

1. BACKGROUND: DFID RESEARCH ON SUSTAINABLE AGRICULTURE AND RENEWABLE NATURAL RESOURCES

1. DFID has considerable experience in managing research into agriculture and renewable natural resources (RNR) that supports developing country priorities, as well as a proven ability to link the basic science community, especially in the UK, with key developing country problems and partners.

2. In 2006/7 DFID invested over £30 million in research on sustainable agriculture – including fisheries and forestry. The Government's 2006 White Paper – *Making Governance work for the Poor* committed DFID to double funding on agriculture, fisheries and forestry to £80 million per annum by 2010.

3. The purpose of this increased investment is to build upon the impacts of agricultural research on poverty and growth. A series of studies have shown very high returns to agricultural research. The most recent is an analysis by the International Food Policy Research Institute. This demonstrated that investment in agricultural research has a larger impact on poverty compared to alternative investments in infrastructure and health.

4. Past DFID support to the Consultative Group on International Agricultural Research (CGIAR) and under its 11 year Renewable Natural Resources Research Strategy (RNRRS) have achieved significant, though not always quantified impacts. For example, it is estimated that without the CGIAR world food production would have been 4–5% lower and developing countries would have produced 7-8% less, and food and feed grain prices would have been 18–21% higher. Overall it has been estimated that for every dollar invested in the CGIAR, \$9 worth of additional benefits has been produced in the developing world.

5. Under the RNRRS some notable success stories with clear, though unquantified poverty impacts, were:

- Reduced use of insecticides and better profit margins through Integrated Pest Management
- Control of mile a minute weed in India
- Faster development and better identification of important crop traits by participatory crop breeding and varietal selection.
- Effective tsetse control at much reduced cost by research on fly behaviour
- On-farm seed priming for better germination, higher yields and target application of limiting trace soil nutrients.

Evolution of DFID's approach to agriculture and RNR research

3. A major review of the RNRRS was conducted in 2005. A major consultation exercise followed on development of a new research strategy for sustainable agriculture this led to a set of principles for research that have

informed not only the current agriculture and RNR programmes but lead to the development of new research modalities for all directly managed central research.

- Numerous short-term projects should be avoided and more productive, longer-term links between individual researchers, research institutions and wider stakeholder groups promoted.
- Use of existing knowledge and scientific innovation can be increased by involving beneficiaries and users of research in designing and implementing larger multi-disciplinary research programmes on priority research themes.
- Human and institutional capacity building should be explicitly built into research programmes, not only for the professional development of the researchers, but also focussed on policy makers, decision takers and change agents.
- Standardised monitoring and evaluation processes at programme and project levels should be established and impacts of programmes assessed in order to provide evidence of outcomes and learn lessons on how to better do and use research.
- Overall cost-effectiveness of research can be achieved by locating programme management within the regions where the research is conducted.
- Developing country research organisations should be directly involved in research in order to increase relevance of research, improve participation, ownership and build capacity in developing countries.
- Contracting out programme management and competitive funding mechanisms are important in ensuring value for money.

Strategy for Research on Sustainable Agriculture (SRSA 2006 to 2016)

6. DFID's new strategy - the SRSA - was launched in March 2006 by the Secretary of State with an additional funding commitment of £100 million for 5 years. It set out DFID's strategy on agriculture, fisheries and forestry to get new technologies to poor farmers, and help governments to make better policies. This is part of DFID's overall approach to agriculture as described in its Agricultural Policy Paper *Growth and Poverty Reduction: the role of agriculture*.

7. The Strategy responded to demands from developing countries. For example it supports the African Union's and NEPAD's Comprehensive African Agricultural Development Programme (CAADP), regional and national initiatives, and strengthens the capacity of national research institutions. It set out DFID's aims to work closely with other donors to make aid for research more effective. The strategy aims to:

- Prioritise technologies that will increase the productivity of labour. Creating employment opportunities in agriculture, post-harvest transformation and commerce are vital to reduce rural poverty and to stimulate growth and

investment in other sectors thus delivering benefits far beyond the rural sector.

- Focus on situations where potential gains are greatest. This means research for areas with potential to achieve meaningful increases in employment and output. But this principle does not mean only focusing on current high potential areas but on areas of potential, and also on the need for research to reduce vulnerability and risk in marginal areas.
- Take full account of people's exposure to risk and vulnerability, seeking to maintain high levels of resilience to short-term shocks such as drought, pests and diseases, and longer term trends such as climate change where agriculture, fisheries and forestry can contribute significantly to mitigation measures.
- Incorporate research on market opportunities. Growing and secure markets are critical if farmers are to invest, innovate and take the risks in improving their productivity. For large parts of Africa this means focusing on basic food staples and domestic markets. In other areas and in Asia, which are self sufficient in basic staples, more emphasis should be on higher value commodities.
- Ensure the sustainable and productive use of resources such as soil, land, water and common property; to maximise their contributions to growth and poverty reduction, provision of environmental services, and ensuring environmental sustainability.

