The Evaluation of the German Programme for Organic Food and Farming Research: Results and Pointers for the Future

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Abstract

The paper reports the results of the evaluation of the research programme of the German Federal Scheme for organic Agriculture. The main aim of the evaluation was to assess the relevance and impact of the research in relation to program goals. Recommendations presented are relevant to other applied research programmes targeted at the development of specific sectors.

Introduction

In 2001, the German Federal Government established the Federal Scheme for Organic Agriculture (BÖL). The goal was to improve the professionalism of organic farming in Germany; to support sustained growth in production of organic food; and to stimulate a corresponding growth in the market for organic food. BÖL was managed by the Federal Agency for Agriculture and Food (BLE) on behalf of the Federal Ministry for Food, Agriculture and Consumer Protection (BMELV). The scheme as a whole comprised three elements: marketing and consumer information; administrative measures; and a programme of research and development. This contribution reports on an evaluation of the research element commissioned by BMELV in 2010.

The BÖL research programme was initially established for only a two year period, and renewed three times with the current programme running to 2015. Our evaluation focused on all research initiated and completed in the period 2003 to 2010, but not on the extension to cover other forms of sustainable agriculture from 2011 onwards. The overall aim of the evaluation was to assess the relevance and impact of the research in relation to the BÖL's goals, the effectiveness of the deployment of the research funding resources, and the efficiency of programme management. Recommendations relate to continuation and improvement of the programme. We believe these are relevant to other applied research programmes targeted at the development of specific sectors.

Methods

The evaluation process comprised three major components: the research programme as a whole in the context of the wider BÖL; individual research projects; and the management processes used to implement the research programme. These three core elements were supported by an examination of the programme's guidance documents and background programme information.

The evaluation of the programme as a whole was based an impact model we developed for this purpose using our experience of evaluating Organic Action Plans (Lampkin et al., 2008). This clarified the four levels of effects of the research investment (programme level resources; project-level activities; the primary research users in the sector; and wider society) and indicators for the assessment of the research were established.

Data from the programme's project database were analysed to assess the distribution of resources over time, by topic as well as by research provider. An online survey of over 100 project leaders, interviews with 30 stakeholders and 12 administrative and management employees of the programme were conducted. Results and impact of the funded research projects were evaluated by external experts for 83 randomly selected projects in three categories of 'crop and soils research', animal research, and socio-economic and supply-chain research'. The experts were invited to a workshop to discuss the findings in each thematic area. An advanced draft of the final report was subject to external review to obtain feedback on the validity of the conclusions.

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Results

Using indicators of the programme level activity and participants' activities, this evaluation showed that the research programme has contributed significantly to strengthening organic research capacities in Germany. In comparison with programmes with similar aims in other European countries, the BÖL research programme is broad and financially well resourced, with a total spend of 75 million in the period 2002 – 2010. It was the largest single research programme dedicated to organic farming and food in Europe. If annual funding in Europe for research in organic agriculture is seen in relation to the agricultural area of the respective country, it shows that Germany (0.47 Euro/ha) spends less than Denmark (2.09 Euro/ha) and Sweden (1.09 Euro/ha), but more than France and UK (0.16 and 0.08 Euro/ha).

78% of research funds were primary research, 4% was spent on 37 projects that reviewed existing knowledge (status-quo projects), and the remaining funds (18%) were spent on knowledge transfer. The breakdown of in primary research in thematic areas was for plant and soil, 41%; livestock, 18%; food processing, 10%; marketing, 8%; farm management, 4%; nature conservation, 2%; interdisciplinary projects, 9%.

A total of 140 institutions received funding with universities and colleges receiving nearly 30% of the funds, followed by federal institutes (23%) and advisors/producer organisations (15%). There was a concentration of funds on six institutions that specialise in organic agriculture research (leading over 20 projects each and together receiving more than 35% of the total funding). At the other end of the scale, over 40% of the grant recipients initiated only one project and received a total of about 7% of the funding. However, compared to the general/conventional agricultural research in Germany, a diverse group of beneficiaries (e.g. advisors, farmer organisations etc.) were given a chance to become involved in research.

