

## **S1. Executive summary**

This economic evaluation of Agenda 2000 in the UK was carried out by Agra CEAS Consulting for DEFRA, SEERAD, NAWAD and DARDNI. In recognition of the fact that it is too soon following implementation of Agenda 2000 to carry out a full ex-post evaluation, the intention was that the evaluation would be forward-looking and would also establish a baseline against which a future evaluation of the impact of the reforms could be carried out.

The research was carried out by means of desk research and a face to face farmer survey of 700 farmers, 340 in the arable sector and 360 in the beef sector. The sample was stratified to allow analysis of the results by country and Less Favoured Area (LFA) status in the beef sector within the UK and by size category and by LFA status in the beef sector in the individual countries. In order to reflect reality on the ground the size categories differed between countries. The sample in Wales and Northern Ireland was biased towards the beef sector in recognition of the greater importance of beef in these countries.

### **S1.1. Implementation of Agenda 2000 in the UK**

The Agenda 2000 reforms, although applying to the whole of the EU, contained two voluntary components: cross-compliance and modulation. The UK did not introduce cross-compliance, which would have required farmers to follow certain production practices in order to receive direct support under the Common Agricultural Policy (CAP), but did introduce modulation (France was the only other Member State to implement a form of modulation from the beginning of the reform period).

All funds received from modulation are matched by funds coming directly from the national exchequer meaning that for the UK the total funds for redistribution to rural development and agri-environment schemes will amount to around £940 million over the period 2000-2006, with half this amount coming from cuts in direct payments to farmers.

Although £23.599 million was collected during 2001, partially as a result of the Foot and Mouth Disease (FMD) outbreak, only £3.72 million was disbursed, £3.343 million (90%) of which was in England.

### **S1.2. The Agenda 2000 Baseline in the UK**

As a result of the short period of elapsed time since the introduction of the Agenda 2000 reforms, a baseline was constructed against which subsequent economic evaluations might take place. This involved building up a picture of both the arable and beef sectors of UK agriculture in 2000.

#### **S1.2.1. The arable sector**

- Winter wheat is the predominant arable crop with winter barley, spring barley and winter oilseed rape also important crops.

- Approximately 70% of UK arable farms employ full-time labour and fertiliser application rates are highest in winter wheat, as is expenditure on Plant Protection Products (PPPs).
- Just under a third of arable farmers rent land and this has an average cost of £150 per hectare for arable land.
- Sixty percent of arable farmers undertake diversification activities with agricultural contracting work the most common.
- A third of arable farmers participate in agri-environmental schemes with the Farm Woodland Premium Scheme the most common.
- Around two thirds of arable farmer revenue is derived from the market with one third being direct support payments. Agriculture contributes 77% of turnover on arable farms.
- Just under a third of arable farms are solely owned and almost the same proportion are owned in partnership.

### **S1.2.2. The beef sector**

- There are an average of 42 beef finishers, 32 suckler cows and 20 beef stores on UK beef holdings and these are supported by an average of just over 50 hectares of permanent pasture, 15 hectares of rotational grassland and 18 hectares of rough grazing.
- Just under 60% of beef farms employ full-time labour and application of fertiliser is highest on permanent pasture (although approximately the same quantity of P is applied to rotational grassland). Expenditure on PPPs is highest on rotational grassland.
- Slightly more than 200 kilograms of compounds and just under 200 kilograms of straights are purchased per head for stockfeed at an average price of £126 per tonne and £114 per tonne respectively.
- Half of all beef producers rent land at an average cost for pasture of £139 per hectare.
- A third of beef producers undertake diversification activities with contracting work for other farmers the most common.
- Thirty-seven percent of beef producers participate in agri-environment schemes with the Less Favoured Area Support scheme having the greatest participation levels.
- Beef producers derive two thirds of their revenue from the market with a third coming in the form of direct support. Agriculture contributes 71% of beef producer turnover.
- Almost 40% of beef farms are solely owned with a further 30% held as partnerships.

### **S1.3. Impact of the Agenda 2000 reforms in the EU**

No ex-post evaluations of Agenda 2000 were made available to the authors during the conduct of this research due to the short period of elapsed time since the introduction of the reforms. However, there have been a number of ex-ante studies at the EU level which suggested that whilst wheat area would increase by 2005 over and above the areas expected in the absence of reform, oilseed area would decline. However, most ex-ante studies assumed a reduction in the rate of set-aside which, although planned, was not part of the final Agenda 2000 agreement. This makes the results of ex-ante studies potentially misleading.

