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# NATURAL RESOURCES RESEARCH EVALUATION SYNTHESIS

*The good science undertaken in support of DFID's Natural Resources Research Programmes needs to be complemented by greater involvement of affected stakeholders in agreeing objectives and greater attention to the institutional development dimension.*

## MAIN FINDINGS

- Successful scientific outputs less well translated into uptake and impact
- Achieving impact requires demand-led research
- More guidance needed on commercialisation and intellectual property rights
- Need for systematically collected information on intermediate products and indirect outcomes
- Socio-economic research often needed to understand the conditions required for uptake
- Research findings need clear presentation and dissemination to influence policy

## Background

The study presents a synopsis of the findings of ex post evaluation studies (available separately) of three ODA renewable natural resources (RNR) research projects, all at least partly funded through Technical Co-operation:

DDT Impact Assessment Project,  
Zimbabwe (DDTIA)

Whole Crop Harvester (WCH)

Pheromones

Also taken into account were the findings from four research reviews; from Project Completion Reports (PCRs) for eighteen research projects financed from country programmes; and from other donor programmes.

## The Main Conclusions

The original evaluations rated DDTIA and Pheromones as partially successful, both achieving considerable technical success. The WCH project was largely unsuccessful.

In general, the research projects were better in achieving scientific outputs than in translating these outputs into uptake and impact. The PCRs suggested that most country research projects largely achieved their planned outputs, although it is less clear whether they achieved their overall purpose.

The sustainability of many of the bilateral research projects is questionable. The pheromones programme in Egypt has been sustainable so far but could be threatened by crop liberalisation and inadequate promotion.

The three evaluated projects benefited from explicit demand from local partner institutions; high quality research staff; and fruitful contact and interaction with UK institutions. On the other hand their impact was restricted by lack of clear objectives; insufficient consideration of the institutional and policy conditions for uptake; insufficient socio-economic inputs; and poor management of the commercialisation process.

DFID's RNR research management

guidelines already incorporate most of the lessons contained in these evaluation studies and reviews. But there is a need for more guidance on commercialisation, intellectual property rights, policy research, institutional issues and risk assumptions. More generally, there is a need to review the adequacy and effectiveness of the guidance in practice.

*Little is known about the impact of either bilateral or multilateral research on end-users, food security, poverty or renewable natural resources.*

Studies by the Australian Centre for International Agricultural Research confirm the potentially high economic rate of return to research. They also suggest that economic impact assessments are possible if the skills and resources are made available.

A review by the Consultative Group on International Agricultural Research of 87 impact assessments highlighted a need for systematically collected information on intermediate products and indirect outcomes, rather than merely on scientific quality. At present too little is known about the impact of either bilateral or multilateral research on end-users, food security, poverty or renewable natural resources.

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## KEY LESSONS LEARNED

The systemic lessons learned from the reports and reviews (some already reflected in current guidance) are summarised below:

- Research takes time; the likely duration needs to be considered carefully at the outset in each case;
- all key stakeholders, including end-users, need to be clearly involved in planning, appraisal, monitoring and uptake, even where the work is demand-led by one particular stakeholder;
- communication between stakeholders is crucial, especially where DFID does not intend to fund the entire research and development cycle;
- socio-economic research, including market research, is often needed to understand the strategy and conditions for uptake by farmers and pest control agencies, and should be integrated with technical research;
- many research projects, particularly those financed from country programmes, are best designed and managed as institutional development projects;
- research projects need clearly stated objectives, assumptions, indicators, and monitoring procedures set out in regularly updated logical frameworks;
- environmental or health impacts need reflecting in monitoring and evaluation systems where they are an important part of project benefits;
- research intended to influence policy requires regular appraisal of the existing policy context and clarity about how research can influence policy;
- research into controversial issues (e.g. use of DDT) is especially risky and requires particularly critical appraisal;
- the importance of factors peripheral to the main field of enquiry (e.g. health impacts) needs assessing by appropriate specialists as part of project design;
- conclusions and recommendations derived from research need clear, accessible and balanced presentation and dissemination if they are to influence policy; this will often have significant resource implications;

**KEY LESSONS LEARNED:** continued over

## KEY LESSONS LEARNED continued

- if aid-funded research is to result in commercialisation of a technology, this process needs to be actively managed rather than left to chance;
- research appraisal needs to consider the profitability and risk of R&D investment from the point of view of potential commercial contractors; this may require commercial expertise, often including involvement of likely companies from the outset;
- greater attention to risks and assumptions is needed if there is to be an increased likelihood of scientific outputs being translated into development impacts;
- systematic and strategic impact assessment, although difficult and expensive, remains a potentially rewarding challenge for RNR research and for other DFID Technology Development & Research programmes, and deserves higher priority.

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**For further information see "Natural Resources Research Evaluation Synthesis" (Evaluation Report EV604), obtainable from Evaluation Department, Department for International Development, 94 Victoria Street, London SW1E 5JL, telephone 0171-917-0243. This report will also be accessible via the Internet in due course.**

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The Department for International Development (DFID) is the British government department responsible for promoting development and the reduction of poverty. The government elected in May 1997 increased its commitment to development by strengthening the department and increasing its budget.

The policy of the government was set out in the White Paper on International Development, published in November 1997. The central focus of the policy is a commitment to the internationally agreed target to halve the proportion of people living in extreme poverty by 2015, together with the associated targets including basic health care provision and universal access to primary education by the same date.

DFID seeks to work in partnership with governments which are committed to the international targets, and also seeks to work with business, civil society and the research community to encourage progress which will help reduce poverty. We also work with multilateral institutions including the World Bank, UN agencies and the European Commission. The bulk of our assistance is concentrated on the poorest countries in Asia and Sub-Saharan Africa. The goal of all DFID's work is the elimination of poverty.

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**DFID**  
94 Victoria St  
London  
SW1E 5JL  
UK

**DFID**  
Abercrombie House  
Eaglesham Rd  
East Kilbride  
Glasgow G75 8EA  
UK

Switchboard: 0171-917 7000 Fax: 0171-917 0019  
Website: [www.dfid.gov.uk](http://www.dfid.gov.uk)  
email: [enquiry@dfid.gtnet.gov.uk](mailto:enquiry@dfid.gtnet.gov.uk)  
Public enquiry point: 0845 3004100