The evaluation found the relevance of the research to the organic sector's needs to be a major strength of the programme: 83% of projects rated as highly relevant to practice. Projects generally were innovative in how they integrated various actors and approaches along supply chains, with actors from agriculture playing an important role in identifying research themes. Other groups (e.g. food processing) were less well represented. Engagement with sector users declined in later years. However, the research prioritisation and resourcing processes were assessed as mainly reactive, with little evidence of processes converting the needs and aspirations of research users into coherent programme targets of strategic importance to the development of the sector. This hinders explicit (sub-) programme management and the identification and exploitation of synergies between projects.

Plant and soil research and related transfer activities accounted for 46% of all funds. This funding pattern remained steady from 2001 to 2010 and has clearly strengthened institutions that specialise in organic farming. Our analysis of the processes leads to the conclusion that research programming was sub-optimal as the combination of factors determining research activities described above is self-reinforcing and intrinsically conservative.

More than 1000 events held stimulated knowledge transfer in the organic sector. The knowledge and technology transfer clearly is a strengths, the activities relied mainly on direct interaction between researchers or intermediaries (e.g. advisors) and primary users, particularly farmers. Contact was mostly direct and temporary in terms of effect, for example conferences and workshop-type events. Some examples exist for communications that synthesised the results of a research projects at the programme level and focused these on users' needs in a more permanent way.

The systematic publication of high quality and complete final project reports through the international open-access archive Organic Eprints (http://www.orgprints.org/) is a special strength of the programme. These provide a full record of the research and that is easily accessible. The output of general publications at, on average, 10 per project is also high. The output of peer-reviewed publications appears at first glance to be adequate (1.5 per project) but the evaluation revealed that many of these are peer-reviewed conference proceedings in German. On average 0.5 doctoral theses per project were initiated, suggesting a lasting effect in the academic and research community through education. There is some uncertainty about the international scientific impact of these publications. The role of academic publications is not specifically mentioned in the programme documentation, although the programme aims to influence knowledge in and outside Germany. This is a gap particularly in relation to the programme's stated long-term goal of promoting a wider and more professional organic sector in Germany and Europe.

Overall, our results show that programme financial resources were deployed effectively. Withe exception of only a few projects, all funded projects had been independently assessed as worthy of funding at the

proposal stage. A particular highlight is the high satisfaction of project participants in the support and work provided by the programme managers in the BLE.

The BÖL had the clear sector specific goal at the outset of boosting organic farming to 20% of the farmed area by 2010. Between the introduction of the programme and 2010, the number of organic farms (+49%), the organically managed land area (+ 81%) and the market for organic products (+188%) increased. The evaluation was able to gather some evidence suggesting that many research projects contributed to achieving the overall programme objectives, but the extent cannot be determined due to the complexity of the interrelationships and interactions with other measures.

Conclusions and recommendations

Based on the results of the evaluation and against the background of the decision to extend of the programme in 2011 to cover other forms of sustainable agriculture, we made nine recommendations for the development of the programme.

It was recommended to develop a clear programme strategy that identifies research goals and develops a programme structure to associate them with timelines, impact ways and financial plans. This recommendation is central and leads to three further recommendations about securing supporting external advice through the Programme's Advisory Council; targeting of funding to support the development of human and institutional research capacities to deliver the strategy; and the development of a distinct knowledge transfer strategy that sets out the way impact is to be generated from the research. Impact plans set out in the context of a wider programme-level knowledge transfer strategy would set out how specific research outputs are delivered to their primary and secondary users, and if and how these users should be supported in this process using the full range of outputs and mechanisms (such as publications, models, management plans, education and training, germplasm) and target groups (including producers, consumers, policy-makers, educational institutions).

Three recommendations address the quality of the research and scientific impact. This includes the further development of the project selection process; better and more flexible structuring of projects (timeframe and project design); and more emphasis on international scientific impact and knowledge exchange through academic publishing. Our assessment of final reports indicates that the scope for academic publishing is significant. Academic publishing supports the quality of research in general and therefore supports other recommendations.

Lastly, two recommendations are focused on management. It is recommended that the research outputs at project and programme level be systematically recorded and monitored; and that the BLE as a research management organisation be further developed building on its experience as a learning organisation in driving research-based innovation.

We believe that these findings and especially the concluding recommendations are not only relevant to the continuing BÖLN research programme, but are also relevant to applied research programmes targeted at the development of specific sectors. In this chapter you write your understanding, what the results shall tell the Organic sector. This chapter should not exceed 1000 letters (incl. spaces). If you are selected for an oral contribution, this will be the main content of your speach.

References

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