What’s the problem?
In 2005, the 2003 Common Agricultural Policy (CAP) reforms decoupled payments from production, introducing the area-based Single Farm Payment (SFP) system and greater environmental provision through a range of Cross-Compliance (CC) measures. This was followed by the 2006 Sugar Reforms and the implementation of the CAP ‘Health Check’ (HC) in 2009 which aimed to streamline and modernise the CAP. The HC included the abolition of compulsory set-aside, changes to the eligibility criteria for the SFP and revisions to the CC conditions. Early in 2010 (5 years since the implementation of the reforms) work was commissioned to provide an overarching assessment of the farm level changes and anticipated environmental impacts of the CAP reforms, drawing on previous research, new analyses (data up to 2009 were analysed) and views from stakeholders through a series of workshops.

What are the aims of the project?
• To provide an updated and enhanced assessment of the environmental impacts of CAP reform by investigating current trends at farm level in England.
• To gather evidence on the emerging and anticipated trends in farm practices and the likely environmental implications arising from the changes made to the CAP following the ‘Health Check’ regulations.

The key research objectives are:
• Assess the current picture in terms of the implementation of CAP reform at farm level;
• Building on previous research, continue to review existing literature on the environmental impacts of CAP reform, provide an up-to-date assessment of implications for the environment, identifying the trends and impacts both in the short and longer term;
• Seek expert views on any emerging patterns through workshops and/or targeted interviews to assess the trends and impacts. These expert views should be able to provide insight into both the attitudes of farmers and their farming practices;
• Highlight specifically any recent or emerging data on the farming sector which has the potential to have significant implications for the environment;
• Provide an up-to-date assessment of the implications for Defra’s environmental priorities, highlighting where the conclusions may differ from previous analyses and issues for further investigation.

Which policy areas will the research inform?
This external project was carried out on behalf of the Agricultural Change and Environment Observatory by the Scottish Agricultural College (SAC) and AEA.

The research is cross-cutting and therefore has potential applications for a wide range of policy areas such as those involved in CAP Reform, Environmental Stewardship, Cross-Compliance etc.
What are the results from the project?
Farm level changes and the key drivers for these changes and have been identified for the major agricultural sectors, along with the likely environmental implications. Taking each sector in turn:

**Arable:** High cereal prices and 0% set-aside (and its subsequent abolition) saw wheat production increase to pre-decoupled levels; the area of barley also increased. Oilseed rape remains the major non-cereal crop due to commodity market demands. The closure of sugar beet processing plants has led to the industry concentrating in the East. Exchange rates, weather conditions, input prices, buyer specifications and market forces are the key drivers of change, although the abolition of set-aside facilitated more rapid response to market forces. The CAP reforms have provided the opportunity for the sector to rationalise and become more market oriented/reactive; this has not resulted in a change in the area of production but has seen changes in the way land is farmed, e.g. more contractors, share-farming etc.

**Dairy:** The industry has continued to contract and concentrate onto larger holdings in the SW and NW with those leaving generally moving into beef production. The deregulation of the milk market and squeezing of profit margins have led to the most significant structural changes and the industry-led ‘Milk Roadmap’ initiative has encouraged environmental undertakings. CAP reforms have played a marginal role in changes in this sector; the longer adjustment lags required for livestock and the exchange rate benefits have masked decoupling effects.

**Grazing Livestock:** The numbers of sheep and beef have declined, particularly in the Less Favoured Areas, and overall sheep numbers have declined more rapidly. Due to the economic performance of the beef sector the anticipated replacement of the suckler herd with sheep in the lowlands has not occurred. For beef a proportion of holdings have withdrawn whereas for sheep general downsizing has occurred. CAP reforms are considered to be a key driver and magnifier of change in this sector and have allowed greater flexibility, rationalisation and market orientation. However, better prices (particularly for beef) and exchange rate benefits have masked the CAP reform impacts.

**Environmental Impacts:** It is difficult to unambiguously attribute farm level changes and any resulting environmental implications to CAP reform. CAP reforms have made farmers more responsive to market forces and consequently anticipated environmental impacts may show greater temporal variation and inconsistent trends as a result. For arable, the abolition of set-aside is considered to have major environmental implications due to the reductions in biodiversity benefits as former set-aside is brought back into production. For the dairy industry, its intensification in the West could see increased manure applications, greater emissions, and soil compaction in dairy strongholds. For grazing livestock, whilst extensification will result in a reduction in the environmental burdens associated with high grazing pressures, changes to the grazing livestock mix and more simplified land management could be detrimental, e.g. there may be a decrease in soil compaction, emissions and leaching, but where a shift is made to larger animals there could be localised issues.

**Environmental Stewardship (ES) and Cross Compliance (CC):** The introduction of ES has doubled the number of farms involved in agri-environment activities with the maintenance/enhancement of landscape and features in lowland areas considered to be the most certain accrued impacts. In addition there has been high adherence to CC measures with the resulting environmental benefits considered to be largely as a result of the underlying regulations and penalties for non-compliance.

**Ecosystem Services:** As part of this work consideration was made of the impacts on Natural Resources, Biodiversity, Culture and Recreation, Agricultural Productivity and Business and Community. These are tabulated at the end of the Executive Summary.

Where can I find further information about this and related research?

Alternatively, please contact the Observatory on: [Observatory@defra.gsi.gov.uk](mailto:Observatory@defra.gsi.gov.uk).

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