The reforms in the beef sector were expected to counter one another in that *inter alia* the reduction in intervention price would create downward pressure on supply whereas *inter alia* the increase in direct payments were expected to encourage production. The downward pressure was expected to dominate leading to slight decreases in production by 2005.

The expected continuation of agricultural income decline was predicted to be exacerbated by the Agenda 2000 reforms.

#### **S1.4. Impact of the Agenda 2000 reforms in the UK**

The Agenda 2000 reforms have generally had little impact on UK agriculture to date. However, decreases in prices and changes in Arable Area Payments had some impact on cropping patterns with some farmers reducing their area of some crops, especially oilseed rape, as a result. However, rotational considerations were the most common reason for cropping area change and the FMD outbreak was the most frequently cited reason for change in beef numbers.

Agenda 2000 was not a very important factor in changes in the use of Plant Protection Products (PPPs) or fertiliser with changes in input costs being the main driver of change in use of PPPs and rotational considerations in the arable sector and changes in stocking density in the beef sector being the most common reasons for change in fertiliser application.

Large proportions of farmers, especially in the beef sector, were not able to say what their response to a reduction in net farm income through modulation had been which suggests that the impact of modulation has been marginal in terms of production methods. The biggest impact of modulation would appear to be a decrease in capital investment rather than either an increase or a decrease in farming intensity. However, it should be stressed that in the majority of cases, investment levels have been stable and were expected to remain so.

Although participation rates in agri-environmental schemes increased following the Agenda 2000 reforms, it is not clear that this is related to the reforms themselves. However, awareness of the Rural Development Programme is high, although more farmers are certain not to participate than are certain to try to do so. The main reason for likely participation is an attempt to either improve profitability or to increase or maintain income levels.

Total revenue decreased by 10% in the arable sector and 2% in the beef sector between 2000 and 2002. This resulted from an 11% decrease in market revenue and a 9% decrease in support revenue in the arable sector and a decrease of 8% in market revenue for beef producers, balanced to a degree by an increase of 16% in support revenue. Agenda 2000 should have led to a decrease in market revenue under the assumption that a decrease in intervention price will result in decreases in market prices. However, it should have led to an increase in support payments, albeit only to partially compensate. The fact that support payments only increased in the beef sector suggests that a) exchange rate movements negated the increase in support payments and b) that this was not

noticed in the beef sector. The most likely explanation for this is that beef producers counted other support such as that related to FMD in their revenue estimations.

In proportional terms, the mean percentage of support in total revenue increased from 32.9% to 36.0% between 2000 and 2002 in the arable sector and from 33.1% to 35.3% in the beef sector over the same period. Forty percent of arable farmers claimed that Agenda 2000 had had an impact on their net income, although less than 20% of beef producers made this claim. Modulation was widely expected to reduce net income, although relatively high proportions of especially beef producers were uncertain of impact suggesting that the impact to date has not been as noticeable as it might have been.

Awareness of modulation was high (87% of arable farmers and 78% of beef producers) and the policy was reasonably well understood with high proportions of farmers noting the increase in support for rural development and the environment/the recycling of money into other activities. However, farmers in both sectors also believe that modulation represents a reduction in support to agriculture and the vast majority explained that it would reduce support to their business. These findings may in part be related to the fact that although modulation removed £23.599 million in 2001, only £3.72 million was disbursed: farmers have, by and large, yet to receive many benefits from the policy.

Investment patterns were generally stable between 2000 and 2002, although where changes had taken place they most frequently involved a reduction. This is considered a typical reaction to uncertainty and this uncertainty extends beyond the introduction of Agenda 2000 to include the current Mid-term Review process, the possible introduction of the Euro and the enlargement and WTO negotiations. The outlook for investment was marginally positive in some areas (for example investment in buildings in the arable sector), but marginally negative in most areas.

It appears that there has been some restructuring in terms of employment between 2000 and 2002 with the proportions of farmers employing at least three full-time workers decreasing by almost a quarter in the arable sector and by just a bit less in the beef sector. Forty percent of both arable farmers and beef producers claimed that decreases in output prices were a factor in their changes in labour.

Almost half of arable farmers and just under a third of beef producers feel that they spend as much time dealing with their IACS forms and beef claims in 2002 as they did in 2000. However, of those who felt that they now spend a different amount of time, more feel that they now spend longer.

