methodology, at least in theory.
14.2	Sampling error	FAO has no information on sampling errors.
14.3	Non-sampling error	FAO has no information on non-sampling errors.

15	Timeliness and punctuality	
15.1	Timeliness	Data are disseminated by FAO once a year. When the data set is fully operational then data will be disseminated by FAO about one month after their release by UNSD.
15.2	Punctuality	See above.
16	Comparability	
16.1	Comparability - geographical	Geographic comparability of absolute values are rather limited except for countries in certain regions or groups of countries, e.g. EU and OECD. Data on yearly percentage changes have higher degree of geographic comparability.
16.2	Comparability - over time	In the short run, reasonably good comparability over time for individual countries and between countries as concern yearly percentage change.
17	Coherence	
17.1	Coherence - cross domain	National accounts normally provides a set of coherent and consistent macroeconomic variables. In certain cases they are also coherent with other domains such external trade and balance of payments.
17.2	Coherence - internal	Countries as well as UNSD and OECD may revise their figures, e.g. provisional figures become final data, which means that there is some instability of the data. As for the variables within the domain there is fairly good internal coherence.
18	Cost and Burden	Not monitored by FAO.
19	Data revision	
19.1	Data revision - policy	Very substantial revisions, several years back in time, are made every time new data are added to the database. Users should not use previous reported data for n-1, n-2 etc. At the time of update the complete time series is therefore updated.
19.2	Data revision - practice	At the time of update, data for all previous years are also updated, see above.
20	Statistical processing	
20.1	Source data	The main data source is UNSD. Other sources are the OECD STAN and OECD-National Accounts databases, the World Input Output Database (WIOD) and the World and EU KLEMS databases (KLEMS=capital, labour, energy, material, services for growth accounting). If for OECD countries data are available from both UNSD and OECD STAN, priority is given to the latter. For a few non-OECD countries data for some countries are available only from WIOD or KLEMS. Fortunately, when data are available from multiple sources they usually coincide. In this case time series are sometimes created by combining different sources in order to get as long series as possible.
		Links to source data, see below: http://data.un.org/Explorer.aspx?d=SNAAMA&f=grID%3a101%3bcurrID%3aNCU%3bpcFlag%3a0 http://stats.oecd.org/Index.aspx?DataSetCode=STANI4 http://www.wiod.org/new_site/database/seas.htm http://www.worldklems.net/
20.2	Frequency of data collection	Data are collected annually.
20.3	Data collection	The National Accounts Main Aggregates database is the product of a global cooperation effort between UNSD, international statistical agencies, and the national statistical services of some 220 countries and territories. The modalities for collecting data from countries varies from country to country.

20.4	Data validation	Data are validated by countries and by UNSD, OECD, Eurostat and UNECE. Through a wide range of indicators FAO are also validating reported as well as imputed data. In some cases when it is obvious that there might be errors in reported data and there are no means for corrections then data are deleted. In other cases when there are doubts about the accuracy but data are still retained then they are "flagged" with "U" for unreliable.
		Missing data are estimated and imputed by FAO. As the dataset on NCS and CFC in agriculture, forestry, fishery is a combination of reported data and estimated and imputed data it should be considered as being an Analytical Dataset .
20.5	Data compilation	<p>N.B. FAO followed largely the OECD Manual on Capital Stock (2009). For imputations of missing data points in incomplete data series reported by countries or when no data at all are available, FAO followed the Perpetual Inventory Method with declining balances:</p> $K_t = K_{t-1} + GFCF_t - \text{Depreciation}_t.$ <p>That this, investments flows add up cumulatively to build up the capital stock after adjustment for depreciation. This approach requires assumptions about initial capital stock and depreciation rates (δ).</p> <p>As for the depreciation rate, we start from the declining balance model in which we fix the average service life of total assets in agriculture equal to 25 years. Combined with a declining balance parameter value of 1.5, the derived depreciation rate used in the FAO capital stock database is $\delta = 1.5/25 = 0.06$. Following the principle of parsimony, it is assumed to be identical for all countries for which data on CS are fully missing and for which NCS has to be compiled. The initial capital stock (NCS_{t0}) is approximated as follows: $NCS_{t0} = GFCF_{t0}/(\delta + \theta)$, where θ is the long-run growth rate of GFCF in constant price, This parameter θ is proxied by the country-specific long-run growth rate of volume agriculture value-added.</p>
20.6	Adjustment	See information above about bridging of data series, constant price calculations and imputations.
21	Comment	