

SUPPORTING SUSTAINABLE FOOD PRODUCTION MUST BE PART OF GLOBAL RESPONSE TO CLIMATE CHANGE

OVERVIEW

This December international leaders will come together in Paris and endeavor to agree global greenhouse gas **emission reduction targets up to the year 2030** as part of an overall effort to agree a successor to the Kyoto Protocol.

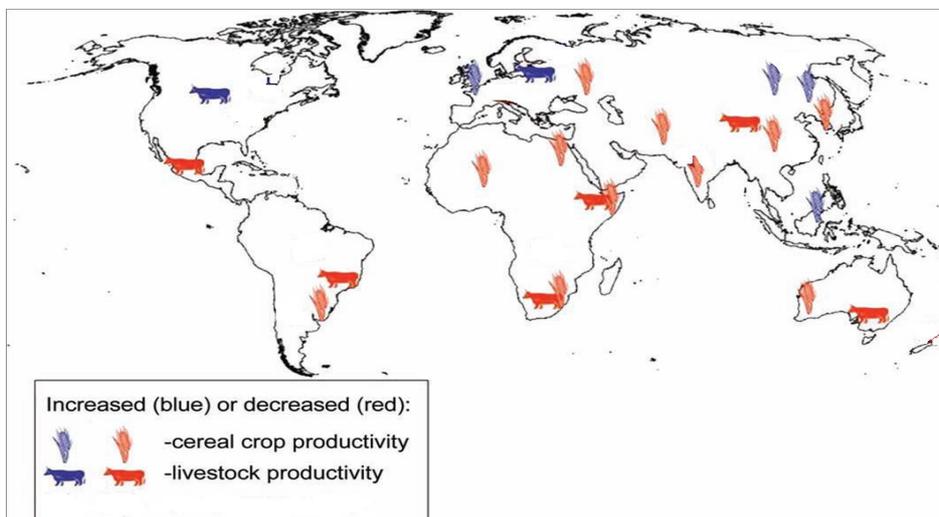
For agriculture, these talks must not repeat past mistakes. A **new approach** must be developed which puts **food security** and resource stresses such as **water availability** at the **centre of agricultures' response to climate change**. The sector must also receive **full emission reduction credit for carbon sequestration activity** in agricultural soils, forestry and bioenergy when emissions from the sector are being reported.

Food security & climate change - the dual challenges

Feeding the world while addressing climate change is one of the biggest challenges of the 21st century. The world's population, which reached 7 billion in 2011, is expected to exceed 9 billion by 2050. Agricultural production will need to increase by an estimated 70% according to the UN Food and Agriculture Organization, with strong demand projected for commodities such as milk and meat. Ireland's grass based production systems provide a measurable carbon efficient model of food production, with amongst the lowest GHG emissions in Europe per unit of production.

Impact of resource stress on food production

Not all regions in the world are in a position to sustainably increase food production to meet this demand (see figure 1). Many parts of the world suffer from resource stress and are therefore not in a position to increase food production. The United Nations predicts a 40% worldwide water shortfall and a 55% increase in demand for water within the next 15 years. This is not just a developing world issue, the European Environment Agency reports that 18% of Europe's population lives in countries that are water stressed.



Climate policy must support carbon efficient food production

Increased international greenhouse gas emissions must be avoided by ensuring climate policy does not displace carbon efficient food produced in regions such as Europe by less sustainable food produced in tropical or other regions where carbon sequestering forests are cleared to support cattle rearing.

Europe's recognition of agriculture's many roles is basis for global agreement

In Europe, there are positive signs that policy makers now recognise the many requirements from the agricultural sector. This can provide a path to a successful international climate agreement in Paris.

In October 2014, the Heads of Government agreed an EU wide position on climate change, which importantly includes a new policy framework for how agriculture should be treated in the climate debate. This recognises that agriculture is different and that, in addition to emitting carbon, the sector also has a positive impact on the environment. It acknowledges that agriculture has many responsibilities, not only the reduction of greenhouse gas emissions. These responsibilities include food and fuel production, energy production and environmental protection – all of which must be considered when addressing the climate challenge.

The global response of the sector to the climate challenge in Paris this December must evolve towards sustainable production and better management of resources.

Agriculture's carbon sequestration potential must be fully recognised

Agriculture deserves credit for its impact in reducing greenhouse gas emissions by including the carbon sequestration potential of agricultural soils, forestry and bioenergy. Agriculture's positive contribution needs to be recognised in the international talks when assessing greenhouse gas emissions from the sector. For example, internationally the mitigation potential of agricultural soils is between 1 and 4 billion tonnes of CO₂/year.