# **Capital Stock in Agriculture, Forestry and Fishery**

#### November 2015

### Overview

According to the SNA definition "The gross fixed capital formation is measured by the total value of a producer's acquisitions, less disposals, of fixed assets during the accounting period plus certain additions to the value of non- produced assets (such as subsoil assets or major improvements in the quantity, quality or productivity of land) realised by the productive activity of institutional units".

It does not account for the consumption (depreciation) of fixed capital, and also does not include land purchases.

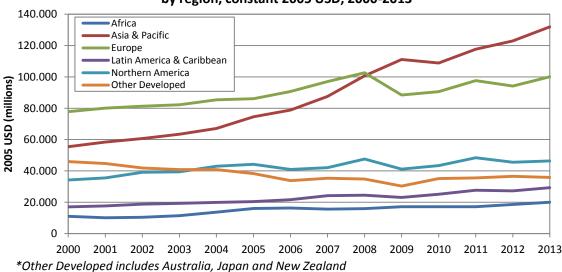


Chart 1: Gross Fixed Capital Formation in Agriculture, forestry and fishery by region, constant 2005 USD, 2000-2013

World gross fixed capital formation (investments) in agriculture, forestry and fishery amounted in 2013 to an estimated 363 billion, expressed in constant 2005 USD, up 5% from the previous year and up 50% from year 2000.

This pattern is identical as that of Value Added. More specifically, all the regions show a positive trend with the exception of Other Development Countries, which consist of Australia, Japan and New Zealand (-22%).

With an estimated GFCF of 131 billion (2005 USD) in 2013, Asia is the region with the highest level of investment in agriculture, forestry and fishery in absolute terms, surpassing Europe which held this record until 2008 (100 billions).

The other four regions show a much lower level in absolute terms: the value of the agriculture, forestry and fishery sector in 2013 reaches 46 billion in Northern America,

35 billions in Other Developed Countries, 29 billions in Latin America & Caribbean and 20 billion in Africa.

In Asia investments between 2000 and 2013 surged by 138%, compared with Africa and Latin America & Caribbean which show a growth rate of 81% and 72% respectively.

The sharp decline of GFCF in Europe between 2008 and 2009 is mainly explained by a drop in Ireland (-52%) and in some countries of Eastern Europe such as Bulgaria (-51%), Estonia (-49%), Ireland (-52%), Lithuania (-68%) and Romania (-30%).

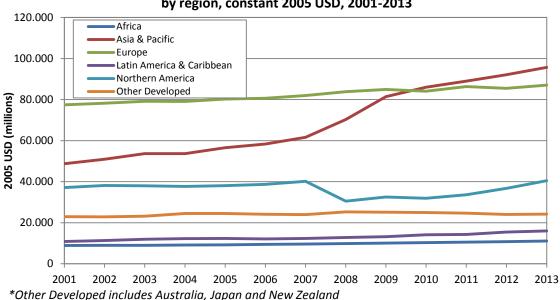


Chart 2: Consumption of Fixed Capital in Agriculture, forestry and fishery by region, constant 2005 USD, 2001-2013

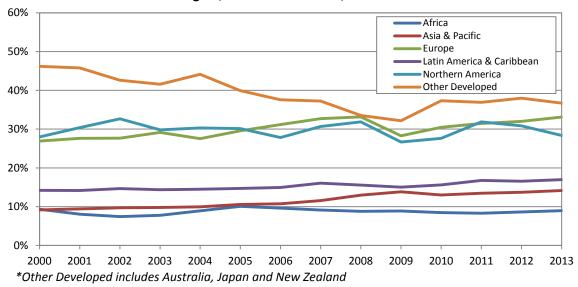
The consumption of fixed capital in the world agriculture forestry and fishery reached an estimated 274 billion (2005 USD) in 2013, up 4% from the previous year and up 33% from year 2001.

Asia shows a continuous upward trend throughout the considered period, with an average growth of 96% between 2001 and 2013 and a significant jump between 2007 and 2009 (+ 51%), mainly driven by China.