Current portfolio

8. The SRSA is made up of four components:

I. Research into Use

Research Into use programme commenced implementation in July 2006. This is working to promote the best results of past DFID funded research (and others) and promote them in Africa and south Asia. They are being selected on their potential to raise farmers' incomes, reduce poverty, halt environmental degradation, and increase food security. Lessons from the programme will be collected and shared to show how responsible forestry, fishing, farming and livestock rearing combined with new, viable technology can help reduce poverty.

Support to **Public-private partnerships** to develop products and technologies for use by farmers in developing countries using intellectual property from the public and private sectors. To date DFID has supported two partnerships: the Global Alliance for Livestock Vaccines (GALVmed) and the African Agricultural Technology Foundation.

II. Regional research

These will focus on West Africa, East Africa, Southern Africa and South Asia. A smaller programme has been commissioned in the Andes. These programmes will work in close partnership with existing regional organisations so that research is undertaken on those issues that most

affect the lives of the people living there. An important part of these programmes is a focus on capacity building. We are already supporting the Forum for Agricultural Research in Africa (FARA) to implement a major capacity building programme.

III. International research

Support to international agricultural research to deliver high quality and effective international public good research to tackle poverty reduction and achieve sustainable growth. The majority of this will be to the 15 centres and challenge programmes of the Consultative Group on International Agricultural Research (CGIAR). In addition support is provided to international research organisations outside of the CGIAR which compliment its work and/or fill gaps.

IV. Advanced Research Organisations

Responsive research programme with the UK's Biotechnology and Biological Sciences Research Council (BBSRC) on sustainable agriculture for international development was launched in 2006. This and potentially further programmes will provide opportunities for advanced research institutes to increase their efforts towards the science and technology needs of developing countries.

9. DFID's sees one of its main roles as to improve how research is carried out and used, and not just selecting and funding priority topics for research. As part of this we are working to facilitate linkages and synergies between different parts of a notional global system – from farmers to international and advanced research organisations. A diagrammatic representation of this is given in Figure 1. This illustrates how the different components of the SRSA fit in.

Future challenges

10. While the SRSA sets out DFID's approach, and programmes are already under way, the increased funding commit for agriculture, fisheries and forestry provide opportunities for development of new, or expanded programmes, under its four components.

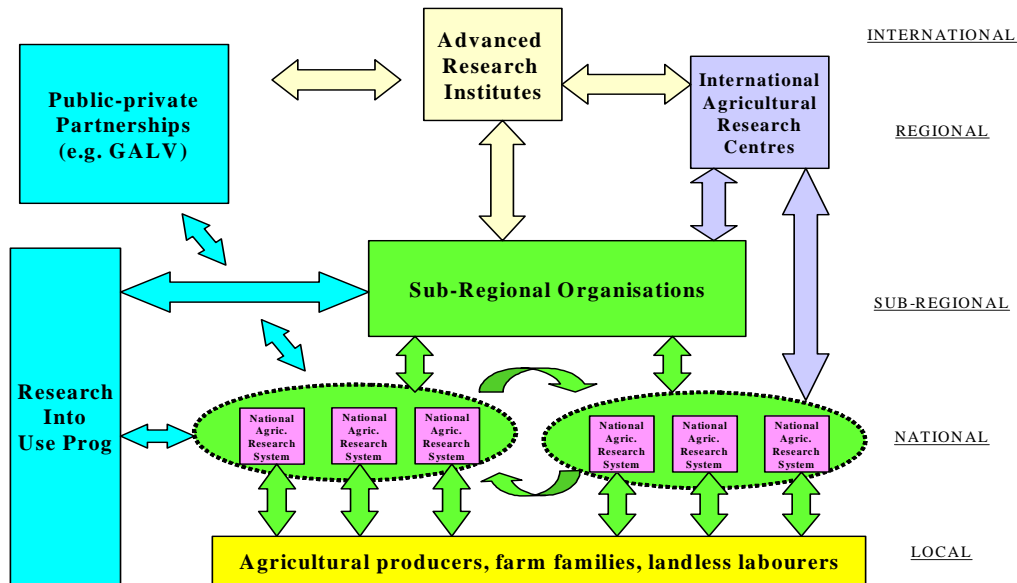
11. Questions and challenges in implementing and scaling up our programmes on agriculture and RNR research include:

- The balance of support between research into use, capacity building and generation of new knowledge programmes.
- How to address cross-cutting issues – especially gender, HIV/AIDs and environment – in this research agenda.
- The challenge of climate change and adaptation of agricultural and RNR systems.
- The links with other sectors on the achievement of poverty reduction and sustainable growth and need for more truly multi-disciplinary research (e.g.

nutrition; trade, environment and agriculture; agriculture, transport and infrastructure; and poverty-environment and growth).

- Building effective partnerships between all stakeholders including strengthening the coordination between donors (bilaterals, multilaterals and foundations).

Figure 1 Linkages of SRSA to different levels of agricultural research



There is information available on the associated research in [economics and growth](#), and [transport](#).