### **S1.5. Understanding of and attitude towards Agenda 2000**

The most common understanding of the reforms for both the arable and the beef sectors is that they reduced direct support to agriculture. Whilst Agenda 2000 actually increased direct support to agriculture, the most likely explanation for this response is that farmers are not distinguishing between different support elements and are therefore referring to the total support framework which they feel has been reduced rather than the direct payments *per se*.

Half of all beef producers and two thirds of arable farmers believe that Agenda 2000 has resulted in a decline in profitability. Only a minority of beef producers and no arable farmers felt that their profitability had increased. Almost a third of beef producers felt that there had been no impact on profitability (compared to 10% of arable farmers) whilst around a fifth of all producers either did not know what the impact had been or declined to answer. This last finding is consistent with a generally minor impact following the reforms. Had the impact been significant, very few farmers would answer 'don't know' or would decline to answer and very few would have claimed 'no impact'.

Just over a quarter of respondents were unable to state the impact of Agenda 2000 on profit variability and a similar proportion indicated that there had been no change. Again, this is suggestive of little impact. Of those that did volunteer an opinion, the majority in both sectors felt that variability had been reduced, although this view was noticeably more pronounced in the arable sector.

More farmers were against the Agenda 2000 reforms than supported them, although this was more pronounced in the arable rather than the beef sector. A quarter of arable farmers and a third of beef producers were neither for or against the reforms. In the case of the beef sector this is actually a higher proportion than claimed to be against the reforms. There were also high levels of 'don't know/not answered'. This, in conjunction with the higher levels of those agnostic towards the reforms suggests yet more evidence that the impact of the reforms was negligible. That said, 90% of those arable farmers that were either for or against the reforms were against compared to 73% of those in the beef sector suggesting that Agenda 2000 was better received by beef producers rather than arable farmers.

### **S1.6. Impact of Agenda 2000 in France**

Ex-post evaluations of Agenda 2000 in France are yet to be conducted as a result of both the lack of full implementation to date and the short time scale since the introduction of the reforms. The data on which an evaluation could be carried out are not yet available as the latest year for which the national FADN<sup>1</sup> data exist is 2000. On this basis, and in the absence of a farmer survey similar to the one carried out in the UK, such an analysis will only begin to be feasible after 2004.

However, some ex-ante studies have been carried out and these, coupled with the limited post-Agenda 2000 data available suggest that the area of oilseeds has declined following the reforms. There was also a slight decline in total cereal area. Beef production in France is forecast to have increased by 4% by 2010.

Although France introduced a form of modulation at the same time in the UK this was subsequently suspended following extensive farmer criticism.

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<sup>1</sup> Farm Accounting Data Network.

The Agra CEAS Common Agricultural Policy Analysis (CAPA) model<sup>2</sup> was used to examine differences in arable sector cropping and incomes in the UK and France and predicted that total cereal area would increase by 4% between 1999 and 2006 in the UK and by 7% in France. In contrast, total oilseed area was forecast to decline by 14% and 29% respectively. Real net farm incomes in the UK are expected to have decreased by 21% in 2006 compared to 1999 levels whilst the decrease in France is expected to be lower at 16% over the same period. Average gross margin is forecast to remain higher in the UK.

### **S1.7. Expected future impact**

In undertaking an assessment of the expected future impact of the Agenda 2000 reforms it is important to bear in mind the following:

- 1) Because the Agenda 2000 reforms continued the MacSharry reforms of 1992, the impact is not expected to be as powerful as the previous reforms.
- 2) The Agenda 2000 reforms were implemented in an EU-wide policy environment of great uncertainty, stemming in part from uncertainty about the next WTO negotiations, but primarily from the planned enlargement of the EU and the unknown impact of this enlargement on the place of, and policy towards, agriculture in the EU.
- 3) Only two full years have passed since the implementation of the Agenda 2000 reforms began, and so after allowing for the role of seasonal, exchange rate and other non-policy considerations, it could easily be too soon for the impacts of the Agenda 2000 reforms to be identifiable.

It is therefore not surprising that the impact of Agenda 2000 identified in this research is fairly limited.

#### **S1.7.1. Prices**

The May 1992 reforms for arable farmers weakened the link between the intervention price and the market price. Since then farmers have been learning to focus on the market price and not the intervention price in their decision-making, and this adjustment can be seen in the survey findings. This process of adjustment is somewhat retarded in the case of beef farmers, but over time it is likely to develop in the same way as it has in the arable sector. The Mid-term Review (MTR) process will only serve to reinforce this adjustment process.