In relative terms, Latin America & Caribbean ranks in second place, with an average growth rate of 47% between 2001 and 2013, followed by Africa ( $\pm$  24%), Europe ( $\pm$ 12), Northern America ( $\pm$  9%) and Other Developed Countries ( $\pm$  6%).

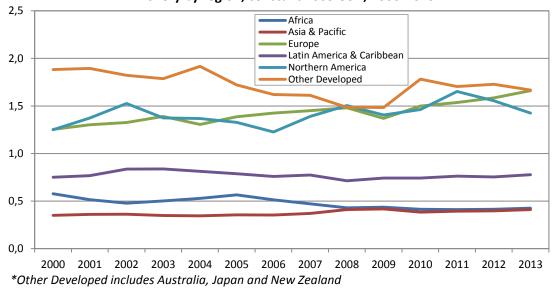
The decline of CFC between 2007 and 2008 in Northern America is mainly due to the performance of the United States of America (-26%).

Chart 3: GFCF share of Value Added in Agriculture, forestry and fishery by region, constant 2005 USD, 2000-2013



In Europe, Northern America and Other Developed countries, the relative investment in Agriculture, forestry and fishery is higher than the total economy investment. For the other regions it is the reverse. This is explained by the fact that, in general, in the developed countries the agricultural sector is more capital intensive.

Chart 4: Agricultural Orientation Index (AOI) in Agriculture, forestry and fishery by region, constant 2005 USD, 2000-2013



### General notes on the database

Because of large differences between countries as concern their coverage and completeness of national accounts surveys, methodology, experiences and resources there are significant differences in the accuracy and reliability of the national accounts data reported by countries. Country comparisons are therefore not always meaningful, except for countries with well-developed national statistical services.

There are also differences in the accuracy and reliability of the data for the different variables covered in the present database. Data on Gross Output and Value Added seem to be more reliable than, for instance, Consumption of Fixed Capital and Employment. This becomes obvious when analyzing indicators such as Valued Added per Employment. Micronesia (Federated States of) with reported employment data of 256 persons would have the world's highest Value Added per Employment with \$253,564 (in constant 2005 prices), followed by Iceland with \$125,873, British Virgin Island \$98,227 – which reported Employment data of 86 persons - , Norway \$69,722 and United States with \$67,946. As for Iceland, Employment fell from just over 10,000 to just over 7,000 in 2007-2008 whilst at the same time volume Gross Output and Value added were almost unchanged.

A further example where Employment data seem suspicious. Are there fundamental economic facts which can explain why Value Added per Employment in Slovakia is almost 3 times as large as in the neighbouring country Slovenia or are there conceptional differences in the measure of Employment in the two countries?

When it is obvious that reported data are wrong or highly unreliable they have been deleted, following FAOs validation procedures. As far as possible FAO has, however, tried to retain reported data country - data on Employment in Micronesia (Federated States of) and British Virgin Island have therefore been retained in the database – and instead letting the user judge their reliability. This can, as was mentioned above, preferably be done with the help of a range of indicators.

Finally, the present database consists of a mixture of reported country data and a large amount of data imputed by FAO. It is therefore essential to understand that **the present FAO database is not a Statistical Database but an Analytical Database**.

## Notes on the Analysis of Regional aggregates

For analysis purposes it is recommended to use only the following variables / time span. Previous years include several missing data, which does not allow a consistent analysis by Region.

Variable	Time span
GO - Gross Output	2000 - 2013
VA - Value Added	2000 - 2013
GFCF - Gross Fixed Capital Formation	2000 - 2013

CFC - Consumption of Fixed Capital	2001 - 2013
NCS - Net Capital Stock	2001 - 2013
GCS - Gross Capitals Stock	2009 - 2013

Data are missing for certain years and certain variables for the following countries: China, Macao SAR; China, Taiwan Province of; Democratic People's; Republic of Korea; Faroe Islands; Monaco; Comoros; South Sudan; Sudan.

## **Contact information**

For more information, or to require about concepts, methods or data quality, contact the Macroeconomics Statistics Team of FAO's Statistics Division (Macrostats@fao.org).