

Global Dairy and GHG Emissions

FAO analysis 2005-2015

The global dairy sector is extremely diverse in terms of scale, production systems and geography. Dairy farmers and processors the world over work to produce highly nutritious foods in a sustainable and responsible way to meet the demands of the growing world population. Farmers, more than most, face the impacts of climate change on a regular basis and as such are very aware of the need to act quickly and strategically on environmental issues.

The analysis undertaken by the UN Food and Agriculture Organisation (FAO), calculates green house gas (GHG) emissions from the dairy sector over a 10-year time period. The study highlights the progress that has been achieved and provides guidance on areas where future action should be considered.

The study reports reductions of GHG emissions per liter of milk produced in all regions of the world. At the same time, with significant increases in demand related production, the absolute emissions from the sector have risen in most regions.

Through the work of initiatives such as the Dairy Sustainability Framework (DSF), the sector is committed to continuously seek ways to reduce GHG emissions from their farms & businesses by all economically viable means.

Independent studies such as this by the FAO, provide the dairy sector globally the required focus on where to target efforts to enhance continuous improvement.

The study compares data from 2005, 2010 & 2015

The Dairy Sector - Major Trends



Global milk production has increased 30%. Growth in milk production has been achieved through increasing milk yields and number of milking cows.



Increase in yield per cow-now averaging 2,514 litres/cow per lactation.

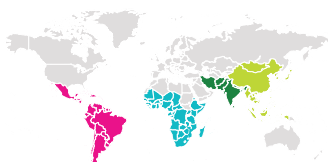


Increase in number of milking cows.

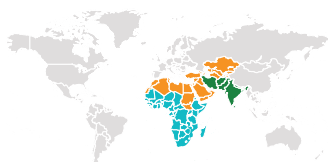
Milk production among regions has shifted considerably, with expansion taking place in the low-and-middle income regions and contracting in some high-income regions.

These changes in overall production and efficiency have not occurred homogeneously in all regions. Some regions had shrinking herd size and increasing milk production. Some regions expanded milk production faster than an increase in milking cows. Other regions saw cow numbers increasing at a faster rate than milk yield.

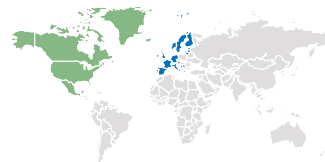
76% of dairy cattle herd is in EA, SSA, SA and CSA.



Fastest growing (milk production) dairy regions over the decade were: **SA (4.0%), SSA (3.6%) and WANA (4.5%).**



Western Europe and North America averaged about **1.5% growth** in production.



Legend:

■ EA East Asia | ■ CSA Central and South America | ■ NA North America | ■ SA South Asia | ■ SSA Sub-Saharan Africa
■ WANA West Asia- North Africa | ■ WE Western Europe

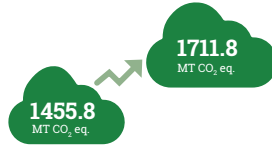
Emissions - Key Findings



The Sector is already part of the solution to limit climate change



30% increase in milk production.
Dairy farming is becoming more efficient. Emissions per unit of product are falling but absolute emissions are rising.

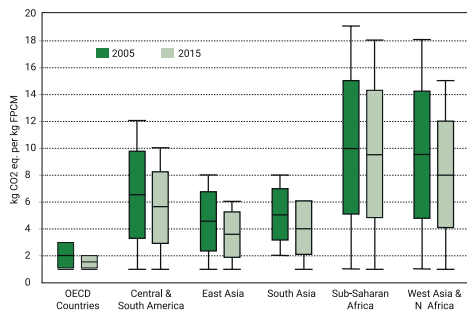


Due to increased demand for high quality nutrition, total GHG **emissions from the dairy sector have increased by about 18%.**



Emission intensity over the 10 years has **reduced by 11% from 2.8 to 2.5 kg CO₂ eq./kg FPCM.**

Without the efficiency improvements made by the sector, total emissions from the dairy cattle sector **would have increased by almost 38%** over this period to deliver the same amount of product.



The largest gains in emission intensity reduction have occurred in low-and-middle income countries with traditionally low productivity. In these countries the concept of emission intensity remains the most attractive mitigation route because it allows for the harnessing of synergies between food security, development objectives and climate change mitigation.

All dairy regions have improved through increased **productivity per animal, increasing farm management efficiency and increased feed efficiency.**

The Dairy Sector



1 billion
people strong



600 million
people living on farms



400 million
additional people are supported by the full time jobs that are created in support of dairy farming



240 million
people are employed, directly or indirectly, in the dairy sector



133 million
dairy farms



37 million
farms led by women, **80 million** women employed in dairying