#### **S1.7.2. Crop areas**

The survey results indicate very small responses in terms of crop area to Agenda 2000. This is consistent with the main adjustments having been made in response to the introduction of rotational and non-rotational set-aside with the May 1992 reforms and with the fact that the Agenda 2000 reforms in effect left set-aside largely unchanged. The proposal within the MTR to change

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<sup>2</sup> Forecasts are contingent upon the assumptions used. See Appendix 6 to the main report for further details.

'environmental set-aside' suggests that any more significant adjustments in crop areas are likely to be put on hold until the future of the set-aside policy is clarified.

### **S1.7.3. Beef numbers**

As with crop areas, the survey indicates very small responses in beef numbers to the Agenda 2000 reforms. This is consistent both with a minor impact of Agenda 2000 and with the short period of time to adjust since its implementation began. Moreover, it is clear from the survey that any Agenda 2000 impacts have been obscured by the overwhelming impact of FMD. The relatively large changes proposed in relation to the beef sector in the MTR could also suggest that farmers are likely to suspend adjustments while they await the outcome of the MTR negotiations.

### **S1.7.4. Production methods**

Given that the Agenda 2000 reforms entailed further reductions in the level of price support for arable and beef farmers, some signs of de-intensification in response to the implementation of the reforms were expected. However, as before, the survey indicates only very small responses, and then often of mixed direction. For arable farmers this is once again consistent with a minor impact only, and for beef farmers either small impacts or lack of time to respond. Nevertheless, the prospect of both further reductions in price support and tightening of environmental standards in the MTR should result in a continued slight trend towards de-intensification.

### **S1.7.5. Environment**

The survey indicates a noticeable increase among arable farmers (from a low base) of interest in and awareness of agri-environmental schemes. This contrasts with beef farmers who are already well-engaged in this area. This increase is consistent with a widening acceptance that participation in such schemes is the way of the future and so the time has come to 'get on board'. The important potential future role of both 'environmental set-aside' and modulation in the MTR is likely to accentuate this trend.

### **S1.7.6. Producer income**

The survey indicates that producer incomes were generally down in the period since 2000 reflecting a combination of low world prices, exchange rate effects and only partial compensation in direct payments for reductions in price support. This suggests that farmers' incomes are increasingly dependent on market prices (in domestic currency), a development which, if implemented, the MTR proposals would continue. These proposals also envisage substantial changes in the form of direct payments which will in the interim add considerable uncertainty to future income streams should they be adopted following negotiations.

### **S1.7.7. Modulation**

The survey indicates a higher level of awareness among beef farmers compared with arable farmers of the two-sided impact of modulation. This finding can be explained by beef farmers in general being the main beneficiaries from rural development policies. The MTR suggests a major enhancement of

the role of modulation in the future of EU agriculture, and so providing information, particularly to arable farmers, regarding the operation of modulation would seem a high priority over the coming two years.

#### **S1.7.8. Restructuring**

The survey indicates a widening awareness of the trend away from production-based support towards environment-based payments for farmers, which is affecting investment in machinery by arable farmers and investment in buildings by beef farmers. The release of the MTR proposals is likely to enhance this downward trend in production-orientated investment. The survey also indicates that the reduction in labour employed on farms is set to continue, although this is arguably related to technological change rather than CAP reform.

#### **S1.7.9. Resource and Compliance Costs**

The impacts indicated in the survey are too small to be extrapolated from. However, a land prices model was constructed to examine the impact of Agenda 2000 on land rents in England, Wales and Northern Ireland (suitable data are not available for Scotland) which suggests that from 2000 onward land prices are predicted to reduce steadily for Northern Ireland before levelling out and reduce initially in England and Wales before recovering and trending upward from 2004 and 2003 respectively.

#### **S1.7.10. Conclusion**

On the basis of the results of the survey it can be concluded that the overall impact of the Agenda 2000 reforms has been small, probably reflecting the fact that they are a reasonably predictable extension of the May 1992 reforms. Consistent with the policy thrust of the Agenda 2000 reforms, the main impacts identified are an increased awareness among arable farmers of the benefits of participating in agri-environmental schemes, and an increased reluctance to invest in machinery in the arable sector and buildings in the beef sector. In both cases these trends reflect the on-going policy shift of the CAP away from production-based support towards environment-based payments for farmers. Moreover, the recent release of the MTR proposals, if adopted, are likely to reinforce these trends.

A final point is that awareness and understanding of the Agenda 2000 reforms could be improved in the UK in general, but especially in Wales and in the Scottish beef sector. Awareness and understanding of the modulation component could also be improved in Wales and Scotland, as could awareness of the Rural Development Programme in Wales.